

Comparative Evaluation of Indicators *for* Gender Equity and Health

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Comparative Evaluation of Indicators for Gender Equity and Health

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Preface

This report presents the findings of a research project completed as part of the implementation of the Kobe Plan of Action for Women and Health, issued in April 2002 at the Third International Meeting on Women and Health, organised by the World Health Organization Centre for Health Development (WHO Kobe Centre/WKC), Chiba Prefecture, Japan. The Kobe Recommendation: Action Plan can be accessed on the WKC website at http://www.who.or.jp/women/research/kobe_recommendation.html/

Four voluntary task forces were established to implement the Plan of Action. The fifty members from 18 countries have contributed to the work on four priority areas:

1. Comparative analysis of gender equity/equality indicators.
2. Use of gender analysis.
3. Women's leadership in health.
4. Enhancing research transfer in specific gender equity and health issues.

La Trobe University (Melbourne, Australia) Public Health Consortium conducted the research for Task Force 1. This report is divided into four parts:

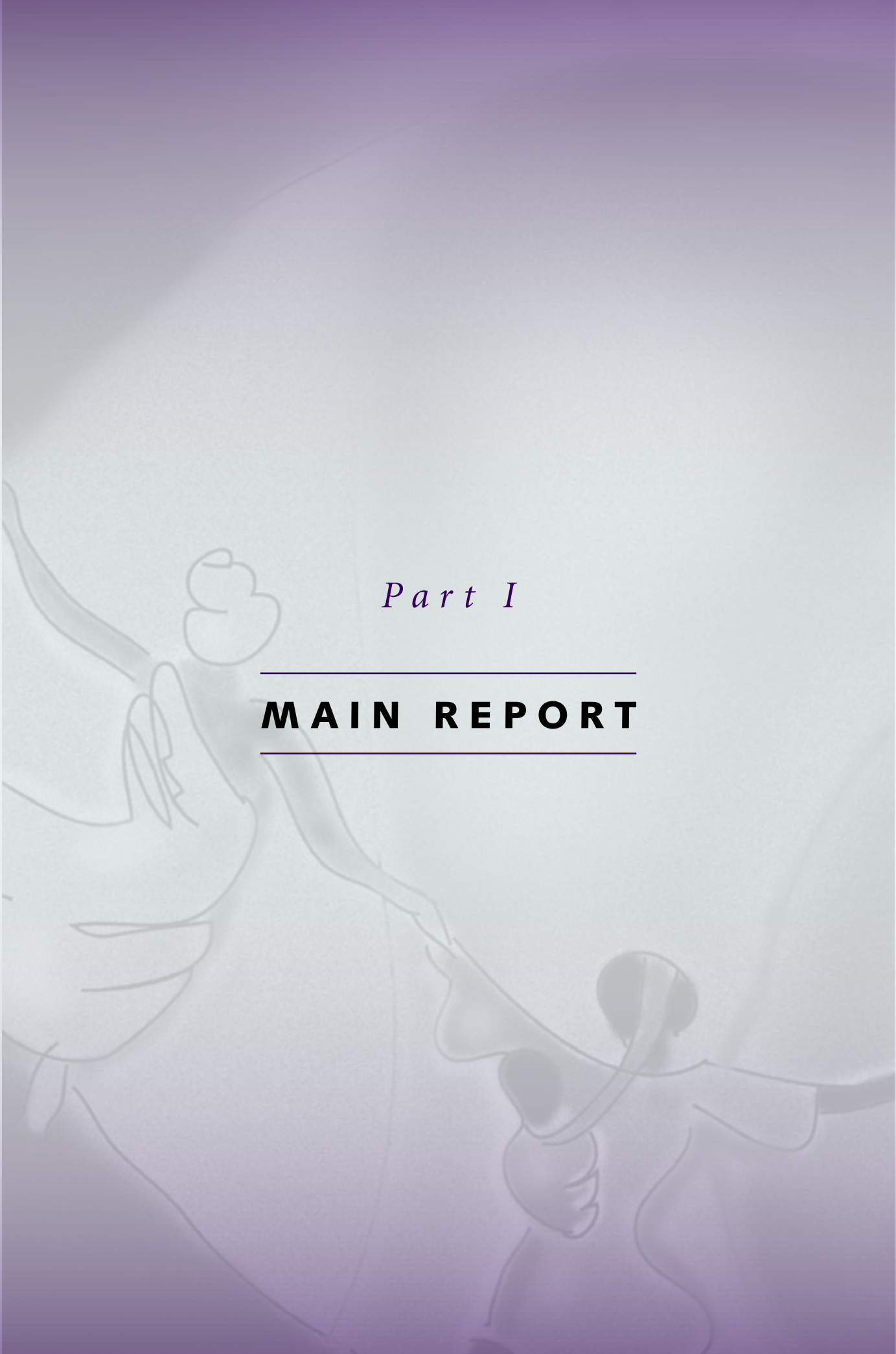
- Summary report.
- Health information framework.
- Audit of selected indicators used by international agencies.
- Annotated bibliography.

The La Trobe Consortium identified and mapped 1 095 indicators against the Health Information Framework, and evaluated the indicators according to criteria for technical quality and gender sensitivity. The research aims at building a common set of “leading health indicators” that could be used by United Nations system organizations, agencies and Member States for identifying and raising awareness of issues and improving the evidence base for policy development and decision-making.

The report highlights the need for a smaller list, which could be tracked over time and could be more readily maintained in countries with limited resources. Thus, there is merit in selecting a core set of leading health indicators that would be useful globally, or could be used for comparisons across peer countries and communities.

I am sure that this report will provide a valuable reference for researchers and policy-makers, and provide a sound basis for future work on identifying a core set of leading health indicators.

— *Yuji Kawaguchi, M.D., Ph.D.*
Director, WHO Centre for Health Development



Part I

MAIN REPORT



Introduction

Performance measurement has become a common feature of health organizations at international and national levels. The importance of developing and using appropriate indicators has been of concern to the series of international meetings on women and health and welfare systems organized by the World Health Organization Centre for Health Development (WHO Kobe Centre/WKC). From the first meeting in 2000, the Awaji Statement called for:

. . . reform of the health and welfare system to shift from a focus on health care policy to healthy public policy; from access to services to access to health; from institutions to integrated services delivery; from provider-driven care to client and community-centred care; from narrow indicators of morbidity and efficiency to broader indicators of equity and well-being; and from expert opinions to evidence-based practice.

The subsequent Canberra Communiqué of 2001 elaborated on the earlier statement, and proposed a range of strategies to effect reform:

- Build women's capacity to make informed decisions and to set goals relevant to women by supporting women's role and leadership in data collection and analysis relevant to community-directed action, and by facilitating information exchange between relevant groups of women.
- Disaggregate public health and health services data by sex, and ensure careful design of data collection and analysis to identify gender differences in experiences, impacts, causes and responses to health needs. Support the use of these data to develop effective public health initiatives in collaboration with appropriate communities and partners, so as to ensure that services are responsive and accountable to women.
- Support women's capacity for data collection and analysis relevant to community-directed action that strengthens empowerment.

The Kobe Plan of Action for Women and Health (POA), adopted in 2002, operationalized the above and identified one of the immediate priorities as the need to work on the "comparative evaluation of indicators of gender equity, gender equality, and health, used by international agencies". Specific aspects of the task included: comparison of indicators used by international agencies, including their philosophy, materials and methods; assessment of their uses and

Introduction

technical quality in relation to relevance and sensitivity for gender equity; and documentation of their uses in advocacy for women's health.

The current project is the first tangible translation of the recent history of discussions and expressions of concern articulated at the series of WKC meetings. This project has focused on the initial mapping and audit of indicators used by international agencies. It has not been possible to attempt other actions called for by the Kobe Action Plan (e.g. case studies on how indicators have been used for action in a range of countries and by a range of organizations in relation to reforming health systems; and monitoring health status).

This paper provides the summary of three interrelated reports:

1. An annotated bibliography on indicators for gender equity, gender equality and health (including: conceptual frameworks, development of indicators and indices, and monitoring strategies);
2. A Health Information Framework (rather than a conceptual model about determinants of health) that defines the parameters within which the indicators could be examined, along with issues associated with indicator development and use;
3. An audit of indicators used by key international organizations concerned with gender and health, or proposed by international organizations for development and use.

This paper is organized as follows: Firstly, how this project is positioned in relation to other writings on the subject is explained. Building on that, the key issues arising from the annotated bibliography are reviewed. The paper then outlines the methodology for the comparative evaluation of indicators for gender equity and health. The Health Information Framework is explained, and the audit of indicators in relation to this Framework and to other criteria for indicator assessment is provided. The paper concludes with a discussion about the key issues and recommendations for moving forward.

2

Aims and positioning of this project

There has been much written about indicators for gender equity and health. The systematic search of the literature – including electronic databases and the World Wide Web – over a ten-year period (1992–2002) produced 75 entries for the annotated bibliography component of this project. There have been many calls for the collection and reporting of health data on a sex-disaggregated basis, and there have been numerous attempts at the global and national levels to provide reports on the status of women, including on their health. International conferences have argued for specific indicators to be developed or reported upon that reflect more appropriately the key issues of concern for women's health. So what does this project attempt to do that might distinguish it?

The working premise for this project is that indicators are important for raising awareness of issues and improving the evidence base for decision-making. They can help in identifying issues that need to receive priority attention, at present and for the future. In contributing to better accountability of the health system, indicators also contribute to improving health system performance and responsiveness. To achieve all of the above, however, there is also a need to strengthen capacity at all levels and to implement systems for monitoring gender equity in health. This involves having the right data, having quality data, and having a social process that reviews the data.

The La Trobe Consortium aimed to contribute to the above through an evaluation of indicators that are in use or being proposed for use by leading international organizations, for the purpose of monitoring the status of key issues related to women and health and welfare systems. In auditing indicators for their construction and usefulness, the La Trobe Consortium hoped to offer recommendations for:

1. Improving gender-sensitivity (including sex-disaggregation and sex-specificity) of current data.
2. Identifying priority indicators for monitoring purposes.
3. Developing new indicators to address gaps and other inadequacies of current systems for indicator collection and reporting.

3

Key Issues

Shortcomings of and gaps in current frameworks and indicators

The calls at the various WKC meetings for further work on indicators of gender equity and health reflect concerns that have been expressed in the international literature. Many health indicators focus on “illness and disease” rather than on “health and well-being” (Eckermann, 2000; Nayar, 2002; Abdool and Vissandjée, 2000; AbouZahr and Vaughn, 2000) and/or assume gender neutrality (Abdool and Vissandjée, 2000; Eckermann, 2000). The reporting of these indicators seldom provides information on a sex-disaggregated basis, even when the original data collection makes such a differentiation (Licuanan, 1999; Daner et al., 1999). The health indicators reported in relation to women tend to focus on their reproductive health status, their access to reproductive health services; and their reproductive years (Nayar, 2002; Malhotra and Mehra, 1999; Eckermann, 2000; Pittman and Hartigan, 1996). Few indicators, however, are reported specifically in relation to men (WHO, 1997; AbouZahr and Vaughn, 2000; United Nations Statistics Division (UNSD), 2000).

These critiques suggest that the main problems with conventional framework for health indicators are:

1. In general, the understanding of health fails to take into account the broad determinants of health.
2. More specifically, gender analysis in relation to health is undertaken when it is in the interest of individuals or organizations, rather than as a more universal and ongoing concern for attention (Abdool and Vissandjée, 2001).
3. Health status indicators are overwhelmingly focused on health outcomes, rather than process and output variables (Baume et al., 2000).
4. Many of these outcome measures are not sensitive enough to detect gender differences in health experiences (Tilley, 1996).
5. Health system performance measures assume equal needs and focus on the technical aspects of care, rather than on the relational aspects of care (Pittman and Hartigan, 1996; Hartigan, 2001).

The general status of women – and indicators to monitor their progress – have received more attention than gender equity and health. The United Nations Development Fund for Women (UNIFEM) produced the first report on

Key Issues

the status of women globally in 2000 (UNIFEM, 2000), drawing from existing data and indicators from various international organizations and agencies (*inter alia*, United Nations system organizations, the International Labour Organisation (ILO), the Interparliamentary Union, the World Bank and the Organisation for Economic Co-operation and Development (OECD). At the same time, there have been other efforts to develop specific indicators for monitoring against the declarations from such international conferences as the International Conference on Population and Development (ICPD) (Cairo, 1994) (Malhotra and Mehra, 1999), the Fourth World Conference on Women (Beijing, 1995) (Kim, 2002; Abdullah; 2002, Beck, 1999; United Nations Development Fund for Women, 2000), and the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW) (Beck, 1999, UNIFEM, 2000). These efforts have also pointed to gaps in the conceptualization and operationalization of some measures, such as “rights” and “empowerment” (see also Malhotra et al., 2002; Kabeer, 1999). There is also a notable gap in the conceptualization and measurement of men’s health as part of the gender relations framework.

There are a number of common criticisms about existing indicators – for health and for women’s status – used at national and global levels. These relate to:

- Technical difficulties (e.g. poor consistency in data definition and inability to monitor change over time).
- Conceptual problems (e.g. inadequate descriptions of gender relations within the household/community/workplace, and the economy).

There is also a set of methodological issues about how to attribute meaning to indicators and how to ensure indicators are useful for policy development (Beck, 1999). Gender equity in childhood has been identified particularly as a “missing” area (Baunach, 2001). The coverage and quality of basic data, such as that on births and deaths, remain an issue for some areas of the world. In addition, some authors argue that lack of participation of women and communities in this work has resulted in the development of indicators which may not measure aspects of health, equity and progress relevant to women themselves (Austen et al., 2000; Beck, 1999).

Numerous conceptual frameworks identified and explored

To address the limitations from existing statistics on health, as well as current indicators on women’s status, there have been numerous efforts and authors proposing different frameworks for understanding gender equity and health (e.g. Abdullah, 2002; Beck, 1999; Moss, 2002; Weiringa, 1999). Most commonly, they start from a concern about assessing women’s progress, and health is assessed in the context of these social determinants of health. Mostly such frameworks include measures for: education and training, health and physical well-being, employment and economic independence, and family responsibilities. The meaning of “gender equity” is, however, not necessarily comparable across various frameworks. Heterogeneity – and inequity – among men and women

(be it by social class, ethnicity, age, geographical position, etc.) are seldom recognized, especially in the more traditional frameworks.

Key Issues

Factors to be considered in developing indicators and frameworks

There are numerous proposals about which factors should be included in indicators and frameworks; factors ranging from technical quality, to processes for their development, to concepts for inclusion. Sex disaggregation, inclusion of process and output indicators, capacity to monitor progress over time and in relation to an explicit comparator, and inclusion of qualitative analyses are some of the common technical issues raised in the literature. Greater focus on gender relations, risk indicators for gender equity, and having participatory processes for indicator development are other areas of emphasis suggested by many advocates for women's health. Other issues for consideration include developing frameworks that take into account relevant indicators for countries at different stages of development, and indicators for different levels (such as local, national, regional or global).

In the face of numerous problems concerning specific indicators and the indicator system in use, a number of efforts have gone into the development of aggregate measures, such as the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM). These are, however, subject to criticisms about which domains are included and therefore privileged, and about how the included domains are measured (Dijkstra and Hanmer, 2000; Dijkstra, 2002; Weiringa, 1999; Bardhan and Klasen, 1999).

Need for appropriate analytical framework for mapping and assessing indicators

Given the issues emerging in the literature over the past ten years, this Project has attempted to examine indicators that are currently used by international organizations, and indicators proposed for use with a view to assessing their technical quality and conceptual usefulness. These debates raise the question of whether frameworks for examining indicators for gender equity and health should be based on conceptual frameworks for understanding determinants of health; on conceptual frameworks for understanding gender relations (or at least women's position in society); or, from mainstream frameworks for the production of statistics.

In order to consider the value and comprehensiveness of these indicators, it was necessary for this Project to adopt an appropriate analytical framework for mapping and assessing both current indicators in use as well as those which have been proposed. The detailed methodology, the framework adopted, and the results of the analysis are summarized in the following sections.

4

Methodology

Rationale for using a Health Information Framework

For the purpose of mapping existing indicators and considering their contribution to the information base about gender equity and health, a review was done of various frameworks for examining such indicators. Following this review, the La Trobe Consortium determined that a comprehensive Health Information Framework that could allow for both analysis of gender equity within mainstream health systems as well as recognize sex-specific issues was appropriate. A comprehensive Health Information Framework could incorporate the breadth of issues suggested in the literature, without being aligned to particular conceptual models about gender relations.

This resulted in the modification of the International Organization for Standardization (ISO) Health Information Framework (which is currently under development by a cross-national group and is expected to be adopted by ISO in 2005). This Framework includes four tiers of information:

1. Health status.
2. Determinants of health.
3. Health system performance.
4. Community and health and welfare system characteristics.

Each of the four tiers comprises a number of dimensions in which possible information or indicator topics were mapped against the information framework. Modifications were made on the basis of existing literature in order to strengthen emphasis on the gender perspective.

Selection of core indicators used by international organizations

Indicators from a range of international organizations and selected nations (i.e. those with well-developed monitoring systems) were compiled. This included: WHO, the United Nations Children's Fund (UNICEF), United Nations Development Programme (UNDP), UNIFEM, United Nations Population Fund, Joint United Nations Programme on HIV/AIDS, World Bank, Food and Agriculture Organization of the United Nations, OECD, ILO, Commonwealth Secretariat, Economic Commission for Latin American and the Caribbean (ECLAC), Economic and Social Commission for Asia and the Pacific (ESCAP),

Methodology

Pan American Health Organization (PAHO), Canada, and Australia. Indicators from a range of international conferences and conventions were also compiled, including from Cairo/ICDP, the Fourth World Conference on Women (Beijing), CEDAW, United Nations General Assembly Special Session (UNGASS) on HIV/AIDS, and the United Nations Millennium Declaration. The total list of possible indicators proved to be voluminous, although overlapping. It was decided to focus on a core list of 1 095 indicators from key routine reports and relevant special reports, along with some relevant proposed indicators.

Audit and mapping of core indicators

These indicators were mapped against the Health Information Framework. They were then assessed according to criteria for technical quality and gender sensitivity, based on proposals by Beck (1999). In particular, they were considered for:

- Disaggregation according to sex, age, ethnicity, and socioeconomic group.
- Reporting over time.
- Inclusion of comparators.
- Whether there had been participatory development.
- Whether they were accompanied by gender analysis.

The 1 095 indicators were mapped against the Health Information Framework (i.e. the various tiers, dimensions and topics) in order to identify both types of issues that are well covered, as well as gaps in indicators useful for gender equity in health.

The audit, the mapping, and the analysis against the literature suggested that despite the large volume of indicators in use, there was not a plentiful store of potential indicators that satisfied the “Beck criteria” for gender-sensitive indicators. Further assessment was done of “equity-motivated indicators”, as well as against measures of empowerment used in relation to recent empirical studies.

Need for further work identified

The result of the evaluation has led the La Trobe Consortium to conclude that there is further work needed on the selection or development of “leading indicators” as a way forward. Furthermore, beyond proposals for “core” indicators that can be of use either globally or across peer countries and communities, there is a need to trial the use of these indicators and to secure ongoing monitoring systems as part of the governance processes.

5

Health Information Framework

Purpose

The purpose of developing a Health Information Framework for this Project is to provide a structure for:

1. Mapping potential indicator topics of interest, including currently collected indicators.
2. Assessing the existence and adequacy of gender-sensitive and sex-specific indicators in order to support analysis and advocacy for gender equity and health.
3. Assisting in informing discussions about where development of indicators and monitoring systems for gender equity might evolve.

Choosing a framework

The initial choice in selecting an information framework was whether it should be a “mainstream” Health Information Framework, or a specialized, sex-specific model. A number of specialized frameworks were examined:

- *A comprehensive framework of factors influencing women’s health* (Moss, 2002).
- *Alternative index on gender equality* (Wieringa, 1999).
- *An Inventory of conceptual frameworks and women’s health indicators* (Abdool and Vissandjée, 2001).
- *Framework of indicators for action on women’s health needs and rights after Beijing* (Abdullah, 2000).

Many of the specialized frameworks offered a conceptual model, important for research purposes. Most of them adopted a broad model of determinants of health but were limited in examining health system performance. There were convincing arguments for using an information framework that was useful for mapping health indicators, rather than pursuing particular lines of inquiry about gender and health. This reflected also the adoption of the approach of “engendering the mainstream”, that is, to adopt a mainstream health framework as a base, incorporating a broader view of health from a “gender-aware” perspective; populating the framework with potential indicator topics from a gender-aware perspective, and applying specific assessment criteria to test the

Health Information Framework

gender sensitivity of selected indicators currently being used by a range of international organizations.

Other considerations were that it would be more difficult to dismiss an analysis which is based on mainstream extant frameworks; and the strategic pertinence of directing systemic attention to gendering mainstream models/frameworks in order to effect change in mainstream health cultures and related domains. Furthermore, given the pace and extent of health sector reform globally, it would be important to include a perspective on health system performance, an area which is in the process of major global development and integration into mainstream health frameworks.

A number of mainstream health frameworks were evaluated. These included:

- *OECD Health Data 2002* (OECD, 2002).
- *OECD Proposed Performance Framework* (Hurst and Jee-Hughes, 2001).
- *WHO Objectives of the System/Overall health system performance* (Evans, 2002; WHO, 2000).
- *Canadian Health Indicator Framework* of the Canadian Institute for Health Information (CIHI, 2002).
- *Australian National Health Performance Framework* of the National Health Performance Committee (NHPC, 2001; 2002).
- *Proposed ISO Health Indicators Conceptual Framework* (ISO, 2001).

Ultimately, the framework used by the La Trobe Consortium owes most to the latter three frameworks. They are the most comprehensive, and make good use of earlier models. Additionally, both the Canadian and the ISO Technical Committee frameworks incorporate the concept of equity as a fundamental attribute common to all domains.

The Health Information Framework outline

The following figure (Figure 1) shows an overview of the Health Information Framework developed for this project. The La Trobe Consortium considered the ISO/Canadian/Australian approach to be sufficiently robust and broad enough in its design and aims to be capable of adaptation to a gendered approach, and a foundation for comparative analysis. The individual tiers in the Health Information Framework are shown (in Figures 2–5) comprising dimensions and populated with topics for a comparative evaluation of indicators for gender equity and health.

This Health Information Framework accepts that health is determined by a complex interaction of factors which operate at the individual and population levels, including the social, economic and cultural environments. It does not, however, show a causal relationship between any of the information domains, but simply offers a classification schema that groups related characteristics:

- Tier 1: Health Status (overall health of a population).
- Tier 2: Determinants of Health (proximal factors that affect health at the individual, household, and/or community levels).

- Tier 3: Health System Performance (design and delivery of health services and how well the system is performing in relation to major goals of access, effectiveness, and cost).
- Tier 4: Community and Health and Welfare System Characteristics (contextual factors which affect the population at a whole).

Dimensions (Figure 2–5)

The following figures show the Health Information Framework populated with potential indicator topics for the purpose of mapping the existence (or lack thereof) of gender-sensitive indicators for gender equity and health. (Note that the base definitions are those proposed by the ISO, while *italics* indicate changes made by this Project).

Figure 1: Overview of the Health Information Framework

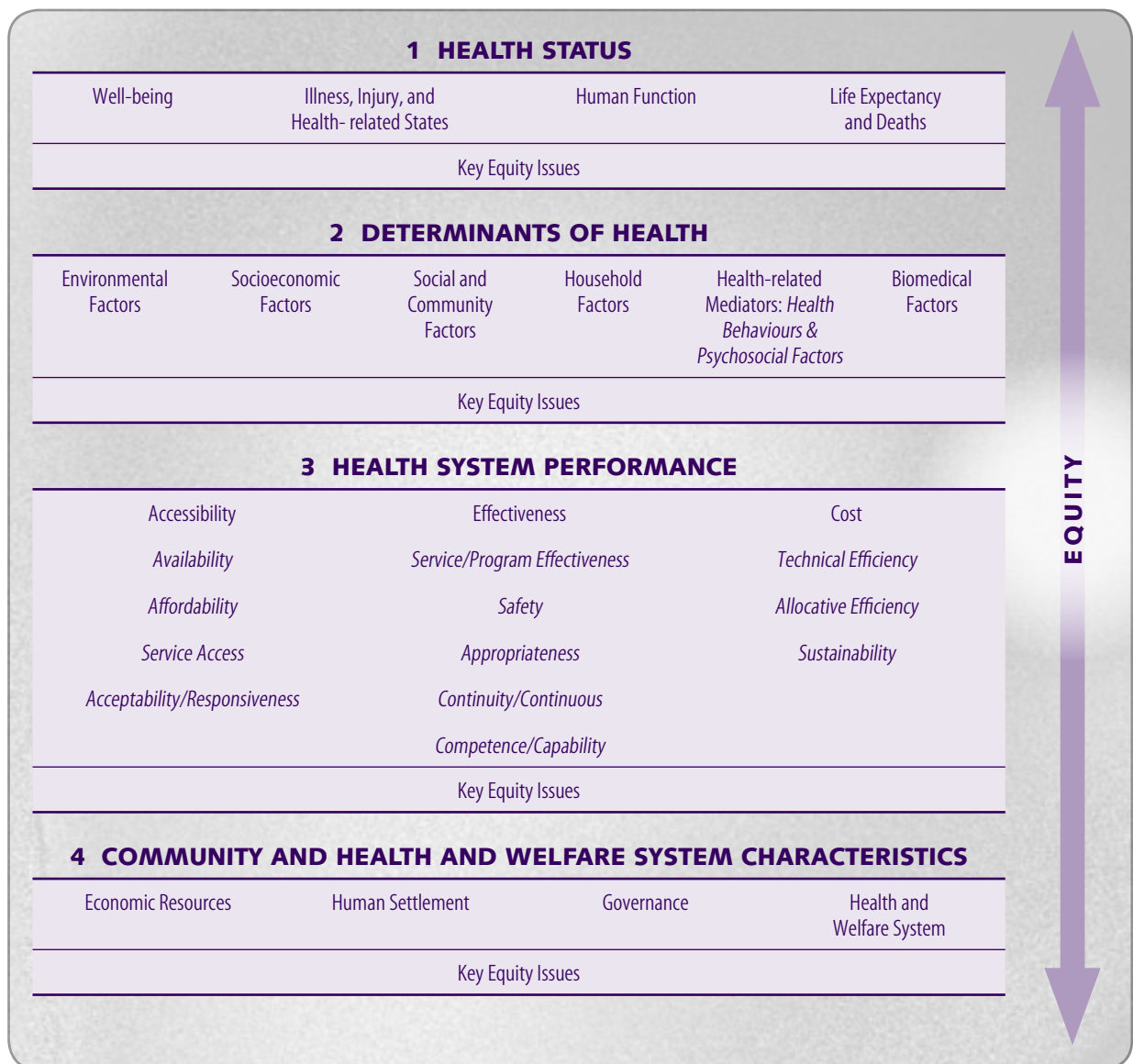


Figure 2: Health Status dimensions

TIER 1: HEALTH STATUS	
Dimension:	Definition
Well-being	Broad measures of the physical, mental and social well-being of individuals. Example mainstream indicators are: Self-rated health; Self-esteem.
<i>Illness, Injury, and Health-related States</i> ¹	Alterations or attributes of the health status of an individual which may lead to distress, interference with daily activities, or contact with health services; it may be a disease (acute or chronic), disorder, injury or trauma. Reflects health-related states such as pregnancy, ageing, stress, congenital anomaly, or genetic predisposition which may lead to interference with daily activity or, contact with a health service. Example mainstream indicators are: Arthritis; Diabetes; Chronic pain; Depression; Food and waterborne diseases; Injury hospitalization.
Human Function	Levels of human function are associated with the consequences of disease, disorder, injury and other health conditions. They include: body function/structure (impairments), activities (activity limitations, and participation (restrictions in participation). International Classification of Functioning, Disability and Health (ICIDH-2), beta-2 version). Example mainstream indicators are: Functional health; Disability days; Activity limitation; Health expectancy; Disability free life expectancy.
Life Expectancy and Deaths	A range of age and sex-specific and condition-specific mortality rates, as well as derived indicators. Example mainstream indicators are: Infant mortality; Life expectancy; Potential years of life lost; Circulatory deaths.
Key Equity Issues	<i>Equity in health outcomes</i>

¹ The ISO, 2001 title for this dimension is Health Conditions.

Indicator topics

(Ratio: women: men)

Self-rated health

Empowerment/political representation/rights/ capacity to make decisions

Quality of life

Freedom from violence

Burden of disease/ill health (e.g. Disability-adjusted Life Years–DALYs)

Specific conditions: Female Genital Mutilation (FGM), HIV/AIDS, Reproductive Tract Infections (RTIs), Sexually-transmitted Infections (STIs) (age of 1st)

Medical procedures (e.g. hysterectomies)

Low birth weight

Damage at birth (e.g. through lack of trained attendants)

Injury (traffic, fire, violence, self)

Morbidity in the community – vulnerability to illness

Major causes of acute admissions

Major causes of disease

Related medical procedures (e.g. caesareans, abortions)

Teenage pregnancy/Age at 1st pregnancy, and/or

Number of children in time period

Growth (malnutrition, stunting, failure to thrive; over nutrition)

Disability

Impairment

Activity limitation

Restrictions in participation (e.g. absenteeism)

Infant mortality

Maternal mortality

Life expectancy: healthy years of

Suicide

Homicide (including female infanticide, homicide by intimate partner)

Condition specific deaths: e.g. HIV/AIDS, other infectious diseases, breast/lung/cervical/ prostate cancer

Health status of poorest compared to wealthiest quintile of population

Health status of females in poorest quintile compared to wealthiest quintile of population

Equitable distribution of health outcomes (e.g. resulting from specific clinical interventions)²

Achievement of health³

Capability to achieve good health⁴

Utilization proportional to need⁵

Probabilities of treatment given medical need – sensitive to differences in e.g. type of illness, sex, age group, type of treatment⁶

Mortality ratios of male and female children (including by causes e.g. malnutrition, infectious diseases)

Longevity including “invisible girls”, “invisible women”

² Whitehead 2000: 7.

³ Sen 2002: 666.

⁴ Sen 2002: 666.

⁵ Whitehead 2000: 7.

⁶ Adapted from Musgrove.

Figure 3: Determinants of Health dimensions

TIER 2: DETERMINANTS OF HEALTH		
Dimension	Definition	Indicator topics
Environmental factors	<p>Environmental factors with the potential to influence human health.</p> <p>Example mainstream indicator is: Water quality.</p>	<p>Safe water</p> <p>Sanitation</p> <p>Electricity, power, bio-fuels</p> <p>Pollution: Air pollution; Cooking fuels; Indoor air pollution; Acid rain; Pesticide exposure (+ labelling); soil and food chain contamination⁷, noise pollution⁸</p> <p>Safe fresh food, access to and availability</p> <p>Workplace exposures and hazards</p> <p>Land clearing, changing ecosystems, new diseases</p> <p>Built environment, access to</p> <p>Green/open and smoke-free spaces⁹</p>
Socio-economic Factors	<p>Indicators related to the socioeconomic characteristics of the population, that <i>research evidence has shown to be related to health</i>.</p> <p>Example mainstream indicators are: Unemployment rate; Low income rate; High school graduation.</p>	<p>Education</p> <p>Literacy and health literacy</p> <p>Early childhood development</p> <p>Employment status (e.g. un- and underemployment)</p> <p>Occupation and working conditions: Enforced labour (e.g. child and adult sex trade); Age of labour (e.g. child labour); Hours of paid and unpaid (e.g. overwork); Employment segregation, Access to training opportunities</p> <p>Income: access to, % disposable</p> <p>Per capita out of pocket expenditure on health (co-payments, purchase of food in hospital, "attention" co-payments to (salaried) doctors)</p> <p>Insurance coverage</p> <p>Living standards</p>
Social and Community Factors¹⁰	<p>Measures the prevalence of social and community factors, such as social support, life stress, or social capital that <i>research evidence has shown to be related to health</i>.</p> <p>Example mainstream indicators are: School readiness; Social support; Housing affordability; Literacy.</p>	<p>Geographic area</p> <p>Community demographics: as for Population demographics, Figure 5</p> <p>Transport (availability, to work, to market, to safe water, to health centre)</p> <p>Preventive services (availability): Antenatal care; Cancer screening; Family planning; Immunization</p> <p>Community support services (availability): Self-help groups; Civil society organization; Local community centres; Women's and children's shelters (protection from violence, legal assistance)</p> <p>Democracy, personal power, empowerment</p> <p>Leadership at all levels and access to training opportunities (e.g. skill levels of community representatives)</p> <p>Social capital, e.g. sense of social and community belonging</p> <p>Volunteers and volunteering</p> <p>Freedom of movement (e.g. social mobility restrictions)</p>
Household Factors	<p><i>Intrahousehold, interpersonal and intrafamilial factors with the potential to influence human health</i></p>	<p>Access to economic resources: income, land, credit, property (houses, equipment, appropriate technology) and livestock</p> <p>Housing, squatting, lack of housing, homelessness, overcrowding</p> <p>Distribution of resources within households¹¹</p> <p>Household relations¹²</p> <p>Access to supportive and protective services</p> <p>Empowerment (e.g. domestic decision-making)</p> <p>Childcare, formal and informal child care</p> <p>Time use/division of domestic subsistence labour/leisure</p> <p>Fertility, who decides, autonomy over body</p> <p>Intrafamily violence</p>

TIER 2: DETERMINANTS OF HEALTH (continued)

Dimension	Definition	Indicator topics
Health-related Mediators: Health behaviours¹³ and psychosocial factors¹⁴	<p>Aspects of behaviour and risk factors that <i>research evidence has shown to influence health status.</i></p> <p>Variables at the intrapsychic and interpersonal levels that have the potential to influence health</p> <p>Example mainstream indicators are: Smoking rate; Physical activity.</p>	<p>SNAP: Smoking; (poor) Nutrition; Alcohol misuse; Physical inactivity</p> <p>Breastfeeding</p> <p>Sexual activity (safer sex, e.g. condom use)</p> <p>Contraceptive practice</p> <p>Social support (individual level)</p> <p>Drugs: Illicit drugs; Pharmaceutical drugs (self-medicating, out of date)</p> <p>Health care-seeking behaviours (e.g. use of preventive care/services/interventions/information)</p> <p>Health care service utilization behaviours (e.g. delayed/non-admission for admissible conditions)</p> <p>Hygiene (e.g. hand washing, food handling)</p> <p>Stress (systemic life stress e.g. arising from interpersonal violence, systemic discrimination)</p> <p>Mood¹⁵</p> <p>Coping/resilience¹⁶</p> <p>Spirituality¹⁷</p>
Biomedical Factors	<p>Factors outside those normally influenced by behaviours or by the social, economic or physical environment. Genetic factors determine predisposition to certain conditions.</p> <p>Example mainstream indicator is: Rates of genetically determined diseases (e.g. Down syndrome).</p>	<p>Specific biological risk factors/states: e.g. blood pressure, cholesterol levels, body weight</p> <p>Effects on disease</p> <p>Genetic inheritance</p>
Key Equity Issues	<i>Equity of access to supportive and protective services</i>	<p>Equitable distribution of determinants of health (e.g. risk factors, living conditions)¹⁸</p> <p>Equitable distribution of characteristics of the health care system and/or community¹⁹ (e.g. distribution of female physicians, distribution of linguistically appropriate health care workers)</p> <p>Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household's total budget</p> <p>Literacy (e.g. age-specific literacy rates of females compared to males over time)</p> <p>Education (retention and completion rates of females compared to males at all levels of education)</p> <p>Wage parity (e.g. average salary of men versus women in comparable managerial positions)</p> <p>Empowerment and participation</p>

⁷ Hancock et al., 1999.

⁸ Hancock et al., 1999.

⁹ Hancock et al., 1999.

¹⁰ Social and Community resources/capacity/characteristics...

¹¹ Abu-Duhou et al., (2003).

¹² Loc cit.

¹³ Health attitudes, beliefs, knowledge, behaviours...

¹⁴ Psychosocial factors is explicitly identified, Moss 2002.

¹⁵ Moss, 2002.

¹⁶ Moss, 2002.

¹⁷ Moss, 2002.

¹⁸ Whitehead, 2000: 7.

¹⁹ Whitehead, 2000: 7.

Figure 4: Health System Performance dimensions

TIER 3: HEALTH SYSTEM PERFORMANCE		
Dimension/ Subdimension	Definition	Indicator topics
Accessibility		
Availability	<i>The existence and sufficiency of needed care/services/interventions/information</i>	Formal system characteristics: whether service/care/interventions/information exist (e.g. antenatal care, cancer screening, health promotion campaigns); service utilization (e.g. contact with health professionals of all types)
Affordability	<i>The client/patient/community's ability to pay for care/services/interventions/ information including free services and various forms of coverage.</i>	Affordable care/services/interventions/information including relative affordability, absolute affordability ²⁰ Financial access (e.g. universal basic services, access to insurance cover)
Service Access ²¹	<i>The ability of people to obtain care/service/ support/ information at the right place and the right time and in the right format, based on respective needs and irrespective of income, physical location, gender, disability status, sexuality, age, education level, social and built environment and cultural background.</i> ²² Example mainstream indicators are: waiting times (e.g. United Kingdom–UK, Australia, USA); practice availability (United Kingdom–UK); Availability of dentists (USA). (ISO definition)	Geographical access (e.g. within 50km/ 3 walking days) Service access (services: population, e.g. General practitioners: population) Linguistic/cultural access (e.g. practitioners reflect population make-up in terms of language, ethnicity, interpreter availability, translated information; e.g. instructions for safe use of medications translated into local language/s) Gender access (e.g. females have access to female practitioners) Physical/architectural access Disability access including attitudinal, information and communication barriers Waiting times (e.g. waiting lists)
Acceptability/ Responsiveness	All care/services/interventions provided meet the expectations of the client/patient/community/ community provider and paying organizations, recognizing that there may be conflicting, competing interests between stakeholders, but that the needs of the clients/patients/ communities are paramount. <i>"It includes respect for dignity; confidentiality; participation in choices"; involvement in decision-making (about individual health care needs as well as decision processes involved in the planning, organization, operation and management of health services/ interventions/actions); "promptness; quality of amenities; access to social support networks and choice of provider"</i> . ²³ Example mainstream indicator is: Patient satisfaction (e.g. Australia, UK, USA).	Satisfaction Respect and dignity Privacy Choices (e.g. choice of provider) Confidentiality Promptness (e.g. waiting lists) Participation/decision-making in choice of treatment (e.g. contraception, sterilization) Quality of amenity Access to social support networks including within the service system Language sensitive Culturally sensitive Gender sensitive Disability sensitive

²⁰ Standing, 1997.²¹ The ISO (2001) title for this dimension is Accessibility.²² Replaced "clients/patients" with "people" and expanded "care/service" to include "support/information", "and in the right format"; and added "irrespective of income... cultural background", expanding on the Australian definition. The original definitions are: "The ability of clients/patients to obtain care/service at the right place and the right time, based on respective needs" (Canadian Council on Health Services Accreditation–CCHSA). (ISO definition) "The ability of people to obtain health care at the right place and the right time irrespective of income, physical location and cultural background" (Australian definition).²³ Broadened the ISO 2001 definition and incorporated the words shown between quotation marks and in italics from the Australian framework's 2002 definition for Responsive, NHPC, 2002: 7.

TIER 3: HEALTH SYSTEM PERFORMANCE (continued)

Dimension/ Subdimension	Definition	Indicator topics
Effectiveness		
Service/ Programme Effectiveness	<p>The care/service, intervention or action achieves the desired results.²⁴</p> <p>Example mainstream indicators are: Cancer survival (e.g. UK, Canada, USA); Recurrence of hernia after repair (e.g. Sweden); Smoking cessation during pregnancy (effectiveness of maternal health care, e.g. Sweden); Chronic care management: admission rates for asthma, diabetes, epilepsy (UK).</p>	<p>Ambulatory care sensitive conditions (e.g. diabetes/asthma admission rates)</p> <p>Immunization rates</p> <p>Cancer screening rates</p> <p>Effectiveness rates (e.g. of specific clinical practices)</p> <p>Information and communication strategies effective</p>
Safety	<p>The avoidance or reduction to acceptable limits of actual or potential harm from health care management or the environment in which health care/intervention/action is delivered/facilitated.²⁵</p> <p>Example mainstream indicator is: Hospital-acquired infection rate (Australia).</p>	<p>Overuse (not related to client, e.g. Caesarean sections)</p> <p>Misadventure, iatrogenic outcomes, nosocomial infections</p> <p>Environment in which health care delivered</p> <p>Safe disposal of biomedical waste</p> <p>Safe use of medications (used within due dates/storage temperature e.g. immunization cold chain for transportation of vaccines)</p>
Appropriateness	<p>Care/service/ intervention/action provided is relevant to the <i>client's/patient's/community's</i> needs and based on established standards.²⁶</p> <p>Example mainstream indicators are: Inappropriately used surgery (UK); Appropriate use of angiotensin converting enzyme inhibitors (ACEI) at discharge for heart failure (USA). (ISO definition)</p>	<p>Inappropriate use of services (e.g. inappropriate hospital admissions, re-admissions)</p> <p>Inappropriate treatments (e.g. sterilization, inappropriate contraception (e.g. female feticide, female sex-selective abortion), inappropriate medication (self-medicating))</p> <p>Overuse, underuse and misuse (variations from standard, e.g. Surgery rates - interregional variation, variation from benchmarks (e.g. hip replacement, hysterectomy))</p> <p>Information and communication methods appropriate (and understandable)</p> <p>Culturally appropriate</p> <p>Language appropriate</p> <p>Gender appropriate</p> <p>Current treatments based on research knowledge: women represented in clinical trials</p>
Competence/ Capability	<p><i>"An individual's or service's capacity to provide/ facilitate a quality health service/intervention/action/ information "based on skills and knowledge".²⁷</i></p>	<p>Workforce competence/qualifications at all levels</p> <p>Leadership at all levels (including community)</p> <p>Access to training opportunities (for employees and community (e.g. skill levels of community members, community representatives/women on health boards, volunteers)</p> <p>Communities and volunteers</p>

Continues...

²⁴ CCHSA cited by ISO, 2001.

²⁵ Used the Australian framework's (2002) definition for the Dimension titled Safe but expanded to include "intervention/action" and "facilitated", NHPC, 2002: 7).

²⁶ CCHSA cited by ISO, 2001. Expanded "care/service" to include "intervention/action" and "client" to include "community".

²⁷ Broadened the ISO 2001 definition and incorporated the words shown between quotation marks and in italics from the Australian framework's 2002 definition for Capable, which includes the organizational level, NHPC, 2002: 7.

TIER 3: HEALTH SYSTEM PERFORMANCE (continued)		
Dimension/ Subdimension	Definition	Indicator topics
Effectiveness (continued)		
Continuity / Continuous	The ability to provide uninterrupted coordinated care/service/intervention across programmes, practitioners, organizations, and levels of care/service and sectors, over time. ²⁸	Over time Coordinated care referrals e.g. Discharge policies, referrals Services across programmes: intra-agency, interagency and inter-sectoral Inappropriate re-admissions and use of hospital services Quality of care – services across programmes, agencies and sectors – intra-agency, interagency and intersectoral
Cost		
Technical Efficiency	Achieving the desired results with the most cost-effective use of resources. ²⁹ Example mainstream indicators are: Avoidable hospitalizations (e.g. UK, USA, Canada); Cost per case mix-adjusted separation (Australia); Cost-effective prescribing (UK).	Outputs relative to costs (service specific e.g. primary health care (including primary prevention and health promotion), hospitals Intersectoral effort to improve health (e.g. of health system with schools, workplaces, urban planning, communities) Management efficiency
Allocative Efficiency	<i>The allocation of resources between types of services within the health sector, in a way that results in the greatest overall gain.</i>	Distribution of health resources (broadly defined) Gender and health budget analysis (allocation of health resources)
Sustainability	System's capacity to provide infrastructure such as workforce, facilities and equipment, and be innovative and respond to emerging needs (research, monitoring). Example mainstream indicators are: Asset ratios; % expenditure on teaching compared to service delivery; % expenditure on research.	Provision of workforce: Gender breakdown, maintenance of workforce Patient travel/medical transportation (e.g. extent to which must travel to get service (renal – Nauru, terminations – Ireland) Extent of reliance on external aid Information systems Continuum of services provided: % primary health care vs. % tertiary care
Key Equity Issues	<i>Gender-based analysis of accessibility, acceptability and effectiveness of the health system</i>	Equitable access to health services ³⁰ Utilization proportional to need ³¹ Distribution of health care ³² Fairness of processes (e.g. non-discriminatory health care delivery) ³³ Participation in the conceptualization and design of projects ³⁴ Empowerment and participation Gender impact of health system reforms ³⁵

²⁸ CCHSA cited by ISO, 2001.

²⁹ CCHSA cited by ISO, 2001.

³⁰ Whitehead, 2002: 7.

³¹ Whitehead, 2002: 7.

³² Sen, 2002: 666.

³³ Sen, 2002: 666.

³⁴ Bertrand and Escudero, 2002.

³⁵ Standing, 1997.

Figure 5: Community and Health and Welfare System Characteristics dimensions

TIER 4: COMMUNITY AND HEALTH AND WELFARE SYSTEM CHARACTERISTICS		
Dimension	Definition	Indicator topics
Economic Resources	<p>Economic resources might include financial (health care expenditures), human (number of trained midwives, primary health care workers or physicians per capita) or other types of resources (e.g. rated primary health care centres or hospital beds per capita).</p> <p>Example mainstream indicators are: Number of physicians per capita (e.g. Sweden, Canada); Provider compensation (USA).</p>	<p>Per capita gross domestic product (GDP)/per capita gross national product (GNP)/gross national income (GNI) expanded to incorporate non-formal contributions</p> <p>Income/resources distribution/inequality (e.g. GINI index)</p> <p>Allocation of financial resources: Gender-budget analysis (allocation of resources to women and children)</p> <p>Workforce: Education; training; maintenance; facilities; how protected/regulated</p> <p>Research: How supported; monetary resources; extent of sex-specific research</p> <p>Sustainability</p> <p>Aid given/ received (tied or untied; health and welfare or bridges and roads; focus on gender and development or gender-blind)</p> <p>Rate of industrialization/urbanization (e.g. media/marketing/advertising effects, degree of market penetration)</p> <p>Economic model (e.g. free market, planned economy; centralized/decentralized)</p> <p>External effects (e.g. of globalization, statism/ multinationalism)</p> <p>Extent of international trade</p>
Human Settlement	<p>Population indicators may alert us to characteristics that may be useful in interpreting the indicator values, such as the age structure or the proportion of the population residing in rural areas.</p> <p>Example mainstream indicators are: % population over 65 years of age; % residing in urban centres.</p>	<p>Population demographics: Population and household density; sex and age structure; distribution, urbanization; mobility; dependency ratio; aboriginal/indigenous population; immigrant population; visible minorities (CIHI, 2002); orphans; people who have disabilities; family types (e.g. lone heads); household types (e.g. sole person); Individual(s) responsible for family, for caring</p> <p>Vulnerable individuals in society (e.g. proportion living below official poverty line, under- or malnourished at differing levels)</p> <p>Caring role of women, impact of (e.g. employment – change jobs and change insurance levels)</p> <p>Migrating to work and associated issues: language, mental health, % of income repatriated; sex trade</p> <p>Religious institutions</p> <p>Civil strife, societal breakdown</p> <p>War, residual munitions (e.g. land mines)</p>
Governance	<p><i>Indicators may provide information on “processes to respond to collective problems which are characterized by participation, transparency, accountability, rule of law, effectiveness and equity” (UNDP, 2000). Includes from local council to regional, to national and international institutions.</i></p>	<p>Democracy, participation, empowerment</p> <p>Access to/provision of safety net social protection (“welfare”)</p> <p>Legal rights (women’s, health, human, employment)³⁶ and Legislation (occupational health and safety, anti-discrimination)</p> <p>Enforcement of legal rights and legislation</p> <p>Accountability and transparency</p> <p>Policy (e.g. poverty reduction, gender equity, gender mainstreaming, social inclusion, comparable worth (wage parity), intersectoral healthy public policy³⁷, anti-discrimination)</p> <p>International governance: ratification of international conventions (e.g. child labour, CEDAW, disability rights)</p>

Continues...

³⁶ Moss, 1999.³⁷ Hancock et al., 1999.

TIER 4: COMMUNITY AND HEALTH AND WELFARE SYSTEM CHARACTERISTICS (continued)		
Dimension	Definition	Indicator topics
Health and Welfare System	<p>Indicators may provide additional information on the configuration of the health system (e.g. presence of a teaching hospital or various measures of health services utilization).</p> <p>Example mainstream indicators are: Health Insurance enrolment (USA); Number of coronary artery bypass grafting (CAGB) per capita; Number of home care services provided per capita.</p>	<p>Provision/availability/distribution of services/care: Formal (professionals)/informal (family/friends/workmates)/subsistence domestic (within household)</p> <p>Financing: Arrangements (e.g. bulk-billing, subsidised medicine, universal access, insurance coverage (conditions and extent of where not universal); balance private : public; balance informal : formal; gender-budget analysis (allocation of resources to women and children)</p> <p>Health System Input Variables: Expenditure; workforce (doctors, nurses, other health professionals (e.g. primary health care/community health workers) and including traditional healers – population to practitioner ratios including female practitioners, urban/rural coverage, community members/volunteers; land and buildings; plant; consumables; pharmacy; very expensive medical technology (affordability)</p> <p>Inflow/outflow ratio</p> <p>Pharmaceutical industry</p> <p>Decision-making, participation: Policy participation; in development of service models – at all levels</p> <p>Managerial opportunity (e.g. % of managerial positions held by women)</p> <p>Women’s management on health care boards/equivalent structures</p> <p>Governance arrangements: Standards exist; standards enforced</p> <p>Recourse to courts vs. complaints system (responsiveness, power)</p>
Key Equity Issues	<p><i>Access to supportive services and supportive factors</i></p> <p><i>Analysis of Human Settlement factors for equity</i></p>	<p>Distribution/sharing of income/resources (e.g. GINI index of income/resources inequality)</p> <p>Income level of poorest compared to wealthiest quintile of population</p> <p>Equitable distribution of characteristics of the health care system and/or community³⁸ (e.g. distribution of female physicians, linguistically appropriate health care workers)</p> <p>Distribution of health care</p> <p>Inequity in the distribution of health care resources³⁹ (e.g. physicians and hospital beds per capita within different geographic regions)</p> <p>Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household’s total budget</p> <p>Indices such as the GINI coefficient for health care expenditures and availability of medical care⁴⁰</p> <p>Equity effects of health system reforms (e.g. Benchmarks of fairness for health reform⁴¹)</p> <p>Full enumeration of females of all ages and ethnicities in basic data sources (e.g. census, surveys of population)</p> <p>Collection, reporting, analysis and policy use of gender sensitive and sex-disaggregated data for all indicators so that equity issues can begin to be examined</p> <p>Enhanced/inclusive GDP/GNP/GNI measures that value and include “unpaid work”, sex-disaggregated</p> <p>Wage parity (e.g. average salary of women versus men in comparable managerial positions)</p> <p>Managerial opportunity (e.g. % of managerial positions held by women)</p> <p>Women’s management on health care boards/equivalent structures</p> <p>Participation of women in the conceptualization and design of projects</p> <p>Empowerment (e.g. GEM, GDI)</p>

³⁸ From Whitehead, 2000: 7.

³⁹ Musgrove, 1986.

⁴⁰ Musgrove, 1986.

⁴¹ Daniels et al., 2000.

Equity dimensions

The underlying ISO Health Information Framework considers that the equity issues are embedded in all components of the framework, but does not build it into definitions or indicator topics. For this Project, the equity issues have been explicitly identified for all dimensions of the Framework, and each dimension includes different ways of examining equity.

Monitoring or tracking inequities is central to tackling inequity. Effective monitoring of equity/inequity trends can support policy development and reform through answering such key questions as: “Is the gap in health status or determinants of health improving or worsening over time?” and “How effective are the policies and interventions working to narrow the gap?”, regardless of whether the focus is on gender, health, socioeconomic status, or other forms of equity/inequity. Figure 6 thus pulls together the different ways in which equity can be conceptualized and placed within the Health Information Framework.

Figure 6: Equity dimensions

EQUITY			
Dimension	Definition	Indicator topics	Tier/s
<i>Equity</i>	“Equity spans across all dimensions of the framework, and can apply to any of the concepts or indicators contained therein” (ISO, 2001: 6).	Distribution/sharing of income/resources (e.g. GINI index of income/resources inequality)	2, 4
	Equity is the quality of being fair, impartial, and just (general dictionary definition).	Income level of poorest compared to wealthiest quintile of population	2, 4
		Health status of poorest compared to wealthiest quintile of population	1
	Equity and inequity “are political concepts, expressing a moral commitment to social justice” (Kawachi et al., 2002: 648).	Human Development Index (HDI)	2, 4
Equity is too “complex a concept to be reduced to a single indicator” (Musgrove, 1986 cited in Macinko and Starfield, 2002: 8/20).			

Continues...

EQUITY (continued)			
Dimension	Definition	Indicator topics	Tier/s
Gender Equity	"Gender equity is the equally fair treatment of women and men. To ensure fairness, some societies adopt measures to compensate for historical and social disadvantages that prevent women and men from otherwise operating on a level playing field" (Bertrand and Escudero, 2002: 194).	Full enumeration of females of all ages and ethnicities in basic data sources (e.g. Censuses, Surveys of population) ⁴²	4
		Collection, reporting, analysis and policy use of gender sensitive and sex-disaggregated data for all indicators so that equity issues can begin to be examined	
	"Gender equity recognizes that women and men have different needs, preferences, and interests and the equality of outcomes may necessitate different treatment of men and women" (Reeves and Baden, 2000, cited by Malhorta et al., 2002: 7).	Enhanced GDP/GNP/GNI measures that value and include "unpaid work", sex-disaggregated	4
		Literacy (e.g. age-specific literacy rates of females compared to males over time)	2
		Education (retention and completion rates of females compared to males at all levels of education)	2
		Wage parity (e.g. average salary of men versus women in comparable managerial positions)	2, 4
		Managerial opportunity (e.g. % of managerial positions held by women)	2, 3, 4
		Women's representatives on health care boards/equivalent structures	2, 3, 4
"The differences between individual men and women or groups of men and women that are avoidable and require judgements as to how the differences or inequalities that have occurred will be compensated for" (Hartigan, 2001: 9).	GEM	4	
	GDI	4	
Equity in Health	The ISO cite Whitehead's (2000: 7) ⁴³ description of "equity in health" as "a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential", implying that inequalities stemming from avoidable and/or unfair causes be reduced or eliminated. Thus while it is essential to measure equity in terms of the "quantity" and "quality" of health (e.g. life expectancy, disability, mortality, etc.), it is equally important to consider equity in health care. For example, is there equitable access to health services; is utilization proportional to need; and is there an equitable distribution of health outcomes, such as those resulting from specific clinical interventions? Lastly, are the determinants of health, such as risk factors or living conditions, and the characteristics of the health care system or community equitably distributed?" (ISO, 2001: 18).	Equitable access to health services (ISO, 2001)	3
		Utilization proportional to need (ISO, 2001)	1, 3
		Equitable distribution of health outcomes (ISO, 2001)	1
		Primary health goal of "attainment of equity in health, both within and between countries" in the health for all strategy (WHO, 1998, cited in ISO, 2001: 18).	
		Equitable distribution of determinants of health, such as risk factors or living conditions, and the characteristics of the health care system or community (ISO, 2001)	2

⁴² For instance, the United Nations Interagency Working Group on Gender and Development in India reports that "In the past, data collection through the National Census has brought to light the under reporting of female population in certain parts of the country. However, it is also true that female work participation is not adequately recorded and consequently reflected in the Census Data. Declining sex ratio and low female work participation rates in many parts of the country are direct results of the lack of social and cultural sensitivity on gender issues, which very often is reflected in the bias against the importance, role and the status of women in the society" (United Nations-India, 1999: 1).

⁴³ In a report prepared for WHO. The ISO notes that WHO identified the "attainment of equity in health, both within and between countries" as a primary health goal in the Health for All strategy (ISO 2001: 18, quoting WHO, 1998).

EQUITY (continued)

Dimension	Definition	Indicator topics	Tier/s
Gender Equity in Health	<p>“Achieving gender equity in health implies eliminating unnecessary, avoidable and unjust health inequities which exist as a result of the social construction of gender. It means that women and men have the same opportunity to enjoy living conditions and services that enable them to be in good health, without becoming ill, disabled or dying by causes that are unjust and avoidable.” (PAHO/WHO undated: 1)</p> <p>Sen et al., (2002) caution that the “absence of difference or gender equality as such cannot . . . be the uniform foundation for gender justice in health” and specifically warn that “equality of health outcomes can in some instances be a marker for gender injustice . . . because it may indicate that women’s [or men’s] particular biology-dependent needs or abilities are not being adequately recognized.” They stress that “gender equity in health must stand . . . on its own foundation: the absence of bias.” As a starting point they call for the “<i>careful scrutiny of the content of gender equity itself</i> to ensure that bias does not masquerade as ‘natural’ biological difference” (2002: 7, our emphasis).</p> <p>“A gender and health equity analysis insists that, although differences in health needs between women and men do exist in relation to biological and historical differences, this does not ‘naturally’ lead or justify different or unequal social status or rights in just societies.” (Sen et al., 2002: 7 original emphasis)</p>	Mortality ratios of male and female children (including by causes, e.g. malnutrition)	1
		Health status of females in poorest quintile compared to wealthiest quintile of population	1
		Longevity of boys and girls, men and women, including “invisible girls”, “invisible women”	1
		Participation of women in the conceptualization and design of projects (Bertrand and Escudero, 2002)	2, 3, 4
		Avoidable disparities in health status (Gomez, 2000)	1
		Allocation of health care resources according to need (Gomez, 2000)	2, 4
		Utilization of appropriate health care services, according to need (Gomez, 2000)	2, 3, 4
		Payment for health services, according to ability to pay (Gomez, 2000)	2, 3, 4
		Distribution of power and responsibility in health production (Gomez, 2000)	1, 2, 3, 4
		“Gendered analyses of health situations – including data disaggregated by sex, and development, monitoring and evaluation of ‘gender indicators’, such as: Causes of female and male mortality/morbidity; Infant mortality rate by sex and cause; Maternal mortality rates; Women’s access to prenatal and postnatal care, and safe delivery; The proportion of women and men employed in different levels/areas of the health sector; Differences in wages earned by female/male health workers; Women’s and men’s access to food, clean water, sanitation, immunization against diseases; Proportion of women’s and men’s, or household, incomes spent on health services; Distribution of household expenditure on health services; Fertility rates; Women’s access to different methods of family planning” (PAHO/WHO, undated: 2).	
Health Equity	<p>Sen states that health equity is multidimensional and includes issues about achievement of health, capability to achieve good health, distribution of health care, and fairness of processes (e.g. non-discrimination in health care delivery) (Sen, 2002: 660).</p>	Achievement of health (Sen, 2002: 666)	1
		Capability to achieve good health (Sen, 2002: 666)	1
		Distribution of health care (Sen, 2002: 666)	3, 4
		Fairness of processes (e.g. nondiscriminatory health care delivery) (Sen, 2002: 666)	3
Equity in the health system	<p>Because “assessment of equity (as opposed to inequality) require judgements about what is to be considered unfair, summary indicators of overall health system inequity that do not capture the many ways in which inequity can be manifested (even within the same health system) are unlikely to inform interventions geared towards the improvement of inequities in health” (Musgrove, 1986 cited in Macinko and Starfield, 2002: 8/20).</p>	Inequity in the distribution of health care resources such as physicians and hospital beds per capita within different geographic regions (Macinko and Starfield, 2002)	2, 4
		Probabilities of treatment given medical need – which is sensitive to differences in type of illness studied, age group examined, and type of treatment investigated (Macinko and Starfield, 2002)	1
		Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household’s total budget (Macinko and Starfield, 2002)	2, 4
		Indices such as the GINI coefficient for health care expenditures and availability of medical care (Macinko and Starfield, 2002).	4

Continues...

EQUITY (continued)			
Dimension	Definition	Indicator topics	Tier/s
Equity effects in Health system reform	Measures to assess the impact on fairness of changes arising from reform of health systems	Benchmarks of fairness for health reform ⁴⁴ Health equity gauges (GEGA) Average Benefit Incidence Analysis	4
Empowerment	Malhotra et al. (2002) reviewing a range of studies, define empowerment – as distinguished from “gender equality” and “gender equity” – by having two essential elements: (1) empowerment is a <i>process</i> , a progression from one state (gender inequality) to another (gender equality); empowerment is “change over time” [not so easily measurable as “autonomy”, a static state]; and (2) empowerment requires <i>agency</i> , “women themselves must be significant actors in the process of change that is being described or measured” (2002: 7).	Aggregate level indicator topics extracted from Malhotra, 2002: ⁴⁵ “Labour Market Female labour force participation (or female share, or female/male ratios) Occupational sex segregation Gender wage differentials Child care options Labour laws Percentage of wives/women in modern work Ratio of female/male administrators and managers Ratio of female/male professional and technical workers Women’s share of earned income Education Female literacy (or female share, female/male ratio) Female enrolment in secondary school Maternal education Marriage/Kinship system Singulate mean age at marriage Mean spousal age difference Proportion unmarried females aged 15-19 Area of rice cultivation Relative rates of female to male migration Geographic region Social norms and practices Wives’/women’s physical mobility Health/Survival Relative child survival/Sex ratios of mortality Political and legal Ratio of seats in parliament held by women Women’s legal rights Questions, complaints, requests from women at village council” [Note: Aggregate level indicator topics for empowerment extracted from Malhotra, 2002. See Appendix C for household level indicators of empowerment.]	4, 1, 2

⁴⁴ Daniels et al., 2000.

⁴⁵ Malhotra et al. (2002) aggregate level indicators used in recent empirical studies. An extract appears at Appendix C and also includes household etc level indicators compiled from the same source.

6

Audit Source and Criteria for Gender-sensitive Indicators

Beck (1999) defines a gender-sensitive indicator as: “an indicator that captures gender-related changes in society over time” (Beck, 1999: 7) which must be “relative to some agreed normative standard or explicit reference group” (Johnson, 1985 cited by Beck, 1999: 7). Gender-sensitive indicators go beyond “gender statistics” such as, “60% of women in country X are literate, as opposed to 30% five years ago” (Beck, 1999: 7), through their inclusion of a pertinent norm, reference group or comparator. “An example of a gender-sensitive indicator is: ‘60% of women in country X are literate, as compared to 82% of men, and compared to 30% and 52% five years ago’” (Beck, 1999: 7). Men in the same country are the reference group or comparator used in the example, although Beck notes that another group of women might be the appropriate comparator in other cases (Beck, 1999: 7).

Beck argues that efforts to further equality and equity between men and women need “accurate and relevant data on the status of women, men and gender relations” to measure gender inequality at a national level and provide key information to planners and policy-makers. Such indicators are also perceived as important in supporting the “gender and development approach, which focuses on changing the gendered nature of society through the promotion of gender equity” (Beck, 1999: 7).

The following checklist (Figure 7) has been proposed by Beck in relation to using gender-sensitive indicators at the national level, noting that the usefulness of an indicator will be improved the more points on the checklist it satisfies. While these criteria are stringent – especially for gender-related analysis and participatory development – they are insightful for examining both long-standing and long-reported indicators (such as life expectancy) as well as newer indicators used in special reports or proposed for future reporting.

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Figure 7: Checklist of methodological points for using gender-sensitive indicators at the national level.

- ✓ **Comparison to a norm:** Use of gender-sensitive indicators should involve comparison to a norm, for example the situation of men in the same country or the situation of women in another country, to focus on questions of gender equality and equity rather than only on the status of women.
- ✓ **Disaggregation:** Data should be disaggregated by sex. Wherever possible, national level indicators should also:
 - be disaggregated by age;
 - be disaggregated by socioeconomic grouping
 - be disaggregated by national and/or regional origin;
 - note the time period;
 - note the geographical coverage; and
 - note the data sources.

This kind of information will help to inform a broader analysis of the social forces within a society which have brought about the particular status of women and men in that society.

- ✓ **Ease of access:** Data should be easy to use and understand. Indicators should be phrased in easily understandable language, and should be developed at a level relevant to the institutional capabilities of the country concerned.
- ✓ **Scope of availability:** Indicators should be available for the whole country.
- ✓ **Reliability:** Data should be relatively reliable. No data is absolutely reliable but reliability checks should be carried out. For example, findings from censuses should be compared to findings from micro-level studies for accuracy.
- ✓ **Measurability:** Indicators must be about something measurable. Concepts such as “women’s empowerment” or “gender equity” may be difficult to define and measure. In this case proxy indicators, for example, relating to greater choice for women in accessing health care or education, may have to stand as proxies for the less precise concepts.
- ✓ **Time-frame:** Gender-sensitive indicators should be reliable enough to use as a time series. The time span over which the indicator covers should be clearly specified.
- ✓ **International comparability:** Gender-sensitive indicators should be collected using internationally accepted definitions. While these definitions are sometimes imprecise, they are usually the best terms available and allow for international comparison.
- ✓ **Measuring impact:** The indicator should, where feasible, measure the outcome or impact of a situation rather than the input. For example, women’s literacy is often a better measure of women’s educational status than female enrolment rates because literacy measures the impact of enrolment rates. Similarly, female mortality rates are a better measure of women’s health status than access to health facilities.
- ✓ **Participation:** Indicators should be used and developed in as participatory a process as possible. This will involve setting up interdepartmental government committees but also holding focus group meetings with the public and eliciting public opinion from women and men wherever possible.

Extract from: Beck (1999) Using gender-sensitive indicators: a reference manual for governments and other stakeholders.

For the purposes of this audit, routine and special reports from key international organizations were examined. In addition, proposed indicators of relevance to gender equity and health were also compiled. Figure 8 lists the number of indicators assessed and their sources.

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Figure 8: Numbers of reported and proposed indicators from selected sources

Indicators by reporting status:	Total indicators
Routine reports	
CIHI Canadian Health Indicators (part) 2002	25
Indicators on: Contraceptive prevalence rate (various sources), FGM (WHO), low birth weight (UNICEF), illiteracy/ United Nations Educational, Scientific and Cultural Organization (UNESCO)	12
OECD Development Indicators 1998	29
OECD Health Data 2002	79
OECD Society at a glance 2001	74
PAHO Regional Core Health Data 2001	103
United Nations Common Country Assessment 1999	60
UNDP Human Development Report 2002	182
UNSD Millennium Goals, targets and indicators 2002	48
WHO European Health Report 2002	15
WHO World Health Report 2000	49
WHO World Health Report 2001	52
WHO World Health Report 2002	87
WHO World Health Statistics Annual 1997-99	6
World Bank Institute, DEPweb: Explore Sustainable Development 2001	12
Total	833
Special reports⁴⁶	
UNSD The World's Women 2000: Trends and Statistics	88
UNIFEM Progress of the World's Women 2000	20
WHO World Report on Violence and Health 2002	38
Total	146
Proposed indicators	
United Nations Benchmarks for measuring progress towards ICPD goals 1999	7
ECLAC Gender Indicators for follow-up and evaluation of the Regional Programme of Action for the Women of Latin America and the Caribbean, 1995–2001, and the Beijing Platform for Action. 1999	62
Daniels et al. Benchmarks of fairness for health care reform 2000	9
UNGASS/HIV/AIDS Core indicators 2001	21
WHO Proposed Benchmark Reproductive Health Indicators 2001	17
Total	116
GRAND TOTAL	1 095

⁴⁶ These may be one-off, irregular, or regular reports, with an emphasis on gender or a topic important to gender relations (e.g. violence).

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These indicators were examined for their reporting status (routine, special, or proposed) and they were evaluated against:

- Specified disaggregations relevant for equity considerations: age, sex, ethnicity, socioeconomic group.
- “Beck criteria”: report over time, inclusion of comparators, have resulted from participatory development, and whether they are accompanied by gender analysis.

Each indicator is considered in terms of how many of the criteria are satisfied. Each is also examined for which comparators are used. The sex-specific indicators are also considered in terms of whether the female indicators are limited to reproductive health states, and age ranges. How indicators map onto the different tiers of the Health Information Framework are reviewed in relation to the concentration of concepts and gaps in indicators.

7

Findings of audit

A summary of the main findings from the audit follows. Some key definitions used are listed in the box below.

Sex-disaggregated: refers to indicators that are reported for males and for females separately, rather than as a (combined) total (e.g. sex-disaggregated indicators report on men and women, rather than “people” or “adults”; girls and boys rather than “children” or “young people”).

Sex-distinguished: refers to the total of indicators that are sex-disaggregated plus indicators that are sex-specific.

Sex-specific: refers to indicators that are specific to one sex only (e.g. maternal mortality, urethritis in men).

a. Indicators reporting status overview

In relation to reporting status:

- Basic health indicators (such as infant mortality) are not reported with sex disaggregation. Sex-disaggregated indicators are reported for indicators in education, workforce, democracy and special gender equity/equality data sets (such as the indicators for the Millennium Development Goals).
- Special reports had the most “gendered” collection of indicators (the majority were sex-disaggregated (66%) rising to a total of 85% with the inclusion of sex-specific indicators) and routine reports had the least “gendered” collection (23% sex-disaggregated rising to 32% when sex-specific indicators were included).
- There were very few age-disaggregated indicators in any reporting category.
- Disaggregations by ethnicity and socioeconomic group are absent across all reporting categories.
- Few proposed indicators included a time element that would allow for the assessment of change over time (2%, compared to 23% in routine reports).
- More of the proposed indicators included a comparator (39%) compared to indicators in special reports (16%) and in routine reports (6% only).

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- No indicators did well in relation to participatory development (may reflect a limitation of extant documentation).
- Exceptionally few indicators were accompanied by, or set within, a gender analysis that included raising related questions. The few gendered *descriptions* (i.e. rather than analyses) found in the texts were clustered in a very few topics (e.g. male and female life expectancy, male youth violence, maternal mortality).

Beck suggests that all criteria should be satisfied by an indicator in order for it to be considered a gender-sensitive indicator. There were no indicators that satisfied all of the eight assessment criteria⁴⁷, and that could be described as “gender-sensitive”, or defined as indicators that capture “gender-related changes in society over time”.

b. Indicators that were sex-specific

As sex-specific indicators cannot be sex-disaggregated, they were examined separately to ascertain which sex and which range of topics they described. The examination of sex-specific indicators shows that:

- By contrast with the paucity of sex-disaggregated indicators, almost all (96%) of the indicators that are sex-specific and age-limited (9% of all indicators) describe females. The majority (78%) of these relate to females of reproductive age (variously defined) or outcome (e.g. deliveries, births).
- These findings support the contention that indicators on the health problems of females out of reproductive age (e.g. older women, children) or in non-reproductive states (e.g. mental health) are largely missing.

c. Indicators that included comparators, and which comparators are used

The “use of gender-sensitive indicators should involve comparison to a norm, for example the situation of men in the same country or the situation of women in another country, to focus on questions of gender equality and equity rather than only on the status of women”⁴⁸. An examination of the comparators included in those indicators which did include them shows that:

- All (100%) compare females to males or males to females *within the same country*, and the majority of indicators that included comparators (90 of the total of 94 indicators), compared females to males.
- The four indicators found that reversed this “norm” and compared males to females were: child mortality, youth homicide, and both age-adjusted and aggregate suicide rates.

⁴⁷ The eight assessment criteria used to assess gender sensitivity were: specified disaggregations (age, sex, ethnicity, socioeconomic group) and the “Beck criteria” (whether indicators report over time, include comparators, have resulted from participatory development, and, whether they are accompanied by gender analysis and related questions) (Beck, 1999).

⁴⁸ Beck (1999: 14–15).

- Indicators incorporating comparators were strongly clustered in two tiers of the Framework: (Determinants of Health, and Community and Health and Welfare System Characteristics), and dominated by a mere six topics (literacy, education, employment status, occupation and working conditions, general workforce measures including earnings, and democracy).

d. Indicators that satisfy multiple criteria

To be assessed as “gender-sensitive” indicators needed to comply with eight different criteria, rather than simply be sex-disaggregated. There were no indicators that satisfied all eight criteria.

- There was a clear gradient from a majority of indicators that satisfied none (31%) or one (31%) of the criteria, to the single (0.09%) indicator that satisfied (the maximum attained) five criteria (out of eight).
- The majority of indicators satisfying (any) three or four of the criteria, were from special reports or proposed indicators, rather than routine reports.

e. Mapping indicators to the tiers of the Health Information Framework

The results of mapping the collected indicators to tiers of the Health Information Framework showed that:

- The outright majority of all indicators (reported and proposed) were mapped to tier 4, Community and Health and Welfare System Characteristics (44%), with slightly under a quarter (24%) mapped to tier 1, Health Status, and a further 22% mapped to tier 2, Determinants of Health. The remaining indicators (9%) mapped to tier 3, Health System Performance.
- Fifty percent or more of all indicators in all tiers except tier 4, Community and Health and Welfare System Characteristics, were sex-distinguished, although the balance between sex-disaggregated and sex-specific indicators varies between tiers.

Each tier of the Health Information Framework was examined in more detail; and a selection of overview findings is given below.

Health Status (tier 1)

Indicators on Illness and Injury, and Life Expectancy and Death dominated the Health Status tier:

- Although a substantial 69% of the 42 life expectancy indicators report sex-disaggregated or sex-specific data, not one form of the indicator was found that explicitly included a comparator. Although life expectancy for males and females is usually reported side by side (e.g. males 70.2 years, females 74.8 years), it is left to the reader to make the comparison.
- By contrast to life expectancy, only five (20%) of the 25 infant and/or child mortality indicators were reported as either sex-disaggregated or sex-specific. None included a comparator.

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- The dimensions of Well-being, Health-related States component of Illness, Injury, and Health-related States, and Human Function, were poorly represented.

Determinants of Health (tier 2)

Indicators on socioeconomic factors dominated the Determinants of Health tier, and

- Were reported in sex-disaggregated or sex-specific forms more often than not, due to the dominance of certain topics (as noted above) in relation to indicators that included comparators.
- The largest deficits were in the dimensions of Health-related Mediators: psychosocial factors, Social and Community Factors, and Household Factors.

Health System Performance (tier 3)

There were so few indicators found in the Health System Performance tier, that the 12 dimensions were collapsed into three broader dimensions prior to analysis.

- Most indicators were concentrated in the two broad dimensions of Accessibility and Effectiveness, with few in the Cost dimension.
- More of the sex-distinguished indicators were sex-specific than sex-disaggregated, and sex-specific indicators concentrated on females in the areas of reproductive health.
- There were very few indicators outside of the hospital sector of the health system, or of multi- or intersectoral measures. There were no indicators that reported gender sensitivity, gender acceptability, or gendered access to services and care. There were also no indicators that measured the involvement of communities (including volunteers) in agencies and services, or the participation of women in planning services or designing policies. Few of the topics listed in the Framework were completely covered.
- Overall, and with certain exceptions (e.g. the hospital sector) there is a generic lack of the base data on which to report objectively in this tier. High level system performance topics occur in a vacuum, as there do not appear to be underlying units on which such gross assessments can be reliably based and replicated.

Community and Health and Welfare System (tier 4)

The Community and Health and Welfare System tier is dominated by indicators in the Economic Resources and Human Settlement dimensions. These are largely convention indicators used for national and global reporting, and describe either system inputs or key system characteristics. Indicators in this tier were the least likely to be sex-disaggregated.

Figure 9 below provides a summary of the mapping of audited indicators

against the Health Information Framework. Topics for which indicators were found are underlined in Figure 9. Note that for some topics, although there were indicators that were able to be mapped to the topic, the topic coverage was partial at best. For instance, the topic of Growth (in the Health Status tier, Illness, Injury, and Health-related States dimension), defined as Growth (malnutrition, stunting, failure to thrive; over-nutrition) is mapped as Growth (malnutrition, stunting) as no indicators were found that addressed the failure to thrive and over-nutrition elements of the topic. That indicators were mapped to underlined topics does not imply that gender-sensitive forms of the indicators were found. As reported above, there were no indicators that met the eight criteria for gender-sensitivity, and relatively few that met three or four of the criteria.

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Figure 9: Summary mapping of audited indicators against the Health Information Framework

TIER 1: HEALTH STATUS		
Dimension	Definition	Indicator topics
Well-being	<p>Broad measures of the physical, mental and social well-being of individuals.</p> <p>Example mainstream indicators are: Self-rated health; Self-esteem.</p>	<p>(Ratio: women: men)</p> <p><u>Self-rated health</u></p> <p>Empowerment/political representation/rights/ capacity to make decisions</p> <p><u>Quality of life</u></p> <p>Freedom from violence</p>
Illness, Injury, and Health-related States	<p>Alterations or attributes of the health status of an individual which may lead to distress, interference with daily activities, or contact with health services; it may be a disease (acute or chronic), disorder, injury or trauma.</p> <p>Reflects health related states such as pregnancy, ageing, stress, congenital anomaly, or genetic predisposition which may lead to interference with daily activity or, contact with a health service</p> <p>Example mainstream indicators are: Arthritis; Diabetes; Chronic pain; Depression; Food and waterborne diseases; Injury hospitalization.</p>	<p><u>Burden of disease/ill health (e.g. DALYs)</u></p> <p><u>Specific conditions: FGM, HIV/AIDS, RTIs, STIs (age of 1st)</u></p> <p><u>Medical procedures (e.g. hysterectomies)</u></p> <p><u>Low birth weight</u></p> <p>Damage at birth (e.g. through lack of trained attendants)</p> <p><u>Injury (traffic, fire, violence, self)</u></p> <p>Morbidity in the community – vulnerability to illness</p> <p><u>Major causes of acute admissions</u></p> <p><u>Major causes of disease</u></p> <p><u>Related medical procedures (e.g. caesareans, abortions)</u></p> <p><u>Teenage pregnancy/Age at 1st pregnancy, and/or</u></p> <p>Number of children in time period</p> <p><u>Growth (malnutrition, stunting, failure to thrive; over-nutrition)</u></p>
Human Function	<p>Levels of human function are associated with the consequences of disease, disorder, injury and other health conditions. They include body function/structure (impairments), activities (activity limitations, and participation (restrictions in participation). ICDH-2, beta-2 version).</p> <p>Example mainstream indicators are: Functional health; Disability days; Activity limitation; Health expectancy; Disability-free life expectancy.</p>	<p>Disability</p> <p>Impairment</p> <p>Activity limitation</p> <p><u>Restrictions in participation (e.g. absenteeism)</u></p>
Life Expectancy and Deaths	<p>A range of age and sex-specific and condition-specific mortality rates, as well as derived indicators.</p> <p>Example mainstream indicators are: Infant mortality; Life expectancy; Potential years of life lost; Circulatory deaths.</p>	<p><u>Infant mortality</u></p> <p><u>Maternal mortality</u></p> <p><u>Life expectancy: healthy years of</u></p> <p><u>Suicide</u></p> <p><u>Homicide (including female infanticide, homicide by intimate partner)</u></p> <p><u>Condition specific deaths: e.g. HIV/AIDS, other infectious diseases, breast/lung/cervical/ prostate cancer</u></p>

TIER 1: HEALTH STATUS (continued)

Dimension	Definition	Indicator topics
Key Equity Issues	<i>Equity in health outcomes</i> New Dimension	Health status of poorest compared to wealthiest quintile of population Health status of females in poorest quintile compared to wealthiest quintile of population <u>Equitable distribution of health outcomes</u> (e.g. resulting from specific clinical interventions) <u>Achievement of health</u> Capability to achieve good health Utilization proportional to need Probabilities of treatment given medical need – sensitive to differences in e.g. type of illness, sex, age group, type of treatment Mortality ratios of male and female children (including by causes e.g. malnutrition, infectious diseases) Longevity including “invisible girls”, “invisible women”

TIER 2: DETERMINANTS OF HEALTH		
Dimension	Definition	Indicator topics
Environmental Factors	<p>Environmental factors with the potential to influence human health.</p> <p>Example mainstream indicator is: Water quality.</p>	<p><u>Safe water</u></p> <p><u>Sanitation</u></p> <p><u>Electricity, power, bio-fuels</u></p> <p><u>Pollution: Air pollution: Cooking fuels; Indoor air pollution</u>; acid rain; pesticide exposure (+ labelling); soil and food chain contamination, noise pollution</p> <p>Safe fresh food, access to and availability</p> <p><u>Workplace exposures and hazards</u></p> <p>Land clearing, changing ecosystems, new diseases</p> <p>Built environment, access to</p> <p>Green/open and smoke free spaces</p>
Socioeconomic Factors	<p>Indicators related to the socioeconomic characteristics of the population, that <i>research evidence has</i> shown to be related to health.</p> <p>Example mainstream indicators are: Unemployment rate; Low income rate; High school graduation.</p>	<p><u>Education</u></p> <p><u>Literacy and health literacy</u></p> <p><u>Early childhood development</u></p> <p><u>Employment status</u> (e.g. un- and underemployment)</p> <p><u>Occupation</u> and Working conditions: Enforced labour (e.g. child and adult sex trade); <u>age of labour</u> (e.g. child labour); hours of paid and unpaid (e.g. overwork); employment segregation, access to training opportunities</p> <p><u>Income</u>: access to, % disposable</p> <p><u>Per capita out of pocket expenditure on health</u> (co-payments, purchase of food in hospital, "attention" co-payments to (salaried) doctors)</p> <p>Insurance coverage</p> <p><u>Living standards</u></p>
Social and Community factors	<p>Measures the prevalence of social and community factors, such as social support, life stress, or social capital that <i>research evidence has</i> shown to be related to health.</p> <p>Example mainstream indicators are: School readiness; Social support; Housing affordability; Literacy.</p>	<p>Geographic area</p> <p>Community demographics: as for population demographics, tier 4</p> <p>Transport (availability, to work, to market, to safe water, to health centre)</p> <p>Preventive services (availability): Antenatal care; cancer screening; family planning; Immunization</p> <p>Community support services (availability): Self-help groups; civil society organization; local community centres; women's and children's shelters (protection from violence, legal assistance)</p> <p><u>Democracy</u>, personal power, empowerment</p> <p>Leadership at all levels and access to training opportunities (e.g. skill levels of community representatives)</p> <p><u>Social capital</u>, e.g. sense of social and community belonging</p> <p>Volunteers and volunteering</p> <p>Freedom of movement (e.g. social mobility restrictions)</p>

TIER 2: DETERMINANTS OF HEALTH (continued)

Dimension	Definition	Indicator topics
Household Factors	<i>Intrahousehold, interpersonal and intrafamilial factors with the potential to influence human health.</i> New Dimension	<u>Access to economic resources</u> : income, <u>land</u> , <u>credit</u> , <u>property</u> (houses, equipment, appropriate technology) and livestock <u>Housing</u> , squatting, lack of housing, homelessness, <u>overcrowding</u> Distribution of resources within households Household relations <u>Access to supportive and protective services</u> Empowerment (e.g. domestic decision-making) Childcare, formal and informal child care Time use/division of domestic subsistence labour/leisure <u>Fertility</u> , who decides, autonomy over body Intra-family violence
Health-related Mediators: Health behaviours and psychosocial factors	Aspects of behaviour and risk factors that <i>research evidence has shown to influence health status.</i> Variables at the intrapsychic and interpersonal levels that have the potential to influence health. Example mainstream indicators are: Smoking rate; Physical activity.	<u>“SNAP”</u> : <u>Smoking</u> ; <u>(poor) Nutrition</u> ; <u>Alcohol misuse</u> ; <u>Physical inactivity</u> <u>Breastfeeding</u> <u>Sexual activity</u> (safer sex, e.g. condom use) <u>Contraceptive practice</u> Social support (individual level) <u>Drugs</u> : <u>Illicit drugs</u> ; <u>Pharmaceutical drugs</u> (self-medicating, out of date) <u>Health care-seeking behaviours</u> (e.g. use of preventive care/services/interventions/information) Health care service utilization behaviours (e.g. delayed/ non-admission for admissible conditions) Hygiene (e.g. hand washing, food handling) Stress (systemic life stress e.g. arising from interpersonal violence, systemic discrimination) Mood Coping/resilience Spirituality
Biomedical Factors	Factors outside those normally influenced by behaviours or by the social, economic or physical environment. Genetic factors determine predisposition to certain conditions. Example mainstream indicator is: Rates of genetically determined diseases (e.g. Down syndrome).	<u>Specific biological risk factors/states</u> : e.g. <u>blood pressure</u> , <u>cholesterol levels</u> , <u>body weight</u> Effects on disease Genetic inheritance
Key Equity Issues	<i>Equity of access to supportive and protective services</i> New Dimension	<u>Equitable distribution of determinants of health</u> (e.g. risk factors, living conditions) Equitable distribution of characteristics of the health care system and/or community (e.g. distribution of female physicians, distribution of linguistically appropriate health care workers) Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household's total budget <u>Literacy</u> (e.g. <u>age-specific literacy rates of females compared to males over time</u>) <u>Education</u> (<u>retention</u> and completion rates of females compared to males at all levels of education) <u>Wage parity</u> (e.g. <u>average salary of men versus women in comparable managerial positions</u>) Empowerment and participation

TIER 3: HEALTH SYSTEM PERFORMANCE

Dimension/ Subdimension	Definition	Indicator topics
Accessibility		
Availability	<i>The existence and sufficiency of needed care/ services/interventions/ information</i>	<u>Formal system characteristics</u> : whether service/care/interventions/ information exist (e.g. antenatal care, cancer screening, health promotion campaigns); <u>service utilization</u> (e.g. contact with health professionals of all types)
	New Subdimension	
Affordability	<i>The client/patient/community's ability to pay for care/services/interventions/ information including free services and various forms of coverage.</i>	<u>Affordable care</u> /services/interventions/information including relative affordability, absolute affordability <u>Financial access</u> (e.g. universal basic services, access to insurance cover)
	New Subdimension	
Service Access	<i>The ability of people to obtain care/service/ support/information at the right place and the right time and in the right format, based on respective needs and irrespective of income, physical location, gender, disability status, sexuality, age, education level, social and built environment and cultural background.</i>	Geographical access (e.g. within 50km/3 walking days) <u>Service access</u> (services: population, e.g. GPs: population) Linguistic/cultural access (e.g. practitioners reflect population makeup in terms of language, ethnicity, interpreter availability, translated information e.g. instructions for safe use of medications translated into local language/s) Gender access (e.g. females have access to female practitioners) Physical/architectural access Disability access including attitudinal, information and communication barriers Waiting times (e.g. waiting lists)
Acceptability/ Responsiveness	<i>All care/services/interventions provided meet the expectations of the client/patient/community/ community provider and paying organizations, recognizing that there may be conflicting, competing interests between stakeholders, but that the needs of the clients/patients/ communities are paramount. "It includes respect for dignity; confidentiality; participation in choices"; involvement in decision making (about individual health care needs as well as decision processes involved in the planning, organization, operation and management of health services/interventions/actions); "promptness; quality of amenities; access to social support networks and choice of provider".</i>	<u>Satisfaction</u> <u>Respect and dignity</u> Privacy <u>Choices</u> (e.g. choice of provider) Confidentiality Promptness (e.g. waiting lists) Participation/decision making in choice of treatment (e.g. contraception, sterilization) Quality of amenity Access to social support networks including within the service system Language sensitive Culturally sensitive Gender sensitive Disability sensitive
	Example mainstream indicator is: Patient satisfaction (e.g. Australia, UK, USA).	
Effectiveness		
Service/ Programme Effectiveness	<i>The care/service, intervention or action achieves the desired results.</i>	<u>Ambulatory care sensitive conditions</u> (e.g. diabetes/asthma admission rates) <u>Immunization rates</u> <u>Cancer screening rates</u> <u>Effectiveness rates</u> (e.g. of specific clinical practices) Information and communication strategies effective
	Example mainstream indicators are: Cancer survival (e.g. UK, Canada, USA); Recurrence of hernia after repair (e.g. Sweden); Smoking cessation during pregnancy (effectiveness of maternal health care – e.g. Sweden); Chronic care management: admission rates for asthma, diabetes, epilepsy (UK).	

TIER 3: HEALTH SYSTEM PERFORMANCE (continued)

Dimension/ Subdimension	Definition	Indicator topics
Safety	<p>The avoidance or reduction to acceptable limits of actual or potential harm from health care management or the environment in which health care/intervention/action is delivered/facilitated.</p> <p>Example mainstream indicator is: Hospital-acquired infection rate (Australia).</p>	<p>Over-use (not related to client, e.g. Caesarean sections)</p> <p><u>Misadventure</u>, iatrogenic outcomes, nosocomial infections</p> <p>Environment in which health care delivered</p> <p>Safe disposal of biomedical waste</p> <p>Safe use of medications (used within due dates/storage temperature e.g. immunization cold chain for transportation of vaccines)</p>
Appropriateness	<p>Care/service/ intervention/action provided is relevant to the client's/patient's/community's needs and based on established standards.</p> <p>Example mainstream indicators are: Inappropriately used surgery (UK); Appropriate use of ACEI at discharge for heart failure (USA). (ISO definition)</p>	<p><u>Inappropriate use of services</u> (e.g. <u>inappropriate hospital admissions</u>, readmissions)</p> <p>Inappropriate treatments (e.g. sterilization, inappropriate contraception (e.g. female feticide, female sex-selective abortion), inappropriate medication (self medicating))</p> <p>Overuse, underuse and <u>misuse</u> (variations from standard, e.g. Surgery rates - inter-regional variation, variation from benchmarks (e.g. hip replacement, hysterectomy))</p> <p>Information and communication methods appropriate (and understandable)</p> <p>Culturally appropriate</p> <p>Language appropriate</p> <p>Gender appropriate</p> <p>Current treatments based on research knowledge: women represented in clinical trials</p>
Competence/ Capability	<p>"An individual's or service's capacity to provide"/ facilitate a quality health service/intervention/action/information "based on skills and knowledge".</p>	<p><u>Workforce</u> competence/qualifications at all levels</p> <p>Leadership at all levels (including community)</p> <p>Access to training opportunities (for employees and community (e.g. skill levels of community members, community representatives/women on health boards, volunteers)</p> <p>Communities and volunteers</p>
Continuity/ Continuous	<p>The ability to provide uninterrupted coordinated care/service/intervention across programmes, practitioners, organizations, and levels of care/ service and sectors, over time.</p>	<p>Over time</p> <p>Coordinated care referrals e.g. discharge policies, referrals</p> <p><u>Services across programmes</u> – intra-agency, interagency and intersectoral</p> <p>Inappropriate re-admissions and use of hospital services</p> <p>Quality of care – services across programmes, agencies and sectors – intra-agency, interagency and intersectoral</p>
Cost		
Technical Efficiency	<p>Achieving the desired results with the most cost-effective use of resources.</p> <p>Example mainstream indicators are: Avoidable hospitalizations (e.g. UK, USA, Canada); Cost per case mix-adjusted separation (Australia); Cost-effective prescribing (UK).</p>	<p><u>Outputs relative to costs</u> (service-specific e.g. primary health care (including primary prevention and health promotion), hospitals)</p> <p>Intersectoral effort to improve health (e.g. of health system with schools, workplaces, urban planning, communities)</p> <p><u>Management efficiency</u></p>
Allocative efficiency	<p>The allocation of resources between types of services within the health sector, in a way that results in the greatest overall gain.</p> <p>New Subdimension</p>	<p><u>Distribution of health resources</u> (broadly defined)</p> <p>Gender and health budget analysis (allocation of health resources)</p>

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TIER 3: HEALTH SYSTEM PERFORMANCE (continued)		
Dimension/ Subdimension	Definition	Indicator topics
Sustainability	<p>System's capacity to provide infrastructure such as workforce, facilities and equipment, and be innovative and respond to emerging needs (research, monitoring).</p> <p>Example mainstream indicators are: Asset ratios; % expenditure on teaching compared to service delivery; % expenditure on research.</p>	<p>Provision of workforce: gender breakdown, maintenance of workforce</p> <p>Patient travel/medical transportation (e.g. extent to which must travel to get service (renal - Nauru, terminations - Ireland)</p> <p><u>Extent of reliance on external aid</u></p> <p>Information systems</p> <p>Continuum of services provided: % primary health care vs. % tertiary care</p>
Key Equity Issues	<p><i>Gender-based analysis of accessibility, acceptability and effectiveness of the health system.</i></p> <p>New Dimension</p>	<p>Equitable access to health services</p> <p>Utilization proportional to need</p> <p>Distribution of health care</p> <p>Fairness of processes (e.g. non-discriminatory health care delivery)</p> <p>Participation in the conceptualization and design of projects</p> <p>Empowerment and participation</p> <p>Gender impact of health system reforms</p>
TIER 4: COMMUNITY AND HEALTH AND WELFARE SYSTEM CHARACTERISTICS		
Dimension	Definition	Indicator topics
Economic Resources	<p>Economic resources might include financial (health care expenditures), human (number of trained midwives, primary health care workers or physicians per capita) or other types of resources (e.g. rated primary health care centres or hospital beds per capita).</p> <p>Example mainstream indicators are: Number of physicians per capita (e.g. Sweden, Canada); Provider compensation (USA).</p>	<p><u>GDP/GNP/GNI</u> expanded to incorporate non-formal contributions</p> <p><u>Income/resources distribution/ inequality</u> (e.g. GINI index)</p> <p><u>Allocation of financial resources</u>: Gender budget analysis (allocation of resources to women and children)</p> <p><u>Workforce</u>: Education; Training; Maintenance; Facilities; How protected/regulated</p> <p><u>Research</u>: How supported; <u>Monetary resources</u>; Extent of sex-specific research</p> <p><u>Sustainability</u></p> <p><u>Aid given/ received</u> (tied or untied; health and welfare or bridges and roads; focus on gender and development or gender blind)</p> <p><u>Rate of industrialization/urbanization</u> (e.g. media/marketing/advertising effects, degree of market penetration)</p> <p><u>Economic model</u> (e.g. free market, planned economy; centralised/decentralised)</p> <p><u>External effects</u> (e.g. of globalization, statism/multinationalism)</p> <p><u>Extent of international trade</u></p>
Human settlement	<p>Population indicators may alert us to characteristics that may be useful in interpreting the indicator values, such as the age structure or the proportion of the population residing in rural areas.</p> <p>Example mainstream indicators are: % population over 65 years of age; % residing in urban centres.</p>	<p><u>Population demographics</u>: Population and household density; <u>sex and age structure</u>; distribution, <u>urbanization</u>; mobility; <u>dependency ratio</u>; aboriginal/indigenous population, <u>immigrant population</u>, visible minorities, <u>orphans</u>, people who have disabilities; <u>family types</u> (e.g. lone heads); <u>household types</u> (e.g. sole person); who's responsible for family, for caring</p> <p><u>Vulnerable individuals in society</u> (e.g. proportion living below official poverty line, under- or malnourished at differing levels)</p> <p>Caring role of women, impact of (e.g. employment – change jobs and change insurance levels)</p> <p>Migrating to work and assoc issues: language, mental health, % of income repatriated; sex trade</p> <p>Religious institutions</p> <p><u>Civil strife, societal breakdown</u></p> <p>War, leftover munitions (e.g. land mines)</p>

TIER 4: COMMUNITY AND HEALTH AND WELFARE SYSTEM CHARACTERISTICS (continued)

Dimension	Definition	Indicator topics
Governance	<p>Indicators may provide information on “processes to respond to collective problems which are characterised by participation, transparency, accountability, rule of law, effectiveness and equity” (UNDP, 2000). Includes from local council to regional, to national and international institutions.</p> <p>New Dimension</p>	<p>Democracy, participation, empowerment</p> <p>Access to/provision of safety net social protection (“welfare”)</p> <p>Legal rights (women’s, health, human, employment) and Legislation (health and safety, anti-discrimination)</p> <p>Enforcement of legal rights and legislation</p> <p>Accountability and transparency</p> <p>Policy (e.g. poverty reduction, gender equity, gender mainstreaming, social inclusion, comparable worth (wage parity), intersectoral healthy public policy, anti-discrimination)</p> <p>International governance: ratification of international conventions (e.g. child labour, CEDAW, disability rights)</p>
Health and Welfare System	<p>Indicators may provide additional information on the configuration of the health system (e.g. presence of a teaching hospital or various measures of health services utilization).</p> <p>Example mainstream indicators are: Health Insurance enrolment (USA); Number of CAGB per capita; Number of home care services provided per capita.</p>	<p>Provision/availability/distribution of services/care: Formal (professionals)/ informal (family/friends/workmates)/ subsistence domestic (within household)</p> <p>Financing: Arrangements (e.g. bulk-billing, subsidised medicine, universal access, insurance coverage (conditions and extent of where not universal); balance private: public; balance informal: formal; gender budget analysis (allocation of resources to women and children)</p> <p>Health System Input Variables: Expenditure; workforce (doctors, nurses, other health professionals (e.g. primary health care/ community health workers) and including traditional healers – population to practitioner ratios including female practitioners, Urban/rural coverage, community members/volunteers; land and buildings; plant; consumables; pharmacy; very expensive medical technology (affordability); Inflow/outflow ratio</p> <p>Pharmaceutical industry</p> <p>Decision-making, participation: Policy participation; in development of service models – at all levels</p> <p>Managerial opportunity (e.g. % of managerial positions held by women)</p> <p>Women’s management on health care boards/equivalent structures</p> <p>Governance arrangements: Standards exist; Standards enforced</p> <p>Recourse to courts vs. complaints system (responsiveness, power)</p>
Key Equity Issues	<p>Access to supportive services and supportive factors</p> <p>Analysis of Human Settlement factors for equity</p> <p>New Dimension</p>	<p>Distribution/sharing of income/resources (e.g. GINI index of income/resources inequality)</p> <p>Income level of poorest compared to wealthiest quintile of population</p> <p>Equitable distribution of characteristics of the health care system and/or community (e.g. distribution of female physicians, linguistically appropriate health care workers)</p> <p>Distribution of health care</p> <p>Inequity in the distribution of health care resources (e.g. physicians and hospital beds per capita within different geographic regions)</p> <p>Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household’s total budget</p> <p>Indices such as the GINI coefficient for health care expenditures and availability of medical care</p> <p>Equity effects of health system reforms (e.g. Benchmarks of fairness for health reform, Daniels et al., 2000)</p> <p>Full enumeration of females of all ages and ethnicities in basic data sources (e.g. censuses, surveys of population)</p> <p>Collection, reporting, analysis and policy use of gender sensitive and sex-disaggregated data for all indicators so that equity issues can begin to be examined</p> <p>Enhanced/inclusive GDP/GNP/GNI measures that value and include “unpaid work”, sex-disaggregated</p> <p>Wage parity (e.g. average salary of women versus men in comparable managerial positions)</p> <p>Managerial opportunity (e.g. % of managerial positions held by women)</p> <p>Women’s management on health care boards/equivalent structures</p> <p>Participation of women in the conceptualization and design of projects</p> <p>Empowerment (e.g. GEM, GDI)</p>

Findings of
Audit

f. Considering the equity dimension

Determining equity implies choice or judgement on what is fair, while most of the candidate indicators appeared to measure difference, “disparity”, uneven distribution or effect. Therefore, some measures represent *(in)equality* rather than *(in)equity*. As such, these measures may be considered, *at best*, precursors for the examination of equity.

Using the concept of “equity-motivated indicators”,⁴⁹ there were no such indicators on gender equity in health, and few on topics outside education and literacy, workforce, and democracy. These are further explored against a select list of “expected” indicators. Figure 10 below provides the summary of findings.

Figure 10: “Equity motivated indicators”: expected and found

Dimension	Expected indicator topics	No. of indicators	Comment
Equity	Distribution/sharing of income/ resources (e.g. GINI index of income/resources inequality)	9	Also, poorest quintile’s share of national consumption (United Nations, 1999a, OECD, 2002b, UNSD, 2002), Women per men in poorest quintile (UNIFEM, 2002)
	Income level of poorest compared to wealthiest quintile of population	0	
	Health status of poorest compared to wealthiest quintile of population	0	
Gender Equity	Full enumeration of females of all ages and ethnicities in basic data sources (e.g. Censuses, Surveys of Population)	0	
	Collection, reporting, analysis and policy use of gender sensitive and sex-disaggregated data for all indicators so that equity issues can begin to be examined	0	
	Enhanced/inclusive GDP/GNP/GNI measures that value and include “unpaid work”, sex-disaggregated	0	
	Literacy (e.g. age-specific literacy rates of females compared to males over time)	1	UNESCO, 2000
	Education (retention and completion rates of females compared to males at all levels of education)	1	Proportion starting grade 1 who reach grade 5 (UNDP, 2002). Most indicators are for enrolment, some for attendance.
	Wage parity (e.g. average salary of men versus women in comparable managerial positions)	9	Also, Change in wage parity by industry, Female share paid employment (UNIFEM, 2002)
	Managerial opportunity (e.g. % of managerial positions held by women)	6	Female legislators, senior officials and managers (UNDP, 2002); Female representation environmental management, media management (ECLAC, 1999), positions held by women at ministerial, subministerial level (UNSD, 2000). Many proposed.
	Women’s management on health care boards/equivalent structures	0	
	GEM	2	UNDP, 2002, United Nations, 1999a
GDI	1	Used only by UNDP (2002) Many critiques of both indices and a variety of suggested improvements/ alternatives	

Dimension	Expected indicator topics	No. of indicators	Comment
Equity in Health	Equitable access to health services	0	
	Utilization proportional to need	0	
	Equitable distribution of health outcomes	1	WHO, 2000 – level and distribution of health status, but largely assessed on life expectancy
	Equitable distribution of determinants of health, such as risk factors or living conditions, and the characteristics of the health care system or community	1 partial	WHO, 2000 – level and distribution of system responsiveness, key informants views on
Gender Equity in Health	Mortality ratios of male and female children (including by causes, e.g. malnutrition)	0	Closest although not ratio is Causes of infant deaths by age (> 1 year) and sex (WHO undated). 3 indicators have sex-disaggregated rates per 1 000 but not for causes.
	Health status of females in poorest quintile compared to wealthiest quintile of population	0	
	Longevity including “invisible girls”, “invisible women”	0	
	Participation of women in the conceptualization and design of projects (Bertrand and Escudero, 2002)	0	
	Avoidable disparities in health status (Gomez, 2000)	2	Avoidable mortality (WHO, 2002b) and avoidable DALYs (WHO, 2002a) only.
	Allocation of health care resources according to need (Gomez, 2000)	0	
	Utilization of appropriate health care services, according to need (Gomez, 2000)	0	
	Payment for health services, according to ability to pay (Gomez, 2000)	0	
	Distribution of power and responsibility in health production (Gomez, 2000)	0	
	“Gendered analyses of health situations – including data disaggregated by sex, and development, monitoring and evaluation of “gender indicators”, such as: Causes of female and male mortality/morbidity; Infant mortality rate by sex and cause; Maternal mortality rates; Women’s access to pre and post-natal care, and safe delivery; The proportion of women and men employed in different levels/areas of the health sector; Differences in wages earned by female/male health workers; Women’s and men’s access to food, clean water, sanitation, immunization against diseases; Proportion of women’s and men’s, or household, incomes spent on health services; Distribution of household expenditure on health services; Fertility rates; Women’s access to different methods of family planning” (PAHO/WHO undated: 2).	(see comment)	Gendered analyses almost totally absent (see section 3.1). Indicators on causes of female and male mortality/morbidity available but not analysed re. gender. Infant mortality rate by sex and cause not found. Maternal mortality rates available; indicators on women’s access to prenatal and postnatal care not found ⁵⁰ ; no indicators on safe deliveries found. Indicators on proportion of women and men employed in health sector/s; and differences in wages not found. Where the following indicators are available they are not sex-disaggregated – on access to food (no indicators), clean water, sanitation, immunization. No income and expenditure indicators as described were found. Total fertility rate (TFR) available but differences between women not analysed. Access to family planning methods not found.

Continues...

⁴⁹ “To present in one value (or a few values) enough useful information for meaningful comparisons between countries and subpopulations, in such a way that both the levels (averages) and the inequalities (dispersions) are also taken into account” (Dachs, 2002: 16).

⁵⁰ Service utilization rates are available – but these do not describe access, as also noted by PAHO, 1998.

Dimension	Expected indicator topics	No. of indicators	Comment
Health Equity	Achievement of health	1	WHO, 2000 – level and distribution of health status, but largely assessed on life expectancy
	Capability to achieve good health	0	
	Distribution of health care	0	
	Fairness of processes (e.g. non-discriminatory health care delivery)	0	
Equity in Health System	Inequity in the distribution of health care resources such as physicians and hospital beds per capita within different geographic regions	0	
	Probabilities of treatment given medical need, which is sensitive to differences in type of illness studied, age group examined, and type of treatment investigated	0	
	Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household's total budget	0	
	Indices such as the GINI coefficient for health care expenditures and availability of medical care.	0	
Equity Effects in Health System Reform	Benchmarks of fairness for health reform (Daniels et al., 2000)	0	Nothing like these used in international reporting.
	Health equity gauges (GEGA)		
	Average Benefit Incidence Analysis		



Discussion

The audit found deficiencies in the indicators currently in use, from the viewpoint of both technical quality and underlying conceptual bases. In sum, routine administrative reporting offered little to allow for monitoring of gender equity and health. By corollary, special reports provided a more gendered collection of indicators to fill this informational gap. In relation to tiers of information, fewest indicators were found in the category of Health System Performance, including both routine reports and special reports. Thus, the capacity to monitor the performance of the health system in relation to gender equity and health is a major weakness at global and national levels.

The concept of health embodied in reported indicators is dominated by a biomedical orientation, with few indicators for health-related states and human function. The picture of women provided by existing indicators – across all tiers – is one of “reproductive being”. The picture of men is even more limited: a total of only four sex-specific indicators describe males (on urethritis, variations in attitudes and reported use of violence, long-term unemployment, and employers or own account workers/self-employed).

The availability of indicators related to the socioeconomic status aspect of the determinants of health, in contrast to the limited information about psychosocial factors, social and community factors, and household factors, suggests that women’s status has been more “studied” than determinants of health as such. There is scope for increased understanding and monitoring of indicators on risk and protective mechanisms for health.

The absence of gender-sensitive indicators for health system performance points to a glaring absence of engagement between those working on gender equity and those working on health sector reform. Issues of service access, responsiveness, affordability, appropriateness and safety – including gender differentials beyond just reproductive health services – are of concern to women in their myriad of roles. As the majority of health service consumers, majority of carers, majority of healthcare workers, and majority of citizens (in most countries), women engage with the health system in varied ways (Lin, 2001). Improving indicators for monitoring health system performance is, therefore, an agenda receiving insufficient attention from a gender perspective.

In terms of strengths and weaknesses in the technical construction of the indicators reviewed, the major limitation found in the majority of routinely re-

Discussion

ported indicators is that they lack sufficient specificity to contribute to gendered and equity views, or to analysis of health and health care systems. The strengths of currently used indicators, especially those using international standards (e.g. mortality and morbidity), lie in their histories of use as comparative data to assess trends over time, across different countries. The challenge is to retain this comparability while developing standard indicators to provide more complex information which includes gender-sensitive and equity-sensitive information.

The process for the production and reporting of indicators may add to the perceived difficulties in monitoring, *inter alia*, routinely sex-disaggregated data. The majority of routinely reported indicators show a loss of specificity; i.e. sex, age and other disaggregations have been “lost” (selected out or filtered out) before they are reported. That is, although sex-disaggregated data is frequently *collected* and available for reporting, it is *not reported*. In some areas, this loss of specificity in reporting has improved over time. Some examples explore this loss of specificity, and include:

- A review of the gender sensitivity of indicators for the Millennium Development Goals, which shows that sex-disaggregated data is limited to “special” gender equity topics, but not incorporated as a routine perspective on the whole set.
- A review of actual reporting in indicator sets that contain methodological statements such that “all relevant indicators ... should be disaggregated...” which shows that these requirements are not implemented in practice in routine reporting (United Nations Common Country Assessments).

The key issue that emerges from the observation of the loss of specificity is that collecting sex-disaggregated indicators is insufficient if there is no reporting of sex-disaggregated indicators. A related question is, who actually uses the indicators; or, who really monitors gender equity and health? Without a monitoring system that incorporates indicators which are technically sound, and without a social process that is concerned with inclusive decision-making, sex-disaggregated reporting may not produce the desired outcomes related to gender equity and health.

Another dilemma is the extent to which existing indicators should be improved upon; or, should new and more sensitive indicators, including those that are more reflective of men’s health, be developed instead? Much of the literature offers conceptual critiques of current approaches to indicators, and nominates new conceptual frameworks for gender equity and health. There are suggestions about new indicators to be developed on factors such as: psychosocial factors, male reproductive health, empowerment, etc., as well as on rethinking notions of equity indicators, e.g. into “stock” and “flows”. The special reports reviewed in this Project offer a more complex set of indicators, and there are also different types of indicators among the group of proposed indicators reviewed in this Project. The inclusion of explicit comparators and more focused, contextual indicators (e.g. the existence of women’s rights in law) are some of the more notable features.

At the same time, however, current information systems embody substantial

ongoing resources in information infrastructure for the collection and reporting of internationally agreed indicators. These resources continue to perpetuate existing foci for data collection and indicator reporting, while alternative propositions are debated. There is, thus, clearly a need to improve the adequacy of current indicators as well as to develop new types of indicators. Standing (1997) suggests that the focus should be on the role of gender relations in the production of vulnerability to ill-health or disadvantage within health care systems, and more particularly, on the conditions which promote inequality between the sexes in relation to access and utilization of services. This may be a useful point for convergence in attempting to reform current indicator reporting systems as well as the development of more appropriate indicators.

Discussion

9

Ways forward

This review of indicators from key international agencies covered 1 095 indicators. This does not represent the full number or range of indicators in use. The large number of indicators raises questions about who uses them, and whether greater application in advocacy and policy-making requires a smaller list that can be tracked over time. Thus, there is merit in considering what is a “core” set of indicators that are relevant either globally, or which can be used for comparisons across peer countries and communities. The term “leading health indicator” can be used to denote such a group of indicators that could:

- Point to underlying issues that are common for a range of health problems (e.g. upstream determinants of health).
- Suggest current issues that require priority attention.
- Act as alerts or early warning for future problems and be predictive of other problems.

The content of leading indicators can include an array of measures, such as: health-related quality of life, protective health behaviour, risk behaviour, social and environmental factors, access to key services and policy environment. WHO has offered possible indicators of interest for measuring health system performance (World Health Report, 2000) and burden of disease (World Health Report, 2002). Chrvala and Bulger (1999), in proposing leading health indicator sets for the use, used a typology comprising: health determinants and health outcomes; life course determinants; and prevention. A more comprehensive Health Information Framework, such as the one developed for this Project, may be a better starting point for ensuring that various information domains are systematically considered, that gender-sensitivity is improved for existing data, and that informational gaps are filled. Measures of equity – including gender, age, ethnicity, and socioeconomic status – should also be specified from the outset.

The Institute of Medicine (Washington, DC) committee which convened to recommend leading health indicators to the *Healthy People, 2010 (USA)* initiative (promoted by the US Department of Health and Human Services), used criteria which were of both a technical nature as well as those of value for policy advocacy and practice change. These included:

Ways Forward

- *Worth measuring*: the indicators represent an important and salient aspect of the public's health.
- *Can be measured for diverse populations*: the indicators are valid and reliable for the general population and diverse population groups.
- *Understood by people who need to act*: people who need to act on their own behalf or that of others should be able to readily comprehend the indicators and what can be done to improve the status of those indicators.
- *Information will galvanize action*: the indicators are of such a nature that action can be taken at the national, state, local and community levels by individuals as well as organized groups and public and private agencies.
- *Actions that can lead to improvement are anticipated and feasible*: there are proven actions (e.g., changes in personal behaviours, implementation of new policies, etc.) that can alter the course of the indicators when widely applied.
- *Measurement over time will reflect results of action*: if action is taken, tangible results will be seen indicating improvements in various aspects of the nation's health (Chrvala and Bulger, 1999: 6).

The selection of such indicators should consider not only content, technical quality, and usefulness, but also include a range of indicator types. There is a wide variety of indicator types that can be potentially useful for monitoring gender equity and health.

Figure 11: Evaluative criteria for suites of indicators and mode of use suitable for exploration of gender equity and health

DO
<ul style="list-style-type: none"> • Use multiple indicators.
<ul style="list-style-type: none"> • Use a range of different indicator types.
<ul style="list-style-type: none"> • Give preference to indicators that satisfy multiple "Beck criteria"; report sex-disaggregated indicators where sex-disaggregated data is available.
<ul style="list-style-type: none"> • Triangulate or cross-check the evidence provided in the different indicator types (e.g. WHO <i>World Report on Violence and Health</i> (Krug et al., 2002) chapter on Youth Violence indicators: map high homicide areas of the world, show 10-year global trends in youth homicide rates among males and females aged 10–24 yrs, and in methods of attack (increasing use of firearms, decreasing use of sharp instruments), provide data on whether and how often 13-year-olds engaged in bullying behaviour by different countries, and provides information boxes on youth gangs and the impact of media on youth violence, among other indicators and textual descriptions).
<ul style="list-style-type: none"> • Give context: (e.g. UNDP (2002) sets out the context for democracy in the world before assessing female share of parliamentary seats by countries from a high benchmark (Sweden, >40%) to a low one (non-existent, range of countries).
<ul style="list-style-type: none"> • Use more complex, more informative indicators (e.g. change in wage parity within a country between men and women over time, intragender comparisons across countries).
<ul style="list-style-type: none"> • Where there is great variation, prefer smaller units of analysis (a real, group, (e.g. inter- and intraregional variation, urban/rural women, older/younger men) – averages hide difference).
<ul style="list-style-type: none"> • Declare "soft" judgements (e.g. financial and/or other influences; personal key beliefs, biases, positions, interests, conflicts of interest – extension of typical research/financial protocols: to let reader "be the judge").
<ul style="list-style-type: none"> • Embed in gender analysis, sensitive to gender equity in health, and that raises related questions.
<ul style="list-style-type: none"> • Identify and/or refer "hard" judgements to participatory development (e.g. the Canadian process to identify treatments that are a low priority for the community to fund universally).

The following is a selection of those types that we expected to find that were largely absent among the collected indicators reviewed:

- *Gender sensitive indicators*: only one indicator was distinguished in having sex- and age-disaggregations, reporting over time, including a comparator, and overall satisfying five of the eight requirements for a *gender sensitive equity* indicator.
- *“Equity-motivated indicators”*: very few were found (as reported above).
- *Process indicators*: their relative absence includes the study of gendering mechanisms, or the “upstream” determinants of the gendering process.
- *Causality, risk and protective factors*: there is a noticeable lack of indicators on the elements of *causality* (including measures that cross or link tiers in the Framework) and, correspondingly, indicators on *risk* and/or *protective* mechanisms and attributes.
- *Life course indicators*: indicators on the *life course* and life course effects are also largely absent.
- *Indicators on gendering mechanisms and processes*: indicators that capture information on the way that gendering mechanisms work to produce and reproduce gendered roles are absent from those found in routine reports, although there are some proposed indicators that at least highlight or make some processes (e.g. budgetary, ministerial responsibility) less opaque.

DON'T

- Rely on a single indicator.
- Use only simple quantitative indicator types.
- Use indicators that do not satisfy “Beck criteria”; report gender-blind indicators that are not sex-disaggregated, especially when sex-disaggregated data is available.
- Rely on a single indicator as the only source of evidence (e.g. use the infant mortality rate to make a comparison across countries in isolation from all other indicators or context).
- Remove from all context.
- Use only simple measures in isolation (e.g. CO2 emissions without agency).
- Use only averages that hide variation (e.g. “unemployment rate” when “youth unemployment rate”, “female unemployment rate”, or “male long-term unemployment rate” exist and are a better fit for purpose).
- Not disclose interests (personal, financial, political).
- Surround with so-called neutral, de-gendered or gender-blind, “objective”/“descriptive” text
- Sidestep the identification and raising of “hard” judgements, or allow them to be made in a limited domain (e.g. technical judgements about who to treat, how much to spend).

Ways Forward

- *Indicators on empowerment and transformative achievement:* these types of indicators and this type of usage, which essentially triangulates qualitatively different indicators within a described context to provide a more complex approximation of real situations, are largely absent in the collected indicators examined.
- *Indicators with a specific use as alerts or early warnings:* there were a few indicators found that could be used as alerts of future trouble, but little use of them in this way. Indicators on, *inter alia*, increased inequality in income, highly gendered poverty, increasing civil strife, etc., may all suggest societies in trouble. The challenge would be to develop the forward reporting and monitoring of such indicators, as well as methods to tackle problems early.

In addition to the above, there will exist other indicator types that are significantly different, and that could also be expected, but not found, among the collected indicators. Further development of indicators of these types presents a rich field of challenges for the future.

The assessment of indicators reported here did not identify a plentiful store of potential indicators that satisfy both the “Beck criteria” and the criteria initially compiled for defining possible leading health indicators. Figure 11 below summarises a set of suggested “do’s and don’ts” or evaluative criteria for suites of indicators addressing gender equity and health.

Beyond having a suite of appropriate indicators, the reporting style for indicators may also warrant review and revision. Grouping countries into peers – by socioeconomic level or by mortality level – may be one improvement. Having reports with time series data would be another improvement. Reports with countries grouped by contextual variables may be yet another useful approach, e.g. women’s status in law. These are areas for further work.

The value of good quality and conceptually sound indicators, however, is limited if there is not an appropriate monitoring system. Such a system requires not only an adequate infrastructure for collection and collation of valid and reliable data, but also a social process through which: the meaning/s of indicators are reviewed; implications for action are distilled; and decisions are taken to effect greater equity. Such an ongoing system of monitoring will also contribute to the identification of emerging issues that need to be researched or acted upon.

A way forward with the findings and observations from this Project could be a participatory process of key stakeholders. An agreed “core” of “leading health indicators” and a system (i.e. a social process) for their monitoring could be forged through a consensus meeting (or series of meetings) along with a shared vision of how global monitoring of gender equity and health will be undertaken.

A faint, light-colored line drawing of a person's profile, facing right. The person's hands are visible, with one hand near their head and the other near their chest. The drawing is semi-transparent and serves as a background for the text.

Part II

HEALTH INFORMATION FRAMEWORK

Organisation of Part II

Section 1 of this part provides a detailed explanation of the Health Information Framework developed to provide a structure for the audit and review of collected indicators for gender equity and health. Key background and explanatory information, including definitions of terms and a detailed overview of the Health Information Framework, is provided.

Section 2 provides explanatory notes about each of the criteria used in the Gender-Sensitivity Assessment Tool. The Gender-Sensitivity Assessment Tool was developed, drawing extensively on the work of Beck (1999a; 1999b), to examine the overall gender sensitivity of each of the collected indicators by testing for a number of individual elements:

- Whether indicators are reported disaggregated by sex, age, ethnicity, and socioeconomic group (as a minimum).
- Whether they measure change over time.
- Whether they explicitly state the “norm” or comparator (e.g. women to men, women in one country to women in another country).
- Whether they had been developed with widespread participation.
- Whether indicators include a complementary gender analysis component that has considered or encourages consideration of the broader socioeconomic situation, such as “why the situation that the indicator describes has come into being, what it tells us about gender relations, and how this situation can be changed” (Beck, 1999a: 9; 1999b: 17).¹

Section 3 reviews a selection of recent or current “leading health indicators” as well as possible indicator types and potential criteria for defining possible leading health indicators. The detailed report on the audit and findings of the comparative evaluation of indicators for gender equity and health is provided in Part III, *Comparative evaluation of indicators for gender equity and health: audit and findings*.

¹ Beck recommends that “indicators and indicator questions should therefore be read together, with the indicator questions being questions that need to be answered in the generation and analysis of gender-sensitive indicators” (1999b: 17).



Health Information Framework

Section 1 outlines the purpose for which the Health Information Framework was developed (section 1.1), describes how the Framework was arrived at (section 1.2), and discusses a number of issues around the choice of the Framework (section 1.3). It then gives an overview of the Health Information Framework (section 1.4), addresses the concept of levels in the Framework (section 1.5), and sets out the limitations of the Framework (section 1.6). In section 1.7 (Figures 1.2 to 1.5) the four tiers of the Health Information Framework are shown populated with topics. Key concepts are defined and explored in section 1.8, and the Equity Dimensions of the Framework and some possible indicator topics for each Dimension are set out (Figure 6). Monitoring and measurement issues are also explored in this section. Gender-sensitive indicators are defined and discussed in section 1.9, drawing particularly on the work of the United Nations Development Fund for Women (UNIFEM, 2000) and Beck (1999a; 1999b). The final section 1.10, discusses what the framework means, and how it might relate to conceptual models about determinants of health, particularly gender equity in health.

1.1 Purpose of the Health Information Framework

The Health Information Framework was developed to provide a structure to:

- (a) map potential indicator topics of interest, include currently collected indicators;
- (b) assess the existence and adequacy of gender-sensitive and gender-specific indicators, in order to support analysis and advocacy for gender equity and health;
- (c) assist in informing discussions about where development of indicators and monitoring systems for gender equity might evolve.

1.2 How the Health Information Framework was arrived at

The Comparative Evaluation of Indicators for Gender Equity and Health Project first used an adapted version of an existing framework, the *Australian National Health Performance Framework* of the National Health Performance

Health Information Framework

Committee (NHPC, 2001). This was populated with potential indicator topics at a meeting held on 30 September 2002.

Following this meeting, the Health Information Framework was revised, drawing on several existing frameworks:

- The generic *Health Indicators Conceptual Framework* set out as a discussion paper by a Technical Committee of the International Organization for Standardization (ISO, 2001).
- The *Canadian Health Indicator Framework* of the Canadian Institute for Health Information (CIHI, 2002).
- The *Australian National Health Performance Framework* (NHPC, 2001: 8).

The ISO conceptual framework was used as the base to define the tiers and dimensions. Some of the tiers and dimensions were amended or added to with the aim of incorporating a broader view of health from a gender-aware perspective. The revisions to incorporate this broader view were informed by some aspects of the Australian framework as well as a number of other models. These included: Hancock et al. (1998 ; 1999), Danner et al. (1999), Turrell et al. (1999), Wieringa (1999), Daniels et al. (2000), Moss (2002) and Abu-Duhou et al. (2003). Further information about the development of the framework can be found in the discussion in section 1.3. The Framework and indicator topics were revised in November 2002, December 2002, and January 2003.

1.3 On the choice of a Health Information Framework

The project aimed to select a framework that would be useful for performing a comparative evaluation of indicators for gender equity and health. A critical issue was whether to use a generic “mainstream” health framework, or a specialized gender-specific one.

A number of specialized frameworks were examined:

- *A comprehensive framework of factors influencing women’s health* (Moss, 2002).
- *Alternative Index on Gender Equality* (Wieringa, 1999).
- *An Inventory of Conceptual Frameworks and Women’s Health Indicators* (Abdool and Vissandjée, 2001).
- *Framework of Indicators for Action on Women’s Health Needs and Rights after Beijing*, (Abdullah, 2000).

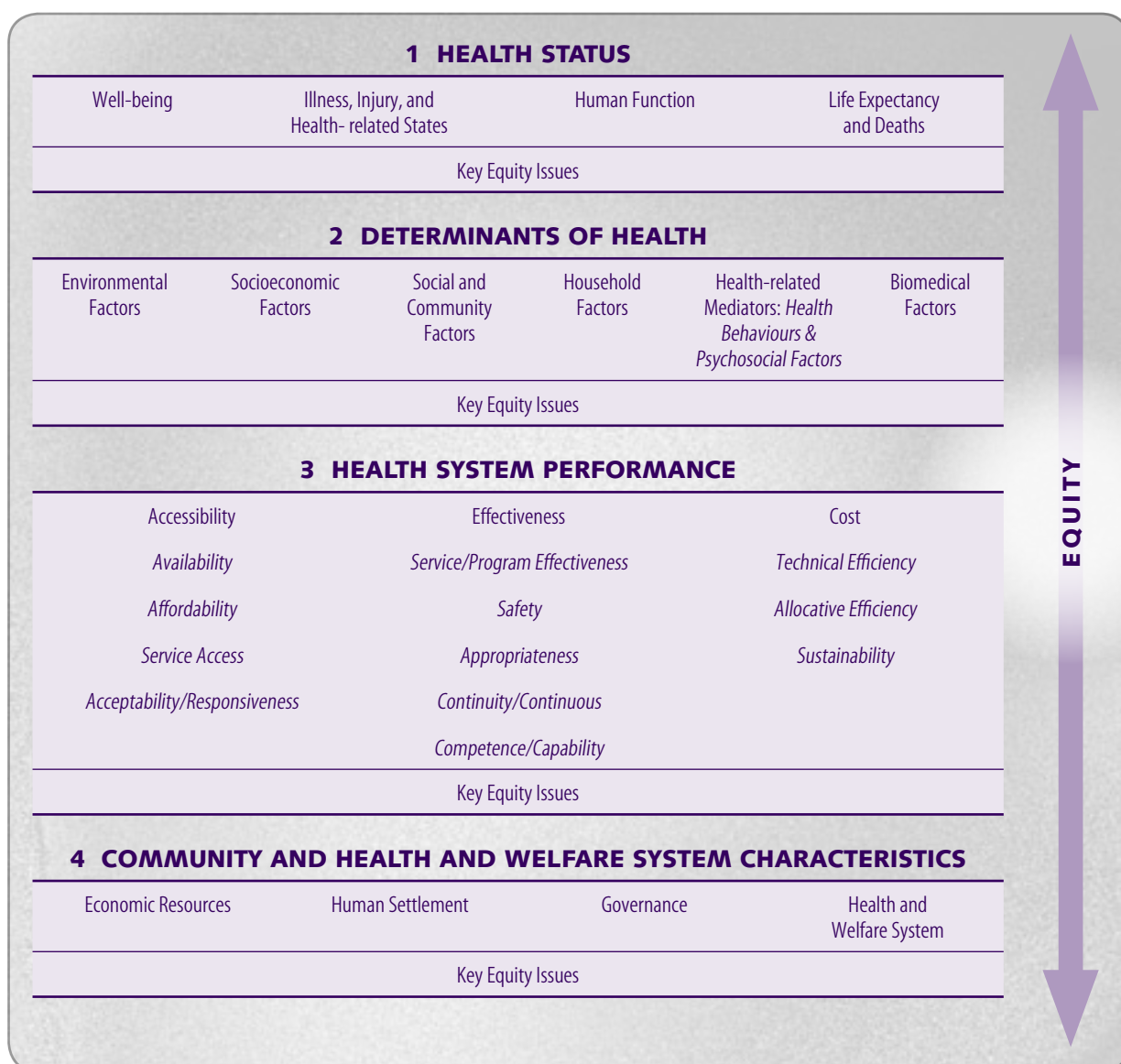
There was a strong argument for the approach of “engendering the mainstream”; that is, for adopting a mainstream health framework as a base, incorporating a broader view of health from a gender-aware perspective, populating the framework with potential indicator topics from a gender-aware perspective, and applying specific assessment criteria to test the gender sensitivity of selected indicators currently being used by a range of international organizations.

Other considerations were that it would be more difficult to dismiss an analysis based on both existing mainstream frameworks, and the strategic pertinence of directing systemic attention to gendering mainstream models/frameworks in order to effect change in mainstream health cultures and related domains.

We also considered it important to include a perspective on health system performance, an area that is currently being developed and integrated into mainstream health frameworks. A number of mainstream health frameworks were evaluated. These included:

- *Organisation for Economic Co-operation and Development Health Data 2002* (OECD, 2002).
- *OECD Proposed Performance Framework* (Hurst and Jee-Hughes, 2001).
- *World Health Organization Objectives of the System/Overall health system performance* (Evans, 2002, WHO, 2000).
- *Canadian Health Indicator Framework* (CIHI, 2002).
- *Australian National Health Performance Framework* (NHPC 2001; 2002).
- *Proposed ISO Health Indicators Conceptual Framework* (ISO, 2001).

Figure 1 Health Information Framework Overview



Ultimately, the framework used owes most to the latter three frameworks, although these have probably been influenced by the others. Details of our adaptations are below.

1.4 Overview of the Health Information Framework

An overview of the Health Information Framework is shown in Figure 1. The individual tiers from the Framework are shown populated with topics for a comparative evaluation of indicators for gender equity and health in Figures 1.2 to 1.5.

1.5 Levels in the Health Information Framework

The *Health Indicators Conceptual Framework* (ISO, 2001), which is used as the base document for the development of the Health Information Framework, is underpinned by a “population health” or “determinants of health model” which reflects the view that health is “determined by a complex interaction of factors” and by “a range of individual and population-level cultural, social and economic factors” (and not “solely by medical care”) (ISO, 2001: 10).

The first tier in the Health Information Framework describes the population’s health while the other three tiers describe different areas affecting health (base definitions are from the *Health Indicators Conceptual Framework* (ISO, 2001: 10). Where we have made changes to these definitions they are shown in *italics* or clearly identified in the discussion and/or footnotes.

The indicators and data in each tier may be sourced from collections of data on individuals and groups which have been aggregated to describe the region or community:

- Tier 1: Health Status (overall health of a population).
- Tier 2: Determinants of Health (proximal factors that affect health at a individual, household, or community level).
- Tier 3: Health System Performance (design and delivery of health services and how well the system is performing in relation to major goals of access, effectiveness, and cost).
- Tier 4: Community and Health and Welfare System Characteristics (contextual factors that affect the population at a whole).

The four tiers and the dimensions within them are based on notions of health as being, to some extent at least, “caused” or affected by a variety of issues, some of which may have a more proximal or direct effect (such as injury), and others which have a distal or indirect effect (such as health literacy).

In other health models, the community and health and welfare system characteristics (Tier 4) are nominated as “upstream” or “distal” (that is, more distant) causal factors that affect health; health-related determinants (Tier 2) are ranked as “midstream” or “more immediately causal”, whereas biomedical factors (Tier 2) and the intersection with the health care system (Tier 3) are “downstream” or “proximal” causes of ultimate health status (see Turrell et al., 1999; WHO, 2001).

In populating the framework with indicator topics, we distinguish Tier 2 from Tier 4, although they share some topics, by the level described. Tier 2 describes proximal determinants that affect individuals, and that may be aggregated to the household, local or community level; whereas Tier 4 describes “contextual”, distal, or indirect determinants that relate to a whole, or larger area (i.e., region, nation, country), or that differ across smaller areas within the whole or larger region. Tier 4 topics would commonly be reported through aggregating smaller units to give a “big picture” view.

1.6 Limitations of the Health Information Framework

Indicator systems are about providing information to enable monitoring and action to be taken. We have chosen to examine this ability using an information framework to collect and order indicators. The major criticism of this type of model is that it is not well suited to making links between elements (or tiers), or showing explicit relationships (such as cause and effect, pathways, or causal chains), and “although many of the underlying causal relationships between the dimensions are understood or implied, they are not specifically borne out by this model” (ISO, 2001: 11).

No framework can approach reality. This is especially true of an apparently hierarchically ordered framework in multiple parts such as this one. Reality is always more complex and more connected. However, frameworks can make it easier to think about reality, or to name and classify important parts of reality, so as to think about it in new ways. The framework is not intended to be exclusive or definitive of possible topics.

1.7 The Health Information Framework populated with topics

Figures 1.2 to 1.5 show the Health Information Framework populated with potential indicator topics for the purpose of mapping the existence of gender-sensitive indicators for gender equity and health.

As discussed in section 1.5, the dimensions of each tier of the framework are defined using the ISO definitions as a base with any changes shown in *italics* or clearly identified in the discussion and/or footnotes (ISO, 2001: 3-6).

Potential key equity issues are presented as new dimensions titled Key Equity Issues in each of the four tiers.

(i) *Health Status dimensions (Tier 1)*

Tier 1 describes “the overall health of the population served, and how it compares to other jurisdictions” (ISO, 2001).

Figure 2 Health Status dimensions¹

TIER 1: HEALTH STATUS	
Dimension	Definition
Well-being	<p>Broad measures of the physical, mental and social well-being of individuals.</p> <p>Example mainstream indicators are: Self-rated health; Self-esteem.</p>
<i>Illness, Injury, and Health-related States</i> ²	<p>Alterations or attributes of the health status of an individual which may lead to distress, interference with daily activities, or contact with health services; it may be a disease (acute or chronic), disorder, injury or trauma.</p> <p>Reflects health-related states such as pregnancy, ageing, stress, congenital anomaly, or genetic predisposition which may lead to interference with daily activity or, contact with a health service.</p> <p>Example mainstream indicators are: Arthritis; Diabetes; Chronic pain; Depression; Food and waterborne diseases; Injury hospitalization.</p>
Human Function	<p>Levels of human function are associated with the consequences of disease, disorder, injury and other health conditions. They include: body function/structure (impairments), activities (activity limitations, and participation (restrictions in participation). International Classification of Functioning, Disability and Health (ICIDH-2), beta-2 version).</p> <p>Example mainstream indicators are: Functional health; Disability days; Activity limitation; Health expectancy; Disability free life expectancy.</p>
Life Expectancy and Deaths	<p>A range of age <i>and</i> sex-specific and condition-specific mortality rates, as well as derived indicators³.</p> <p>Example mainstream indicators are: Infant mortality; Life expectancy; Potential years of life lost; Circulatory deaths.</p>
Key Equity Issues	<i>Equity in health outcomes</i>

¹ *Italics* indicate changes made by this project to ISO, 2001 definitions

² The ISO, 2001 title for this dimension is Health Conditions.

³ Added "and sex-specific" to the ISO, 2001 definition.

Indicator topics

(Ratio: women: men)

Self-rated health

Empowerment/political representation/rights/ capacity to make decisions

Quality of life

Freedom from violence

Burden of disease/ill health (e.g. Disability-adjusted Life Years–DALYs)

Specific conditions: Female Genital Mutilation (FGM), HIV/AIDS, Reproductive Tract Infections (RTIs), Sexually-transmitted Infections (STIs) (age of 1st)

Medical procedures (e.g. hysterectomies)

Low birth weight

Damage at birth (e.g. through lack of trained attendants)

Injury (traffic, fire, violence, self)

Morbidity in the community – vulnerability to illness

Major causes of acute admissions

Major causes of disease

Related medical procedures (e.g. caesareans, abortions)

Teenage pregnancy/Age at 1st pregnancy, and/or

Number of children in time period

Growth (malnutrition, stunting, failure to thrive; over nutrition)

Disability

Impairment

Activity limitation

Restrictions in participation (e.g. absenteeism)

Infant mortality

Maternal mortality

Life expectancy: healthy years of

Suicide

Homicide (including female infanticide, homicide by intimate partner)

Condition specific deaths: e.g. HIV/AIDS, other infectious diseases, breast/lung/cervical/ prostate cancer

Health status of poorest compared to wealthiest quintile of population

Health status of females in poorest quintile compared to wealthiest quintile of population

Equitable distribution of health outcomes (e.g. resulting from specific clinical interventions)⁴

Achievement of health⁵

Capability to achieve good health⁶

Utilization proportional to need⁷

Probabilities of treatment given medical need –sensitive to differences in e.g. type of illness, sex, age group, type of treatment⁸

Mortality ratios of male and female children (including by causes e.g. malnutrition, infectious diseases)

Longevity including “invisible girls”, “invisible women”

⁴ Whitehead 2000: 7.

⁵ Sen 2002: 666.

⁶ Sen 2002: 666.

⁷ Whitehead 2000: 7.

⁸ Adapted from Musgrove, 1986.

(ii) Determinants of Health dimensions (Tier 2)

Tier 2 describes “the major non-medical determinants of health in a region” (ISO, 2001: 10). The topics set out below in the dimensions of Tier 2 are listed because there is research evidence to support their proximal implication in pathways to health and well-being. The dimension topics in this tier are distinguished from those in Tier 4 (Community and Health and Welfare System Characteristics) by the level they describe. Tier 2 describes proximal determinants that affect individuals at a local, household, or community level, while Tier 4 describes more distal or “contextual” determinants that relate to the whole, or larger area (i.e., region, nation, country) or that may differ across smaller areas within the whole or larger region.

All of the dimensions featured in Tier 2 of the ISO (2001) framework have been included below in Tier 2. However, as clearly shown in *italics* or clearly discussed in the text and/or footnotes, a number of the ISO definitions have been redefined, amended and/or broadened. As well as the Key Equity Issues (which is a new addition common to all four tiers); the dimension of Household Factors has been added to this tier.

Household Factors was added as a separate dimension in order to describe intrahousehold, interpersonal and intrafamilial factors with the potential to influence human health. These factors have significant gender equity and health implications. Standing (1997) stresses that “one of the most important features of a gender approach is its emphasis on the need to examine resource allocation *within* households, rather than treat each household as the most minimum focus of intervention” (Standing, 1997: 2, original *emphasis*). More broadly, Malhotra et al. (2002) note that “household and interfamilial relations are a central locus of women’s disempowerment in a way that is not true for other disadvantaged groups” and that “[i]nstitutions at the micro level, such as those of marriage and the household, are not considered part of the state or of civil society, but interpersonal gender dynamics within the household are considered part of the equation of social exclusion and in need of directed efforts at change” (Malhotra et al., 2002: 4-5).

Psychosocial Factors have been explicitly identified as comprising part of the Health-related Mediators dimension in order to describe variables at the intrapsychic and interpersonal levels that have the potential to influence health (Moss, 2002). These variables are included in the ISO framework but only as an implicit sub-component within the dimension.

Figure 3 Determinants of Health dimensions

TIER 2: DETERMINANTS OF HEALTH		
Dimension	Definition	Indicator topics
Environmental factors	Environmental factors with the potential to influence human health. Example mainstream indicator is: Water quality.	Safe water Sanitation Electricity, power, bio-fuels Pollution: Air pollution; Cooking fuels; Indoor air pollution; Acid rain; Pesticide exposure (+ labelling); soil and food chain contamination ⁹ , noise pollution ¹⁰ Safe fresh food, access to and availability Workplace exposures and hazards Land clearing, changing ecosystems, new diseases Built environment, access to green/open and smoke-free spaces ¹¹
Socio-economic Factors	Indicators related to the socio-economic characteristics of the population, that <i>research evidence has shown</i> to be related to health. ¹² Example mainstream indicators are: Unemployment rate; Low income rate; High school graduation.	Education Literacy and health literacy Early childhood development Employment status (e.g. un- and underemployment) Occupation and working conditions: Enforced labour (e.g. child and adult sex trade); Age of labour (e.g. child labour); Hours of paid and unpaid (e.g. overwork); Employment segregation, Access to training opportunities Income: access to, % disposable Per capita out of pocket expenditure on health (co-payments, purchase of food in hospital, "attention" co-payments to (salaried) doctors) Insurance coverage Living standards
Social and Community Factors¹³	Measures the prevalence of social and community factors, such as social support, life stress, or social capital that <i>research evidence has shown</i> to be related to health. Example mainstream indicators are: School readiness; Social support; Housing affordability; Literacy. ¹⁴	Geographic area Community demographics: as for Population demographics, Figure 5 Transport (availability, to work, to market, to safe water, to health centre) Preventive services (availability): Antenatal care; Cancer screening; Family planning; Immunization Community support services (availability): Self-help groups; Civil society organization; Local community centres; Women's and children's shelters (protection from violence, legal assistance) Democracy, personal power, empowerment Leadership at all levels and access to training opportunities (e.g. skill levels of community representatives) Social capital, e.g. sense of social and community belonging Volunteers and volunteering Freedom of movement (e.g. social mobility restrictions)

Continues...

⁹ Hancock et al., 1999.¹⁰ Hancock et al., 1999.¹¹ Hancock et al., 1999.¹² Replaced ISO, 2001 requirement that "epidemiological studies have shown" with "research evidence has shown" (see footnote number 10). As argued by Graham (2001) in "From Science to Policy" in *Poverty Inequality and Health: An international perspective* writes that "the science of health inequalities needs ... to be a "joined up" one. It should include both epidemiological research on individual health and sociological research on social inequality. Although these fields have developed separately, there is considerable potential for synergy. As one example, longitudinal studies of socioeconomic patterning of health over the life course could be integrated into sociological analyses of social polarization. Such an integration highlights a set of interlocking links in the chains which run from the social structure to individual health." She argues that together these two seams of research can uncover how health is related to "risk exposures across the life course... within pathways of disadvantage shaped by... broader changes in the socioeconomic structure." Graham in Leon and Walt (2001) p. 298.¹³ Social and Community *resources/capacity/characteristics*...¹⁴ See footnote 11 for explanation of change to definition in italics.

TIER 2: DETERMINANTS OF HEALTH (continued)		
Dimension	Definition	Indicator topics
Household Factors¹⁵	<i>Intrahousehold, interpersonal and intrafamilial factors with the potential to influence human health</i>	Access to economic resources: income, land, credit, property (houses, equipment, appropriate technology) and livestock Housing, squatting, lack of housing, homelessness, overcrowding Distribution of resources within households ¹⁶ Household relations ¹⁷ Access to supportive and protective services Empowerment (e.g. domestic decision-making) Childcare, formal and informal child care Time use/division of domestic subsistence labour/leisure Fertility, who decides, autonomy over body Intrafamily violence
Health-related Mediators: Health behaviours¹⁸ and psychosocial factors^{19,20}	Aspects of behaviour and risk factors that <i>research evidence has shown to influence health status.</i> ²¹ Variables at the intrapsychic and interpersonal levels that have the potential to influence health Example mainstream indicators are: Smoking rate; Physical activity.	SNAP: Smoking; (poor) Nutrition; Alcohol misuse; Physical inactivity Breastfeeding Sexual activity (safer sex, e.g. condom use) Contraceptive practice Social support (individual level) Drugs: Illicit drugs; Pharmaceutical drugs (self-medicating, out of date) Health care-seeking behaviours (e.g. use of preventive care/services/interventions/information) Health care service utilization behaviours (e.g. delayed/non-admission for admissible conditions) Hygiene (e.g. hand washing, food handling) Stress (systemic life stress e.g. arising from interpersonal violence, systemic discrimination) Mood ²² Coping/resilience ²³ Spirituality ²⁴
Biomedical Factors²⁵	Factors outside those normally influenced by behaviours or by the social, economic or physical environment. Genetic factors determine predisposition to certain conditions. ²⁶ Example mainstream indicator is: Rates of genetically determined diseases (e.g. Down syndrome).	Specific biological risk factors/states: e.g. blood pressure, cholesterol levels, body weight Effects on disease Genetic inheritance
Key Equity Issues	<i>Equity of access to supportive and protective services</i>	Equitable distribution of determinants of health (e.g. risk factors, living conditions) ²⁷ Equitable distribution of characteristics of the health care system and/or community ²⁸ (e.g. distribution of female physicians, distribution of linguistically appropriate health care workers) Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household's total budget Literacy (e.g. age-specific literacy rates of females compared to males over time) Education (retention and completion rates of females compared to males at all levels of education) Wage parity (e.g. average salary of men versus women in comparable managerial positions) Empowerment and participation

¹⁵ Standing, 1997; Malhotra, 2002 and Abu-Duhou et al., 2003.

¹⁶ Standing, 1997 and Abu-Duhou et al., 2003.

¹⁷ Abu-Duhou et al., (2003).

¹⁸ Health attitudes, beliefs, knowledge, behaviours...

¹⁹ Psychosocial factors is explicitly identified by Moss, 2002.

²⁰ The ISO, 2001 definition for this Dimension is Health Behaviours.

²¹ Deleted "personal" from ISO 2001 definition which states "personal behaviour". See footnote 11 for explanation of change to this definition in italics.

²² Moss, 2002.

²³ Moss, 2002.

²⁴ Moss, 2002.

²⁵ The ISO titled for this Dimension is Genetic Factors.

²⁶ Deleted "individual" from ISO, 2001 definition which states "individual behaviours".

²⁷ Whitehead, 2000: 7.

²⁸ Whitehead, 2000: 7.

(iii) Health System Performance dimensions (Tier 3)

The World Health Report (WHO, 2000) classifies the health system into four “core” functions. The delivery of quality health services (provision) is identified as the chief function of a health system, but it is emphasized that it is not the only function. The other three core functions of the health system identified are: resource generation (investment and training), financing (collecting, pooling and purchasing), and stewardship (oversight) (note the overarching influence of stewardship) (WHO, 2000: 5–25).

The primary purpose of all the activities that fall under the rubric of these four health system functions is to protect, promote, restore and improve health when measured against “goodness” (best average attainable) and “fairness” (smallest feasible differences among individuals/population groups) (WHO, 2000: 5–25).²⁹

Tier 3 of the Health Information Framework describes how well the health system is performing the:

- (a) delivery of health services function;
- (b) activities which fall under the purchasing component of the financing function;
- (c) certain aspects of the resource generation and stewardship functions.

Other aspects of the resource generation and stewardship functions are described in Tier 4. The collecting and pooling component of the financing function is described in Tier 4.

This revised definition adopted for Tier 3 is therefore broader than the ISO definition which describes this tier as “the quality of health services received by the region’s residents” (ISO, 2001: 10).

All of the dimensions featured in Tier 3 of the ISO (2001) framework have been included in Tier 3 of the Health Information Framework. However, as shown in *italics* or clearly discussed in the text, a number of the ISO definitions have been redefined, amended and/or broadened. As well as the dimension Key Equity Issues (which is a new addition common to all four tiers), three new dimensions, all of which have significant gender equity and health implications, have been added to this tier. These are: Availability, Affordability and Allocative Efficiency.

The new dimensions of Availability and Affordability were added to cover the existence, sufficiency and affordability of services, because services/interventions/ care/information must actually be available and affordable before they can be assessed for acceptability, accessibility, and the other dimensions of this tier. Without the addition of Availability as an explicit dimension, Tier 3 could be criticized for presuming the existence of a health system and the availability of services to be *a priori* facts. As emphasized by Hartigan (2001), “availability” and “affordability” are fundamental to ensuring quality of care. She stresses that in “marginalized areas and in resource-poor settings, health services are few and the services they provide meagre” (Hartigan, 2001: 8).

²⁹ Note also that in the WHO Health System Performance Framework, “level” is equated with *quality*, while “distribution” is equated with *equity* (WHO, 2000; Evans, 2002).

*Health
Information
Framework*

Given that health service provision is the principle function of the health system, it may be a significant performance issue if needed, effective and affordable care/services/interventions/information do not exist or are not sufficient.

It is noteworthy that the *Framework of Indicators for Action on Women's Health Needs and Rights after Beijing* explicitly includes the dimensions of availability and affordability in the “tier” relating to health service provision, use and quality (Abdullah, 2000).

Allocative Efficiency has been added as an explicit dimension in order to provide a focus on the types of health services/care/actions/interventions provided by governments. This dimension gives emphasis to the provision of “public good types of health services where at least some of the consumption benefits accrue to the community at large. Examples of these types of health services include immunizations, infectious disease control, health education, family planning, and maternal and child health” (Schwartz et al., 2002: 2). In evaluating health system performance it is important to assess whether or not “decentralization leads to the provision of more or less public good types of health care, or whether governments choose to allocate more or less to private, non-public good types of health care (e.g. curative hospital services) which only benefit the individual who consumes them” (Schwartz et al., 2002: 2). It is also important to assess “whether or not local governments have the capacity to effectively organize and deliver public health goods.” (Schwartz et al., 2002: 2)

Figure 4 Health System Performance dimensions

TIER 3: HEALTH SYSTEM PERFORMANCE		
Dimension/ Subdimension	Definition	Indicator topics
Accessibility		
Availability	<i>The existence and sufficiency of needed care/services/interventions/information</i>	Formal system characteristics: whether service/care/interventions/information exist (e.g. antenatal care, cancer screening, health promotion campaigns); service utilization (e.g. contact with health professionals of all types)
Affordability	<i>The client/patient/community's ability to pay for care/services/interventions/information including free services and various forms of coverage.</i>	Affordable care/services/interventions/information including relative affordability, absolute affordability ³⁰ Financial access (e.g. universal basic services, access to insurance cover)
Service Access³¹	<i>The ability of people to obtain care/service/support/information at the right place and the right time and in the right format, based on respective needs and irrespective of income, physical location, gender, disability status, sexuality, age, education level, social and built environment and cultural background.³²</i> Example mainstream indicators are: waiting times (e.g. United Kingdom–UK, Australia, USA); practice availability (United Kingdom–UK); Availability of dentists (USA). (ISO definition)	Geographical access (e.g. within 50km/ 3 walking days) Service access (services: population, e.g. General practitioners: population) Linguistic/cultural access (e.g. practitioners reflect population make-up in terms of language, ethnicity, interpreter availability, translated information; e.g. instructions for safe use of medications translated into local language/s) Gender access (e.g. females have access to female practitioners) Physical/architectural access Disability access including attitudinal, information and communication barriers Waiting times (e.g. waiting lists)

Continues...

³⁰ Standing, 1997.

TIER 3: HEALTH SYSTEM PERFORMANCE (continued)

Dimension/ Subdimension	Definition	Indicator topics
Accessibility (continued)		
Acceptability/ Responsiveness	All care/services/interventions provided meet the expectations of the client/patient/community/community provider and paying organizations, recognizing that there may be conflicting, competing interests between stakeholders, but that the needs of the clients/patients/communities are paramount. <i>"It includes respect for dignity; confidentiality; participation in choices"; involvement in decision-making (about individual health care needs as well as decision processes involved in the planning, organization, operation and management of health services/interventions/actions); "promptness; quality of amenities; access to social support networks and choice of provider".</i> ³³ Example mainstream indicator is: Patient satisfaction (e.g. Australia, UK, USA).	Satisfaction Respect and dignity Privacy Choices (e.g. choice of provider) Confidentiality Promptness (e.g. waiting lists) Participation/decision-making in choice of treatment (e.g. contraception, sterilization) Quality of amenity Access to social support networks including within the service system Language sensitive Culturally sensitive Gender sensitive Disability sensitive
Effectiveness		
Service/ Programme Effectiveness ³⁴	The care/service, intervention or action achieves the desired results. ³⁵ Example mainstream indicators are: Cancer survival (e.g. UK, Canada, USA); Recurrence of hernia after repair (e.g. Sweden); Smoking cessation during pregnancy (effectiveness of maternal health care, e.g. Sweden); Chronic care management: admission rates for asthma, diabetes, epilepsy (UK).	Ambulatory care sensitive conditions (e.g. diabetes/asthma admission rates) Immunization rates Cancer screening rates Effectiveness rates (e.g. of specific clinical practices) Information and communication strategies effective
Safety	The avoidance or reduction to acceptable limits of actual or potential harm from health care management or the environment in which health care/intervention/action is delivered/facilitated. ³⁶ Example mainstream indicator is: Hospital-acquired infection rate (Australia).	Overuse (not related to client, e.g. Caesarean sections) Misadventure, iatrogenic outcomes, nosocomial infections Environment in which health care delivered Safe disposal of biomedical waste Safe use of medications (used within due dates/storage temperature e.g. immunization cold chain for transportation of vaccines)

Continues...

³¹ The ISO (2001) title for this dimension is Accessibility.

³² Replaced "clients/patients" with "people" and expanded "care/service" to include "support/information", "and in the right format"; and added "irrespective of income...cultural background", expanding on the Australian definition. The original definitions are: "The ability of clients/patients to obtain care/service at the right place and the right time, based on respective needs" (Canadian Council on Health Services Accreditation—CCHSA). (ISO definition) "The ability of people to obtain health care at the right place and the right time irrespective of income, physical location and cultural background" (Australian definition).

³³ Broadened the ISO 2001 definition and incorporated the words shown between quotation marks and in italics from the Australian framework's 2002 definition for Responsive, NHPC, 2002: 7.

³⁴ The ISO, 2001 title for this Dimension is Effectiveness.

³⁵ CCHSA cited by ISO, 2001.

³⁶ Used the Australian framework's (2002) definition for the Dimension titled Safe but expanded to include "intervention/action" and "facilitated", NHPC, 2002: 7).

TIER 3: HEALTH SYSTEM PERFORMANCE (continued)		
Dimension/ Subdimension	Definition	Indicator topics
Effectiveness (continued)		
Appropriate-ness	Care/service/ <i>intervention/action</i> provided is relevant to the <i>client's/patient's/ community's</i> needs and based on established standards. ³⁷ Example mainstream indicators are: Inappropriately used surgery (UK); Appropriate use of angiotensin converting enzyme inhibitors (ACEI) at discharge for heart failure (USA). (ISO definition)	Inappropriate use of services (e.g. inappropriate hospital admissions, re-admissions) Inappropriate treatments (e.g. sterilization, inappropriate contraception (e.g. female feticide, female sex-selective abortion), inappropriate medication (self-medicating)) Overuse, underuse and misuse (variations from standard, e.g. Surgery rates - interregional variation, variation from benchmarks (e.g. hip replacement, hysterectomy)) Information and communication methods appropriate (and understandable) Culturally appropriate Language appropriate Gender appropriate Current treatments based on research knowledge: women represented in clinical trials
Competence/ Capability ³⁸	<i>"An individual's or service's capacity to provide"/facilitate a quality health service/ intervention/action/information "based on skills and knowledge".</i> ³⁹	Workforce competence/qualifications at all levels Leadership at all levels (including community) Access to training opportunities (for employees and community (e.g. skill levels of community members, community representatives/women on health boards, volunteers) Communities and volunteers
Continuity / Continuous ⁴⁰	The ability to provide uninterrupted coordinated care/service/ <i>intervention</i> across programmes, practitioners, organizations, and levels of care/service and sectors, over time. ⁴¹	Over time Coordinated care referrals e.g. Discharge policies, referrals Services across programmes: intra-agency, interagency and intersectoral Inappropriate re-admissions and use of hospital services Quality of care – services across programmes, agencies and sectors – intra-agency, interagency and intersectoral
Cost		
Technical Efficiency ⁴²	Achieving the desired results with the most cost-effective use of resources. ⁴³ Example mainstream indicators are: Avoidable hospitalizations (e.g. UK, USA, Canada); Cost per case mix-adjusted separation (Australia); Cost-effective prescribing (UK).	Outputs relative to costs (service specific e.g. primary health care (including primary prevention and health promotion), hospitals) Intersectoral effort to improve health (e.g. of health system with schools, workplaces, urban planning, communities) Management efficiency
Allocative Efficiency	<i>The allocation of resources between types of services within the health sector, in a way that results in the greatest overall gain.</i>	Distribution of health resources (broadly defined) Gender and health budget analysis (allocation of health resources)

Continues...

³⁷ CCHSA cited by ISO, 2001. Expanded "care/service" to include "*intervention/action*" and "client" to include "*community*".

³⁸ The ISO, 2001 definition for this Dimension is Competence.

³⁹ Broadened the ISO 2001 definition and incorporated the words shown between quotation marks and in italics from the Australian framework's 2002 definition for Capable, which includes the organizational level, NHPC, 2002: 7.

⁴⁰ The ISO, 2001 definition for this Dimension is Continuity.

⁴¹ CCHSA cited by ISO, 2001.

⁴² The ISO, 2001 definition for this Dimension is Efficiency.

⁴³ CCHSA cited by ISO, 2001.

TIER 3: HEALTH SYSTEM PERFORMANCE (continued)

Dimension/ Subdimension	Definition	Indicator topics
Cost (continued)		
Sustainability	System's capacity to provide infrastructure such as workforce, facilities and equipment, and be innovative and respond to emerging needs (research, monitoring). Example mainstream indicators are: Asset ratios; % expenditure on teaching compared to service delivery; % expenditure on research.	Provision of workforce: Gender breakdown, maintenance of workforce Patient travel/medical transportation (e.g. extent to which must travel to get service (renal – Nauru, terminations – Ireland) Extent of reliance on external aid Information systems Continuum of services provided: % primary health care vs. % tertiary care
Key Equity Issues	<i>Gender-based analysis of accessibility, acceptability and effectiveness of the health system</i>	Equitable access to health services ⁴⁴ Utilization proportional to need ⁴⁵ Distribution of health care ⁴⁶ Fairness of processes (e.g. non-discriminatory health care delivery) ⁴⁷ Participation in the conceptualization and design of projects ⁴⁸ Empowerment and participation Gender impact of health system reforms ⁴⁹

(iv) Community and Health and Welfare System Characteristics Dimensions (Tier 4)

Tier 4 describes the characteristics of the community or the health and welfare system that provide useful contextual information. This description has expanded on the ISO definition of this tier by explicitly identifying the welfare system (ISO, 2001: 10).

The topics in Tier 4 can be distinguished from those in Tier 2 by the *level* described. Tier 2 describes determinants that affect individuals and relate to the local, household, or community level; whereas Tier 4 describes “contextual”, distal, or indirect determinants that relate to a whole, or larger area (region, nation, country) or that differ across smaller areas within the whole or larger region. Tier 4 topics would commonly be reported through aggregating smaller units to give a “big picture” view, or can only be reported at that level (e.g. the unemployment rate of the country, or the rate of urbanization of its population).

The ISO framework identifies Community and Health System Characteristics as the only dimension in this tier. In addition three areas of interest: Resources, Population, and Health Services are listed. The Health Information Framework includes these areas of interest as explicit dimensions with the amended titles: Economic Resources, Human Settlement, and Health and Welfare System respectively. Governance has also been added as a new dimension to Tier 4 in order to map indicator topics such as, equal opportunity legislation and gender mainstreaming policy and programmes, etc. Governance has also been explicitly identified in Hancock et al.'s (1999) framework titled *Indicators that count! Measuring population health at community level*.

⁴⁴ Whitehead, 2002: 7.

⁴⁵ Whitehead, 2002: 7.

⁴⁶ Sen, 2002: 666.

⁴⁷ Sen, 2002: 666.

⁴⁸ Bertrand and Escudero, 2002.

⁴⁹ Standing, 1997.

Figure 5 Community and Health and Welfare System Characteristics dimensions

TIER 4: COMMUNITY AND HEALTH AND WELFARE SYSTEM CHARACTERISTICS		
Dimension	Definition	Indicator topics
Economic Resources ⁵⁰	<p>Economic resources might include financial (health care expenditures), human (number of trained midwives, primary health care workers or physicians per capita) or other types of resources (e.g. rated primary health care centres or hospital beds per capita).</p> <p>Example mainstream indicators are: Number of physicians per capita (e.g. Sweden, Canada); Provider compensation (USA).</p>	<p>Per capita gross domestic product (GDP)/per capita gross national product (GNP)/gross national income (GNI) expanded to incorporate non-formal contributions</p> <p>Income/resources distribution/ inequality (e.g. GINI index of income inequality)</p> <p>Allocation of financial resources: Gender budget analysis (allocation of resources to women and children)</p> <p>Workforce: Education; Training; Maintenance; Facilities; How protected/regulated</p> <p>Research: How supported; Monetary resources; Extent of gender-specific research</p> <p>Sustainability</p> <p>Aid given/ received (tied or untied; health and welfare or bridges and roads; focus on gender and development or gender blind)</p> <p>Rate of industrialization/urbanization (eg Media/marketing/advertising effects, degree of market penetration)</p> <p>Economic model (e.g. free market, planned economy; centralized/decentralized)</p> <p>External effects (e.g. of globalization, statism/ multinationalism)</p> <p>Extent of international trade</p>
Human settlement ⁵¹	<p>Population indicators may alert us to characteristics that may be useful in interpreting the indicator values, such as the age structure or the proportion of the population residing in rural areas.</p> <p>Example mainstream indicators are: % population over 65 years of age; % residing in urban centres.</p>	<p>Population demographics: Population and household density; sex and age structure; distribution, urbanization; Mobility; Dependency ratio; Aboriginal/Indigenous population, Immigrant population, Visible minorities (CIHI, 2002), Orphans, People who have disabilities; Family types (e.g. lone heads); Household types (e.g. sole person); Who's responsible for family, for caring</p> <p>Vulnerable individuals in society (e.g. proportion living below official poverty line, under- or mal-nourished at differing levels)</p> <p>Caring role of women, impact of (e.g. employment - change jobs and change insurance levels)</p> <p>Migrating to work and assoc issues: language, mental health, % of income repatriated; sex trade</p> <p>Religious institutions</p> <p>Civil strife, societal breakdown</p> <p>War, leftover munitions (e.g. land mines)</p>
Governance ⁵²	<p>Indicators may provide information on "processes to respond to collective problems which are characterized by participation, transparency, accountability, rule of law, effectiveness and equity" (United Nations Development Programme-UNDP, 2000). Includes from local council to regional, to national and international institutions.</p>	<p>Democracy, participation, empowerment</p> <p>Access to/provision of safety net social protection ("welfare")</p> <p>Legal rights (Women's, Health, Human, Employment)⁵³ and Legislation (Occupational Health and Safety-OHandS, Anti-discrimination)</p> <p>Enforcement of legal rights and legislation</p> <p>Accountability and transparency</p> <p>Policy (e.g. poverty reduction, gender equity, gender mainstreaming, social inclusion, comparable worth (wage parity), inter-sectoral healthy public policy⁵⁴, anti-discrimination)</p> <p>International governance: ratification of international conventions (e.g. Child labour, Committee on the Elimination of Discrimination Against Women, Disability rights)</p>

Continues...

⁵⁰ The ISO, 2001 describes this Dimension as "an area of interest" titled Resources under the Dimension Community and Health System Characteristics.

⁵¹ The ISO, 2001 describe this Dimension as "an area of interest" titled Population under the Dimension Community and Health System Characteristics.

⁵² Hancock et al., 1999.

⁵³ Moss, 1999.

⁵⁴ Hancock et al., 1999.

TIER 4: COMMUNITY AND HEALTH AND WELFARE SYSTEM CHARACTERISTICS (continued)

Dimension	Definition	Indicator topics
Health and Welfare System⁵⁵	<p>Indicators may provide additional information on the configuration of the health system (e.g. presence of a teaching hospital or various measures of health services utilization).</p> <p>Example mainstream indicators are: Health Insurance enrolment (USA); Number of coronary artery bypass grafting (CAGB) per capita; Number of home care services provided per capita.</p>	<p>Provision/availability/distribution of services/care: Formal (professionals)/informal (family/friends/ workmates) /subsistence domestic (within household)</p> <p>Financing: Arrangements (e.g. bulk-billing, subsidized medicine, universal access, insurance coverage (conditions and extent of where not universal); Balance private: public; Balance informal: formal; Gender budget analysis (allocation of resources to women and children)</p> <p>Health System Input Variables: Expenditure; Workforce (Doctors, Nurses, Other health professionals (e.g. primary health care/ community health workers) and including traditional healers—population to practitioner ratios including female practitioners, Urban/rural coverage, Community members/volunteers; Land and buildings; Plant; Consumables; Pharmacy; Very expensive medical technology (affordability); Inflow/outflow ratio</p> <p>Pharmaceutical industry</p> <p>Decision-making, participation: Policy participation; in development of service models—at all levels</p> <p>Managerial opportunity (e.g. % of managerial positions held by women)</p> <p>Women’s management on health care boards/equivalent structures</p> <p>Governance arrangements: Standards exist; Standards enforced</p> <p>Recourse to courts vs. complaints system (responsiveness, power)</p>
Key Equity Issues	<p><i>Access to supportive services and supportive factors</i></p> <p><i>Analysis of Human Settlement factors for equity</i></p>	<p>Distribution/sharing of income/resources (e.g. GINI index of income/resources inequality)</p> <p>Income level of poorest compared to wealthiest quintile of population</p> <p>Equitable distribution of characteristics of the health care system and/or community⁵⁶ (e.g. distribution of female physicians, linguistically appropriate health care workers)</p> <p>Distribution of health care</p> <p>Inequity in the distribution of health care resources⁵⁷ (e.g. physicians and hospital beds per capita within different geographic regions)</p> <p>Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household’s total budget</p> <p>Indices such as the GINI coefficient for health care expenditures and availability of medical care⁵⁸</p> <p>Equity effects of health system reforms (e.g. Benchmarks of fairness for health reform⁵⁹)</p> <p>Full enumeration of females of all ages and ethnicities in basic data sources (e.g. Censuses, Surveys of Population)</p> <p>Collection, reporting, analysis and policy use of gender sensitive and sex-disaggregated data for all indicators so that equity issues can begin to be examined</p> <p>Enhanced/inclusive GDP/GNP/GNI measures that value and include “unpaid work”, sex-disaggregated</p> <p>Wage parity (e.g. average salary of women versus men in comparable managerial positions)</p> <p>Managerial opportunity (e.g. % of managerial positions held by women)</p> <p>Women’s management on health care boards/equivalent structures</p> <p>Participation of women in the conceptualization and design of projects</p> <p>Empowerment (e.g. Gender Empowerment Measure (GEM), Gender-related Development Index (GDI))</p>

⁵⁵ The ISO, 2001 describes this Dimension as “an area of interest” titled Health Services under the Dimension Community and Health System Characteristics.

⁵⁶ From Whitehead, 2000: 7.

⁵⁷ Musgrove, 1986.

⁵⁸ Musgrove, 1986.

⁵⁹ Daniels et al., 2000.

1.8 Equity dimensions

The extant frameworks incorporating equity and/or equality⁶⁰ as a dimension frequently state that equity is relevant to, or can be examined in, every area in a framework without specifying how this is to be done (WHO, 2000; ISO, 2001; CIHI, 2002). The ISO draws attention to the fact that although it is possible to assess equity in any dimension and in many dimensions, it has been most commonly examined on the dimension of socioeconomic status in measuring health inequalities. They suggest that “other, possibly correlated, dimensions of equity might include: gender, age, ethnicity or rural/urban residence, for example” (ISO, 2001: 18).

Here we seek to examine the notion of equity and explore possible indicators for it, from several perspectives: equity *per se*; gender equity; equity in health; and finally, gender equity in health and the topic of empowerment. Figure 6 summarizes our attempts at a first definition of these dimensions and shows some possible indicator topics for each dimension. (Additional definitions can be found in the Glossary.)

What is equity?

Dictionaries agree in defining equity as the quality of being fair, impartial, and just. Elsewhere, equity is perceived as having many dimensions and possible interpretations. However, there appears to be agreement on two “core principles” that should be included in the definition. The first is that: “equity does not mean equality” – which is the state of being equal or the same – “but ‘fair shares’ and ‘fair opportunities’ in distribution of resources and provision of services” (Health Systems Trust 2002: 1). That is, fairness – rather than equality – of distribution is the central concept (Pan American Health Organization–PAHO/WHO, 1999). The second core principle on which there is agreement addresses “vertical equity” in the concept of a progressive distribution of resources, such that they are differentially allocated according to different degrees of need (PAHO/WHO, 1999: 3). Thus, the “more needy groups in society should be the ones targeted for preferential treatment” and “greater resources and more services should be made available to these groups” (Health Systems Trust, 2002: 1).

What is gender equity?

Malhorta et al., (2002) state that gender equity “recognizes that women and men have different needs, preferences, and interests and [that] equality of outcomes may necessitate different treatment of men and women” (Reeves and Baden, 2000, cited by Malhorta et al., 2002: 7). Bertrand and Escudero (2002) define gender equity as “the equally fair treatment of women and men”, and they point out that to “ensure fairness, some societies adopt measures to compensate for historical and social disadvantages that prevent women and men from otherwise operating on a level playing field” (Bertrand and Escudero, 2002: 194).

⁶⁰ Note that although there are significant differences between the concepts (see discussion below), the two terms are frequently, in practice, used interchangeably.

What is the difference between gender equality/inequality and gender equity/inequity?

Hartigan (2001) explains that gender *equality* applies to differences that are biological and genetic and mostly unavoidable; whereas, gender *equity* refers to the differences between individual men and women or groups of men and women that are avoidable, and require judgements as to how the differences or inequalities that have occurred will be compensated for. To clarify her explanation, Hartigan draws on Byrant's (1996) paper on equity and the Health for All strategy which explains that "[i]nequalities can be divided into those that are unavoidable ... where questions of equity do not arise, and those that are avoidable and thus raise issues of equity. First there are natural biological variations – age, sex, race, genetic – that are not avoidable" (Byrant, 1996 cited by Hartigan, 2001: 9). In relation to health conditions or problems that arise from these unavoidable differences, Hartigan argues that it needs to be realized that not all inequalities in health are inequitable. For instance, the fact that women may get "cervical cancer and men do not occurs because of a biologically-derived difference between the sexes" (2001: 9). In this instance, the issue of gender equity occurs when this biological difference interrelates with:

...socially constructed gender differences to place women at greater risk of contracting cervical cancer because of poverty or inability to prevent risky sexual behaviour, and, in poor populations, poor women may have less access to methods of prevention and treatment than better-off women. (Hartigan, 2001: 9-10).

These definitions emphasize that people are not the interchangeable, androgynous units that they are often presented as in statistics and reporting which does not differentiate, between women and men, boys and girls, for example. Eckermann notes that epidemiology is traditionally androgenous, "based on the notion of the common-or-garden human body", and that "androgenizing, 'total population' tendencies" have been particularly inappropriate for women. She warns of the unintended consequences of public policy attempts to address inequalities in health and well-being, based on "universalist assumptions" (Eckermann, 2000: 30–31). Eckermann explains that:

People are differentiated along many dimensions including ethnicity, age, socioeconomic status, baseline health status, cultural background, religion, geographical location, gender and sexual orientation to name just a few. (Eckermann, 2000: 30).

Gender is just one of the dimensions of differentiation of human health experience, within which further differences are articulated by age, class, ethnicity, race, geographical location, ability/disability status, lifestyles and consumption patterns among many other dimensions of difference, thus making it difficult to talk of either sex as a unified group. However, gender does emerge as a key dimension of difference in health and well-being experiences. (Eckermann 2000: 31, quoting Vlassoff and Bonilla, 1994; Mathers, 1995; Rahkonon et al., 1995).

Fairness and health care reform

Daniels et al. (2000), reporting on the development of "benchmarks of fair-

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ness for health care reform” as a useful policy tool for developing countries, argue that the multifaceted concept of fairness is broader than that of equity. In relation to health care reform, they define fairness as including:

...equity in health outcomes, in access to all forms of care and in financing. Fairness also includes efficiency in management and allocation, since when resources are constrained, their inefficient use means that some needs will not be met that could have been. For the public to have influence over health care, fairness must also include accountability. Finally, fairness also includes appropriate forms of patient and provider autonomy. (Daniels et al., 2000: 740).

Health equity

In a guest editorial in *Health Economics*, Sen (2002) argues for broadness and inclusiveness in “the discipline” of health equity. Health equity is “best seen as a multidimensional concept” that includes issues about achievement of health, capability to achieve good health, as well as distribution of health care, and the fairness of processes (e.g. non-discrimination in health care delivery) (2002: 660). In an occasional paper on performance measurement and management in OECD Health Systems Hurst and Jee-Hughes (2001) report having identified “perhaps five different dimensions to equity: health, health outcome, access, responsiveness, and finance” and state that “in addition, there are many population groups, across which disparities might be monitored, including: age, gender, ethnic group, income and geography” (2001: 14). Sen states that any unifocal criterion—e.g. “fair innings” or “equal distribution of health”—must, by definition, leave out “relevant concerns” (Sen, 2002: 666). Health issues are also intrinsic to wider issues of social justice and equity. Evans et al. (2001) argue that the “complexities inherent in the nature of health and its distribution” mean that a “plurality of measurement approaches” is required, as measurement “is at the heart of our efforts to track progress in redressing health disparities” (2001: 5).

What is the difference between health equality/inequality and health equity/inequity?

Kawachi et al.’s (2002) glossary for health inequalities explains that equality and inequality “are dimensional concepts, simply referring to measurable quantities”. On the other hand, equity and inequity “are political concepts, expressing a moral commitment to social justice” (2002: 647-648).

The glossary explains that health *inequality* is a term used to describe “differences, variations and disparities in the health achievements of individuals and groups” (2002: 648). Health *inequity* is a term used to refer “to those inequalities in health that are deemed to be unfair or stemming from some form of injustice” (2002: 648).

According to the glossary:

...the crux of the distinction between equality and equity is [that] the identification of health inequities entails normative judgement premised upon (a)

one's theories of justice; (b) one's theories of society; and (c) one's reasoning underlying the genesis of health inequalities. Because identifying health inequalities involves normative judgement, science alone cannot determine which inequalities are also inequitable, nor what proportion of an observed inequality is unjust and unfair. (Kawachi et al. 2002: 648).

Gender equity and health

PAHO/WHO embraces Whitehead's definition of "health inequities as those inequalities judged to be unnecessary, avoidable and *unjust*" (Gomez, 2000: 1, original *emphasis*). The achievement of "gender equity in health implies *eliminating unnecessary, avoidable and unjust* health inequities which exist as a result of the social construction of gender" (PAHO/WHO, undated: 1; our *emphasis*). Gender equity in health, therefore, "means that women and men have the same opportunity to enjoy living conditions and services that enable them to be in good health, without becoming ill, disabled or dying by causes that are unjust and avoidable" (PAHO/WHO, undated: 1). And equity in health is "operationally defined as "minimizing *avoidable* disparities in health and its determinants, between groups of people who have different levels of underlying social advantage" (Braverman, 1998, cited in Gomez, 2000: 2, original *emphasis*).

To summarize: gender equity in health will be achieved when unnecessary, avoidable and unjust health inequities (avoidable disparities between groups of different social advantage) resulting from the social construction of gender, have been eliminated.

"Not all inequalities are inequities!" Gomez points out (2000: 1). It is not an inequity that the bodies of males and females are structured differently. It is not inequitable that only men are affected by prostate cancer and only women are affected by cervical cancer. Similarly, gender equity is "not about achieving equal rate of mortality or morbidity" (PAHO/WHO, undated: 2). There *are* differences between males and females based in physiology, biology and biochemistry. These differences are *not* the result of bias or unfair treatment. They are differences that are *not* avoidable. Therefore, although they are inequalities, they are not inequities. For instance:

It is often pointed out that women have a longer life expectancy than men. While this is true among more privileged socio-economic groups, the difference is not just in length of life, but also in chances of survival. All other factors being equal, girls are more likely to survive *in utero*, during childhood, during adolescence and during adulthood. Among less privileged groups, however, the gap in male and female life-expectancy narrows and even disappears, highlighting the importance of other variables such as income level. Health is about much more than life expectancy, and so we must look beyond it to male and female quality of life and their patterns of behaviour. Although women may live longer, they tend to be more affected by long-term and chronic illness, which significantly affects the quality of their lives. It is important to note that men's health status and behaviour is as much a result of the social construction of gender as women's. The expectations that come with being male have a significant effect on men's health, which the gender equity perspective must also take into account. Increas-

ing evidence also suggests that men's propensity towards risk behaviours widens the life-expectancy gap. Violence, unsafe sexual contact, smoking, alcohol and drug consumption, poor eating habits, lack of exercise, and a higher suicide rate can all go a long way toward explaining premature death among men. (PAHO/WHO undated: 1).

Sen et al. (2002) caution that the "absence of difference or gender equality as such cannot ...be the uniform foundation for gender justice in health". They specifically warn that "equality of health outcomes can in some instances be a marker for gender injustice ...because it may indicate that women's [or men's] particular biology-dependent needs or abilities are not being adequately recognized". Sen et al. stress that "gender equity in health must stand ...on its own foundation: the absence of bias". As a starting point, they call for the "*careful scrutiny of the content of gender equity itself* to ensure that bias does not masquerade as 'natural' biological difference" (2002: 7, our *emphasis*).

Research into gender inequities in health and well-being

Eckermann (2000) argues that research into gender inequities in health and well-being needs to use all four of four types of indicators – morbidity, mortality, social indicators, and subjective measures – and use indicators which:

1. **are general for all people but which are gender⁶¹ disaggregated;**
2. **are gender sensitive;**
3. **acknowledge the heterogeneity amongst both women and men—i.e. articulated by age, race, ethnicity, ability/disability status, geographical location, social class;**
4. **deal with specific reproductive health issues of women; and**
5. **are gender specific in other (non-reproductive) areas of health.**

(Eckermann, 2000: 37)

Like Eckermann, Drengsted-Nielsen and Luige (2002: 13), when reviewing the European situation, also found that indicators and data on the health problems of women out of reproductive age (e.g. older women) or in non-reproductive states were missing.

Empowerment dimension of equity

Malhotra et al. (2002), in reviewing a range of studies, define empowerment—

⁶¹ In a footnote, Eckermann (2001: 37) notes that "the need for gender specificity, in areas outside of reproductive functioning, is based on arguments about sex and gender. Sex is biologically defined, and if we assume that biological functioning alone determines the differences between men's and women's experiences of their bodies, we would only need specific data for women in reproductive areas. Gender refers to the cultural, social, temporal and political construction of men and women. The implications for health, and the type of information that we need to assess women's health, of adopting a gender perspective rather than a sex perspective, are profound."

as distinguished from “gender equality” and “gender equity”—by having two essential elements: (1) empowerment is a *process*, a progression from one state (gender inequality) to another (gender equality); empowerment is “change over time” [not so easily measurable as “autonomy”, a static state]; and (2) empowerment requires *agency*, “women themselves must be significant actors in the process of change that is being described or measured” (2002: 7).

Agency emerges from “bottom up” rather than “top down” approaches toward development (Oxaal and Baden, 1997; Rowlands, 1995; Narayan et al., 2000;a and 2000b). At the institutional and aggregate levels, it emphasizes the importance of participation and “social inclusion” (Friedmann, 1992; Chambers, 1997; Narayan et al., 2000;a and 2000b). At the micro level, it is embedded in the idea of self-efficacy and the significance of the realization by individual women that they can be the agents of change in their own lives. (Malhotra et al., 2002: 7). (See Appendix C for further discussion in an extract from Malhotra et al., 2002.)

Issues in relation to empowerment include: how do systems monitor empowerment of individuals at all levels (that is, at the levels of the individual, group, community, population, society/nation/region)?

Variations of the empowerment topic are shown in different dimensions of the framework. Currently these are as follows:

- Tier 1: Health Status in the Well-being dimension as empowerment/political representation/rights/capacity to make decisions.
- Tier 2: Determinants of Health in the Social and Community Factors dimension as democracy, personal power, empowerment; and in the Household Factors dimension as empowerment (e.g. domestic decision-making).
- Tier 4: Community and Health and Welfare System Characteristics in the Governance dimension as democracy, participation, empowerment.

Figure 6 Equity dimensions

EQUITY			
Dimension	Definition	Indicator topics	Tier/s
Equity	"Equity spans across all dimensions of the framework, and can apply to any of the concepts or indicators contained therein" (ISO, 2001: 6).	Distribution/sharing of income/resources (e.g. GINI index of income/resources inequality)	2, 4
	Equity is the quality of being fair, impartial, and just (general dictionary definition).	Income level of poorest compared to wealthiest quintile of population	2, 4
	Equity and inequity "are political concepts, expressing a moral commitment to social justice" (Kawachi et al., 2002: 648).	Health status of poorest compared to wealthiest quintile of population	1
	Equity is too "complex a concept to be reduced to a single indicator" (Musgrove, 1986 cited in Macinko and Starfield, 2002: 8/20).	Human Development Index (HDI)	2, 4
Gender Equity	"Gender equity is the equally fair treatment of women and men. To ensure fairness, some societies adopt measures to compensate for historical and social disadvantages that prevent women and men from otherwise operating on a level playing field" (Bertrand and Escudero, 2002: 194).	Full enumeration of females of all ages and ethnicities in basic data sources (e.g. Censuses, Surveys of population) ⁶²	4
		Collection, reporting, analysis and policy use of gender sensitive and sex-disaggregated data for all indicators so that equity issues can begin to be examined	
	"Gender equity recognizes that women and men have different needs, preferences, and interests and the equality of outcomes may necessitate different treatment of men and women" (Reeves and Baden, 2000, cited by Malhorta et al., 2002: 7).	Enhanced GDP/GNP/GNI measures that value and include "unpaid work", sex-disaggregated	4
		Literacy (e.g. age-specific literacy rates of females compared to males over time)	2
	"The differences between individual men and women or groups of men and women that are avoidable and require judgements as to how the differences or inequalities that have occurred will be compensated for" (Hartigan, 2001: 9).	Education (retention and completion rates of females compared to males at all levels of education)	2
		Wage parity (e.g. average salary of men versus women in comparable managerial positions)	2, 4
		Managerial opportunity (e.g. % of managerial positions held by women)	2, 3, 4
		Women's representatives on health care boards/equivalent structures	2, 3, 4
Equity in Health	The ISO cite Whitehead's (2000: 7) ⁶³ description of "equity in health" as "a fair opportunity to attain their full health potential and, more pragmatically, that no one should be disadvantaged from achieving this potential", implying that inequalities stemming from avoidable and/or unfair causes be reduced or eliminated. Thus while it is essential to measure equity in terms of the "quantity" and "quality" of health (e.g. life expectancy, disability, mortality, etc.), it is equally important to consider equity in health care. For example, is there equitable access to health services; is utilization proportional to need; and is there an equitable distribution of health outcomes, such as those resulting from specific clinical interventions? Lastly, are the determinants of health, such as risk factors or living conditions, and the characteristics of the health care system or community equitably distributed?" (ISO, 2001: 18).	Equitable access to health services (ISO, 2001)	3
		Utilization proportional to need (ISO, 2001)	1, 3
		Equitable distribution of health outcomes (ISO, 2001)	1
		Primary health goal of "attainment of equity in health, both within and between countries" in the health for all strategy (WHO, 1998, cited in ISO, 2001: 18).	
	Equitable distribution of determinants of health, such as risk factors or living conditions, and the characteristics of the health care system or community (ISO, 2001)	2	

⁶² For instance, the United Nations Interagency Working Group on Gender and Development in India reports that "In the past, data collection through the National Census has brought to light the under reporting of female population in certain parts of the country. However, it is also true that female work participation is not adequately recorded and consequently reflected in the Census Data. Declining sex ratio and low female work participation rates in many parts of the country are direct results of the lack of social and cultural sensitivity on gender issues, which very often is reflected in the bias against the importance, role and the status of women in the society" (United Nations-India, 1999: 1).

⁶³ In a report prepared for WHO. The ISO notes that WHO identified the "attainment of equity in health, both within and between countries" as a primary health goal in the Health for All strategy (ISO 2001: 18, quoting WHO, 1998).

EQUITY (continued)

Dimension	Definition	Indicator topics	Tier/s
Gender Equity in Health	<p>“Achieving gender equity in health implies eliminating unnecessary, avoidable and unjust health inequities which exist as a result of the social construction of gender. It means that women and men have the same opportunity to enjoy living conditions and services that enable them to be in good health, without becoming ill, disabled or dying by causes that are unjust and avoidable.” (PAHO/WHO undated: 1)</p> <p>Sen et al., (2002) caution that the “absence of difference or gender equality as such cannot . . . be the uniform foundation for gender justice in health” and specifically warn that “equality of health outcomes can in some instances be a marker for gender injustice . . . because it may indicate that women’s [or men’s] particular biology-dependent needs or abilities are not being adequately recognized.” They stress that “gender equity in health must stand . . . on its own foundation: the absence of bias.” As a starting point they call for the “careful scrutiny of the content of gender equity itself to ensure that bias does not masquerade as ‘natural’ biological difference” (2002: 7, our emphasis).</p> <p>“A gender and health equity analysis insists that, although differences in health needs between women and men do exist in relation to biological and historical differences, this does not ‘naturally’ lead or justify different or unequal social status or rights in just societies.” (Sen et al., 2002: 7 original emphasis)</p>	Mortality ratios of male and female children (including by causes, e.g. malnutrition)	1
		Health status of females in poorest quintile compared to wealthiest quintile of population	1
		Longevity of boys and girls, men and women, including “invisible girls”, “invisible women”	1
		Participation of women in the conceptualization and design of projects (Bertrand and Escudero, 2002)	2, 3, 4
		Avoidable disparities in health status (Gomez, 2000)	1
		Allocation of health care resources according to need (Gomez, 2000)	2, 4
		Utilization of appropriate health care services, according to need (Gomez, 2000)	2, 3, 4
		Payment for health services, according to ability to pay (Gomez, 2000)	2, 3, 4
		Distribution of power and responsibility in health production (Gomez, 2000)	1, 2, 3, 4
		“Gendered analyses of health situations – including data disaggregated by sex, and development, monitoring and evaluation of ‘gender indicators’, such as: Causes of female and male mortality/morbidity; Infant mortality rate by sex and cause; Maternal mortality rates; Women’s access to prenatal and postnatal care, and safe delivery; The proportion of women and men employed in different levels/areas of the health sector; Differences in wages earned by female/male health workers; Women’s and men’s access to food, clean water, sanitation, immunization against diseases; Proportion of women’s and men’s, or household, incomes spent on health services; Distribution of household expenditure on health services; Fertility rates; Women’s access to different methods of family planning” (PAHO/WHO, undated: 2).	
Health Equity	Sen states that health equity is multidimensional and includes issues about achievement of health, capability to achieve good health, distribution of health care, and fairness of processes (e.g. non-discrimination in health care delivery) (Sen, 2002: 660).	Achievement of health (Sen, 2002: 666)	1
		Capability to achieve good health (Sen, 2002: 666)	1
		Distribution of health care (Sen, 2002: 666)	3, 4
		Fairness of processes (e.g. nondiscriminatory health care delivery) (Sen, 2002: 666)	3
Equity in the health system	Because “assessment of equity (as opposed to inequality) require judgements about what is to be considered unfair, summary indicators of overall health system inequity that do not capture the many ways in which inequity can be manifested (even within the same health system) are unlikely to inform interventions geared towards the improvement of inequities in health” (Musgrove, 1986 cited in Macinko and Starfield, 2002: 8/20).	Inequity in the distribution of health care resources such as physicians and hospital beds per capita within different geographic regions (Macinko and Starfield, 2002)	2, 4
		Probabilities of treatment given medical need – which is sensitive to differences in type of illness studied, age group examined, and type of treatment investigated (Macinko and Starfield, 2002)	1
		Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household’s total budget (Macinko and Starfield, 2002)	2, 4
		Indices such as the GINI coefficient for health care expenditures and availability of medical care (Macinko and Starfield, 2002).	4
Equity effects in Health system reform	Measures to assess the impact on fairness of changes arising from reform of health systems	Benchmarks of fairness for health reform ⁶⁴	4
		Health equity gauges (GEGA)	
		Average Benefit Incidence Analysis	

⁶⁴ Daniels et al., 2000.

Continues...

EQUITY (continued)			
Dimension	Definition	Indicator topics	Tier/s
Empowerment	Malhotra et al. (2002) reviewing a range of studies, define empowerment – as distinguished from “gender equality” and “gender equity” – by having two essential elements: (1) empowerment is a <i>process</i> , a progression from one state (gender inequality) to another (gender equality); empowerment is “change over time” [not so easily measurable as “autonomy”, a static state]; and (2) empowerment requires <i>agency</i> , “women themselves must be significant actors in the process of change that is being described or measured” (2002: 7).	Aggregate level indicator topics extracted from Malhotra, 2002: ⁶⁵ “Labour Market Female labour force participation (or female share, or female/male ratios) Occupational sex segregation Gender wage differentials Child care options Labour laws Percentage of wives/women in modern work Ratio of female/male administrators and managers Ratio of female/male professional and technical workers Women’s share of earned income Education Female literacy (or female share, female/male ratio) Female enrolment in secondary school Maternal education Marriage/Kinship system Singulate mean age at marriage Mean spousal age difference Proportion unmarried females aged 15-19 Area of rice cultivation Relative rates of female to male migration Geographic region Social norms and practices Wives’/women’s physical mobility Health/Survival Relative child survival/Sex ratios of mortality Political and legal Ratio of seats in parliament held by women Women’s legal rights Questions, complaints, requests from women at village council” [Note: Aggregate level indicator topics for empowerment extracted from Malhotra, 2002. See Appendix C for household level indicators of empowerment.]	4, 1, 2

⁶⁵ Malhotra et al. (2002) aggregate level indicators used in recent empirical studies. An extract appears at Appendix C and also includes household etc level indicators compiled from the same source.

Tracking inequities

Monitoring or tracking is central to tackling inequity. *Challenging Inequities In Health* (Evans et al., 2001) lists five steps for choosing measures to assess health inequalities (*inequities* are defined as inequalities that are *both* unfair—arising from social injustices—and avoidable). They note that gender acts as a key social determinant of health and a key social stratifier distinct from—but interactive with—other social factors like social class and/or ethnicity (Evans et al., 2001: 11). The five steps are shown in the figure below.

Figure 7 Five steps for choosing measures to assess health inequalities (Evans et al. 2001: 4)

- 1. Define which aspect(s) of health to measure:** e.g. death, disability, risk, perceptions, access to care or the social or economic consequences of disease; use multiple measures when possible.
- 2. Identify the relevant population groupings across which to compare health status:** e.g. by gender, level of education, income, occupation, ethnicity or other category.
- 3. Choose a reference group or “norm” against which to compare the health of different groups:** e.g. within a country the reference group or “norm” might be the mortality rate of the highest income group; between countries a gold standard for life expectancy might be the Japanese life expectancy; when comparing by gender, different norms for males and females may apply.
- 4. Decide whether to measure inequality using absolute or relative differences in health status between population groups:** Note: The recognition that patterns of inequality vary by type of measure, absolute (e.g. rate difference) and relative (e.g. rate ratio), argues for inclusion of both approaches when possible.
- 5. Select among alternative “social weights” for preferences that are built into health measures:** e.g. in a composite index of health, including different age groups or different types of morbidity, adult morbidity may be “weighted” to be more or less (or equally as) important as child morbidity.

Effective monitoring of equity/inequity trends can support policy by answering the key questions: “Is the gap in health status improving or worsening over time?” and “How are policies and interventions working to narrow the gap?” (Evans et al., 2001: 5). However, Evans et al. also note that few countries track inequalities, and that their measurement alone is a “complex undertaking”.

Measurement issues

Equity indicators measure variance (inequalities, disparities, differences), and as such, they are *at best*, precursors to any examination of equity. Hurst and Jee-Hughes (2001) note that the production of “a full set of equity indicators for a health system is very demanding of data”, as they have identified at least five equity dimensions relevant to health systems performance measurement (the dimensions of “health, health outcome, access, responsiveness, and finance”), as well as “many population groups ...including: age, gender, ethnic group, income and geography” across which disparities could be monitored (2001: 14). Production of such indicators commonly requires access to multiple data sets; they give the measurement of equity of access, and equity in finance

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as examples. The former requires base information on income groups as well as on the distribution of health status across those income groups. The latter requires information on the distribution of disposable household income (2001: 14). Appropriate measures—as is shown in the figure below—range from the relatively simple (rate differences, shortfalls) to the highly complex, and include technical methods for attributing upstream causes and risks, and forecasting “downstream” impacts and consequences, across a range of levels (individual, interindividual, intragroup, intergroup, and so on).

Figure 8 Health equity measures
(Evans et al. 2001, adapted from Anand et al.)

Intergroup differentials	Interindividual differentials
<i>Simple range</i>	GINI coefficient
Odds ratio	Relative mean deviation
Relative risk	Atkinson index
Shortfall	
Rate ratio	Calculating public health impact
Rate difference	Population attributable fraction
	Attributable life lost
<i>Full Gradient</i>	
Slope index of inequality	Assessing causes
Concentration index	Explained fraction
Index of dissimilarity	Synergy index
	Component analysis (<i>Arriaga method</i>)

Equity precursor indicators that measure variance, do not necessarily explain it or suggest how to intervene in it. Global, national, or other high-level equity indicators and composite equity indicators important differences (e.g. between males and females of different ethnicities, hide and across social groups). Furthermore, after determining any difference across a variable that compares men and women (or girls and boys), the following questions arise: which women or men? (or, which girls and boys?). In which contexts? And why? These are only some of the questions that need to be answered before a start can be made on assessing the “equity” (or otherwise) of the differences.

Some of the conclusions we draw from these outlines of the important concepts, in relation to the measuring and monitoring of gender equity in health (and in addition to the complexity of the task), are that it cannot be done by any unitary or single measure; that choices and judgements need to be made prior to the selection of measures; and that measures must be tailored to, and fit for the intended purpose.

1.9 Gender-sensitive indicators

In a discussion on indicators in the biennial report, *Progress of the World's Women*, (UNIFEM, 2000) UNIFEM defines gender-sensitive indicators as those “constructed so as to compare the position of women and men at a point in time and over time, and therefore focus on gender gaps”. Different ways of comparing the position of men and women together with example indicators are presented as follows:

Figure 9 Gender-sensitive and sex-specific indicators (UNIFEM 2000)

Gender-sensitive indicators compare the situation of males to that of females, and show an aspect of their relative advantage (disadvantage).

They can be constructed in several ways:

- Female share of a total (when it is evident that the total comprises the female share and the male share): 50% indicates gender equality.

Example: Women's share of seats in legislative bodies.

- Ratio between a female and a male characteristic: 1 indicates gender equality.

Example: The ratio between girls' and boys' school enrolment rates.

- Female characteristic as percentage of male characteristic: 100% indicates gender equality.

Example: Average female weekly earnings as percentage of male weekly earnings.

- Difference between the female characteristic and the male characteristic: 0 indicates gender equality.

Example: Average number of hours women spend on housework minus average number of hours men spend on housework.

Sex-specific indicators are also needed:

- Some conditions are experienced only by one sex.

Example: Maternal mortality.

- Knowledge is needed about absolute levels of achievement as well as gender gaps.

Example: Women's average real earnings; men's average real earnings.

In a comprehensive examination of gender sensitive indicators Beck (1999b) stresses that efforts to further equality and equity between men and women need “accurate and relevant data on the status of women, men and gender relations” in order to measure gender inequality at a national level, and thus provide key information to planners and policy-makers (1999b: 7). Beck also points out that such indicators are also perceived as important in supporting the “gender and development approach which focuses on changing the gendered nature of society through the promotion of gender equity” (Beck, 1999b: 7).

Beck (1999b) defines a gender-sensitive indicator as: “an indicator that captures gender-related changes in society over time” (Beck, 1999b: 7) which must be “relative to some agreed normative standard or explicit reference group” (Johnson, 1985 cited by Beck, 1999b: 7). Gender-sensitive indicators go beyond “gender statistics”, such as, “60% of women in country X are literate, as opposed to 30% five years ago” (Beck, 1999b: 7), through their inclusion of a

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pertinent norm, reference group or comparator. “An example of a gender-sensitive indicator is: ‘60% of women in country X are literate, as compared to 82% of men, and compared to 30% and 52% five years ago’” (Beck, 1999b: 7). Men in the same country are the reference group or comparator used in the example, although Beck notes that another group of women might be the appropriate comparator in other cases (Beck, 1999b: 7).

As a relative concept, the measurement of variance (precursor to any examination of equity) depends on comparison. The norm, reference group or standard to be used for comparison, therefore, assumes greater importance in the construction of indicators to be used to examine, assess, monitor and judge inequalities that are not equitable or fair. Thus the presence of a relevant comparator is one of the defining qualities of a gender-sensitive indicator, according to Beck (1999b: 7). Similarly, Evans et al. (2001) refer to the choice of (1) relevant population groupings (e.g. by gender, level of education) for comparison; and (2) a reference group, norm or gold standard, as two of the five steps necessary to select measures for the assessment of health “inequalities” (Evans et al., 2001: 4). They also suggest that “the strong role of gender bias in the patterning of morbidity and mortality” means that there is a need “to compare women’s experiences to appropriate global norms for women, and men’s experiences to equivalent global norms for men” (Evans et al., 2001: 11).

However, Beck (1999b) cautions that care must be taken to correctly define and interpret norms and benchmarks for indicators, because different indicator definitions may be used in different settings, and the same indicator may be interpreted differently in different settings (Beck, 1999b: 9).

By definition then, an indicator that does not include or address a comparator, standard, or norm (i.e. one that does not answer the question: compared to what or whom?) cannot by itself provide a measure of variance or inequality that could be used (with other indicators, including contextual indicators) to assess and judge equity.

Beck provides the following checklist (see Figure 10) in relation to using gender-sensitive indicators at the national level, noting that the usefulness of an indicator will be improved the more points on the checklist it satisfies.

Figure 10 Checklist of methodological points for using gender-sensitive indicators at the national level (adapted from: Beck T. (1999b)).

- ✓ **Comparison to a norm:** Use of gender-sensitive indicators should involve comparison to a norm, for example the situation of men in the same country or the situation of women in another country, to focus on questions of gender equality and equity rather than only on the status of women.
- ✓ **Disaggregation:** Data should be disaggregated by sex. Wherever possible, national level indicators should also:
 - be disaggregated by age;
 - be disaggregated by socioeconomic grouping
 - be disaggregated by national and/or regional origin;
 - note the time period;
 - note the geographical coverage; and
 - note the data sources.

This kind of information will help to inform a broader analysis of the social forces within a society that have brought about the particular status of women and men in that society.

- ✓ **Ease of access:** Data should be easy to use and understand. Indicators should be phrased in easily understandable language, and should be developed at a level relevant to the institutional capabilities of the country concerned.
- ✓ **Scope of availability:** Indicators should be available for the whole country.
- ✓ **Reliability:** Data should be relatively reliable. No data are absolutely reliable but reliability checks should be carried out. For example, findings from censuses should be compared to findings from micro-level studies for accuracy.
- ✓ **Measurability:** Indicators must be about something measurable. Concepts such as “women’s empowerment” or “gender equity” may be difficult to define and measure. In this case proxy indicators, for example relating to greater choice for women in accessing health care or education, may have to stand as proxies for the less precise concepts.
- ✓ **Time-frames:** Gender-sensitive indicators should be reliable enough to use as a time series. The time span that the indicator covers should be clearly specified.
- ✓ **International comparability:** Gender-sensitive indicators should be collected using internationally accepted definitions. While these definitions are sometimes imprecise, they are usually the best terms available and allow for international comparison.
- ✓ **Measuring impact:** The indicator should, where feasible, measure the outcome or impact of a situation rather than the input. For example, women’s literacy is often a better measure of women’s educational status than female enrolment rates because literacy measures the impact of enrolment rates. Similarly, female mortality rates are a better measure of women’s health status than access to health facilities.
- ✓ **Participation:** Indicators should be used and developed using the most participatory process as possible. This will involve setting up inter-departmental government committees but also holding focus group meetings with the public and eliciting public opinion from women and men wherever possible. . .

Finally Beck stresses that a complementary gender analysis component is necessary for the indicator interpretation process (Beck, 1999b: 9, 16). Beck's presentation of selected gender sensitive indicators provides a clear example of the inclusion of a gender analysis component. All of the indicators presented are listed directly next to a series of related indicator questions, which encourage the implementation of gender analysis in the indicator interpretation process (see e.g. Beck, 1999b: 17–31).

1.10 What the framework means and how it might relate to conceptual models about determinants of health, particularly gender equity in health

Abu-Duhou et al. (2003) identify the need to take into account the “different understandings of health, illness and disease, which inform how we explain and manage ill-health”. They explore several models of understanding health: the biomedical approach; the social understanding of health; a women's health needs approach; a gender-equity approach; and finally, a gender, poverty and health approach developed on equity concepts.

The gender, poverty and health approach discussed includes the concept of human poverty (going beyond poverty as an economic measure of income/consumption) and identifies the health impact of the linkages between gender and poverty, on people, as well as on both the supply and demand-side of health services utilization, and gender-bias in the delivery of health services (Abu-Duhou et al., 2003: 23–33).

A useful conceptual framework must therefore be robust enough and broad enough, to take in different understandings that come from different models of health.

Mainstream health frameworks have moved a long way from simple input/output models (e.g. acute hospital resource/product models) that had limited explanatory power for general health (although good at explaining expenditure). They are developing much more “whole-of-system” views, and modelling complex and inter-connected causal relationships and progressions.

On the “mainstream” health side, health models currently in use increasingly incorporate variables or elements beyond the health care system itself. For instance, in addition to the frameworks already mentioned:

- The *Determinants of Health* model developed by Evans and Stoddart (1990) identifies five categories of determinants “underpinning” population health: social environment, physical environment, genetic endowment, well-being, and prosperity. These are seen as intrinsically interlinked with health function, disease, and health care interventions, in their impact on (and by) “individual response” (behaviour, biology).
- The *Canadian Population Health Framework* sees the importance of the five categories of determinants underpinning the health of a population (social environment, physical environment, genetic endowment, well-being, and prosperity) as being that “interventions and activities that impinge on any

of the determinants, or combinations of them, eventually affect population health” (Health Canada, 1996).

- The *Framework of Socioeconomic Determinants of Health* developed by Turrell et al. (1999) identifies determinants at three areas of the “stream” or levels impact: “upstream” (macro-level) factors (such as government, policies, global forces, and culture all impacting on determinants of health (social, physical, economic, environmental); “midstream” factors (psychosocial factors, health behaviours, and the health care system); and, the “downstream” (micro-level factors) of physiological systems and biological reactions, and affecting population health (defined as mortality, morbidity, life expectancy and quality of life) (Turrell et al., 1999).
- *The World Health Report 2001* (WHO, 2001) sets out a model of *Causal chains of exposure leading to disease* which commences with “distal” socioeconomic causes, and moves through “proximal” causes, physiological and pathophysiological causes, to outcomes, and sequelae (WHO, 2001: 13;). These chains are ordered by (opportunities for) prevention, and treatment, and almost every cause can link to all others through the causal chain. While the model is somewhat medical, the point made is that risks to health do not occur in isolation, and can include both “direct” or immediate, and distant or “indirect” causes. More importantly, distal or indirect causes are shown as precedent in the causal chain, and the chain itself introduces the notion of multiple causes, cumulating over time. Hence, “factors that lead to someone developing disease ... are likely to have their roots in a complex chain of environmental events that may have begun years previously, which in turn were shaped by broader socioeconomic determinants” (WHO, 2001: 13).

Health frameworks (and models) that include attributes of the wider economic and cultural system include non-health elements because they can have more impact on health status than the health care system, and their inclusion widens the evidence base available for analysis.

The expansion of preventive and health-promotive targeting beyond priority diseases/conditions/risk levels/populations, to incorporate concepts of life-cycle or life course stages and pathways, as well as settings appropriate to intervention points, adds further levels of complexity to many “mainstream” health frameworks.

Equity and efficiency

Frameworks incorporating equity or equality⁶⁶ often make a global comment about the need to examine these qualities, but do not particularly address them in any detail (e.g. ISO, 2001; CIHI, 2002). The ISO (2001) notes, that although it is possible to assess equity in any and many dimensions, to date, the dimension of socioeconomic status in measuring health inequalities has received the most attention. Gender, age, ethnicity, and rural/urban residence, are suggested as examples of other, possibly related, dimensions of equity.

⁶⁶ Note that although there are differences between the concepts, the two terms are frequently, in practice, used interchangeably.

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Recent developments in health systems address issues of *equity and efficiency* within or across health systems. For instance,

- *The World Health Report 2000* (WHO, 2000) sets out a framework on which it assesses and ranks the performance of national health systems' overall achievement of three goals (or health system objectives). The goals are: good health, responsiveness to the expectations of the population, and fairness of financial contribution. Progress towards these goals is based on how well systems carry out four vital functions: service provision, resource generation, financing, and stewardship, noting the overarching influence of stewardship.

Although WHO note that a lot of “questions about health system performance have no clear or simple answers – because outcomes are hard to measure and it is hard to disentangle the health *system's* contribution from other factors”, the report has none the less initiated a robust debate (WHO, 2000, original *emphasis*). Commentators point to the inability to prove a direct relationship between health systems and improvements in health status (e.g. Hurst and Jee-Hughes, 2001; Navarro, 2000)⁶⁷, and the incongruity between indicators and data (or inputs and outputs/outcomes), which are not consistent with the WHO definition of “health system” (i.e. the “figure for health expenditure on all the activities of intersectoral actions in promoting health *is nowhere to be found in any national health accounts*” (WHO, 2002c: 12, quoting McKee, 2001, original *emphasis*)). Almeida and fifteen other authors (2001) in an article focusing on the WHO report's methodological shortcomings and consequent policy implications, detail nine major areas of concern, which include, *inter alia*: unavailability of data (“Data needed to calculate four of the five component measures ... were absent for 70-89% of countries [and this was] not acknowledged in the report”); lack of coverage and unrepresentativeness of key informants, and inappropriateness of methods for determining “responsiveness”; measures of health inequalities uninformed by distributional differences related to sub-population characteristics, and which were poorly correlated with accepted measures of socioeconomic inequality in health necessary to assess equity; and, the “fair financing” measure, which “does not reflect a conceptually sound or socially responsible view of fairness [nor] differentiate among countries” (2001: 1692-1693).

Almeida et al. (2001) noted that WHO had established a technical consultation process in response to Member States' criticisms of the report. The *Report of the scientific peer review group on health systems performance assessment* (WHO, 2002c), made available in June 2002, concluded not only that the objectives of such assessments are valid, but also that providing comparative data on the characteristics of health systems “is a vital component of securing health system improvements”; and that future assessment activity “should be judged by the extent to which it effects an improvement in health system performance worldwide, particularly in countries with low levels of attainment” (2002c: iii). Although WHO has not sought to replicate the developmental health systems

⁶⁷ The ISO TC notes that “the assumption that medical care has been the *most* influential determinant of improvements in health cannot be accepted” (ISO, 2001: 10).

performance assessments and rankings of *The World Health Report 2000*, several aspects of health system analysis in *The World Health Report 2002* show a more collaborative and “fairer” process is evolving (e.g. submission of WHO financing estimates to Member States) (WHO, 2000, 2002a).

Related developments:

- *Benchmarks of fairness for health care reform* (Daniels et al., 2000) is a policy tool for developing countries to analyze the overall fairness of health care reforms. These include: equity in health outcomes, in access to all forms of care, and in financing; efficiency in management and allocation; accountability (to the public); and appropriate forms of patient and provider autonomy. Nine benchmarks each contain several criteria and the baseline “score” = status quo of country (scored numerically or with plus/minus signs by different countries). The aim, however, is not to score or rank countries, but to encourage debate on the interacting effects of the reforms being compared. The benchmarks are seen as complementary to other equity monitoring of health systems or indexing of health system performance across countries (Daniels et al., 2000).
- Daniels points out that “[b]enchmarks help the integrated examination of objectives that often involve trade-offs with each other, which requires looking across disciplinary boundaries in a systematic way” (2000: 740).
- The Rockefeller Foundation (2002) promote the use of *Health Equity Gauges* an approach to promoting equity that includes monitoring of key indicators, coupled with advocacy and community participation to ensure that information is acted upon. A *Health Equity Gauge* is a way of tracking gaps in health status at national or subnational levels. A gauge is centred around a component that is about measuring and monitoring a set of agreed indicators. However for such a tool to be effective in promoting equity, a number of other components are required to ensure that the information is used. The Rockefeller Foundation has identified the five core elements of an equity gauge as being:

- [1]. Fair distribution as a fundamental organizing principle of the work.
- [2]. Key health systems’ stakeholders be involved in the development and implementation of the project.
- [3]. Community ownership is integral to the gauge.
- [4]. The technical component, with regard to both the scope of the gauge and its measures, is valid, reliable and sustainable.
- [5]. The work informs decision-making in a way that is timely, user friendly, and accessible, and takes cognizance of current levels of awareness and demand within countries.

(The Rockefeller Foundation 2002: 1).

Convergence

Another development in health frameworks is that frameworks from both the economic and the health domains are converging, so that, i.e. the OECD strongly financial and resource-based framework has added health status and non-medical determinants of health topics, while the WHO framework's more medically-based indicator sets include economic indicators, as well as health systems performance measures, that include the assessment of financial contribution (as described above) (OECD, 2002; WHO, 2001; 2000).

Other indicator sets indicate a convergence between health and population status themes. In the sustainable development area, "issues of worldwide concern today" are "health hazards" and the way in which health is influenced by the environment and development process (von Schirnding, 2002: 7). A range of international indicator initiatives on the topic of *Health in sustainable development planning* incorporate health as well as environmental indicators, as described in von Schirnding (2002: 27–45). In this area, "human health is both a determinant and an outcome of sustainable development" (von Schirnding 2002: 7).

It can be seen, therefore, that the generic or "mainstream" health models that are readily available for us to choose from generally include a range of broader perceptions of health that situate population health status (health outcomes, health consequences) within social, cultural, regional, and economic systems, all of which are considered important to measure, as they directly, indirectly, or less directly, impinge on health.

The best models available have developed composite (or multipart) descriptions of different sectors that are considered to impact on (or have a more or less causal relationship on) population and individual health states:

- The four tiers of the *Canadian Health Indicator Framework* commence with Health Status, which is underpinned/supported by determinants of health ("factors that are known to affect our health and, in some cases, when and how we use health care"). Determinants include: health behaviours, living and working conditions, personal resources, and, environmental factors. These in turn rest on the third tier of Health System Performance, which measures quality of health care aspects. The fourth tier of Community and Health System Characteristics is described as containing measures providing "useful contextual information" although they are "not direct measures of health status or the quality of health care" (CIHI, 2002: 3).
- The *Australian National Health Performance Framework*, adapted from the Canadian Framework discussed above – and minus the fourth tier – instead incorporates fourth-tier-like elements into its Health System Performance third tier in the concept of "sustainability", defined as the "system's or organization's capacity to provide infrastructure such as workforce, facilities and equipment" (NHPC, 2002: 7).
- The generic *Health Indicators Conceptual Framework*, put forward within the arena of health informatics as a working draft by ISO Technical Committee 215, presents the 4-tiered model, with adaptations derived from recent Australian work. It incorporates the different dimensions of different perspec-

tives and levels of: population health; nonmedical determinants of health; quality of health services; and characteristics of the community or the health system that “provide useful contextual information” (ISO, 2001: 10).

Both the Canadian and the ISO Technical Committee frameworks incorporate the concept of equity as a fundamental attribute common to all domains. Equity is shown as a cross-tier arrow running vertically in both directions alongside the framework, and affecting all levels within it.

The ISO Technical Committee suggests that “in the international arena”, the strength of the generic framework proposed is that it can enable a “constant conceptual approach and definitions while allowing a great deal of flexibility in identifying specific indicators and the underlying data requirements”. They suggest that this type of framework “allows us to understand levels and differences in health and health system performance, and to pinpoint the major factors which should be examined [before] translating this information into health policy” (ISO, 2001: 9). A further advantage is the ability to separate out factors that lie wholly within the health system, as well as those requiring inter-sectoral collaboration.

We considered that, having decided to use a “mainstream” health information framework as the structure for the comparative analysis, the frameworks discussed above that culminate in the *Health Indicators Conceptual Framework* (ISO, 2001), appeared sufficiently robust and broad enough in their design and aims to be capable of taking in different understandings of health that came from different models, and providing a strong base for the framework of the comparative analysis. The assessment process itself would then reveal the gender sensitivity of the extant indicators framed within this model.

2

Gender-sensitivity Assessment Tool: Explanatory Notes

Section 2 outlines the different components and criteria of the Gender-sensitivity Assessment Tool used in this assessment, and shows the tool (Figure 11).

The Gender Sensitivity Assessment Tool is drawn from the work of Beck (1999a, 1999b).

The criteria used in the Gender Sensitivity Assessment Tool to assess/test indicators for gender sensitivity was set out as a checklist (as shown in Figure 11) to collect a yes/no (✓ or ✗) response for each of the following categories:

2.1 Disaggregations

Disaggregations according to sex, age, ethnicity, and socioeconomic group.

A guiding idea for the selection of gender-sensitive indicators suggested by Beck (1999a; 1999b), is that all data should be disaggregated by sex, and “[w]herever possible, national level indicators should also be disaggregated” by at least age, ethnicity and socioeconomic grouping (1999b: 14).

This suggestion is supported for gender-sensitive indicators at the national level by Abdool et al., (2001) in their inventory titled *Towards Gender-sensitive Health Indicators*. They recommend that important markers for gender-sensitive indicators are disaggregation of data by sex, and:

...[w]here possible, data should also be disaggregated by age, socioeconomic status, country of origin (or birth country, including the length of time spent in said country), geographical coverage (e.g. Canadian indicators should include data from all provinces and territories, including isolated areas and Native Reserves, in order to have an appropriate geographical coverage and attend to disparities), as well as ethnic and racial group. (Abdool and Vissandjée, 2001: 1)

2.2 Reporting over time (Over time)

Beck establishes that gender-sensitive indicators should measure change (i.e. change over time) (Beck, 1999a: 9).

2.3 Inclusion of comparators (Comparator)

A gender-sensitive indicator should also explicitly state the “norm” or comparator (e.g. women to men, women in one country to women in another country, etc.) (Beck, 1999a: 9).⁶⁸

2.4 Whether there had been participatory development (Participatory)

Beck (1999) argues that there should be “as widespread participation in the development of indicators as possible” (Beck, 1999b: 9), e.g. governments, NGOs, general population, women in so-called developing countries; particularly, poor and marginalized women (Beck, 1999b: 9, 15). He points out that most work on gender-sensitive indicators continues to be non-participatory.

2.5 Whether they were accompanied by gender analysis (Gender Analysis)

The inclusion of *gender*-related indicator questions (gender-analysis component) is a criterion used to assess for any relevant and explicitly-stated gender analysis of indicators, and is considered a further test of sensitivity to gender and equity issues.

Beck recommends the inclusion of indicator questions that deal with gender relations, and broader socioeconomic questions should be provided with indicators in that order to ensure their gender sensitivity. “The indicator questions complement the indicators by asking the kinds of questions that are usually addressed during gender analysis” (Beck, 1999b: 17).

Drawing on Beck (1999b), the assessment criteria include this criterion in order to assess indicators for the clear and obvious presence of related gender-analysis indicator questions.

Implicit in the adoption of this assessment criterion is the recognition that indicators—and this includes any indicators assessed as being gender-sensitive—provide no information on broader social patterns and context; provide little information about why gender relations have been shaped in particular ways; and provide even less information about how these relations could be altered (Beck, 1999b: 8).

In any indicator interpretation process, Beck stresses that it is important to recognize that indicators—even gender sensitive indicators—“point to key questions rather than provide answers” (Beck, 1999b: 9).

⁶⁸ Beck defines a gender-sensitive indicator as “‘an indicator that captures gender-related changes in society over time’ which must be relative to some agreed normative standard or explicit reference group”. He cites as an example of a gender-sensitive indicator: “‘60% of women in country X are literate, as compared to 82% of men, and compared to 30% and 52% five years ago’. The norm or reference group in this example is men in the same country, but in other cases might be other groups of women” (Beck 1999a: 9).

Figure 11 The Framework used to consider indicators

Tier of framework:

HEALTH STATUS (TIER 1)

Topic: Indicator Area

Well-being

Indicator/s and their details

Indicator	Source and Recency	Gender sensitivity (ability to disaggregate, whether meets Beck definition)							
		Disaggregations				Beck criteria			
		sex, s-s	age, a-l, a-s	ethnicity	Socio Economic	over time	comparator	participatory	gender analysis
e.g. OECD 2000	✓	✗	✗	✗	✗	✓	✗	✗	

s-s = sex-specific (e.g. women) a-l = age-limited (e.g. 15 to 49 years) a-s = age-specific (e.g. at birth, at one year old)

Anticipated outcomes of using the framework to consider indicators: gaps observed (no indicators for a stated indicator area); minimum disaggregations met (i.e. indicator can be disaggregated by sex but not by age, ethnicity, etc); whether the other criteria are met (or how many are met, i.e. 1/3); and whether gender issues are explicitly addressed in the analysis (etc.).

3

Exploring Leading Health Indicators

Section 3 explores the concept of “leading health indicators”: firstly, by examining some of the criteria used to select or establish such indicators in recent years (section 3.1); and secondly, by reviewing a variety of initiatives that have attempted to prioritize and report on leading health topics (section 3.2). Section 3.3 comments on the characteristics of existing leading health indicator sets, and section 3.4 goes beyond these to identify current issues in the selection of leading health indicators, issues that include the absence of certain types of indicators (which are examined in more detail).

3.1. Some criteria for defining leading health indicators

Our initial discussions suggested that leading health indicators could be:

- Underlying issues that tell more (explain many indicators at other levels, e.g. upstream indicators such as those in Tier 4).
- Current issues flagging future problems (alerts or warnings).
- Areas needing priority attention.
- Indicators that are predictive (e.g. low birth weight, violence, unemployment).

The *World Health Report 2002* (WHO, 2002a) used the following “considerations” in choosing risk factors to assess in the report:

- [1]. Potential global impact: likely to be among leading causes of disease burden as a result of high prevalence and/or large increases in risk for major types of death and disability;
- [2]. High likelihood of causality;
- [3]. Potential modifiability;
- [4]. Neither too specific nor too broad (for example, environmental hazards as a whole); and
- [5]. Availability of reasonably complete data on risk factor distributions and risk factor–disease relationships.

The Institute of Medicine committee convened to recommend leading health

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indicators to the *Healthy People 2010* (USA) initiative used the following criteria to guide their selection:

- [1]. Worth measuring - the indicators represent an important and salient aspect of the public's health;
- [2]. Can be measured for diverse populations - the indicators are valid and reliable for the general population and diverse population groups;
- [3]. Understood by people who need to act - people who need to act on their own behalf or that of others should be able to readily comprehend the indicators and what can be done to improve the status of those indicators;
- [4]. Information will galvanize action - the indicators are of such a nature that action can be taken at the national, state, local and community levels by individuals as well as organized groups and public and private agencies;
- [5]. Actions that can lead to improvement are anticipated and feasible - there are proven actions (e.g. changes in personal behaviours, implementation of new policies, etc.) that can alter the course of the indicators when widely applied; and
- [6]. Measurement over time will reflect results of action - if action is taken, tangible results will be seen indicating improvements in various aspects of the nation's health.

(Chrvala and Bulger, 1999: 6).

3.2. Existing mainstream "leading health" topics

A variety of initiatives have attempted to prioritize—or rank in order of priority or importance—leading health topics. A select few are shown below (in Tables 1–3) in terms of the topics (risk factors, diseases) selected.

- *The World Health Report 2002* (WHO, 2002a) ranks both risk factors and diseases according to regional mortality strata, which assign WHO Member States to comparative groups based on their child mortality (very low, low, high) and, for countries with high child mortality, their adult male mortality as well (high, very high) (WHO, 2002a: 233–235). The leading risk factors in terms of their disease burden are shown below (in Table 3.1) for sub-regions of the world at different "development" points and mortality strata.

Table 3.1 Leading ten selected risk factors as percentage causes of disease burden measured in DALYs (WHO, 2002a)

Developing countries: High mortality countries		Developing countries: Low mortality countries		Developed countries	
	%		%		%
Underweight	14.9	Alcohol	6.2	Tobacco	12.2
Unsafe sex	10.2	Blood pressure	5.0	Blood pressure	10.9
Unsafe water, sanitation and hygiene	5.5	Tobacco	4.0	Alcohol	9.2
Indoor smoke from solid fuels	3.7	Underweight	3.1	Cholesterol	7.6
Zinc deficiency	3.2	Overweight	2.7	Overweight	7.4
Iron deficiency	3.1	Cholesterol	2.1	Low fruit and vegetable intake	3.9
Vitamin A deficiency	3.0	Indoor smoke from solid fuels	1.9	Physical inactivity	3.3
Blood pressure	2.5	Low fruit and vegetable intake	1.9	Illicit drugs	1.8
Tobacco	2.0	Iron deficiency	1.8	Unsafe sex	0.8
Cholesterol	1.9	Unsafe water, sanitation and hygiene	1.7	Iron deficiency	0.7

Note that only bodyweight is identified among the top five as a risk factor in common, with both *underweight* and *overweight* of concern to countries in between the two extremes. Iron deficiency, blood pressure, tobacco, and cholesterol are also shown as common across the three groupings. The table also shows that the top leading risk factors in high mortality countries are less likely to be shared across *all* countries (e.g. unsafe water, sanitation and hygiene is not assessed as a leading risk factor for developed countries); but that the top leading risk factors for developed countries are already on this top ten list for both the high and low mortality developing countries.

The leading diseases and injuries, in terms of their disease burden, are shown below (in Table 3.2) for sub-regions of the world at different “development” points and mortality strata.

Table 3.2 Major burden of disease: leading ten diseases and injuries measured in DALYs (WHO, 2002a)

Developing countries: High mortality countries		Developing countries: Low mortality countries		Developed countries	
	%		%		%
HIV/AIDS	9.0	Unipolar depressive disorders	5.9	Ischaemic heart disease	9.4
Lower respiratory infections	8.2	Cerebrovascular disease	4.7	Unipolar depressive disorders	7.2
Diarrhoeal diseases	6.3	Lower respiratory infections	4.1	Cerebrovascular disease	6.0
Childhood cluster diseases	5.5	Road traffic injury	4.1	Alcohol use disorders	3.5
Low birth weight	5.0	Chronic obstructive pulmonary disease	3.8	Dementia and other central nervous system disorders	3.0
Malaria	4.9	Ischaemic heart disease	3.2	Deafness	2.8
Unipolar depressive disorders	3.1	Birth asphyxia/trauma	2.6	Chronic obstructive pulmonary disease	2.6
Ischaemic heart disease	3.0	Tuberculosis	2.4	Road traffic injury	2.5
Tuberculosis	2.9	Alcohol use disorders	2.3	Osteoarthritis	2.5
Road traffic injury	2.0	Deafness	2.2	Trachea/bronchus/lung cancers	2.4

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Note that this table shows a similar pattern for diseases and injuries to the patterns described above for risk factors (although fewer are in common). The top leading diseases and injuries in high mortality countries are less likely than risk factors to be shared across *all* countries (e.g. HIV/AIDS is listed first for high mortality countries and not at all for low mortality or developed countries); but the top leading risk factors for developed countries (e.g. ischaemic heart disease, unipolar depressive disorders) are already on the list for both high and low mortality developing countries. In addition, road traffic injury shows a distinctive pattern which suggests a positive impact from preventive policies in developed countries.

The “leading global health crises and challenges”, as defined by the *Human Development Report 2002* are as follows:

Table 3.3 Leading global health crises and challenges (UNDP, 2002a)

1. Undernourished people
2. Children (under 5 years) under weight for age *
3. Children (under 5 years) under height for age
4. Infants with low birth weight #
5. People living with HIV/AIDS: adults (15-49 years), women (15-49 years), and children (0-14 years).#
6. Malaria (in countries where malaria is endemic) #
7. Tuberculosis #
8. Cigarette consumption (calculated as per adult aged 15 plus) *

* indicates also assessed as a leading risk factor by WHO (2002a: 102)

indicates also assessed as a leading disease/injury by WHO (2002a: 232)

Note that although most (six out of eight) topics listed above overlap with the leading risk factors and diseases identified by the WHO (2002a) (mainly in relation to developing countries with high mortality), this does not extend to the primary topic of undernourishment, which could be seen as an underlying cause or explanation of the three bodyweight topics (children under weight for age, children under height for age, and infants with low birth weight).

- The *World Report on Violence and Health* (WHO, 2002b) cites the Forty-ninth World Health Assembly Resolution (WHA49.25) that declares “that violence is a leading worldwide public health problem” (WHO, 2002b). WHO (2002b) reports research studies showing links between economic growth (measured by the rate of growth of the GDP, and/or GDP per capita) and violence (violence reduced as the rate of growth and/or the GDP per capita increased), as well as between income inequality (measured by the GINI coefficient) and violence (increasing violence as inequality increased).
- The *World Development Report* (World Bank, 1993) flagged women’s education (that is, an upstream factor) as one of the most important determinants of health.

- *Healthy People 2010*, the third generation of the *Healthy People*⁶⁹ (USA) initiative, commissioned the Institute of Medicine to develop a small set of leading health indicators. Three unique conceptual frameworks and 19 indicators in three proposed sets were recommended (see Figure 12 below). The indicator sets reflect a shift in emphasis from simple mortality measures towards a more complex array that includes health-related quality of life, protective health behaviours, risk behaviours, social, and environmental factors, consistent with the overarching goals established for *Healthy People 2010* (Chrvala and Bulger, 1999).

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Health Determinants and Health Outcomes	Life Course Determinants	Prevention
Physical environment	Substance abuse	<u>Poverty</u>
<u>Poverty</u>	<u>Poverty</u>	<u>Tobacco use</u>
High school graduation	<i>Physical activity</i>	Childhood immunization
<u>Tobacco use</u>	<i>Health care access</i>	Cancer screening
Weight	Cognitive development	Hypertension screening
<i>Physical activity</i>	Violence	Diabetic eye exam
Health insurance	<u>Disability</u>	<i>Health care access</i>
Cancer detection	<u>Tobacco use</u>	<u>Disability</u>
<i>Preventable deaths</i>	Low birth weight	<i>Preventable deaths</i>
<u>Disability</u>		

Figure 12
Comparative overview of three proposed leading health indicator sets (Chrvala and Bulger, 1999)

Key: **Bold** = Unique to the set, *Italic* = Common to two sets, Underline = Common to three sets

Although recommending that a choice be made between the three sets, the final *Leading Health Indicators* (see Figure 13 following) represent a fourth set, and notably left out overarching determinants such as poverty.

1. Physical activity
2. Overweight and obesity
3. Tobacco use
4. Substance abuse
5. Responsible sexual behaviour
6. Mental health
7. Injury and violence
8. Environmental quality
9. Immunization
10. Access to health care

Figure 13 **The ten final leading Health Indicators for Healthy People 2010 (Department of Health and Human Services, United States (USA DHHS), 2001).**

⁶⁹ The *Healthy People* (USA) initiative commenced in 1979, to provide information to: address disparities in health status and health outcomes between diverse population groups; and, to improve the overall health of the United States population (Chrvala and Bulger, 1999).

3.3. Comments on existing mainstream “leading health” indicator sets

This section briefly comments on some of the characteristics of the existing leading health indicator sets reviewed in the previous sections.

Cross-sectional view

The leading health indicators discussed above essentially take a cross-sectional view of the world, rather than a life course, life pathway, or longitudinal view. Life course or life chance indicators that measure, for example: cumulative exposures, the effects of latency in adult onset, and the accumulation and interaction of risks that lead to/act on vulnerability and susceptibility, are absent. Yet the persistence of equity gaps past childhood and the longer term consequences for health impact have been well documented (see, for instance: Kuh and Ben-Shlomo, 1997; Barker, 1998; Baunach, 2001; Kuh et al., 2002). In a recent work, Kuh et al., (2002) studied the socioeconomic conditions in childhood and adulthood of a postwar birth cohort, and found that people whose socioeconomic disadvantage continued into early adulthood were between three and five times more likely to die than those most advantaged.

Focus on single risk factors

The focus on single risk factors (e.g. physical activity) or risk factors in single domains (e.g. the medical focus on disease-related risk factors) as determinants of health—rather than on clusters of determinants, or life course accumulations—tends to be a narrowing focus. So, for instance, the impact of socioeconomic status can disappear as a determinant of health when looking only at individual risk factors. Yet socioeconomic status is related to almost all of the health behavioural determinants. The *World Development Report 1993* (World Bank, 1993) flagged improvements in female education (a key socioeconomic factor), and policies to promote economic growth, as crucial to improving population health status.

Lack of equity and gender analysis

Any underlying equity analyses (which should include gender equity) are not made clear. For instance the “behavioural” or “lifestyle” risk factors—smoking, poor nutrition, alcohol misuse and physical inactivity—exhibit large differences between men and women, but are prioritized based on a broad population approach rather than, for instance, more tailored or targeted sex-disaggregated approaches. A broader population health focus can lose sight of gender overall when reporting population trends in undifferentiated totals (i.e. sex-less, age-less).

Topics or indicators appear to be selected at some level because data exists

For instance, the leading health indicators for the *Healthy People 2010* (USA) initiative were selected for their ability to motivate action and their importance as public health issues, *and because data was available* to measure progress (USA DHHS, 2001, our *emphasis*). WHO (2002a: 20) “considerations” in choosing risk factors to assess included the *availability of reasonably complete data* (our *emphasis*).

3.4. Going beyond “leading health” indicators

Two additional issues in relation to indicators are: the value and meaning of indicators, and the process of monitoring. Internationally-comparative indicators, in particular, are plagued by measurement problems (e.g. varying definitions, coverage limitations, imperfect harmonization of data), as well as by the lack of availability and poor quality of much of the required data (see e.g. UNIFEM, 2000: 63; Almeida et al., 2001). Where adequate measures are available, their existence *per se* does not necessarily mean that there is the capacity for reflection and change, nor the capacity to act upon causative factors to implement change. The existence of indicators does not necessarily mean that there is a functioning monitoring *process*, tracking changes over time and routinely reporting them to policy-makers and communities.

*Gender-
sensitivity
Assessment
Tool*

Levels

Some indicators that are appropriate at a local or community level are difficult to aggregate up to national, regional or international levels, raising the issue of how best to organize indicators at differing levels to interconnect in a meaningful way that can lead to action to make improvements. UNIFEM *Progress of the World's Women* (2000) addresses this issue, suggesting that “[w]omen will want to make assessments at different levels of aggregation and in different contexts” at the local level, at the national level, at the regional level, and at the global level. The report recognizes that global assessments “cannot capture the rich diversity of local-level and national-level assessments”; however, they can “put each country into a global context”.

Malhotra et al. (2002) use the example of social mobility (e.g. “ability to visit a health centre without getting permission”)—within the context of measuring women’s empowerment—to illustrate the level at which an indicator may be useful. They suggest that even an indicator that is no longer a useful measure at the individual level may still be used to distinguish relative levels of empowerment between larger groups (e.g. communities), while variation within the larger group endures. The potential utility of this indicator is shown in three different “normative contexts” and at the individual and community levels.

Figure 14 Usefulness of a social mobility indicator at different levels, within different normative contexts (Malhotra et al., 2002)

Level of Analysis	Normative Context		
	Women’s mobility is a long-standing norm	Claustration norm recently changed	Claustration is still the norm
Individual	Probably not useful	Probably not useful	Potentially useful
Community	Probably not useful	Potentially useful	Potentially useful

Absence of process indicators.

Another obvious gap in the indicators examined is the absence of process indicators (e.g. indicators that measure the implementation of changes in care delivery, or preventive interventions; or indicators that are intermediate between policy decisions to implement programmes and consequent results such as health outcomes). This absence includes the study of gendering mechanisms, or the “upstream” determinants of the gendering process—as well as the absence of indicators on what Kabeer (1999) calls “transformative agency”—that would measure the extent to which existing inequalities are transformed (“challenged or destabilized”), rather than reproduced (see below).

Absence of causality indicators.

A further area in which there is a noticeable lack of indicators is on the elements of causality (e.g. measures that cross or link the tiers in the framework).

In a review of policies and indicators in selected areas listing the main concerns and problems that were identified in preparing the United Nations Economic Commission for Europe’s regional gender statistics website, Drengsted-Nielsen and Luige (2002) make the general observation that [s]tatistics “show[s] the situation as it is (e.g. ageing), and should look more at the causes and implications”. Three of their examples are particularly pertinent here. The first is the issue of *decreasing family size*, for which the indicators (and data available for Europe) include: population by age and marital status; total fertility rate; abortion rate; mean age of women at birth of first child; total number of one-parent families; children living in one-parent families; and one-person households. Their assessment is that the

...topic is mostly analysed from the viewpoint of decreasing fertility rates; analysis of the causes should concentrate on accessibility of child-care services, the existence of adequate family and social policies, reconciliation of work and family life, etc. The indicators are looking at the outcomes and not at the [upstream] causes of the decreasing family size. (Drengsted-Nielsen and Luige 2002).

The second example concerns the issue of *gender roles and responsibility sharing*, where they note: that despite increasing numbers of women entering the labour force, “the societal response to the changing needs of families where both partners work outside the home has been slow”; and, that women still do most of the work within the household and in managing children”. The indicators for this topic are restricted to time spent in paid work, unpaid and other (i.e. data from time use studies), for which European data availability is poor. Except for time use, they point out that “there are no indicators in this very important area which can be considered the cause of decreasing family size, population decline, women’s participation in public life and decision making” (Drengsted-Nielsen and Luige, 2002).

The third example concerns gender differences in lifestyle, which expose men and women differently to various risk factors. Although data availability on standard mortality rates is good for Europe—showing, for instance, high mortality rates for men in the transition countries—these data do not address the causes. Suicides and mental health problems among men “are often attrib-

uted to changes in gender roles (male as breadwinner) and overall stress caused by the economic transition period”. Identifying factors that cause decreases in male life expectancy is, therefore, an area they have identified as critical for policy intervention (Drengsted-Nielsen and Luige, 2002).

Stone and Pelletier (2002), in a paper presented to a work session of European Statisticians on gender statistics, observe that indicators, research and theory on *gendering mechanisms* mostly relate to one aspect in particular (e.g. distribution of power among family members), or limited segments of peoples’ lives (e.g. home economics). They report that although “the links between gendering mechanisms that cover one or more stages of life” are discussed, rarely is empirical analysis or detailed theory put forward, and “there is a lack of theories addressing the network of links among a wide range of institutions and related key cultural values of a society”.

Different types of indicators

All indicators are not equal. Several developments tease out or identify differences in the *type* of indicators. For instance:

Enabling, performance and progress indicators

Licuanan (1999) proposes the systematic and regular use of gender-sensitive indicators along with innovative indicators – such as psychological indicators and qualitative indicators – to strengthen the monitoring and evaluation of the Beijing Platform for Action (BPA). She presents examples of gender-sensitive indicators of three types: enabling/input indicators, performance indicators, and progress indicators.

Figure 15 Selected indicators for monitoring the Beijing Platform for Action (Licuanan, 1999)

BPA Critical area of concern	Input/Enabling Interventions	Performance	Outcome/Progress
C. Women and Health Strategic objective C.5. Increase resources and monitor follow-up for women’s health	Budgetary allocation for women’s health Setting up of monitoring mechanism that is comprised of various stakeholders, for women’s health. Policy and programme on women’s reproductive health	Specific programmes funded for women’s health. Country report for ICPD+5 (A 5-year Review of Progress Towards the Implementation of the Programme and Action of the International Conference on Population and Development (Cairo, 1994-ICPD). Government database on women’s illness and health problems. Gender perspective in women’s reproductive health programme. Percentage of women’s health projects/ programmes funded by outsiders	Progress indicators that show distance or nearness to the goal of providing women with adequate and affordable services and programmes on health Decrease/increase in the share of women’s health budget in total government budget. Increase health benefits going to women, by socioeconomic class, ethnicity and age. Expanded reproductive services
D. Violence against Women Strategic objective D.1. Take integrated measures to prevent and eliminate violence against women	Presence of absence of laws and policies that protect women from various forms of violence. Budgetary support to programmes addressing violence against women (VAW)	Police force, judiciary and social welfare agency personnel sensitized to VAW. Number of cases related to violence against women heard in local courts and their results. Number of hospital based programmes for treating VAW victims. Number and type of project of VAW in social/ family welfare agency. Gender perspective in VAW training and information materials	Progress indicators that show distance or nearness to the goal of integrating the different responses to VAW e.g. legal, criminal, health, education and counseling Increase in reporting cases of VAW in media (public awareness). Expanded health services for women survivors. Presence of preventive strategies for VAW. Increase in prosecution of VAW perpetrators

Driving force, state, and response indicators

The *Selected Sustainable Development Indicators* from the United Nations (1996) maps indicators of three types – driving force indicators, state indicators, and response indicators – against “social” and environmental topic categories (von Schirnding, 2002). Topics in the social category include: protecting and promoting human health, and demographic dynamics and sustainability.⁷⁰

Figure 16 Selected sustainable development indicators
(von Schirnding 2002, adapted from United Nations, 1996)

Social category	Driving force indicators	State indicators	Response indicators
Demographic dynamics and sustainability	Population growth rate; Net migration rate; Total fertility rate	Population density	- none given -
Protecting and promoting human health	- none given -	Basic sanitation: percent of population with adequate excreta -disposal facilities; Access to safe drinking water; Life expectancy at birth; Adequate birth weight; Infant mortality rate; Nutritional status of children	Immunization against infectious diseases; Contraceptive prevalence; Proportion of potentially hazardous chemicals monitored in food; National health expenditure devoted to local health care; Total national health expenditure related to GNP.

Resources, agency and transformative achievement

Kabeer (1999) defines empowerment as “the process by which those who have been denied the ability to make strategic life choices acquire such an ability”, and considers the exercise of choice in three interrelated dimensions (resources, agency, and achievements):

- *Resources*: preconditions (such as access and future claims) to material, human and social resources.
- *Agency*: processes of decision-making, and other factors, such as negotiation, deception, manipulation.
- *Achievements*: such as well-being outcomes.

Kabeer explains that together, resources and agency constitute capability or potential to achieve. She adds that information on all three dimensions is needed to establish the meaning of an indicator, including the extent to which achievement transforms existing inequalities (suggesting e.g. that women’s ability to access prenatal health care may be more indicative of transformative agency than child survival or immunization).

Kabeer also points out that most existing indicators – even composites such as the UNDP Human Development Index and the GEM, which measure *achievement* broadly (e.g. women’s political representation) over time – are some distance away from measuring women’s choices; in particular, the socially “allowable” choices. She says, “choice necessarily implies the possibility

⁷⁰ Other social categories are: Combating poverty; Promoting education; public awareness and training; Protecting and promoting human health; and Promoting sustainable settlement development.

of alternatives”; and suggests that in measuring achievement, it is important to consider whether women have the resources to “materially achieve” as well as to conceive of, alternative choices (Kabeer, 1999). There is some evidence that, given a choice, some women choose options that perpetuate existing inequities with a negative impact on women (e.g. son preference) (see Malhotra et al., 2002).

Kabeer (1999) also stresses the “critical need to triangulate or cross-check the evidence provided by an indicator” to establish that it really does mean what it appears to mean, noting that “[d]isembedded from their context, indicators can lend themselves to a variety of different, and contradictory, meanings” (Kabeer, 1999). Malhotra et al. (2002) make a similar point and review a number of empirical studies to show how different expectations cause researchers using similar measures to come to different conclusions about the success or failure of programmes.

Appendix A:

Gender equity in the organizational context

DEFINITION: Gender equity is the equally fair treatment of women and men. To ensure fairness, some societies adopt measures to compensate for historical and social disadvantages that prevent women and men from otherwise operating on a level playing field. Gender equity strategies eventually attain gender equality. Equity is the means; equality is the result.

This set of indicators is presented as a menu from which evaluators may select those most applicable to a given work setting:

- Percent of managerial positions held by women.
- Average salary of men versus women in comparable managerial positions.
- Representation of women's health advocates on Board of Directors.
- Participation of women in the conceptualization and design of projects.
- Explicit organizational policy statement that prohibits gender discrimination in hiring, promotion, and retention policies, salaries, and benefits.
- Similarity of supervision procedures for male and female staff (of equal rank).
- Percent of personnel (including supervisors of service programmes, receptionists) who receive training in gender sensitivity.
- Elimination of overt gender bias in organization's standards and guidelines.
- Existence of written policies or guidelines to prohibit sexual harassment of staff.
- Organizational commitment (demonstrated by explicit interventions) to:
 - Women's participation (in project activities).
 - Human rights (lobbying for specific causes).
 - Empowerment (e.g. attempts to change community norms regarding women's mobility).
 - Equity (e.g. micro credit systems).
 - Disaggregation of programme data by sex (where appropriate).
 - Equal distribution of opportunities for training and career development between men and women, and
 - Equal protection for men and women in organizational policies regarding clients' rights to privacy, informed consent, confidentiality, and delivery of high-quality services.

Source: Bertrand JT, Escudero G. (2002) *Compendium of indicators for evaluating reproductive health programs*. (MEASURE Evaluation Manual Series, No. 6). p. 195, Box II.H.4.1 Menu of Indicators. <http://www.cpc.unc.edu/measure/publications/manuals/compendium/> [accessed 21 November 2002].

Appendix B:

Gender-sensitive service delivery context

DEFINITION: Gender sensitivity [in the service delivery environment] is the way service providers treat male or female clients in service delivery facilities and thus affects client willingness to seek services, continue to use services, and carry out the health behaviors advocated by the services. This indicator also measures aspects of the services themselves (e.g. in the case of family planning, whether a range of male as well as female methods is offered).

This set of indicators is presented as a menu from which evaluators may select those most applicable to a given service delivery environment.

- Availability of services to adolescents, single women, widows, homosexuals.
- Absence of requirements that clients have permission of husband or mother-in-law (for married women) or parents (for adolescents).
- Availability of condoms both to women and men.
- Percent of providers in the health facility who are female.
- Availability of a full range of services whatever the sex of the provider (e.g. male doctors provide IUDs for female clients).
- Percent of physicians who are women.
- Availability of female physicians for women who prefer them.
- Non-stigmatizing attitudes towards clients (e.g. unmarried female clients with STIs, homosexuals, sex workers, post-abortion care clients, adolescents).
- Number of referrals to other programmes that empower women (e.g. related to literacy, income generation, micro-credit, domestic violence).
- Percent of personnel (including supervisors of service programmes) who receive training in gender sensitivity.
- Use of gender-sensitive protocols for counseling (e.g. non-discriminating language, two-way communication, equal attention to women in counseling sessions for couples).
- Percent of facilities that, with the permission of the female client, encourage men to visit/attend (to accompany partner, obtain information, or obtain services).
- Equal treatment (e.g. waiting time, courtesy, privacy, information given) for male and female clients.

*Gender-sensitive
Service Delivery
Context*

- Avoidance of gender stereotyping in [behavior change communication] BCC materials.
- Percent of facilities that are female-friendly.
- Hours convenient to men.
- Staff receptive to men in clinic.
- Materials (posters, pamphlets) directed to men visible and available.
- Percent of service providers trained to detect, discuss, and refer clients to services that handle violence against women (in FP).
- Providers describe female and male sterilization as equally desirable, when appropriate (FP only).
- Services focused on health outcomes for both the child AND mother (safe motherhood services).

Source: Bertrand JT, Escudero G. (2002) Compendium of indicators for evaluating reproductive health programs. (MEASURE Evaluation Manual Series, No. 6). p. 197, Box II.H.4.2 Menu of Indicators. <http://www.cpc.unc.edu/measure/publications/manuals/compendium/> [accessed 21 November 2002].

Appendix C:

Equity and Empowerment, definitions and indicators

(Extracted from Malhotra, Schuler and Boender, 2002)

The following extracts are from Malhotra et al. (2002):

Early studies of “women’s status” often covered aspects of empowerment without explicitly labelling it as such. One of the earliest empirical studies in this area, for example, used the more general term “women’s status” but located a nexus of gender-related power differentials in the household, noting how important the family unit is to understanding the operation of gender in a society (Acharya and Bennett, 1981). Acharya and Bennett also highlight the links between women’s economic roles and their control over resources and life options.

Similarly, “women’s empowerment,” “gender equality” and “gender equity” are separate but closely related concepts. The recent policy research report by the World Bank (2001a) employs the term “gender equality,” which it defines in terms of equality under the law, equality of opportunity (including equality of rewards for work and equality in access to human capital and other productive resources that enable opportunity), and equality of voice (the ability to influence and contribute to the development process). Gender equality implies “equivalence in life outcomes for women and men, recognizing their different needs and interests, and requiring a redistribution of power and resources.” Gender equity “recognizes that women and men have different needs, preferences, and interests and that equality of outcomes may necessitate different treatment of men and women” (Reeves and Baden 2000).

Notwithstanding the similarities in the concepts underlying many of these terms, we think that the concept of empowerment can be distinguished from others based on its unique definitional elements. As discussed above, the first essential element of empowerment is that it is a process (Kabeer 2001; Chen, 1992; Rowlands, 1995; Oxaal and Baden, 1997). None of the other concepts explicitly encompasses a progression from one state (gender inequality) to another (gender equality). Much of the emphasis on empowerment as a process is found in the conceptual literature, but this understanding is also beginning to be incorporated into the frameworks of empirical studies. For example, even as Jejeebhoy (2000) considers autonomy and empowerment to be fairly similar, she argues

*Equity and
Empowerment,
Definitions and
Indicators*

that the former is a static state – and thus measurable by most available indicators – while the latter is change over time, and not so easily measurable.

The second element of empowerment that distinguishes it from other concepts is agency—in other words, women themselves must be significant actors in the process of change that is being described or measured (Sen, 1993; Mehra, 1997). Thus, hypothetically there could be an improvement in indicators of gender equality, but unless the intervening processes involved women as agents of that change rather than merely as its recipients, we would not consider it empowerment. However desirable, it would merely be an improvement in outcomes from one point in time to another. The importance of agency in the discourse on empowerment emerges from “bottom up” rather than “top down” approaches towards development (Oxaal and Baden, 1997; Rowlands, 1995; Narayan et al., 2000a, 2000b). At the institutional and aggregate levels, it emphasizes the importance of participation and “social inclusion” (Friedmann, 1992; Chambers, 1997; Narayan et al., 2000, 2000b) At the micro level, it is embedded in the idea of self-efficacy and the significance of the realization by individual women that they can be the agents of change in their own lives.

Individual/household-level indicators of empowerment used in empirical studies

Most-Frequently-Used Indicators:	Less-Frequently-Used Indicators:
<ul style="list-style-type: none"> • Domestic decision-making • Finances, resource allocation, spending, expenditures • Social and domestic matters (e.g. cooking) • Child-related issues (e.g. well-being, schooling, health) • Access to or control over resources • Access to, control of cash, household income, assets, unearned income, welfare receipts, household budget, participation in paid employment • Mobility/freedom of movement 	<ul style="list-style-type: none"> • Economic contribution to household • Time use/division of domestic labour • Freedom from violence • Management/knowledge • Farm management • Accounting knowledge • Managerial control of loan • Public space <ul style="list-style-type: none"> - Political participation (e.g. public protests, political campaigning) - Confidence in community actions - Development of social and economic collective • Marriage/kin/social support • Traditional support networks • Social status of family of origin • Assets brought to marriage • Control over choosing a spouse • Couple interaction • Couple communication • Negotiation and discussion of sex • Appreciation in household • Sense of self-worth

Aggregate level indicators of empowerment used in empirical studies (p. 29, Table 5)**Labour Market**

- Female labour force participation (or female share, or female/male ratios)
- Occupational sex segregation
- Gender wage differentials
- Child care options
- Labour laws
- Percentage of wives/women in modern work
- Ratio of female/male administrators and managers
- Ratio of female/male professional and technical workers
- Women's share of earned income

Education

- Female literacy (or female share, female/male ratio)
- Female enrolment in secondary school
- Maternal education

Marriage/Kinship system

- Singulate mean age at marriage
- Mean spousal age difference
- Proportion unmarried females ages 15–19
- Area of rice cultivation
- Relative rates of female to male migration
- Geographic region

Social Norms and Practices

- Wives'/women's physical mobility

Health/Survival

- Relative child survival/Sex ratios of mortality

Political and Legal

- Ratio of seats in parliament held by women
- Women's legal rights

Questions, complaints, requests from women at village council

Source: Malhotra A, Schuler SR, Boender C (2002) Measuring women's empowerment as a variable in international development. Washington, DC: World Bank.



Part III

AUDIT & FINDINGS



Overview

This Part reports on the audit and findings of a comparative evaluation of indicators for gender equity and health. The methodology used is detailed in section 2, together with a discussion of assumptions, decision points and limitations.

Section 3 examines indicators in the following ways:

1. Their reporting status: routine, special, or proposed; their evaluation against specified disaggregations (age, sex, ethnicity, socioeconomic group); and their evaluation against the “Beck criteria” (whether indicators report over time, include comparators, or have resulted from participatory development; and whether they are accompanied by gender analysis and related questions).
2. For sex-specific indicators: the sex and topics of interest, and whether female indicators are limited to reproductive health states and age ranges.
3. For indicators that included comparators: which comparators are used.
4. For indicators that satisfy multiple criteria: how many criteria, and the maximum number satisfied.
5. How the indicators map onto the different tiers, dimensions and topics of the information Framework around which this audit is based (see Part II, *A health information framework for evaluating and developing gender-sensitive indicators for gender equity in health*); firstly, for all tiers together; secondly, for each individual tier; and finally, for the equity dimension – including for selected empowerment measures – used in recent empirical studies.¹

A summary of the main findings from the audit follows. More details – including references to supporting literature – are included in the full account in section 2. Key background and explanatory information, including a definition of terms and an overview of the Health Information Framework, is provided in Box 1 and Box 2 below.

¹ Aggregate measures, as detailed in Malhotra et al., 2002.

Overview

1.1 Indicator reporting status

Indicators were examined in terms of their reporting status (routine, special or proposed). In relation to reporting status:

- Special reports had the most “gendered” collection of indicators (the majority were sex-disaggregated (66%), rising to a total of 85% with the inclusion of sex-specific indicators). Routine reports had the least “gendered” collection (23% sex-disaggregated, rising to 32% when sex-specific indicators were included).
- There were very few age-disaggregated indicators in any reporting category.
- Disaggregation by ethnicity and socioeconomic group is absent across all reporting categories.
- Few proposed indicators included a time element that would allow for the assessment of change over time (2%, compared to 23% in routine reports).
- More of the proposed indicators included a comparator (39%) compared to indicators in special reports (16%) and in routine reports (6%).
- No indicators did well in relation to participatory development (this may reflect a limitation of extant documentation).
- Exceptionally few indicators were accompanied by, or set within, a gender analysis that included raising related questions. The few gendered *descriptions* (i.e. rather than analyses) found in the texts were clustered in a very few

Box 1 Background on the collected indicators

A representative range of indicators (approximately 1 100) was compiled from the “mainstream” routine reports and special reports (those with an emphasis on gender or gender relations) of selected international organizations, and from sets of proposed indicators (identified in a review of international conventions). While readers may be aware of other or “better” indicators that are available in reports which were not examined, the selection made was taken as being indicative of the range available, rather than being all-inclusive or prescriptive.

Definitions:

Comparator: refers to an instrument for making comparisons with a standard. In terms of gender equity, the male situation often provides a comparator for the female situation being examined.

Gender: refers to the cultural, social, temporal and political constructions of men and women, girls and boys. While sex usually remains constant, gender fluctuates over time and as socially attributed identity, transforms along with other social, political and economic changes in societies.

Sex: refers to anatomical, biological and physiological differences by which males and females are distinguished.

Sex-disaggregated: refers to indicators that are reported for males and for females separately, rather than as a (combined) total (e.g. sex-disaggregated indicators report on men and women, rather than “people” or “adults”; girls and boys rather than “children” or “young people”).

Sex-distinguished: refers to the total of indicators that are sex-disaggregated, plus indicators that are sex-specific.

Sex-specific: refers to indicators that are specific to one sex only (e.g. maternal mortality, urethritis in men).

Topic: refers to the subject, issue, area of interest or theme, on which indicators were expected to be found, and by which indicators were mapped, and described (e.g. education, life expectancy, quality of life).

topics (e.g. male and female life expectancy, male youth violence, maternal mortality).

Note that there were no indicators which satisfied all of the eight assessment criteria² and that could be described as “gender-sensitive”, where “gender-sensitive” is defined as indicators that capture “gender-related changes in society over time”.

1.2 Indicators that are sex-specific

As sex-specific indicators cannot be sex-disaggregated, they were examined separately to ascertain which sex and the range of topics they described. The examination of sex-specific indicators shows that:

- By contrast with the paucity of sex-disaggregated indicators, almost all (96%) of the indicators that are sex-specific and age-limited (9% of all indicators) describe females. The majority (78%) of these relate to females of reproductive age (variously defined), or reproductive outcome (e.g. deliveries, births).
- These findings support the contention that indicators on the health problems of females out of reproductive age (i.e. older women and children), or in non-reproductive states (e.g. mental health), are largely missing.

1.3 Indicators that included comparators, and which comparators are used

The “use of gender-sensitive indicators should involve comparison to a norm, for example the situation of men in the same country or the situation of women in another country, to focus on questions of gender equality and equity rather than only on the status of women” (Beck, 1999b: 14–15).

An examination of the comparators included in those indicators that did include them shows that:

- All (100%) compare females to males or males to females *within the same country*, and the outright majority of indicators that included comparators (90 of the total of 94 indicators), compared females to males.
- The four indicators found that reversed this “norm” and compared males to females were: child mortality; youth homicide; and age-adjusted and aggregate suicide rates.
- Indicators incorporating comparators were strongly clustered in two (of the four) tiers of the Health Information Framework (“Determinants of Health”, and “Community and Health and Welfare System Characteristics”) and dominated by a mere six topics: literacy, education, employment status,

² The eight assessment criteria used to assess gender sensitivity were: specified disaggregations (age, sex, ethnicity, socioeconomic group) and the “Beck criteria” (whether indicators report over time, include comparators, have resulted from participatory development, and, whether they are accompanied by gender analysis and related questions) (Beck, 1999a; 1999b).

Overview

occupation and working conditions, general workforce measures including earnings, and democracy.

1.4 Indicators that satisfy multiple criteria

To be assessed as “gender sensitive”, indicators needed to comply with eight different criteria rather than simply be sex-disaggregated. Turning to indicators that satisfied multiple criteria,³ as previously noted, there were no indicators that satisfied all eight criteria.

- There was a clear gradient from a majority of indicators that satisfied none (31%) or one (31%) of the criteria, to the single (0.09%) indicator that satisfied (the maximum attained) five criteria (out of eight).
- The majority of indicators satisfying (any) three or four of the criteria, were from special reports or proposed indicators, rather than routine reports.

Box 2 Health Information Framework

An overview of the Health Information Framework that was developed for use in auditing the collected indicators is shown in Figure 1. Full information on the development of the Framework, including references, can be found in Part II, *A health information framework for evaluating and developing gender-sensitive indicators for gender equity in health*.

1.5 Mapping indicators to the tiers of the Health Information Framework

A comprehensive Health Information Framework (see Box 2 above) was developed:

- To provide a structure for mapping potential indicator topics of interest and for mapping the collected indicators.
- To assess the existence and adequacy of gender-sensitive and gender-specific indicators for gender equity and health.
- To assist in informing discussion about evolving potential “leading” gender (-sensitive) equity and health indicators.

The results of mapping the collected indicators to tiers of the Framework showed that:

- The majority of all indicators (reported and proposed) were mapped to Tier 4, Community and Health and Welfare System Characteristics (44%), with slightly under a quarter (24%) mapped to Tier 1, Health Status, and a further 22% mapped to Tier 2, Determinants of Health. The remaining indicators (9%) were mapped to Tier 3, Health System Performance.
- Fifty percent or more of all indicators in all tiers, except Tier 4, Community

³ Any two or more of the eight assessment criteria; see footnote 2.

and Health and Welfare System Characteristics, were sex-distinguished, although the balance between sex-disaggregated and sex-specific indicators varies between tiers.

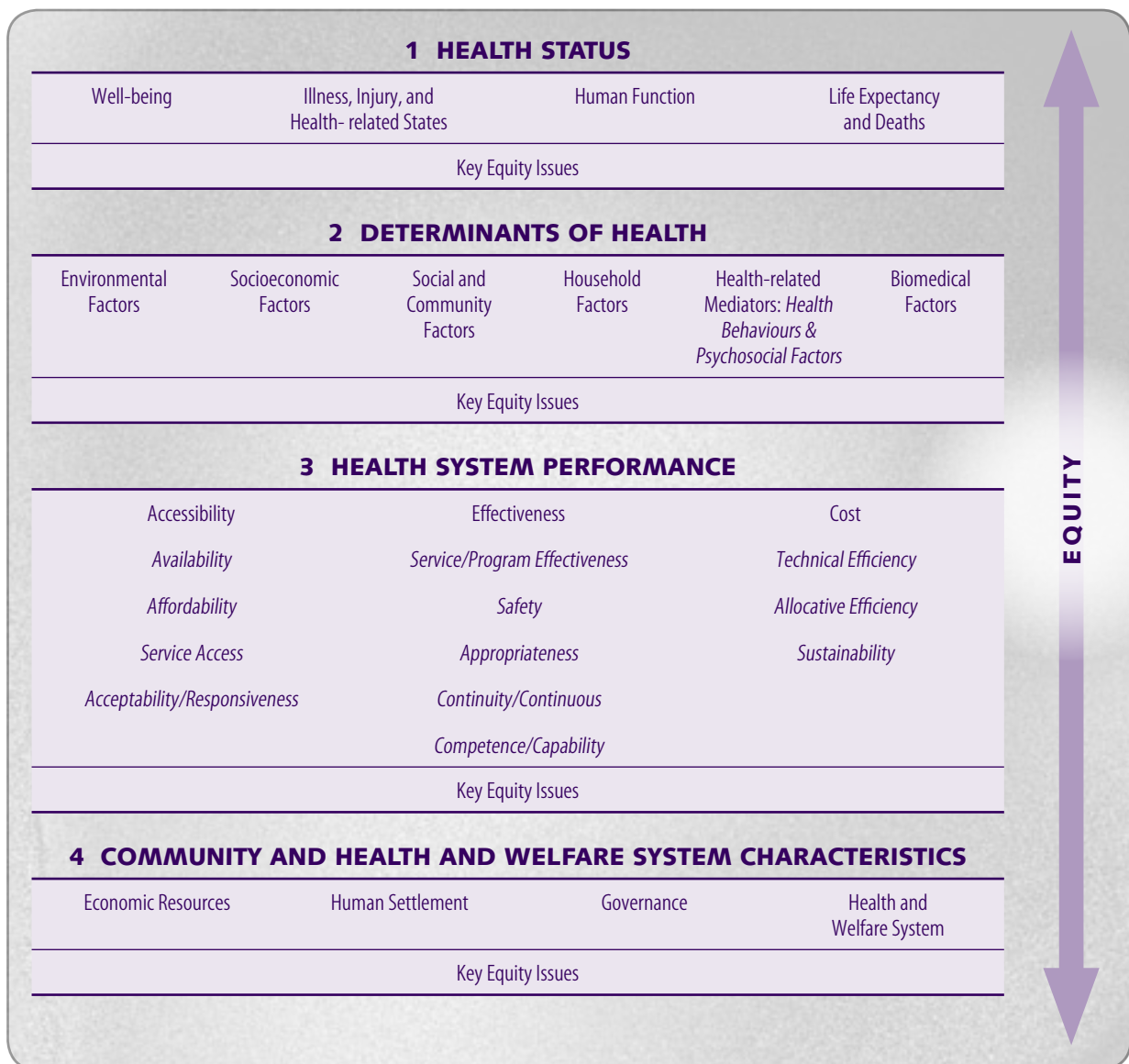
Each tier of the Framework was examined in more detail, and a selection of overview findings is given below.

Health Status (Tier 1)

Indicators on illness and injury, and life expectancy and death, dominated the Health Status Tier:

- Although a substantial 69% of the 42 life expectancy indicators report sex-disaggregated or sex-specific data, not one form of the indicator was found

Figure 1 Health Information Framework Overview



Overview

that explicitly included a comparator. Although life expectancy for males and females is usually reported side by side (e.g. males 70.2 years, females 74.8 years), it is left to the reader to make the comparison.

- By contrast to life expectancy, only five (20%) of the 25 infant and/or child mortality indicators were reported as either sex-disaggregated or sex-specific. None included a comparator.
- The dimensions of “Well-being”, “Human Function”, and the “Health-related States” component of “Illness, Injury and Health-related States” were poorly represented.

Determinants of Health (Tier 2)

Indicators on socioeconomic factors dominated the Determinants of Health tier, and:

- Were more often than not reported in sex-disaggregated or sex-specific forms, due to the dominance of certain topics as noted above in relation to indicators that included comparators.
- The largest deficits were in the dimensions of “Health-related Mediators” (Psychosocial Factors, Social and Community Factors, and Household Factors).

Health System Performance (Tier 3)

There were so few indicators found in the Health System Performance tier, that the 12 dimensions were collapsed into three broader dimensions prior to analysis.

- Most indicators were concentrated in the two broad dimensions of “Accessibility” and “Effectiveness”, with few in the “Cost” dimension.
- More of the sex-distinguished indicators were sex-specific than sex-disaggregated. Sex-specific indicators were concentrated on females, and in the areas of reproductive health.
- There were very few indicators outside of the hospital sector of the health system, or of multi-, cross- or intersectoral measures. There were no indicators that reported gender sensitivity, gender acceptability, or gendered access to services and care. There were also no indicators that measured the involvement of communities (including volunteers) in agencies and services, or the participation of women in planning services or designing policies. Few of the topics listed in the Framework were completely covered.
- Overall, and with certain exceptions (e.g. the hospital sector) there is a generic lack of the base data on which to report objectively in this tier. High level system performance topics occur in a vacuum as there do not appear to be underlying units on which such gross assessments can be reliably based and replicated.

Community and Health and Welfare System (Tier 4)

The Community and Health and Welfare System tier is dominated by indicators in the “Economic Resources” and “Human Settlement” dimensions. Indicators in this tier were the least likely to be sex-disaggregated.

Equity dimension

Determining equity implies choice or judgement on what is fair. Most of the candidate indicators appeared to measure difference, “disparity”, and/or uneven distribution or affect, and are therefore some measure of *inequality* rather than of *equity*. As such, these measures may be considered, at best, precursors for the examination of equity. Evaluating indicators against the concept of “equity-motivated indicators”⁴ highlighted that there were no such indicators on gender equity in health, and few on gender equity in topics outside education and literacy, workforce, and democracy. These findings are further explored against a select list of “expected” indicators in Table 3.10, section 3, followed by a brief review of aggregate measures of empowerment (again, few topics were found).

Underlying issues

Section 4 looks at other (underlying) issues surrounding the production and reporting of indicators which may add to the perceived difficulties in monitoring, for instance, routinely sex-disaggregated data. The majority of routinely reported indicators show a loss of specificity, as sex-, age- and other disaggregations have been “lost” (selected out or filtered out) before they are reported. That is, although sex-disaggregated data is frequently *collected* and available for reporting, it is *not reported*. In some areas, this loss of specificity in reporting has improved over time. Some specific examples highlight this loss of specificity, and include:

- A review of the gender sensitivity of indicators for the United Nations Millennium Development Goals shows that sex-disaggregated data is limited to “special” gender equity topics, but not incorporated as a routine perspective on the whole set.
- A review of actual reporting in indicator sets that contain methodological statements, such that “all relevant indicators . . . should be disaggregated . . .” shows that these requirements are not implemented in practice in routine reporting (e.g. the United Nations Common Country Assessments).

The incomplete development of indicators (although more complete data exists), and indicators which may need to be developed are also explored in this report.

Strengths and weaknesses

In terms of the strengths and weaknesses of indicators generally, the major weakness or *limitation* of the majority of routinely reported indicators examined is that they lack sufficient specificity to contribute to gendered and equity views or analysis of health. The strengths of currently used indicators, especially those using international standards (e.g. mortality and morbidity) lies in their histories of use, as comparative data exists to assess trends over time

⁴ “To present in one value (or a few values) enough useful information for meaningful comparisons between countries and subpopulations, in such a way that both the levels (averages) and the inequalities (dispersions) are also taken into account” (Dachs, 2002: 16).

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across different countries. The challenge is to retain this comparability while developing standard indicators to provide more complex information that includes gender-sensitive and equity-sensitive information.

1.6 Absence of indicator types

There is a wide variety of possible indicator types. The following is a selection of the types that we expected to find but which were largely absent among the collected indicators reviewed:

- *Gender-sensitive indicators.* Only one indicator was distinguished in having sex- and age-disaggregations, reporting over time, including a comparator, and overall satisfying five of the eight requirements for a *gender-sensitive equity* indicator.
- *“Equity motivated indicators.* Very few were found (as has been reported above).
- *Process indicators.* Their relative absence highlights the limited use of indicators in the study of gendering mechanisms, or the “upstream” determinants of the gendering process.
- *Causality, risk and protective factors.* There is a noticeable lack of indicators on the elements of causality (including measures that cross or link tiers in the Framework) and correspondingly, on indicators of risk and/or protective mechanisms and attributes.
- *Life course indicators.* Indicators on life course and life course effects are also largely absent.
- *Indicators on gendering mechanisms and processes.* Indicators that capture information on the manner in which gendering mechanisms work to produce and reproduce gendered roles are absent from those found in routine reports, although there are some proposed indicators that at least highlight or make some processes (e.g. budgetary, ministerial responsibility) more transparent.
- *Indicators on empowerment and transformative achievement.* These types of indicators and this type of usage – which essentially triangulates qualitatively different indicators within a described context to provide a more complex approximation of real situations – are largely absent in the collected indicators examined.
- *Indicators with a specific use as alerts or early warnings.* There were a few indicators found that could be used as alerts of future trouble, but there was little use of them identified in this way. Indicators on, *inter alia*, increased inequality in income, highly gendered poverty, and increasing civil strife, may all suggest societies in trouble. The challenge would be to develop the forward reporting and monitoring of such indicators, as well as methods to tackle problems early.

In addition to the above, there will be other indicator types that are significantly different, and that could also be expected but not found, among the collected indicators. Further development of indicators of these types presents a rich field of challenges for the future.

Conclusion

The audit was undertaken to provide the basis for a comparative evaluation of indicators for gender equity and health. The expectation was that we would find a reasonable number of indicators that could assist in policy development, strategic planning, and service development in relation to health. However, the audit shows that for the indicators assessed (from the routine and special reports, and those proposed by selected international agencies), this was not the case. Of those that were found, none were in the area of gender equity in health, and there were few in other areas of health equity. Those that were found were most likely to be in the topics of education (e.g. literacy), labour force (e.g. employment), and democracy (e.g. women's share of parliamentary seats).

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2

Methodology

This audit was undertaken in a number of steps. These are outlined below.

2.1 Develop a comprehensive Health Information Framework

A comprehensive Health Information Framework was developed:

- To provide a structure for mapping potential indicator topics of interest and the collected indicators.
- To assess the existence and adequacy of gender-sensitive and gender-specific indicators for gender equity and health.
- To assist in informing discussion about evolving potential “leading” gender (sensitive) equity and health indicators.

The development of the Health Information Framework, its use to order topics and to detail an equity dimension, together with associated issues, are discussed in Part II, *An information framework for evaluating and developing gender indicators for gender equity in health*. The Health Information Framework overview is shown in Figure 1.

2.2 Compile indicators

Almost 1 100 indicators were collected from both the “routine” and “special” reports of selected international organizations, and from sets of proposed indicators (see Table 2.1 below). The number of indicators initially scoped from a wider range of organizations proved daunting, and could have easily run into several thousands. We attempted to collect a representative range that was either drawn from the reporting mainstream or had something unique to offer.

A review of the major international conventions (e.g. the United Nations International Conference on Population and Development (ICPD), held in Cairo, 1994; the Fourth World Conference On Women (Beijing); Women 2000: Gender Equality, Development and Peace for the 21st Century (Beijing +5); the Convention on the Elimination of All Forms of Discrimination Against Women (CEDAW); and the United Nations General Assembly Special Session (UNGASS) on HIV/AIDS), and their recommendations, identified additional indicator sets, some of which draw together core indicators from other sources,

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and some of which propose new indicators. (The findings of the review are found in Appendix A.)

Table 2.1 Numbers of reported and proposed indicators from selected sources

Indicators by Reporting status:	Total indicators
Routine reports	
Canadian Institute for Health Information (CIHI) Canadian Health Indicators (part) 2002	25
Indicators on:	
Contraceptive prevalence rate (various sources);	
Female genital mutilation (FGM)/World Health Organization (WHO);	12
low birth weight/United Nations Children's Fund (UNICEF);	
illiteracy/United Nations Educational, Scientific and Cultural Organization (UNESCO)	
Organisation for Economic Co-operation and Development (OECD)	
Development Indicators 1998	29
OECD Health Data 2002	79
OECD Society at a glance 2001	74
Pan American Health Organization (PAHO) Regional Core Health Data 2001	103
United Nations Common Country Assessment 1999	60
United Nations Development Programme (UNDP) Human Development Report 2002	182
United Nations Statistics Division (UNSD) Millennium Goals, targets and indicators 2002	48
WHO European Health Report 2002	15
WHO World Health Report 2000	49
WHO World Health Report 2001	52
WHO World Health Report 2002	87
WHO World Health Statistics Annual 1997-99	6
World Bank Institute, DEPweb: Explore Sustainable Development 2001	12
Total	833
Special reports⁵	
UNSD The World's Women 2000: Trends and Statistics	88
United Nations Development Fund for Women (UNIFEM)– Progress of the World's Women 2000	20
WHO World Report on Violence and Health 2002	38
Total	146
Proposed indicators	
United Nations benchmarks for measuring progress towards the goals of ICPD 1999	7
United Nations Economic Commission for Latin America and the Caribbean (ECLAC) Gender Indicators for follow-up and evaluation of the Regional Programme of Action for the Women of Latin America and the Caribbean, 1995-2001	62
Beijing Platform for Action (BPA) 1999	
Daniels et al., Benchmarks of fairness for health care reform 2000	9
UNGASS/HIV/AIDS Core indicators 2001	21
WHO Proposed Benchmark Reproductive Health Indicators 2001	17
Total	116
GRAND TOTAL	1 095

⁵ These may be one-off, irregular, or regular reports, with an emphasis on gender or a topic important to gender relations (e.g. violence).

There are inevitable omissions, and the collection does not claim to be all-inclusive. We attempted to strike a balance between a representative range which was also manageable and informative. While readers will be aware of other or “better” indicators that are available in reports, or of proposed indicator sets that were not examined, the selection made was taken as being representative of the range available.

Limitations

A limitation in relation to the compilation exercise is that not all indicators were as extensively described, or described at the same level. For instance, we did not compile all individual condition-specific morbidity indicators; and some indicators (especially among the proposed, such as checklists of policies) were described at a fairly “high” level. In the analysis that follows, the effect of this limitation is discussed where relevant.

2.3 Evaluate indicators for gender sensitivity

Beck (1999b) defines a gender-sensitive indicator as “an indicator that captures gender-related changes in society over time” (1999b: 7) which must be “relative to some agreed normative standard or explicit reference group” (Johnson, 1985, cited by Beck, 1999b: 7). The collected indicators were assessed against a set of criteria set out by Beck (1999a; 1999b) that include a selection of disaggregations by sex, age, and socioeconomic group. We examined indicators in terms of these disaggregations plus four additional criteria, also described by Beck: whether indicators report over time; include comparators (e.g. male to female, female in one country to females in another country); have resulted from participatory development; and, whether they are accompanied by a gender analysis and related questions. The assessments were used to examine the collected indicators for the degree to which they satisfied individual criteria, and the degree to which they satisfied multiple criteria. An indicator that met eight out of the eight criteria would be a *gender-sensitive indicator*, as defined by Beck (1999a; 1999b).

Further discussion on the evaluative criteria can be found in section 2 of Part II, *A health information framework for evaluating and developing gender-sensitive indicators for gender equity in health*.

2.4 Map indicators against the Health Information Framework

The indicators compiled were mapped against the Health Information Framework’s tiers, dimensions, and topics. Initially, we had assumed that there would be a, more or less, one-to-one relationship between the topic areas identified in the Framework exercise, and the indicators compiled. For example, we were prepared to allocate the indicator to one tier while pointing out that it also pertained to another tier (e.g. unemployment, which can describe an individual characteristic which is a known determinant of health; or, that of a country or area, as in the unemployment rate at a given time). Equity was identified as an additional tier of analysis of indicator types, as it was considered that there

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would be “equity-motivated indicators”⁶ which showed specific forms that differed from more simple readings or single measures.

In the process of mapping, additional types of indicators were identified that are inherently relational or linking across tiers (an example is burden of disease “causal” measures, which attribute a proportion of disease burden to specified risks; e.g. the proportion of diarrhoeal disease attributable to unsafe water, sanitation and hygiene).

In addition, a selection of indicators were more extensively mapped for their potential multiple use, or as an alert or warning, and/or possible “up-stream” contribution. Some indicators that are known to be used as measures of effectiveness (e.g. pneumonia hospital admission rate) were identified as being “part-measures” (i.e. they would be more useful in association with other measures, such as influenza vaccination rates in vulnerable high risk populations). We have yet to explore this aspect of the mapping.

Another challenge that arose in the mapping exercise was where to map certain cross-cutting topics that would otherwise be fragmented across the Framework. These topics included: hunger, poverty, violence, and the girl child. For example, the topic of hunger could be mapped through the topics of “growth” (including failure to grow/thrive/develop), or “malnutrition” (as a specific illness condition); or in a range of biomedical measurements centred on “bodyweight”, which is itself a measure for the topic of “growth”, or as a secondary cause in mortality, or as an underlying factor or cause of complications in the treatment of illness and injury. Availability of safe, fresh food could obviously be a component of hunger, as could a range of income measurements, including the proportion of household income spent on food, and/or measures of living standards. Hunger could be mapped through topics on proportions of populations of males and females living in poverty as “vulnerable populations” and through other national demographic and human settlement measures.

Limitations

A limitation in relation to the mapping exercise resulted from the “forced” allocation of some topics that are inherently multidimensional, to one dimension only; with the same for the individual indicators addressing these topics. This situation had the most affect on the allocations between Tiers 2 (Determinants of Health) and 4 (Community and Health and Welfare System Characteristics); where certain topics that could be expected to be found in both Tiers, were forced into one or the other (i.e. the topic of “education” being found in Tier 2 only, and the topic of “demographics” being found in Tier 4 only). The analyses below note the impact of this arbitrary “forcing”, where relevant.

2.5 Identify gaps in indicators useful for gender equity and health

Indicators were also examined in relation to a set of indicators or indicator types compiled because of their ability to address equity, gender equity, and gender equity and health. We expected to find indicators of an “equity-moti-

⁶ Term used by Dachs, 2002.

vated type”, and this section reports the difference between the expected and the actual. An assessment of indicators in relation to a set of selected aggregate measures of empowerment used in recent empirical studies⁷ completes the analysis.

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2.6 Suggest criteria for priority indicators (leading indicators)

A selection of recent or current “leading health indicators” are reviewed in section 3 of Part II, *An information framework for evaluating and developing gender indicators for gender equity in health*. The assessment of indicators reported here did not identify a plentiful store of potential indicators which satisfy both the “Beck criteria” and the criteria initially compiled for defining possible leading health indicators. Our readings and understandings arising from the project suggest a different approach. The figure below summarizes the understandings to date, as a set of suggested “do’s and don’ts”, or “evaluative criteria”, for suites of indicators addressing gender equity and health.

Figure 2 Evaluative criteria for suites of indicators and mode of use suitable for exploration of gender equity and health

DO	DON'T
<ul style="list-style-type: none"> • Use multiple indicators. 	<ul style="list-style-type: none"> • Rely on a single indicator.
<ul style="list-style-type: none"> • Use a range of different indicator types. 	<ul style="list-style-type: none"> • Use only simple quantitative indicator types.
<ul style="list-style-type: none"> • Give preference to indicators that satisfy multiple “Beck criteria”; report sex-disaggregated indicators where sex-disaggregated data is available. 	<ul style="list-style-type: none"> • Use indicators that do not satisfy “Beck criteria”; report gender-blind indicators that are not sex-disaggregated, especially when sex-disaggregated data is available.
<ul style="list-style-type: none"> • Triangulate or cross-check the evidence provided in the different indicator types (e.g. WHO <i>World Report on Violence and Health</i> (Krug et al., 2002) chapter on Youth Violence indicators: map high homicide areas of the world, show 10-year global trends in youth homicide rates among males and females aged 10–24 years, and in methods of attack (increasing use of firearms, decreasing use of sharp instruments), provide data on whether and how often 13-year-olds engaged in bullying behaviour by different countries, and provides information boxes on youth gangs and the impact of media on youth violence, among other indicators and textual descriptions). 	<ul style="list-style-type: none"> • Rely on a single indicator as the only source of evidence (e.g. use the infant mortality rate to make a comparison across countries in isolation from all other indicators or context).
<ul style="list-style-type: none"> • Give context (e.g. UNDP (2002) sets out the context for democracy in the world before assessing female share of parliamentary seats by countries from a high (benchmark, Sweden, >40%) to a low (non-existent, range of countries)). 	<ul style="list-style-type: none"> • Remove from all context.
<ul style="list-style-type: none"> • Use more complex, more informative indicators (e.g. change in wage parity within a country between men and women over time, intragender comparisons across countries). 	<ul style="list-style-type: none"> • Use only simple measures in isolation (e.g. CO2 emissions without agency).
<ul style="list-style-type: none"> • Where there is great variation, prefer smaller units of analysis (areal, group, (e.g. inter- and intra-regional variation, urban/rural women, older/younger men) –averages hide difference) 	<ul style="list-style-type: none"> • Use only averages that hide variation (e.g. “unemployment rate” when “youth unemployment rate”, “female unemployment rate”, or “male long-term unemployment rate” exist and are a better fit for purpose).
<ul style="list-style-type: none"> • Declare “soft” judgements (e.g. financial and/or other influences; personal key beliefs, biases, positions, interests, conflicts of interest - extension of typical research/financial protocols: to let reader be the “judge”). 	<ul style="list-style-type: none"> • Not disclose interests (personal, financial, political)
<ul style="list-style-type: none"> • Embed in gender analysis, sensitive to gender equity in health, and that raises related questions. 	<ul style="list-style-type: none"> • Surround with so-called neutral, de-gendered or gender-blind, “objective”, “descriptive” text.
<ul style="list-style-type: none"> • Identify and/or refer “hard” judgements to participatory development (e.g. the Canadian process to identify treatments that are a low priority for the community to fund universally). 	<ul style="list-style-type: none"> • Sidestep the identification and raising of “hard” judgements, or allow them to be made in a limited domain (e.g. technical judgements about who to treat, how much to spend).

⁷ Aggregate measures, as detailed in Malhotra et al., 2002.

3

Audit findings

In this section, indicators are examined in terms of:

1. Their reporting status (routine, special or proposed) and their evaluation against specified disaggregations (age, sex, ethnicity, socioeconomic group) and the “Beck criteria” that were used to assess gender sensitivity (whether indicators report over time, include comparators, have resulted from participatory development, and, whether they are accompanied by gender analysis and related questions).
2. For sex-specific indicators, the sex and topics of interest, and whether female indicators are limited to reproductive health states and age ranges.
3. For indicators that included comparators, which comparators are used.
4. The ability of indicators to satisfy multiple criteria, how many, and the maximum number of criteria satisfied.
5. How the indicators map onto the different tiers, dimensions and topics of the information Framework around which this audit is based (see Figure 1 Health Information Framework Overview). This analysis was undertaken firstly for all tiers together; secondly for each individual tier; and finally, for the Equity dimension, including for selected empowerment measures used in recent empirical studies.⁸

3.1 Disaggregations and “Beck criteria” by reporting status of indicators

This section examines the collected indicators in terms of:

1. Their reporting status (routine, special or proposed).
2. How well they meet the criteria for disaggregations and how well they meet the “Beck criteria”.

The table below shows the collected indicators by whether they were collected from routine reports, special reports, or proposed indicators (see Table 2.1 (above) and Appendix B for details of reports in each category). Special re-

⁸ Aggregate measures, as detailed in Malhotra et al., 2002.

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ports may be one-off, irregular, or regular reports, with an emphasis on gender or a topic important to gender relations (e.g. violence).

Beck (1999b) defines a “gender-sensitive indicator” as “an indicator that captures gender-related changes in society over time” (1999b: 7) which must be “relative to some agreed normative standard or explicit reference group” (Johnson, 1995, cited by Beck, 1999b: 7). These findings show the assessment of indicators in terms of their disaggregations (sex, age, ethnicity, and socioeconomic group); and the “Beck criteria” (whether indicators report over time, include comparators, have resulted from participatory development, and whether accompanied by gender analysis and related questions) (derived from Beck (1999a; 1999b)). In this section, we examine the ability of indicators to satisfy single criteria (a later section assesses their ability to satisfy multiple criteria).

3.1.1 Indicators that satisfy single criteria

Table 3.1 shows that the indicators used in special reports (i.e. reports that focus on women’s progress (UNIFEM, 2002; UNSD, 2000) or a topic of particular relevance to women (e.g. WHO *World Report on Violence and Health* (Krug et al., 2002)) have the most “gendered” collections of indicators, in that the majority of indicators used are sex-disaggregated (66% rising to 85% “sex-distinguished” when sex-specific indicators are included). The proposed indicators fall below those rates (50% sex-disaggregated, or 81% when sex-specific indicators are included) but well above those found in routine reports (23% sex-disaggregated, 32% when sex-specific indicators are included).

A similar situation is shown for age. Indicators that are age-disaggregated, age-specific (e.g. at birth), or age-limited (e.g. from 15–49 years) are more evident in the special reports (89%) and proposed indicators (66%), than they are in routine reports (38%). This reflects the many allocative and financial indicators included in the routine set; a particularly un-gendered or gender-blind set of indicators. However, the bulk of age-distinguished indicators in routine, special and proposed indicators are age-limited, and describe adults (e.g. from 15–49 years; the theoretical reproductive lifespan of women; or “working adults” defined as 15–65 years old or other national cut-offs for labour force status). Indicators on younger or older persons cluster in a few topics (e.g. infant and child mortality and immunization; youth unemployment/suicide/violence; school enrolment; population aged 60 years and over). Outside these exceptions, there are few indicators on non-labour force or non-reproductive age populations.

There were very few age-disaggregated indicators in any reporting category, with a low of 3% in the proposed indicators, a high of 10% in the special reports, and an in-between of 6% (46 indicators) in routine reports. The latter also achieved 7% of age-specific indicators, reflecting the large number of theoretical calculations “at birth” (e.g. life expectancy) or other age-specific points.

The table also shows that disaggregations by ethnicity and socioeconomic group are virtually absent across routine reports, special reports, and proposed indicators.

Few proposed indicators included a time element that would allow for the assessment of change (2%, compared to over half (57%) in the special reports, and slightly less than a quarter (23%) in the routine reports).

More proposed indicators included a comparator (39%) compared to both the indicators in special reports (16%) and those in routine reports (only 6% included a comparator).

No indicators did well in relation to participatory development, but a limitation in our ability to assess this might be that such details are simply lacking in reporting.

Lack of gender analysis and over-use of gender-blind descriptions

Lastly, very few indicators were accompanied by, or set within, a gender analysis that included the asking of related questions. The UNIFEM (2002) report was an exception in this regard. The majority of reports with indicators embedded in the text were almost purely descriptive. Most text described: “people”, “adults”, “spouses”, “children”, “infants”, “youth”, “older people”, “victims”, “suf-

Table 3.1 All indicators, showing disaggregations and “Beck criteria” by reporting status (routine, special, proposed)

	Routine reports (n=883)		Special reports ⁺ (n=146)		Proposed indicators (n=116)	
	No.	%	No.	%	No.	%
Sex-disaggregated	186	23%	96	66%	55	50%
Sex-specific	74	9%	28	19%	33	30%
<i>N/a</i>	23	3%	0		7	6%
Total sex-distinguished#	260	32%	124	85%	88	81%
Age-disaggregated	46	6%	14	10%	3	3%
Age-specific	54	7%	4	3%	4	4%
Age-limited	204	25%	112	77%	65	66%
<i>N/a</i>	23		0		17	
Ethnicity disaggregated	2	0%	1	1%	0	0%
<i>N/a</i>	24		0		17	
Socioeconomic group disaggregated	2	0%	1	1%	0	0%
<i>N/a</i>	24		0		17	
Over time	192	23%	83	57%	2	2%
<i>N/a</i>	4	1%	0		16	
Includes comparator	48	6%	23	16%	39	39%
<i>N/a</i>	4		0		16	
Participatory	1	0%	0	0%	0	0%
Gender analysis	1	0%	12	11%		
<i>N/a</i>	194	25%	0		116	100%
Not reviewed	133	17%	38	26%		

Percentages are calculated less n/a

+ One-off, irregular, or regular reports, emphasis on gender or topic important to gender relations

sex distinguished = sex-disaggregated plus sex-specific

Audit findings

ferers”, “the poor”, etc. The few gendered descriptions found in the texts were clustered in a very few topics (e.g. male and female life expectancy; male youth violence; maternal mortality). Where differences between men and women, boys and girls were captured in indicators set within the text of reports, the text was almost exclusively descriptive of the difference, rather than: analysing the effects or impact of gender, querying underlying reasons, or raising related questions.

Discussion

The selection, description and use of indicators offer a window into the way in which concepts and language describe/confine societies. We considered it important to note that the audit findings reach similar conclusions to other commentators in these long-standing debates (see e.g. Eckermann, 2001). Without wishing to join existing discourses on semantic and philosophical issues regarding the use of language, linguistic terms, and reporting styles, we question whether the lack of analysis, and raising related questions (the “why is it so?” aspect) relates to a particular style – e.g. cool, objective, descriptive (quantitative) – for which analysis and questioning are too (perhaps) heated, subjective, or active. We query whether the observed absence of gendered terms reflects a situation where the “dominant usage” (which in the past described the generic as “male”) has moved to describing the generic as explicitly ungendered, gender-blind or neuter (e.g. “people”, “adults”, “spouses”, “victims”; described by Eckermann (2000: 30-31) as “androgenizing, ‘total population’ tendencies”).

Limitations

It could be argued that a limitation to the analyses shown in the table above, is that more indicators should have been marked as “n/a”; i.e. not appropriate to assess against disaggregations and the “Beck criteria” (e.g. Gross Domestic Product (GDP) per capita). However, we would argue that a case should be made to exclude such indicators, and as this has not been done, have tended to mark as “n/a” only those indicators explicitly reporting on items that impact at a national or international level (e.g. price indices, or ratification of international treaties and covenants where all citizens are expected to gain benefit). Hence, the example indicator topic of GDP per capita has been assessed as not sex- or age-disaggregated.

Conclusion

Indicators in the routine reports are more likely to be age-distinguished (mainly adult ages) than sex-distinguished. They are more likely to be sex-disaggregated than sex-specific. They are more likely to report over time than to include a comparator, and those examined were least likely to include a gender analysis.

Indicators in special reports were also more likely to be age-distinguished than sex-distinguished, but there were far more of each, and they were also more likely to be sex- or age-disaggregated. Sex-specific indicators formed a larger component than they did in routine reports. These indicators were also more likely to report over time than to include a comparator, but both attributes

were more likely to be found in special than in routine reports. They were also more likely to be accompanied by a gender analysis and related questions.

Proposed indicators differed in that they are more likely to be sex-distinguished than age-distinguished, and although they are less likely than indicators in special reports to be sex- or age-disaggregated. They are far less likely to be reported over time than indicators in special or routine reports. However they were the most likely of all the indicators to include a comparator.

There was not one indicator that satisfied all eight of the assessment criteria above, such that it could be described as a “gender-sensitive indicator”, defined by Beck (1999a: 7) as “an indicator that captures gender-related changes in society over time” and which must be relative to some agreed normative standard or explicit reference group. This finding is further explored in section 3.1.4 below.

3.1.2 Sex-specific indicators

As if to compensate for the relative paucity of sex-disaggregated indicators, of the 9% of indicators that are sex-specific and age-limited, almost all (96%) describe females. A total of four describe males – on the topics of: urethritis in men (WHO, 2001a); variations in attitudes and reported use of violence (Krug et al., 2002); long-term unemployment (UNDP, 2002); and employers or own account workers⁹ (UNSD, 2000).

Eckermann (2000: 37) argues that research into gender inequities in health and well-being needs to use indicators which are “gender specific” in the non reproductive areas of health. We tested for how many indicators of this type were available (i.e. indicators that were sex-specific and not related to reproductive health). We found that the majority (78%) of sex-specific indicators which describe females relate to females of reproductive age (variously defined), or to reproductive outcomes (e.g. fertility, actual births). Topics include: total fertility rate (12 indicators); births; deliveries; births and pregnant woman attended by trained personnel (9 indicators); abortions; treated and/or HIV-infected and pregnant; syphilis and pregnant; contraceptive practice (14 indicators); maternal mortality (8 indicators); prenatal care; childlessness; number of children desired; and the workforce status of mothers with young children. This range of topics still does not cover all the multidimensional indicator domains set out by AbouZahr and Vaughn (2000) in terms of their suggested improvements for reproductive health indicators.

Other topic areas for which female sex-specific indicators were found include: injury; assault; violence (sexual assault, victimization, physical and psychological abuse); other health indicators (breast cancer, cervical cancer, FGM, living with HIV/AIDS, bodyweight, breast and cervical cancer screening, and special health care for elderly women); education and literacy; governance (democracy, legal rights (e.g. to childcare)); and a set of proposed indicators of public spending on, and programmes to benefit, women (ECLAC, 1999).

⁹ Otherwise known as self-employed workers.

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The dominance of sex-specific indicators on female reproduction concurs with the findings of various commentators who report that:

2. Women are often defined (solely) by their reproductive health and motherhood roles (Abdool and Vissandjée, 2001).
3. Indicators on the health problems of females out of reproductive age (e.g. older women, children) or in nonreproductive states (e.g. mental health) are largely missing (see, for instance, Drengsted-Nielsen and Luige, 2002:13; Eckermann, 2000).

3.1.3 Use of comparators

Beck (1999b: 14-15) states that the:

...use of gender-sensitive indicators should involve comparison to a norm, for example the situation of men in the same country or the situation of women in another country, to focus on questions of gender equality and equity rather than only on the status of women.

The selection or definition of the norm or “benchmark” for comparison must be made with care, as it is against this that change is measured. Hartigan (2001) points out that inequity may be greater between women from different groups than between poor women and poor men, for example. Beck (1999b: 9) asks the question: “in examining the status of women, is the norm the situation of men in a particular country, or is it women in other countries?”. Similar questions could be asked in relation to health status and other health measures. The use of world “benchmarks” or “gold standards” has also been suggested (an example might be Japanese life expectancy). Note that in relation to female to male comparisons, the underlying logic has arisen from historical arguments about gender equality within the context of a given society, rather than from a worldwide comparison. In this regard, it could be appropriate to have, for instance, peer countries (e.g. the mortality strata used by WHO (2002a) for health comparisons), or peer-relevant benchmarks or targets for comparison. The key issue is to ask: what is the question that is being answered by the comparison?

We examined all comparators in those indicators that included comparators to determine which types of comparisons were most frequently made, and found that 100% of these indicators compared males to females or females to males *within the same country*. The UNDP (2002: 17) textual indicator, titled “Women’s participation lags everywhere” – which shows the percentage of parliamentary seats held by women with Sweden setting a “high” (at more than 40%) and a cluster of countries at the “low” of 0%, with a selection of countries shown in-between and the world average – is an exception in this regard. Although indicators are sometimes plotted or shown side by side in text, charts, or tables, it is the *rates* – the ratio of one sex to the other, or the female share – which are mostly shown, rather than the gap between that and an explicit standard set by the same sex in another country or elsewhere in the world. The proposed ECLAC (1999) indicators which specify measurement of the gender gap are an exception (e.g. gender gap in the roles of young people from poor households (full-time studying), and gender gap in ownership of agricultural land (farms owned by women)).

The majority of indicators that included comparators compared females to males, (90 of the total of 94 indicators). Indicators incorporating comparators are strongly clustered in Tiers 2 (Determinants of Health) and 4 (Community and Health and Welfare System Characteristics) of the Health Information Framework, and are dominated by the six topics of: literacy; education; employment status; occupation (including the ECLAC (1999) indicator: women in “male” compared to men in “female” occupations); working conditions, general workforce measures (including earnings), and share of various professions or positions (e.g. managerial); and democracy (e.g. share of parliamentary seats (various sources) and share of parliamentary candidates (ECLAC, 1999)). ECLAC-proposed indicators (1999) also include a set on access to economic resources (e.g. ownership of agricultural land, access to credit, coverage of technical assistance programmes), and on within-household time allocations (hours spent, and share of domestic and household work). UNDP (2002) also has indicators on female to male time allocations by market and nonmarket activities.

A total of four indicators reverse the norm to compare males to females. These were: child mortality (World Bank Institute, 2001); homicide rate among youths; and age-adjusted suicide rate (Krug et al., 2002) and the aggregate suicide rate (WHO, 2001b).

3.1.4 Indicators that satisfy multiple criteria

In assessing the number of indicators that satisfied multiple criteria, we scored indicators perhaps over-generously. All sex-distinguished indicators (i.e. sex-disaggregated¹⁰ and sex-specific indicators) were scored as satisfying the criterion for sex-disaggregation, and all age-distinguished indicators (age-disaggregated, age-specific, and age-limited indicators) were scored as satisfying the age-disaggregated criterion.

Summing up the “scorecard” on the four disaggregations and the four “Beck criteria” using the generous assessments noted above: there were no indicators which satisfied all eight criteria.

No. of criteria satisfied	No. of indicators satisfying criteria	Percent of all indicators*
8	0	
7	0	
6	0	
5	1	0%
4	27	2%
3	157	14%
2	232	21%
1	334	31%
0	334	31%

Table 3.2
Number and percentage of indicators satisfying multiple criteria

* Excluding n/a

¹⁰ We also gave the benefit of the doubt to queried sex-disaggregations; where in principle one is required/ can be reported, but we have seen no evidence of it in practice (e.g. the United Nations Common Country Assessments (United Nations, 1999)).

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The highest “scored” (and single) indicator satisfied five criteria out of the possible eight. This is a UNESCO (2002) indicator on illiteracy. The table above shows a clear gradient between the higher and lower ends of the multiple criteria scorecard, despite the generous scoring.

The majority of indicators satisfying (any) three or four of the multiple criteria are from special reports and proposed indicators, rather than from routine reports, as can be seen in the table below.

Table 3.3
Number and percentage of indicators satisfying multiple criteria by reporting status of indicators

No. of criteria satisfied	Routine reports		Special reports		Proposed indicators	
	No. indicators	Percent	No. indicators	Percent	No. indicators	Percent
8, 7, 6	0		0		0	
5	1	0%	0		0	
4	3	0%	24	16%	0	
3	63	8%	61	42%	33	30%
2	154	19%	40	27%	38	35%
1	295	36%	13	9%	26	24%
0	313	38%	8	5%	13	12%
Total (n/a excluded)	829	100%	146	100%	110	100%

The slopes running in different directions suggest a lag in the routine take up of the more complex forms of indicators, which appear to be pioneered in special reports and increasingly represented in proposed indicators. Although the numbers of proposed indicators are relatively small and cluster in certain topics, they are also more likely to exhibit greater “complexity”, in that more of these indicators satisfy multiple criteria. This must be seen as a positive indication that there are alternative forms available, from among which more sensitive indicators may be selected. Appendix C provides example sets of indicators that satisfy multiple criteria (sex- and age-disaggregated, and reported over time or include a comparator).

These indicators include:

- Evolution of the youth joblessness (20–24 years) by gender, 1984–1998 (country; men, women; 15–19, 20–24 years; percent jobless at 1984, 1998; percent change) (OECD, 2001).
- Life expectancy, number of survivors, and chances per 1 000 of eventually dying from specified causes, at selected ages [0, 1, 15, 45 and 65 years], by sex (WHO, 2002c).
- Proposed Indicator of coverage of child care services. (a) number of boys and girls aged under 2 who attend some childcare establishment, divided by the total number of boys and girls in this age group, times 100; and (b) number of boys and girls aged 2–5 who attend some childcare establishment, divided by the total number of boys and girls in this age group, times 100 (ECLAC, 1999).

- Proposed Indicator of gender difference in school attendance: (a) school attendance rate of girls aged 6–13, minus school attendance rate of boys aged 6–13; and (b) school attendance rate of girls aged 14–17, minus school attendance rate of boys aged 14–17 (ECLAC, 1999).

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Discussion

Issues arising from these particular findings and which merit further investigation include: the extent to which indicators from special reports become routine indicators, and the process by which proposed indicators (most of which have so far not been trialed or tested) might “migrate” into special and/or routine reporting. Another question is the extent to which indicators, the concepts “underpinning” them and the measures used, are globally shared or applicable; i.e. how appropriate are they for the level of use? (e.g. literacy rates might be less relevant for a majority of the population in developed countries compared to developing countries. However, there might be some groups within developed countries that will have low literacy levels.) We return to the suggested “do’s and don’ts” (see section 2.6 above) and highlight the importance of using a suite of indicators of different types, rather than single indicators and only indicators of the same type. It may be that different topics or indicators can be used to evaluate *similar* (high-level) concepts in different countries; this is largely unexplored in practice, although some theoretical work has been done (e.g. see Austen et al., 2000).

This section also sounds a warning, in that it appears easy to come up with many indicators; whereas how they are made usable, how specific they are to purpose, and how valuable their use is, are all more complicated issues. Our readings suggest further, that many commentators suspect that the lack of participatory development – and involvement of those who are to be measured – in relation to the design and use of indicators, renders many indicators or suites of indicators, inaccurate, undeveloped or underdeveloped (in terms of current situations), or less than comprehensive.

For instance, commentators remark that the illness and death focus of health status indicators and the predominant use of medical definitions to inform measurement of population health, do not reflect the more holistic definition of health of WHO (see e.g. Abdool and Vissandj e, 2001; Nayar, 2002). This focus also means that indicators are more likely to measure *quantity* of life rather than *quality* of life (Eckermann, 2000). Traditional or standard health indicators are inadequate to capture women’s experience of health (Tilley, 1996), do not provide information about patterns of health and illness across the lifecycle (Doyal, 2000) or measure lifetime reproductive risk (Erdstrom, 1992). Neither do they provide information on the structural links between health and daily life (Doyal, 2000) or enable analysis of how such variables interact with each other and how they might change over time (Eckermann, 2000).

Mortality indicators also provide insufficient information on the biological sex differences of men and women to analyse policies in the area (Drengsted-Nielsen and Luige, 2002), and there is a lack of evidence about effective treatments for conditions affecting women (McKinley et al., 2001; Pittman and Hartigan, 1996). It is likely that a range of cross-cultural comparisons routinely

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made (such as maternal morbidity and mortality) are invalid due to a range of factors, from enumeration and data collection practices, to invalidity and cultural incompatibility of definitions (Nayar, 2002). Further research to develop integrated approaches to women's health, using frameworks incorporating a wider range of contexts and test the variety of hypotheses about the social and economic patterning of women's health – as well as the creation and maintenance of appropriate data systems for monitoring and reporting on socioeconomic inequalities and gender equity – are recommended (Moss, 2002). A further challenge is the development of standards (such as clinical best practice) which allow measurement against different standards for men and women, and not only comparison with non-sex-specific norms (Pittman and Hartigan, 1996; Tilley, 1996).

In the field of work, commentators suggest that the quality, style, and amount of women's work may be radically different to the male standard, and therefore not captured in "standard" indicators (Beck and Stelcner, 1997; Danner et al., 1999; Elder and Johnson, 1999; Luxton, 1997). The same holds true for gender roles and responsibility sharing (Drengsted-Nielsen and Luige, 2002).

Other commentators highlight that while it is often important to compare information about women's status to that of men (particularly in relation to gender equity), limiting the focus to those areas where it is thought that comparisons can be made restricts the measurement of women's progress to areas in which men have already achieved "success", potentially giving an incomplete picture of women's experiences, goals and interests (Austen et al., 2000).

3.2 Indicators by tiers of the Framework

The following table shows that the majority of all indicators (reported and proposed) mapped to the Framework, were found in Tier 4, Community and Health and Welfare System Characteristics (44%, 485 indicators). Slightly under a quarter (24%) of the indicators were mapped to Tier 1, Health Status, with a further 22% mapped to Tier 2, Determinants of Health. The remaining indicators (9%, 102 indicators) were mapped to Tier 3, Health System Performance.

Table 3.4 Indicators in tiers of the Health Information Framework and by reporting status

Indicators in tier of Framework	All		Routine Reports		Special Reports		Proposed Indicators	
	No.	%	No.	%	No.	%	No.	%
Health Status (Tier 1)	266	24%	204	24%	43	29%	19	16%
Determinants of Health (Tier 2)	242	22%	182	22%	28	19%	32	28%
Health System Performance (Tier 3)	102	9%	80	10%	3	2%	19	16%
Community and Health and Welfare System Characteristics (Tier 4)	485	44%	367	44%	72	49%	46	40%
Total (including n/a)	1 095	100%	833	100%	146	100%	116	100%

The dominance of Tier 4 (Community and Health and Welfare System Characteristics; a tier which was originally a place for “contextual” indicators) is not surprising since the indicators were selected from international organizations reporting across countries at the international level. Compared to the other tiers, Tier 3, Health System Performance, has a relatively small share of indicators, which perhaps reflects the late entry of this area of quality assessment to reporting and monitoring generally.

The proportions of all indicators mapped to each tier described above generally reflect the spread of indicators across tiers in the routine reports. However, with the exception of Tier 4 (Community and Health and Welfare System Characteristics), the indicators in special reports and the proposed indicators show different patterns in the spread across other tiers (e.g. Tier 3, Health System Performance, has only 2% of the indicators in special reports but 16% of proposed indicators).

3.2.1 Sex-disaggregation and other indicator attributes in individual tiers of the Framework

The table below shows the number and percentage of indicators in each tier of the Framework according to whether they satisfy selected disaggregations (age and sex) and “Beck criteria” (whether they are reported over time, whether they include a comparator). The disaggregations and “Beck criteria” that show little variation due to their virtual absence are not shown.

Fifty percent or more of all indicators in all tiers – except Tier 4, Community and Health and Welfare System Characteristics – are sex-distinguished, although the balance between sex-disaggregated and sex-specific indicators varies between tiers. The low for sex-disaggregated indicators in Tier 4 (22% of all indicators in the tier) reflects the large number of financial or allocative indicators in this tier, which are almost exclusively gender-blind.

Table 3.5 Indicators by tiers of the Framework showing selected disaggregations and “Beck criteria”

Selected disaggregations and “Beck criteria”	Health Status (Tier 1)		Determinants of Health (Tier 2)		Health System Performance (Tier 3)		Community and Health and Welfare System Characteristics (Tier 4)		All tiers of the Framework	
	no	% of tier	no	% of tier	no	% of tier	no	% of tier	no	% of all tiers
Number of indicators	266	100%	242	100%	102	100%	485	100%	1 095	100%
sex-disaggregated	106	40%	96	40%	25	25%	109	22%	336	31%
sex-specific	41	15%	30	12%	26	25%	38	8%	135	12%
total sex-distinguished #	147	55%	126	52%	51	50%	147	30%	471	43%
age-disaggregated	22	8%	9	4%	19	19%	11	2%	61	6%
age-specific	49	18%	3	1%	8	8%	3	1%	63	6%
age-limited	74	28%	139	57%	15	15%	154	32%	382	35%
total age-distinguished*	145	55%	151	62%	42	41%	168	35%	506	46%
over time	48	18%	45	19%	8	8%	176	36%	277	25%
includes comparator	7	3%	44	18%	3	3%	57	12%	111	10%

sex distinguished = sex-disaggregated plus sex-specific

* age distinguished = age-disaggregated plus age-specific plus age-limited

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In the sections below, each tier of the Framework is separately examined, and a selection of indicator topics is assessed in more detail.

3.2.2 Health Status (Tier 1)

Overall findings show that the Health Status tier (Tier 1) is dominated by indicators in the dimensions of Illness, Injury and Health-related States (43%); and, Life Expectancy and Deaths (54%) (see the table below). This situation reflects the general maturity of the information systems that serve these areas: admission-based hospital systems and disease classifications (international standards, e.g. the ICD-10), and death registration systems which code for cause of death and on which more sophisticated analyses such as burden of disease are based.¹¹ Indicators in these tiers are also the most likely to be reported as sex-disaggregated, or to be sex-specific (mostly on women's reproductive health and maternal mortality).

Note that despite their apparent dominance, the dimensions of Life Expectancy and Deaths and Illness, Injury and Health-related States are underrepresented in this analysis, as not every morbidity and mortality classification has been listed individually in the collected indicators. Topics found in these dimensions are examined further below.

The dimensions of Well-being, Human Function, and the Health-related States portion (pregnancy, ageing, stress, congenital anomalies and genetic predispositions) of Illness, Injury and Health-related States are poorly represented. In the dimension of Human Function, the sole indicator found was on the topic of restrictions: Absence from work due to illness (OECD, 2002b). Although indicators on human function in terms of disability, limitations, and restrictions, tend to be reported in specific disability reports (see e.g. the WHO collection on a variety of aspects of disability), their absence from the statistical annexes that provide basic data in the WHO *World Health Reports* (2000; 2001b; 2002a) and in other "mainstream" reporting is notable.

Table 3.6 Health Status indicators by dimension (all indicators)

Dimension	No. of indicators	% of indicators	No. sex-disag	No. sex-specific	total sex-disting#	% of indicators sex-disting
Well-being	7	3%	1	0	1	14%
Illness, Injury and Health-related States	115	43%	24	28	52	45%
Human Function	1	0%	0	0	0	0%
Life Expectancy and Deaths	143	54%	81	13	94	66%
Total	266	100%	106	41	147	55%

sex distinguished = sex-disaggregated plus sex-specific

¹¹ For instance, Beck (1999b) remarks that it is easier to get reliable hospital admissions data than births data in some countries.

Topics in the Illness and Injury dimension*Audit findings*

Topics in the dimension of Illness, Injury and Health-related States include some of the most sophisticated (i.e. complex, causal, risk-related, cross-tier) indicators, derived from burden of disease studies; and some of the most likely to be reported in age- and sex-disaggregated forms. Twenty of these indicators (WHO, 2001b; 2002a) were described, with eight of these being sex-disaggregated. These included:

- Attributable Disability-adjusted Life Years (Attributable DALYs) by risk factor, sex and mortality stratum in WHO Regions.
- Attributable DALYs by risk factor, country's level of development, and sex, 2000 for: childhood and maternal under nutrition, other diet-related risks and physical inactivity, sexual and reproductive health, addictive substances, environmental risks, occupational risks, and other selected risks to health (WHO, 2002a).
- Leading causes of disability-adjusted life years (Leading causes DALYs).
- Leading causes of years of life lived with disability, both in all ages and in 15–44-year-olds, by sex and ranked (WHO, 2001b).

Indicators which are not sex-disaggregated include: Amount and patterns of burden of disease in developing and developed countries; and Global distribution of disease attributable to 20 leading selected risk factors (WHO, 2002a).

There were indicators for the prevalence of a range of specific conditions such as:

- Communicable diseases including: malaria, tuberculosis (four indicators, none sex-disaggregated), HIV/AIDS (19 indicators, five sex-disaggregated, five sex-specific – all describing women of reproductive age and/or in pregnancy), plague, dengue, yellow fever, leprosy, diphtheria, and cholera, neonatal tetanus, and urethritis in men.
- Noncommunicable conditions/disorders such as: malnutrition (three indicators, two sex-disaggregated), depression, Alzheimer's disease and other dementias, mental retardation, epilepsy, schizophrenia.
- A range of cancers (including lung, stomach, female breast and cervix; eight indicators, three sex-disaggregated, four sex-specific).

There were also indicators of injuries including:

- Injuries arising from road traffic/transport accidents.
- Violence such as childhood sexual abuse.
- Prevalence and distribution of FGM.

Low birth weight (five indicators, none sex-disaggregated), dental health, and deficiencies such as vitamin A deficiency (night blindness) and anaemia in pregnancy were also found in the collected indicators in this dimension. Indicators on a few medical treatments (e.g. psychotropic drugs) and procedures (e.g. abortion) were also found; however, more indicators of this type were placed in Tier 3, Health System Performance, as their use was in the context of effectiveness.

*Audit findings****Topics in the Life expectancy and Deaths dimension***

There were 42 life expectancy indicators mapped to the dimension of Life Expectancy and Deaths, making up about 30% of indicators in the dimension, and 52% of the sex-disaggregated indicators within it. Life expectancy, expressed in years, is almost always reported differentially for males and females (a substantial 69% of the 42 life expectancy indicators report sex-disaggregated or sex-specific data). Although male and female life expectancy are usually reported side by side (e.g. males 70.2 years, females 74.8 years), allowing some comparison, it is left to the reader to make the calculation by using the male or female life expectancy as the comparator (or standard) for the other. Not one form of the indicator was found that explicitly included a comparator or showed relative life expectancy. Fourteen reported change over time, or were reported over time.

Eighteen percent of the indicators in the Life Expectancy and Deaths dimension were infant and child mortality indicators. By contrast to life expectancy, 20% of these (five of the 25 found) were reported as sex-disaggregated or sex-specific. Three of these were also reported over time, while a further seven of the non-sex-disaggregated indicators also reported time. Again, not one form was found that explicitly included a comparator, although as with life expectancy, in the few sex-disaggregated forms, data is shown side by side as standardized rates allowing some comparison. Beck notes that infant mortality and life expectancy are two indirect health indicators that are frequently used in measuring the status of women (Beck, 1999b: 24), and indeed, health more generally. However, because longevity depends on a large set of factors cumulating over a lifetime, there is a “built-in time lag”, and its use as an indicator may not describe current circumstances (Beck, 1999b: 24 citing Anderson, 1991). A corresponding suggestion is to use an indicator with a shorter gap between birth and death, such as infant or child mortality. However, where health technologies are targeted to infants and children, infant mortality may be a poor predictor of life expectancy (Beck, 1999b: 24).

3.2.3 Determinants of Health (Tier 2)

Overall findings show that the Determinants of Health tier (Tier 2) is dominated by indicators in the Socioeconomic Factors dimension, which has close to half (110 out of 242 or 45%) of the indicators in the tier (see the table below). Note that the Determinants of Health tier also had a greater share of the proposed indicators (see Table 3.4 above) with 28% compared to 22% of routine and 22% of all indicators.

Indicators in four of the dimensions in this tier were reported in sex-disaggregated or sex-specific forms more often than not (in the dimensions of Socioeconomic Factors, Social and Community Factors, Household Factors, and Health-related Mediators), although the number of indicators in some of these was small (e.g. there was a total of five indicators in the Social and Community Factors dimension). Of the 182 indicators in the four dimensions listed above, 106 indicators (or 58%) were sex-distinguished (either sex-disaggregated or sex-specific). These high rates, however, arise from the dominance of certain topics, discussed below. Note that the indicators on these topics could also have

been placed in the Human Settlement dimension of Tier 4 (Community and Health and Welfare System Characteristics), where (other) demographic topics have been placed.

The largest deficits in Tier 2 were for the Psychosocial Factors element of the dimension of Health-related Mediators (a poorly served topic, reflecting the late entry of mental health as a topic generally), and in the dimensions of Social and Community Factors, and Household Factors, as shown in the table above.

The scarcity of indicators in the dimensions of Social and Community Factors, and Household Factors reflects:

1. The decision to include demographic factors in Tier 4 only, and the general lack of indicators on other topics in these dimensions.
2. The emphasis on measures at a national level in international indicator sets, which generally disregards the influence of the “local” or “community” levels (see discussion on levels in Part II, *An information framework for evaluating and developing gender sensitive indicators for gender equity in health*).

Topics in the dimensions

As noted above, indicators in the four dimensions of Socioeconomic Factors, Social and Community Factors, Household Factors, and Health-related Mediators were reported in sex-disaggregated or sex-specific forms more often than not, with a total of 106 indicators (or 58%) sex-distinguished (sex-disaggregated or sex-specific). This relatively high rate of sex-distinguished indicators (compared to Environmental Factors, for instance) arises from the dominance of a few topics. Indicators on education (46 indicators, 67% of which are sex-distinguished); literacy (26 indicators, 58% sex-distinguished); and employment status (22 indicators, 64% sex-distinguished) form the bulk of indicators in the Socioeconomic Factors dimension.

The indicator topic of contraceptive practice dominated the Health-related Mediators dimension with 16 of the 57 mapped indicators, (or 28% of those

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Table 3.7 Determinants of health indicators by dimension

Dimension	No. of indicators	% of indicators	No. sex-disag	No. sex-specific	total sex-disting#	% of indicators sex-disting
Environmental Factor	37	15%	10	0	10	27%
Socioeconomic Factors	110	45%	56	10	66	60%
Social and Community Factors	5	2%	3	0	3	60%
Household Factors	10	4%	5	2	7	70%
Health-related Mediators: Health Behaviours and Psychosocial Factors	57	19%	11	19	30	53%
Biomedical Factors	23	10%	9	1	10	43%
Total	242	100%	94	32	126	52%

sex distinguished = sex-disaggregated plus sex-specific

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in the dimension) all of which were sex-specific, and reporting on women. A further 23 indicators (40%) were mapped to the “SNAP” health behaviours (Smoking, (poor) Nutrition, Alcohol misuse, and Physical inactivity), of which seven, or just under a third, were sex-disaggregated.

Measures on bodyweight dominated the Biomedical Factors dimension with 14 of the 23 mapped indicators, or 61% of those in the dimension. Bodyweight indicators were more likely to be age- than sex-distinguished, with seven age-limited indicators (mostly describing children under five years) while only five out of the 14 were disaggregated by sex or sex-specific.

The few indicators found in the Social and Community Factors dimension were mapped to the topics of social capital and democracy/personal power/empowerment, and included the OECD (2001) “social cohesion” indicators: e.g. average number of groups to which respondents belong (sex- and age-disaggregated) and density of associational activity (not disaggregated); and the ECLAC (1999) proposed indicator: percentage of all elected town councilors in the country who are women (sex-disaggregated with an explicit comparison to men).

Sex-disaggregated indicators found in the Household Factors dimension were all drawn from the ECLAC (1999) proposed indicators on the topic of access to economic resources. They included: gender gap in ownership of agricultural land; coverage of technical assistance programmes for small farmers; access to credit; and gender gap among owner-occupiers in poor households. Indicators in this dimension that were not sex-disaggregated included: number of persons per room (or average floor area per person (Common Country Assessment, United Nations, 1999a)); and Millennium indicator 32 on the proportion of households with access to secure tenure (owned or rented) (UNSD, 2002; indicator not yet available).

Discussion

The emerging literature on the determinants of health suggests the growing importance of the Social and Community Factors dimension; however, the scarcity of indicators indicates that this is not yet reflected in reporting and monitoring. In relation to household level measures, as has been remarked by other commentators (see e.g. Malhotra et al., 2002; Austen et al., 2000), the majority of extant indicators are *at* the level of the household, rather than *within* the household (e.g. household income, rather than share of household income). Measures using the household as a basic unit implicitly assume that resources are shared equally, and thus do not capture the intrahousehold allocation of resources (Cantillon and Nolan, 2001; Fukuda-Parr, 1999; Durbin, 1999). In relation to Health-related Mediators: Psychosocial Factors, Licuanan (1999), in a review of monitoring and evaluation against the BPA, argues the need to develop innovative indicators to systematically measure the psychological changes which occur as women participate in empowering processes. She suggests additional psychological indicators of empowerment which include: self-esteem, locus of control, empowerment and social-psychological growth, as well as subjective well-being, and happiness.

3.2.4 Health System Performance (Tier 3)

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In revising the Health Information Framework, we reshaped this tier to finally include three additional dimensions examining the Availability and Affordability of services (broadly defined) *per se*, and the Allocative Efficiency with which they are distributed. The reasoning was that services must first be available and affordable before they can be assessed for Acceptability, Accessibility, and the other “quality” dimensions of the tier. However, as a response to the relative absence of indicators that could be mapped to the tier, ultimately we combined all twelve dimensions into three broad dimensions (Accessibility, Effectiveness, and Cost) for analysis, as shown in Figure 3.1 below. The overall relative lack of indicators in the Health System Performance tier (compared to the other tiers of the Framework) was despite the deliberate inclusion of indicators from the WHO (2000) *World Health Report* on health system performance, plus a set of Canadian indicators that concentrates on measures in this tier¹² which had the effect of artificially inflating the number of indicators (CIHI, 2002; Health Canada, 2002).

Overall, findings show a concentration of indicators in the broad dimensions of Accessibility and Effectiveness, with a relative deficit in the Cost dimension, as illustrated in the table below.

Broad Dimension	No. of indicators	% of indicators	No. Sex-disag	No. Sex-specific	Total sex-distingu	% Indicators sex-distingu #
Accessibility	41	40%	5	18	23	56%
Effectiveness	47	46%	18	9	27	57%
Cost	14	14%	2	0	2	14%
Total	102	100%	25	27	52	51%

sex distinguished = sex-disaggregated plus sex-specific

Table 3.8 Health system performance indicators by dimension

Although 51% of indicators in the tier were sex-distinguished overall, the table above shows that the majority were in the broad dimensions of Accessibility and Effectiveness, and that slightly more of the sex-distinguished indicators were sex-specific than sex-disaggregated. Sex-specific indicators were concentrated on females, and most described reproductive health.

The figure above shows the number of indicators found in each of the broad dimensions, and in the dominant subdimensions of Service Access, Service/Programme Effectiveness, and Efficiency. As shown, there were few indicators found in the other subdimensions.

There was a generally deficient coverage of certain health system sectors (e.g. non-hospital sectors) and in multi-, cross- and/or intersectoral measures. There were no indicators found that reported the gender sensitivity, gender acceptability, or gendered access to services and care. There were also no indica-

¹² We note that both the Canadian and Australian work on Tier 3 (Health System Performance) has been plagued by a lack of, and difficulty in developing, suitable indicators (see for instance, NHPC, 2002).

Figure 3 Health System Performance broad and original dimensions (indicator numbers in brackets showing total indicators and dominant subdimensions)

HEALTH SYSTEM PERFORMANCE		
ACCESSIBILITY (41)	EFFECTIVENESS (47)	COST/VALUE (14)
Service Access (25)	Service/Programme Effectiveness (35)	Efficiency (9)
Availability (9)	Appropriateness (4)	Allocative Efficiency (2)
Affordability (3)	Continuity/Continuous (2)	Sustainability (3)
Acceptability/Responsiveness (4)	Competence/Capability (3)	
	Safety (3)	

tors that measured the involvement of communities (including volunteers) in agencies and services. In addition, although indicators were assigned to topics in the mapping exercise, few topics were completely covered. For instance, in the subdimension of Affordability, there were no “mainstream” indicators that reported on the general (either absolute or relative) affordability of health care services. Appendix D (which provides further details of indicators found on topics within dimensions and tiers), shows clearly the partial topic coverage of indicators in the Health System Performance tier.

A closer look at the broad dimensions of Accessibility, Effectiveness and Cost

Accessibility

The Accessibility dimension was remarkable in that the most basic performance indicators were found in non-WHO indicator sets:

- Population with access to essential drugs (%) (Human Development Indicators, UNDP, 2002), and Population with access to affordable essential drugs on a sustainable basis (%) (Millennium Indicators, UNSD, 2002; based on WHO data). Neither of these is sex-disaggregated, but the latter is reported over time.
- Population with access to primary health care services (%) (Common Country Assessment, United Nations, 1999a) – not sex-disaggregated.
- Hospital discharges per 1 000 inhabitants ratio, and Outpatient health care visits per 1 000 inhabitants ratio (PAHO, 2001) – not sex-disaggregated.
- Ambulatory care activity, Average length of stay, Discharges, In-patient utilization, and Surgical procedures (Health Data 2002; OECD, 2000¹³) – not sex-disaggregated.

The routinely reported WHO (2000) topics mapped to this dimension were: Fairness of financial contribution to health systems; Household contributions to financing health, as percentage of capacity to pay (text indicator); Respon-

¹³ The OECD (2002) *Health Data 2002* also includes Charts which describe health care systems, an essential prerequisite for making judgements about system efficiency and performance.

siveness of health systems (level and distribution); and Relative scores of health system responsiveness elements (text indicator), most of which report the subjective assessments of an unrepresentative selection of “key informants” (Almeida et al., 2001; WHO, 2000) rather than objectively assessed measures that could be replicated by other researchers. With certain exceptions (e.g. the hospital sector) there is a generic lack of the base data on which to report objectively in this tier.

Sex-distinguished indicators in the Accessibility dimension were dominated by the female sex-specific service access indicators of pregnant women (three indicators) and deliveries (nine indicators) attended by skilled or trained personnel. The most specific form of the indicator was the proposed UNGASS (1999) benchmark for measuring progress towards ICPD goals which aim for a minimum of 40% of all births to be assisted by skilled attendants where the maternal mortality rate is very high by 2005 (with percentages increasing up to 2015). Other sex-specific indicators found included: those for cancer screening (cervical and breast cancer); the ECLAC (1999) proposed indicator of special health care for elderly women; and another UNGASS-proposed (1999) benchmark for 60% of primary health care and family planning facilities to offer the widest achievable range of safe and effective family planning methods, essential obstetric care, prevention and management of reproductive tract infections (RTIs) (including sexually transmitted diseases-STIs), and barrier methods to prevent infection, by 2005 (with the percentage increasing up to 2015). The few sex-disaggregated indicators found included: Canadian indicators for influenza immunization (CIHI, 2002); a proposed indicator for access to methods of prevention for HIV/AIDS infection (UNGASS, 1999); and a suite of measures summarized in the indicators as nonfinancial barriers to access, drawn from the developmental/proposed *Benchmarks of fairness for health system reform* (Daniels et al., 2000).

The OECD (2002a) additional table reporting on public satisfaction with health care systems over time (1998–2000, 1996) is a welcome development, and the only indicator to address satisfaction at the international level. This type of qualitative data which reports attitudes/beliefs is important in supplying a variety of information for triangulation to confirm other evidence. Navarro (2001) triangulated evidence drawn from similar public surveys to challenge the WHO (2000) health system performance rankings, pointing out that at the same time that WHO ranked certain national health systems high in performance, public satisfaction with them was at an all-time low.

Effectiveness

The broad dimension of Effectiveness was dominated by indicators in the subdimension of Service/Programme Effectiveness. These included the suite of Canadian (mostly hospital-derived) effectiveness indicators (e.g. asthma re-admission rate; 30-day stroke, and AMI (Acute Myocardial Infarction) in-hospital mortality rates; prostatectomy, and hysterectomy readmission rates; as well as avoidable mortality, and deaths due to medically-treatable diseases (including a range of diseases such as hypertensive disease and bacterial infections) (CIHI 2002). Immunization rates (e.g. proportion of infants immunized

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against measles and tuberculosis) were also relatively common (UNSD, 2002; PAHO, 2001; United Nations, 1999a).

Unsafe health care injections, and Attributable fraction of (various) infections in health care workers due to injuries with contaminated sharps (WHO, 2002a) were the only indicators mapped to the Safety subdimension.

Three Canadian indicators were the only indicators found that investigated the Appropriateness of services. These were: Caesarean section; Vaginal birth after caesarean section; and May not require hospitalization (percentage of patients hospitalized in acute care facilities for conditions or procedures that experts say often allow outpatient treatment not requiring admission) (CIHI, 2002).

Other dimensions were undeveloped as is evident by the mixture of topics mapped to them (see also, Appendix D).

Cost

The majority of indicators were mapped to the Efficiency subdimension, and were mostly drawn from the WHO (2000) (e.g. Health system attainment and performance, Overall health system attainment, Health system performance, and Performance on level of health). There were also a few indicators (mostly textual, i.e. lists) that looked at cost-effective interventions for various conditions. Three indicators examined the extent of reliance on external aid. The mixture of topics indicates a lack of coherence in the topics or the dimension, which could be a limitation in the conceptualization of this tier in the Framework.

Overall

Despite the deliberate inclusion of the most advanced set of health system performance indicators (see CIHI, 2002), as well as those from the WHO (2000) *World Health Report* on the topic, the tier was, in general, poorly served, with the majority of indicators localized to unique sectors (e.g. hospitals) or particular services (e.g. deliveries). As well, the tier lacks coherence, and there is no logical progression from the particular (e.g. clinical interventions, service access) to the general level (e.g. effective utilization of clinical interventions, equality of access to essential health services). Hence, the high-level system performance topics such as those put forward by WHO (2000) occur in a vacuum, as there do not appear to be underlying units on which such gross assessments can be based or replicated. These overall impressions may merely indicate that the tier is in its infancy, and thus at the beginning of an interesting development process. As such, establishing the importance of gender equity as a primary principle in health would be a useful focus for further development.

3.2.5 Community and Health and Welfare System Characteristics (Tier 4)

Overall findings show that the Community and Health and Welfare System tier (Tier 4) is dominated by indicators in the Economic Resources, and Human Settlement dimensions, with 50% and 25% of all indicators respectively; and with a minority of indicators in the Governance, and Health and Welfare System dimensions (13% of all indicators respectively). To some extent, the dominance of the first two dimensions reflects the choice made to analyse in-

indicator topics in one tier of the Health Information Framework only, and the forced placement of some topics to these tiers (i.e. some topics could also have been mapped to Tier 2, Determinants of Health).

Indicators in the Community and Health and Welfare System Characteristics tier were the least likely to be sex-disaggregated. Around a third of indicators in the dimensions of Economic Resources (31%), and Human Settlement (36%) were sex-distinguished (either sex-disaggregated or sex-specific). The apparently large number of sex-disaggregated indicators in the Governance dimension is over-inflated by the frequent use of one indicator: Women's share of parliamentary seats (or variants); and further inflated by the relatively large number (17 indicators or 28% of those in this dimension) of proposed indicators (such as those put forward by ECLAC, 1999) which show an increased sensitivity to gender.

Dimension	No. of indicators	% of indicators	No. sex-disag	No. sex-specific	Total sex-disting#	% of indicators sex-distinguished
Economic Resources	242	50%	61	14	75	31%
Human Settlement	121	25%	27	17	44	36%
Governance	61	13%	21	7	28	46%
Health and Welfare System	61	13%	0	0	0	0%
Total	485	100%	109	38	147	30%

sex distinguished = sex-disaggregated plus sex-specific

The Human Settlement dimension is dominated by indicators on population demographics (89 indicators, or 74% of all indicators in the dimension). However, only 39% of these indicators were either sex-disaggregated or sex-specific.

Sex-distinguished indicators in the Economic Resources dimension are concentrated in the general topic of workforce (including workforce earnings, the topic forms 40% of all indicators in the dimension). A total of 62 of the 96 indicators in the topic are sex-disaggregated with a further 13 sex-specific indicators. The Economic Resources dimension is otherwise dominated by indicators on (financial or expenditure) allocations (56 indicators, two sex-distinguished). The vast array of indicators on GDP and Gross National Product (GNP) (total of 30 indicators, two sex-distinguished) are used both as overall economic measures (e.g. GDP per capita is commonly used as an indicator of a country's (inhabitants') "wealth" or economic performance), and the proportion of GDP allocated to health is also commonly used as part of any examination on the efficiency or performance of the health system generally. These base measures have long been criticized as incomplete, and are considered particularly incomplete in terms of describing the contribution of women, as further discussed below.

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Table 3.9
Community and Health and Welfare System Characteristics indicators by dimension

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Beck (1999b) points out that measures which concentrate on paid employment “have been strongly criticized for having a gender bias, and in particular, for ignoring women’s overall contribution to the economy and to society as a whole” (1999b: 14). Malhotra and Mehra (1999) make the assessment in relation to indicators devised and adopted as a result of Cairo (ICDP), that “indicators measuring women’s access to or control of social and economic resources have received little attention” because the indicators adopted emphasize health (and women’s reproductive health in particular) rather than “social, economic and gender components of the Cairo agenda” (Malhotra and Mehra, 1999: 3). Danner et al., (1999) suggest that the consequence of the almost exclusive focus on female reproductive capacity is that women’s contribution to other aspects of production and community life is ignored. They note that the general lack of attribution of value to women *per se*, results in: women’s activities being undercounted; the complexity and multiple dimensions of women’s lives and work being uncharacterized in data collection categories and hence not captured; the under-representation of women, girls and female infants in population data, because in some countries they die in disproportionate numbers to men and these deaths are not counted (the so-called “missing women” or “invisible girls”¹⁴, see also Dijkstra, 2002); and, the unavailability of statistics on violence against women.

As mentioned above, GDP and related base measures of economic activity have long been criticized as incomplete and biased against the contribution of women. Cobb et al., (1999) describe the GDP as a “flawed measure of the economy – and of progress” because GDP:

- Counts only monetary transactions.
- Omits much of what people value and “activities that serve basic needs” (such as “domestic subsistence” (Danner et al., 1999)).
- Does not count “free services” (such as community volunteer work or caring in the home – although these services are counted/included in GDP when paid for).
- Ignores the value of “non-productive time” (leisure time and relaxation).
- Omits “crucial contributions of the environment”, such as pure air and water (services that are expensive when they have to be bought).
- Fails to distinguish between harmful and beneficial monetary transactions (those that “genuinely add to well-being and those that diminish it, try to maintain the status quo, or make up for degraded conditions”, noting that “shifting activities from the unpaid household or community sector to the monetarized economy” is a gain for the GDP whether it is perceived as such by the community or not).

¹⁴ For instance, the United Nations Interagency Working Group on Gender and Development in India reports that “In the past, data collection through the National Census has brought to light the under-reporting of female population in certain parts of the country. However, it is also true that female work participation is not adequately recorded and consequently reflected in the Census Data. Declining sex ratio and low female work participation rates in many parts of the country are direct results of the lack of social and cultural sensitivity on gender issues, which very often is reflected in the bias against the importance, role and the status of women in the society” (United Nations–India, 1999: 1)

- GDP ignores the environmental costs of economic activities (such as: depletion of natural resources, pollution, and pollution remediation) (Cobb et al., 1999: 1–2).

They note the assumption that “rising GDP lifts all boats”, but go on to show that over a twenty-year period in the USA, while GDP rose, real wages declined, and income inequality widened. In other words, “Growth did not benefit everyone” (Cobb et al., 1999: 3). They argue that “a true measure of well-being should take this inequality into account”. Austen et al., (2000) note that it is increasingly:

. . . accepted that aggregate economic measures such as GDP have significant shortcomings as proxy indicators of economic well-being . . . because such measures do not capture issues significant to well-being, for example, income distribution, pollution and environmental degradation and the value of unpaid labour” (2000:1).

The restricted basis for the calculation of GDP and associated measures has a flow-on effect to other indicators. For instance, in analysing the calculation of the Gender-related Development Index (GDI), Dijkstra (2002) argues that the procedure used to calculate the penalty associated with the gender gap in income results in countries with higher levels of absolute income getting relatively lower penalties for income inequality; in other words, the results are biased towards countries with higher per capita GDP.

A more inclusive conceptualization that takes into account unpaid activities (such as caring and domestic subsistence activities to keep households running) is needed to improve the accuracy of the baseline measure (e.g. GDP) on which so many other indicators are built.¹⁵ Otherwise, the consequences of such false accounting will be:

1. For the increasing entry of women to the labour force (real increase, not at the expense of men) to look like “progress” as GDP rises.
2. For the increasing transfer of (previously) unpaid activities to the (paid) service sector (e.g. child care, aged care) to look like “progress” as GDP rises.
3. Gross underestimation of the burden of total “work” (paid and unpaid) on both women and men (considered to particularly affect women).

At a national and international levels, countries with different definitions and balances of paid to unpaid work, and formal to informal sectors, are misleadingly compared on measures, such as GDP.

3.3 Indicators in the Equity dimension

Clarification of the concept

In the beginning, it was our expectation that we would find something called “equity” indicators, that could be used to examine “gender equity in health”.

¹⁵ ECLAC has a proposed method.

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In practice, what indicators there were appeared to be measuring variants of equality rather than equity, and there were very few that could be considered to address “equity in health” – let alone “gender equity and health”. These concepts and findings are discussed in more detail below.

On commencing the analysis, we expected to find a number of indicators that incorporated equity as a key concept (or dimension) of the indicator. Early on, this was re-determined, as it appeared that available indicators addressed variants of equality (sameness) rather than equity (“fairness” defined as the quality of being fair, impartial, and just; and more specifically, in relation to health, fairness in the distribution of resources for health and including progressive distribution of resources, differentially allocated according to need (Health Systems Trust, 2002; Gomez, 2002; PAHO/WHO, 1999). The WHO (2000) report on health system performance – which addresses the *level* as well as the *distribution* of both health status, and system responsiveness, with the added concept of fairness in financial contribution – has raised much debate, some of it negative (see e.g. Almeida et al., 2001; Navarro 2001). Although couched in terms of “equity”, in practice (as with many other writings on the topic) the concepts of equity and equality are used as if they were interchangeable. In addition, no attention is paid to gender whatsoever.

Determining equity implies choice or judgement on what is fair. Most of the indicators found appear to measure difference, “disparity”, uneven distribution or affect; therefore, *inequalities which may or may not be the product of inequities* (as there is usually insufficient information on which to base such a judgement). As such, these measures may be considered, at best, precursors for the examination of equity. Some may be better than others, and all need to be assessed for appropriateness to local context and levels of use. Our suggestions for “do’s and don’ts” include the use of multiple indicators that look at different aspects, rather than single indicators that look at only one (quantitative) aspect (see section 2.6 above). As such, there is no one “equity” measure found in the collected indicators, and nor should we expect to find one.

In the current dialogue on summary population health measures, Dachs (2002: 16) calls such measures “equity-motivated indicators” and describes them as presenting “in one value (or a few values) enough useful information for meaningful comparisons between countries and subpopulations, in such a way that both the levels (averages) and the inequalities (dispersions) are also taken into account”. We would argue that equity, in particular, cannot be grasped or measured in such a simplistic way, and especially not in one value.

Overall

Adopting Dachs’ term of “equity-motivated indicators”, the overall findings were that there were few such indicators outside of the topics of education and literacy, workforce and democracy. The table below shows the type of indicator topics that we expected to find indicators for, and whether and how many indicators were found among the collected indicators.

Table 3.10 “Equity motivated indicators”: expected and found

Dimension	Expected indicator topics	No. of indicators	Comment
Equity	Distribution/sharing of income/resources (e.g. GINI index of income/resources inequality)	9	Also, Poorest fifth's share of national consumption (United Nations, 1999a; OECD, 2002b; UNSD, 2002), Women per men in poorest quintile (UNIFEM, 2002)
	Income level of poorest compared to wealthiest quintile of population	0	
	Health status of poorest compared to wealthiest quintile of population	0	
Gender Equity	Full enumeration of females of all ages and ethnicities in basic data sources (e.g. Censuses, Surveys of Population)	0	
	Collection, reporting, analysis and policy use of gender sensitive and sex-disaggregated data for all indicators so that equity issues can begin to be examined	0	
	Enhanced/inclusive GDP/GNP/Gross National Income (GNI) measures that value and include “unpaid work”, sex-disaggregated	0	
	Literacy (e.g. age-specific literacy rates of females compared to males over time)	1	UNESCO, 2000
	Education (retention and completion rates of females compared to males at all levels of education)	1	Proportion starting grade 1 who reach grade 5 (UNDP, 2002). Most indicators are for enrolment, some for attendance.
	Wage parity (e.g. average salary of men versus women in comparable managerial positions)	9	Also, Change in wage parity by industry, Female share paid employment (UNIFEM, 2002)
	Managerial opportunity (e.g. % of managerial positions held by women)	6	Female legislators, senior officials and managers (UNDP, 2002); Female representation environmental management, media management (ECLAC, 1999), positions held by women at ministerial, subministerial level (UNSD, 2000). Many proposed.
	Women's management on health care boards/equivalent structures	0	
	Gender Empowerment Measure (GEM)	2	UNDP, 2002, United Nations, 1999a
	GDI	1	Used only by UNDP (2002) Many critiques of both indices and a variety of suggested improvements/alter
Equity in Health	Equitable access to health services	0	
	Utilization proportional to need	0	
	Equitable distribution of health outcomes	1	WHO, 2000 – level and distribution of health status, but largely assessed on life expectancy
	Equitable distribution of determinants of health, such as risk factors or living conditions, and the characteristics of the health care system or community	1 partial	WHO, 2000 – level and distribution of system responsiveness, key informants views on
Gender Equity in Health	Mortality ratios of male and female children (including by causes, e.g. malnutrition)	0	Closest although not ratio is Causes of infant deaths by age (> 1 year) and sex (WHO, undated). Three indicators have sex-disaggregated rates per 1 000 but not for causes.
	Health status of females in poorest quintile compared to wealthiest quintile of population	0	
	Longevity including “invisible girls”, “invisible women”	0	
	Participation of women in the conceptualization and design of projects (Bertrand and Escudero, 2002)	0	

Continues...

Table 3.10, continued

Dimension	Expected indicator topics	No. of indicators	Comment
Gender Equity in Health (continued)	Avoidable disparities in health status (Gomez, 2000)	2	Avoidable mortality (WHO, 2002b) and avoidable DALYs (WHO, 2002a) only.
	Allocation of health care resources according to need (Gomez, 2000)	0	
	Utilization of appropriate health care services, according to need (Gomez, 2000)	0	
	Payment for health services, according to ability to pay (Gomez, 2000)	0	
	Distribution of power and responsibility in health production (Gomez, 2000)	0	
	“Gendered analyses of health situations – including data disaggregated by sex, and development, monitoring and evaluation of “gender indicators”, such as: Causes of female and male mortality/morbidity; Infant mortality rate by sex and cause; Maternal mortality rates; Women’s access to prenatal and postnatal care, and safe delivery; The proportion of women and men employed in different levels/areas of the health sector; Differences in wages earned by female/male health workers; Women’s and men’s access to food, clean water, sanitation, immunization against diseases; Proportion of women’s and men’s, or household, incomes spent on health services; Distribution of household expenditure on health services; Fertility rates; Women’s access to different methods of family planning” (PAHO/WHO, undated: 2).		Gendered analyses almost totally absent (see section 3.1). Indicators on causes of female and male mortality/morbidity available but not analysed re gender. Infant mortality rate by sex and cause not found. Maternal mortality rates available; indicators on women’s access to prenatal and postnatal care not found ¹⁶ ; no indicators on safe deliveries found. Indicators on proportion of women and men employed in health sector/s; and differences in wages not found. Where the following indicators are available they are not sex-disaggregated – on access to food (no indicators), clean water, sanitation, immunization. No income and expenditure indicators as described were found. Total Fertility Rate (TFR) available but differences between women not analysed. Access to family planning methods not found.
Health Equity	Achievement of health	1	WHO, 2000 – level and distribution of health status, but largely assessed on life expectancy
	Capability to achieve good health	0	
	Distribution of health care	0	
	Fairness of processes (e.g. nondiscriminatory health care delivery)	0	
Equity in Health System	Inequity in the distribution of health care resources such as physicians and hospital beds per capita within different geographic regions	0	
	Probabilities of treatment given medical need—which is sensitive to differences in type of illness studied, age group examined, and type of treatment investigated	0	
	Financial measures such as differences in expenditures adjusted for health need, or as a proportion of a household’s total budget	0	
	Indices such as the GINI coefficient for health care expenditures and availability of medical care.	0	
Equity Effects in Health System Reform	Benchmarks of fairness for health reform (Daniels et al., 2000)	0	Nothing like these used in international reporting.
	Health equity gauges (GEGA) Average Benefit Incidence Analysis		

¹⁶ Service utilization rates are available—but these do not describe access, as also noted by PAHO (1998).

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Gomez (2000) states that equity in health should be derived from principles of social justice and human rights, and result in minimizing avoidable disparities in health and its determinants. She argues that analysis of health equity issues is incomplete if it does not account for the role gender *and* ethnicity play in inequality. Standing (1997), in an article on health sector reform, argues that a gender-equity approach, concerned with the impact of power relations, should focus on:

... the role of gender relations in the production of vulnerability to ill health or disadvantage within health care systems and particularly the conditions which promote inequality between the sexes in relation to access and utilization of services.

We did not find indicators that addressed these very complex issues.

Empowerment

Measuring the empowerment of women includes additional elements to that of measuring other marginalized groups, suggest Malhotra et al., (2002) and these are that: women occur in most other marginalized groups; household and interfamilial relations are a key aspect of women's disempowerment; and, that women's empowerment requires transformation of institutions supporting patriarchal structures. They collate and discuss sets of aggregate and individual/household-level measures of empowerment used most often in empirical studies. While empowerment is context specific, they suggest that indicators of empowerment should include standards situated outside local gender systems which incorporate recognition of universal elements of gender subordination.

An assessment of the aggregate measures considered more likely at the international reporting level of the collected indicators (see Table 3.11) shows uneven topic coverage. Many topics are absent in the collected indicators. Topics present were: female labour force participation; gender wage differentials; women's share of earned income; female literacy and enrolment; singulate mean age at marriage;¹⁷ and women's share of parliamentary seats.

Discussion

Note that this is only one view of "empowerment", and that "health" as a topic (here also called "survival", a very basic view of health) forms only a part of it. The same review (Malhotra et al., 2002: 45) also identified the indicators at an individual/household-level most frequently used in empirical studies, as those on the topics of: domestic decision-making (finances, resource allocation, spending, expenditures); social and domestic matters (e.g. cooking); child-related issues (e.g. well-being, schooling, health); access to or control over resources (access to/control of: cash, household income, assets, unearned income, welfare receipts, household budget, participation in paid employment);

¹⁷ The "singulate mean age at marriage" is the mean age at (first) marriage of those who eventually get married.

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and mobility/freedom of movement. As has already been reported, there were very few intrahousehold indicators found among the collected indicators (see the Household Factors dimension of the Determinants of Health, Tier 2 of the Health Information Framework).

Licuanan (1999), in a review of monitoring and evaluation against the BPA, argues the need to develop innovative indicators to systematically measure the psychological changes that occur as women participate in empowering processes. She suggests that additional psychological indicators of empowerment could include indicators on: self esteem, locus of control, empowerment and social-psychological growth; as well as subjective well-being, and happiness. Malhotra et al (2002) report that the psychological dimension is rarely measured.

With the exception of self-reported health (perhaps a proxy for subjective well-being), there were no indicators on these topics found in the collected indicators.

In an extensive discussion of empowerment, Kabeer (1999) points out that not all indicators have equal strength in measuring women's empowerment as they do not all have the same "consequential significance" for women's lives, in that only some represent strategic life choices; often decisions more likely to be made by men. Kabeer argues therefore, that consequential significance should be taken into account in indicator selection. She also suggests that it is important to identify the "critical control points" in which women participate in decision-making. For example, do women participate in the "control" or policy-making decisions, or only in the "management" or policy-implementation decisions?

Kabeer also argues that "effective agency" and "transformative agency" should be distinguished. Effective agency is when women become more able to achieve those tasks contingent with gender roles (such as to achieve the survival of children). Transformative agency is when women are able to act against prevailing practice, or to change prevailing gender relations (such as the achievement of increased survival of girl children in countries where girl children are undervalued). The measurement of such transformative agency is well beyond the scope of all and any of the collected indicators.

Table 3.11
Empowerment
(Malhotra et al.,
2002): areas where
indicators exist

Empowerment: Aggregate level indicators used in empirical studies	Indicator/s exist
Labour Market:	
Female labour force participation (or female share, or female/male ratios)	✓
Occupational sex segregation	✗
Gender wage differentials	✓
Child care options	✗
Labour laws	✓*
Percentage of wives/women in modern work	✗
Ratio of female/male administrators and managers	✗
Ratio of female/male professional and technical workers	✗
Women's share of earned income	✓
Education	
Female literacy (or female share, female/male ratio)	✓
Female enrolment in secondary school	✓
Maternal education	✗
Marriage/Kinship system	
Singulate mean age at marriage	✓
Mean spousal age difference	✗
Proportion unmarried females aged 15-19	✗
Area of rice cultivation	✗
Relative rates of female to male migration	✗
Geographic region	✗
Social Norms and Practices	
Wives'/women's physical mobility	✗
Health/Survival	
Relative child survival/Sex ratios of mortality	✗
Political and Legal	
Ratio of seats in parliament held by women	✓
Women's legal rights	✓*
Questions, complaints, requests from women at village council	✗

* 1 proposed indicator exists

4

Discussion

4.1 Other issues

In this section, we look at some other (underlying) issues surrounding the production and reporting of indicators, which may add to the perceived difficulties in monitoring; for instance, routinely sex-disaggregated data. The monitoring process can be thought of as a series of discrete steps: data is defined and collected, then formatted in an indicator; an indicator is selected for reporting; the indicator is reported; the indicator is routinely monitored; and from this, possibly, actions arise, feedback is gained, changes are made – perhaps even to the indicator reported or to the type of data collected. There are many places in the process where change may be effected.

Specificity of data filtered out as it progresses up the reporting line

In considering the issue of gender and equity sensitivity we examined routinely reported information at different levels of collection/use. This review suggests that the majority of routinely reported indicators show a loss of specificity (i.e. they have a tendency to lose the sex- (and any other) disaggregations collected) between the time: that the source data is collected; (selected) data is formed into indicators; (selected) indicators are reported; and the routine monitoring processes (i.e. ongoing or routine reporting) take place. This gap in sex-disaggregated data between “collected” data and “reported” data has been observed by other commentators (see e.g. Licuanan, 1999). A tentative appraisal of the overall tendency is shown in the figure below.

Table 4.1 Gender sensitivity (some attributes only) across process levels

Process	Sex	Age	Over Time	Comparator Included	Participatory Development	Gender Analysis	Gender Sensitivity
Data collected	Some	Some	Fewer	N/a	No	No	Little
Indicators	Less than data	Less than data	Less than data	Very few, mainly proposed	Very few, mainly proposed	Little	Little
Reporting (indicators and/in text)	Less than indicators	Less than indicators	Some	Some	No	Little	Little
Monitoring	Less than reporting	Less than reporting	Less than reporting	No	No	No	No
Using monitoring to act	No	No	No	No	No	No	No

Discussion

This figure could be represented as a pyramid with a broad base of extant collected data which are relatively specific (i.e. they include sex- and age- and regional-disaggregations) but which lose specificity as they are reported.

In some areas, this loss of specificity or “filtering out” (i.e. losing collected sex-disaggregations when indicators are reported) has improved over time. For instance, the WHO (2000; 2001b; 2002a) collections reviewed show increasing complexity in the type of indicators reported, as well as in the data presented routinely in Statistical Annexes, and this includes more reporting of sex-disaggregated indicators. Some examples of this loss of specificity from our analysis are provided in the following section.

Indicator set example: Indicators for the Millennium Development Goals

The Millennium goals, targets and indicators is a framework of eight goals, 18 targets and 48 indicators to measure progress towards the Millennium Development Goals, adopted by a consensus of experts from the United Nations Secretariat, the International Monetary Fund, the OECD and the World Bank (UNGASS, 2001). Each indicator is linked to a millennium data series as well as to background series related to the target in question. An assessment shows that, of the 48 total indicators:

- Four of the 48 are sex-specific.
- Eight of the 48 are sex-disaggregated.
- Four (four of the eight sex-disaggregated indicators) include an explicit comparator.

For example, Goal 1: Eradicate extreme poverty and hunger: Target 1. Halve, between 1990 and 2015, the proportion of *people* whose income is less than one dollar a day: Indicators: 1 to 3; Target 2. Halve, between 1990 and 2015, the proportion of *people* who suffer from hunger: Indicators 4 to 5 (UNSD, 2002).

Sex-disaggregated data is limited to the (“special”) “gender-equity” topic/s. It has not been “mainstreamed” as a routine perspective on the whole of the indicator set.

Reporting examples: sex-disaggregated indicators

The OECD *Development Indicator* methods note that sources of data are sex-disaggregated; however, the baseline data shown in examples are not sex-disaggregated (OECD, 1998), and the report on *Progress towards the international development goals* (OECD, 2000) reports infant mortality in a gender-blind manner (that is, totals only; no sex-disaggregation). Although the United Nations *Guidelines: Common Country Assessment* (CCA) (1999a: 16) state that “all relevant indicators ... should be disaggregated, to the extent possible, by race, colour, sex, language, religion and other status”, and “should be compiled and analysed separately by sex so as to assess progress in gender equity”; in practice, in sampled CCA reports (individual countries), there was either: no sex-disaggregation of the indicator and no gendered discussion in relation to it in the text (United Nations, 1999b [India]; 2001a [Eritrea]; 2001b [Indonesia]; 2002 [Ukraine]); or, the available sex-disaggregation was buried in statistics at the back of the report, the indicator was not reported in a sex-disaggregated man-

ner within the text, and there was also no gendered discussion of the indicator within the text (United Nations, 2001c [Papua New Guinea]).

Discussion

Incomplete development of indicators

There are other ways in which less specific indicators are produced, even when much more specific data (than that shown in the indicator) is in abundance. Indicators may be incompletely developed despite long-standing calls for further (more complete) development. An example is calls for an expanded, inclusive, more accurate GDP calculation that captures the contribution and value of unpaid work/informal care/domestic subsistence, by sex (Austen et al., 2000; Beck, 1999b). Commentators believe the data could be developed or is already available (especially in developed countries, e.g. from time use studies). Austen et al., (2000:1) note that it is increasingly:

...accepted that aggregate economic measures such as GDP have significant shortcomings as proxy indicators of economic well-being ... because such measures do not capture issues significant to well-being, for example, income distribution, pollution and environmental degradation and the value of unpaid labour.

Proposed indicators to report the amount of GDP spent on armaments and munitions, that can be contrasted to the amounts spent on health and education are another way of extending the development of GDP-based information.

Indicators that may need to be developed

Examining indicator topics from more complex perspectives – such as gender and equity – show that some topic areas are not even broadly captured in existing indicators (e.g. male reproductive health including fertility, financial independence of women (Austen et al., 2002). Other indicators may represent the concerns of one sex better than the other (e.g. defining the topic of suicide through completed suicides only (which in the West affects more men), rather than attempted suicides as well (which affect Western women more). Suicide and the mental health area generally is a topic area where earlier alerts, or more risk-indicative monitoring (i.e. less catastrophic indicators than mortality from suicide) need to be developed. Societal gender-blindness (and/or preference) has consequences on underlying conditions (e.g. incomplete enumeration of females and/or infants and children in many countries) that echo all the way up the information chain. Indicators that assess and report on the quality and coverage of basic data (such as registration of births and deaths) are needed to make visible this incompleteness or preference.

In other cases, indicators could be developed and data reported (i.e. data is available, or can be readily collected) but this does not or has not happened (e.g. many of the women's empowerment indicators, such as representation in political/corporate life) (Drengsted-Nielsen and Luige 2002).

4.2 Strengths and weaknesses of currently used indicators

We assessed the strengths and weaknesses of indicators generally in terms

Discussion

of the disaggregations available and against the “Beck criteria” (Beck, 1999a; 1999b) and as they mapped onto the tiers of the Framework. We also considered indicators in relation to equity dimensions and empowerment indicators.

The major weakness or limitation of the majority of routinely reported indicators examined is that they lack sufficient specificity to contribute to gendered and equity views or analysis. Underlying this fundamental weakness/inability, is the disappearance of sex- and age-disaggregated data in all but a few commonly used indicators. One of these is (adult) life expectancy, which traditionally shows women living longer than men, with the longevity of both generally increasing over time. The indicators show that males and females born today can be expected to live for so many years depending on the country of their birth. However, at the birth end of the lifecycle, those who die tomorrow and are counted (by no means a certain thing in many areas) will be reported in indicators as “infants” having “lost” their sex in the reporting process.

The strengths of currently used indicators, especially those using international standards (e.g. mortality and morbidity) lie in their histories of use as comparative data to assess trends over time across different countries. The challenge is to retain this comparability while developing standard indicators to provide more complex information which includes gender-sensitive and equity-sensitive information.

4.3 Major absences of indicator types

There is a wide variety of possible indicator types (discussed at greater length in Part II, *An information framework for evaluating and developing gender sensitive indicators for gender equity in health*) which include: “equity” forms; gendered using comparators over time; causal; indicative of risk; linking between tiers of the Framework; and indicating other complex relationships (e.g. empowerment processes). Here we note the types that we expected, but which were found to be largely absent.

Gender-sensitive indicators

Only one indicator was distinguished in having sex- and age-disaggregations, reporting over time, including a comparator, and overall satisfying five of the eight requirements for a *gender-sensitive equity* indicator (UNESCO (2000) Proportion of illiterate women aged 15 and over, compared to men, over time).

“Equity-motivated indicators”

Very few indicators were found that were of an “*equity-motivated*” type (terminology used by Dachs (2002)). See the analysis of these and empowerment-type indicators in section 3.4 above.

Process indicators

Another obvious gap in the indicators examined is the absence of *process* indicators (e.g. indicators that measure the implementation of changes in care delivery, or preventive interventions; or indicators that are intermediate be-

tween policy decisions to implement programmes and consequent results, such as health outcomes). This absence includes the study of gendering mechanisms, or the “upstream” determinants, of the gendering process.

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Causality, risk and protective factors

A further area in which there is a noticeable lack of indicators is on the elements of *causality* (including measures that cross or link tiers in the Framework) and, correspondingly, indicators on *risk* and/or *protective* mechanisms and attributes. Drengsted-Nielsen and Luige (2002: 14) observe that “Statistics shows the situation as it is [but] should look more at the causes and implications”. In relation to declining fertility (in Western countries) and the increasing entry of women to the labour force, they point out that except for time use, “there are no indicators in this very important area which can be considered the cause of decreasing family size, population decline, women’s participation in public life and decision-making” (Drengsted-Nielsen and Luige 2002: 6). Similarly, in relation to gender differences in lifestyle – which expose men and women differently to various risk factors – although data availability on standard mortality rates is good for Europe (showing e.g. high mortality rates for men in the transition countries), these data do not address the causes. Suicides and mental health problems among men “are often attributed to changes in gender roles (male as breadwinner) and overall stress caused by the economic transition period” (Drengsted-Nielsen and Luige 2002: 12). Identifying factors that cause decreases in male life expectancy is an area identified as critical for policy intervention.

In relation to “cause” indicators in the health area, recent WHO (2002) developments using burden of disease studies to investigate and identify attributable population risks in relation to major cause/s of death are a positive development. The leading health risks produced by this process for the different “mortality strata” in the world are shown and further discussed in Part II, *An information framework for evaluating and developing gender indicators for gender equity in health..*

Possibly the most developed set of indicators of risk relate to the “behavioural” topics (e.g. poor nutrition, smoking, alcohol misuse), sometimes described as “lifestyle” indicators. Although those indicators found on these topics had a high rate of sex-disaggregation, they are increasingly divorced from the contexts that determine high take-up of risky activities (e.g. increasing inequality between “haves” and “have-nots” in socioeconomic groupings, psychosocial stress).

Life course indicators

Indicators on the life course and life course effects are also largely absent. The life course perspective is yet another type of complex relationship – cumulative over time – with expression of effect highly dependent on a number of factors. Longevity and life expectancy capture an approximation of the actual/expected effects; however, causes (including those attributable to cumulative elements) are largely absent in the collected indicators although a respectable body of research has been generated in this field (see e.g. Kuh and Ben-Shlomo, 1997).

Discussion

Indicators on gendering mechanisms and processes

Indicators that capture information on the way that *gendering mechanisms* work to produce and reproduce gendered roles are absent from those found in routine reports, although there are potential indicators (e.g. those proposed by ECLAC, 1999) that do at least highlight or make some processes (e.g. budgetary, ministerial responsibility) less opaque.

Where indicators on gendering mechanisms exist, they relate mostly to one aspect in particular (e.g. time allocations among adult household members), or limited segments of peoples' lives (e.g. home economics). Stone and Pelletier (2002: 3) report that although "the links between gendering mechanisms that cover one or more stages of life" are discussed, rarely is empirical analysis or detailed theory put forward, and "there is a lack of theories addressing the network of links among a wide range of institutions and related key cultural values of a society". We agree that the focus of gender statistics needs to be broadened to include "statistics and indicators that support analysis of the gendering phenomenon", especially in regard to the examination of gender equity (Stone and Pelletier 2002: 3).

Indicators on empowerment and transformative achievement

Licuanan (1999: 50) proposes the systematic and regular use of gender-sensitive indicators along with innovative indicators – such as psychological indicators and qualitative indicators – to strengthen monitoring and evaluation of the BPA. Kabeer (1999: 435) identifies the existence of indicators that could indicate "*transformative achievement*" (relating to *empowerment*). Kabeer states that information on all three dimensions of empowerment: *resources*, *agency*, and *achievements*, is needed to establish the meaning of an indicator, including the extent to which achievement transforms existing inequalities (e.g. she suggests that women's ability to access prenatal health care may be more indicative of transformative agency than child survival or immunization) (Kabeer, 1999: 450-451).

These types of indicators and this type of usage, which essentially triangulates qualitatively different indicators within a described context to provide a more complex approximation of real situations, are largely absent in the collected indicators examined. An exception is the WHO (Krug et al., 2002) report on violence, which includes some qualitative (attitudinal and behavioural) data from population surveys (e.g. respondents who think it OK to "bash their wives", reasoning "she deserves it") as well as quantitative information on numbers of people killed and injured through different types of violence.

Indicators with a specific use as alerts or early warnings

There were a few indicators found which could be used as alerts of future trouble, but not much use of them in this way. Increased inequality in income, highly gendered poverty, increasing civil strife, all suggest societies in trouble. The challenge would be to develop the forward reporting and monitoring of such indicators, as well as methods to tackle problems early.

In addition to the above, there will be other indicator types that are significantly different, and that could also be expected but not found, among the col-

lected indicators. Further development of indicators of these types presents a rich field of challenges for the future.

Discussion

4.4 Conclusion

The audit was undertaken to provide the basis of a comparative evaluation of indicators for gender equity and health. The expectation was that we would find a reasonable number of indicators that could assist in policy development, strategic planning, and service development in relation to gender equity and health. However, the audit shows that for the indicators assessed (from the routine and special reports, and those proposed by selected international agencies), this was not the case. Of those that were found, none were in the area of gender equity in health, and there were few in other areas of health equity. Those that were found were most likely to be in the topics of education (e.g. literacy), labour force (e.g. employment), and democracy (e.g. women's share of parliamentary seats).

Appendix A:

Key international interventions and related core indicators

Related core indicators sets from brief internet search to date

ORIGINAL LIST FROM BRAINSTORM

International conferences and resolutions resulting:

- UN Cairo Conference on Population and Development
- United Nations Fourth World **Conference on Women. Beijing**
- Beijing +5
- Convention on the Elimination of All Forms of Discrimination Against Women
- United Nations General Assembly Special Session on HIV/AIDS

Additional related core indicator sets identified to date:

- OECD Development Indicators
- United Nations Common Country Assessment Indicator Framework
- International Conference on Population and Development (ICDP) and ICPD + 5
- United Nations Millennium Declaration 2000

RESULTS OF BRIEF INTERNET SEARCH

Cairo and Cairo + 5

To view, scroll down to bottom of page at this link: <http://www.unfpa.org/icpd/>

Beijing and Beijing +5

Two regional menus of potential indicators developed by the Economic Commission for Latin America and the Caribbean (ECLAC) and Economic and Social Commission for Asia and the Pacific (ESCAP).

Key international interventions and related core indicators

Economic Commission for Latin America and the Caribbean (ECLAC)

ECLAC has produced *Gender indicators for follow-up and evaluation of the regional programme for action for the women of Latin America and Caribbean, 1995-2001 and the Beijing Platform for Action*. See link for report at: <http://www.eclac.org/publicaciones/UnidadMujer/6/lc1186/lc1186i.pdf>

Comments

- Does not provide actual measurements.
- **60 Core Indicators** are all quantitative against Platform's 12 key areas of concern. Selection criteria included that the availability of data in region.
- Easier to monitor in urban than rural areas.

Source for comments: UNIFEM *Progress of the world's women 2000*: 65

Economic and Social Commission for Asia and the Pacific (ESCAP)

Paper by Patricia Licuanan, South East Asia Watch titled *Monitoring and evaluation strategies for the empowerment of women* (1999). <http://www.unescap.org/wid/06beijing/licuanan.pdf> [accessed 24 December 2002].

Comments

- **100 Potential Indicators** suggested (for policy monitoring and evaluation and NGO monitoring and evaluation).
- Input, performance, process and outcome indicators.
- No indication of availability of data in region.
- Recommends qualitative approach (control, autonomy, independence).
- "complex undertaking to collect data of this kind on a representative basis, Even at a national level. And given the lack of national-level data, it was not feasible for UNIFEM to attempt to collect information of this kind for each country".

Source for comments: UNIFEM *Progress of the world's women 2000*: 65

Committee on the Elimination of Discrimination against Women (CEDAW)

Indicators for the Convention on the Elimination of all Forms of Discrimination Against Women (No author identified).

Seems to be used by several countries at the national level. Would assume that comes from the United Nations Division for the Advancement of Women (which provides assistance to CEDAW) but does not seem to be listed on their site at United Nations: <http://www.un.org/womenwatch/daw/daw/index.html>

This is the only CEDAW document found so far which contains CEDAW indicators in its title. Rather than indicators, it is a comprehensive "check list" with potential indicator questions. There are potential indicators embedded in the checklist but not written up as indicators (according to our working definition). Document can be accessed through national government site at: <http://www.die.gov.tr/CIN/women/cedawind.htm>

CEDAW Reporting Guidelines do not seem to contain any indicators as

such (according to this Project's working definition) for countries to report progress. Agreement that periodic reporting will include implementation of actions against 12 critical areas of concern identified in the Beijing Platform for Actions (and other relevant conventions).

United Nations <http://www.un.org/womenwatch/daw/daw/index.html>

Key international interventions and related core indicators

United Nations General Assembly Special Session (UNGASS) on HIV/AIDS

Implementation of the Declaration of Commitment on HIV/AIDS: core indicators (August 2002)

Approximately **40 Core Indicators** selected and divided into global and national subgroups (national subgroup is further divided into subgroups: commitment and action; programme and behaviour; impact).

Note: Would likely be a strong link between UNGASS and UNAIDS. Link at www.unaids.org/whatsnew/others/un_special/

ADDITIONAL CORE SETS OF INDICATORS

OECD Development Indicators: Summary

24 Core Indicators to measure progress in achieving international development targets against selected goals of international conferences (including Beijing and Cairo). This indicator set widely used in international development cooperation.

Comments

Number of shortcomings identified in UNIFEM *Progress of the world's women 2000* in terms of accounting for women's progress. For instance:

- "Only 2 on the 24 are designed to measure progress towards gender equality and women's empowerment, both related to education".
- "The indicators for measuring progress in reducing poverty are not specified in a way that addresses the extent to which poverty is 'feminized,' in the sense of women being disproportional among the poor".
- "There are no indicators on the gender balance in decision-making or on gender equality in the labour market".
- "They are only being applied to monitor progress in recipient countries not donor countries."

Source for comments UNIFEM *Progress of the world's women 2000*: 65

United Nations Common Country Assessment Indicator Framework

40 Core Indicators cover selected Goals from International Conventions in areas of income-poverty, food security and nutrition, health and mortality, reproductive health, child health and welfare, employment and sustainable live-

Key international interventions and related core indicators

lihoods, housing and basic household amenities, environment, drug control and crime prevention and gender equality and women's empowerment.

See: http://www.un.org.np/res_cor/un_reform/cca/guide_cca.htm#ANNEX%20A

Comments

- Commitment to disaggregate all core indicators by sex. Guidelines state that "Gender - All *relevant* indicators should be compiled and analysed separately by sex so as to assess progress in gender equity." How relevance is determined is not defined see http://www.un.org.np/res_cor/un_reform/cca/guide_cca.htm#ANNEX%20A
- "Measurement of gender progress constrained by availability of national-level statistics".
- Whilst this framework is not designed to measure women's self empowerment
- UNIFEM *Progress for the world's women 2000* concludes that "it does contain many indicators for assessing the extent to which obstacles to women's ability to enjoy a range of ways of living are diminishing").

Source for comments UNIFEM *Progress of the world's women 2000*: 65

International Conference on Population and Development (ICDP) and ICPD + 5

Reproductive health indicators for global monitoring Report of the second interagency meeting 2001 - Reference WHO/RHR/01.19

During the international conferences of the early and mid-90s, such as the International Conference on Population and Development (ICPD), countries endorsed a number of global goals and targets in the broad area of sexual and reproductive health. A proliferation of indicators to monitor these goals ensued, proposed by a range of agencies. In 1996, WHO took the lead in organizing an interagency technical process that led to the selection of 15 global indicators for monitoring reproductive health targets. Following a review this was updated in 2001 and now covers **17 global indicators** for reproductive health targets.

The 17 indicators can be accessed at:

http://www.who.int/reproductive-health/publications/RHR_01_19/RHR_01_19_3.en.html

United Nations Millennium Declaration 2000

A framework of eight goals, 18 targets and **48 indicators** to measure progress towards the Millennium Development goals was adopted by a consensus of experts from the United Nations Secretariat and IMF, OECD and the World Bank. (Road Map towards the Implementation of the United Nations Millennium Declaration, A/56/326 [PDF, 450KB]). Each indicator is linked to millennium data series as well as to background series related to the target in question.

The 48 indicators can be accessed at:

http://millenniumindicators.un.org/unsd/mi/mi_goals.asp

Appendix B:

Reported and proposed indicators: accession numbers and totals

The following list shows the provenance of the collected indicators analysed in the Findings. The indicators and our assessment are to be found in Appendix D: the Audit list. Indicators are shown by their reporting status: routine, non-routine, or proposed. To see more information on the indicators, use the “numbered in Audit list” numbers to find them. Indicators were assessed to varying degrees, and these assessments supply the raw data for the analysis.

*Reported
and proposed
indicators:
accession
numbers and
totals*

Indicators by Reporting status:	Indicators numbered in Audit list	Total indicators
Routine reports		
CIHI Canadian Health Indicators (part) 2002	25 to 28, 31 to 39	25
OECD Development Indicators 1998	714 to 743	29
OECD Health Data 2002	147a-216	79
OECD Society at a glance 2001	332 to 399-9	74
PAHO Regional Core Health Data 2001	610 to 713	103
United Nations Common Country Assessment 1999	518 to 577	60
UNDP The Human Development Report 2002	40.0 to 78	182
UNSD Millennium Goals, targets and indicators 2002	400 to 448	48
Various sources: indicators on: Contraceptive prevalence rate, FGM (WHO), low birth weight (UNICEF), illiteracy (UNESCO)	23a to 23g; 330; 22; 24; 29 and 30	12
WHO European Health Report 2002	7 to 21	15
WHO World Health Report 2000	79 to 99.7	49
WHO World Health Report 2001	100 to 146	52
WHO World Health Report 2002	217a to 292	87
WHO World Health Statistics Annual 1997-99	1 to 6	6
World Bank Institute, Development Education Program's DEPweb: Explore Sustainable Development 2001	331 to 331I	12
Total		833
Special reports¹⁸		
UNSD The World's Women 2000: Trends and Statistics	781 to 869	88
UNIFEM. Progress of the World's Women 2000	761 to 780	20
WHO World Report on Violence and Health 2002	293 to 329	38
Total		146
Proposed indicators		
United Nations Benchmarks for measuring progress towards ICPD goals 1999	449a to 453b	7
ECLAC Gender Indicators for follow-up and evaluation of the Regional Programme of Action for the Women of Latin America and the Caribbean, 1995-2001, and the Beijing Platform for Action, 1999	454 to 517	62
Daniels et al., Benchmarks of fairness for health care reform 2000	578 to 587	9
UNGASS HIV/AIDS Core indicators 2001	589 to 609	21
WHO Proposed Benchmark Reproductive Health Indicators 2001	744 to 760	17
Total		116
GRAND TOTAL		1 095

¹⁸ These may be one-off, irregular, or regular reports, with an emphasis on gender or a topic important to gender relations (e.g. violence).

Appendix C:

Sets of “more complex” indicators

Indicators that are sex- and age-disaggregated and reported over time

The following table shows those indicators which are both sex- and age-disaggregated and reported over time. Further details on the indicators can be found by using the number in square brackets [] at the end of the indicator name, which refers to the position of the indicator in the Audit list.

Indicator and recency [number in Audit list]	Source and recency	Sex	Age	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis and related Qs	Reporting status r=routine
Evolution of the youth joblessness (20–24 years) by sex, 1984–1998 (Country; Men, Women; 15–19, 20–24 years; Percent jobless at 1984, 1998; Percent change). [335]	OECD Society at a Glance 2001 – Underlying Data; OECD, Labour Force Statistics, 2000.	✓	✓	✗	✗	✓	✗	✗	?	r
Life expectancy at birth and at various ages (40, 60, 65, 80) (in years) estimate 2000: for Females, Males; as at 2000 and single years to 1995, then every five years to 1980, then every decade to 1960. [147b]	OECD Health Data 2002, estimate dated 2000.	✓	✓	✗	✗	✓	✗	✗	✗	r
Life expectancy, by sex [3]	WHO World Health Statistics Annual 1997–99	✓	✓	✗	✗	✓	✗	✗	✗	r
Life expectancy, number of survivors, and chances per 1 000 of eventually dying from specified causes, at selected ages [0, 1, 15, 45 and 65 yrs], by sex. [4]	WHO World Health Statistics Annual 1997–99	✓	✓	✗	✗	✓	✗	✗	✗	r
Number of deaths and age-standardized death rates by causes of death. [148b]	OECD Health Data 2002, WHO World Health Statistics Annuals	✓	✓	✗	✗	✓	✗	✗	✗	r
Numbers of deaths and mortality rates by country, age group, sex, year and cause-of-death. [1]	WHO World Health Statistics Annual 1997–99	✓	✓	✗	✗	✓	✗	✗	✗	r
Proportion of illiterate women aged 15 and over, compared to men, over time. [24]	UNESCO 2000	✓	✓	✗	✗	✓	✓	✗	✓	r

Sets of
“more
complex”
indicators

Indicators that are sex- and age-disaggregated and include a comparator

The following table shows those indicators that are both sex- and age-disaggregated and include a comparator. Further details on the indicators can be found by using the number in square brackets [] at the end of the indicator name, which refers to the position of the indicator in the Audit list.

Indicator and recency [number in audit list]	Source, recency	Sex	Age	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis and related Qs	Reporting status=routine
Proposed Indicator of school attendance rate by sex and age group: (a) number of six to 13-year-old girls attending some educational establishment, divided by the total number of six to 13-year-old girls; (b) number of six to 13-year-old boys attending some educational establishment, divided by the total number of 6 to 13-year-old boys; (c) number of 14 to 17-year-old girls attending some educational establishment, divided by the total number of 14 to 17-year-old girls; and (d) number of 14 to 17-year-old boys attending some educational establishment, divided by the total number of 14 to 17-year-old boys. [463]	ECLAC 1999; Source: Population censuses and household surveys.	✓	✓	✗	✗	✗	✓	✗	?	r
Proposed Indicator of coverage of child care services: (a) number of boys and girls aged under two who attend some child-care establishment, divided by the total number of boys and girls in this age group, times 100; and (b) number of boys and girls aged two to five who attend some child-care establishment, divided by the total number of boys and girls in this age group, times 100. [504]	ECLAC 1999; Source: Population censuses, household surveys (in Chile: CASEN).	✓	✓	✗	✗	✗	✓	✗	P	P
Proposed Indicator of gender difference in school attendance: (a) school attendance rate of six to 13-year-old girls, minus school attendance rate of six to 13-year-old boys; and (b) school attendance rate of 14 to 17-year-old girls, minus school attendance rate of 14 to 17-year-old boys. [464]	ECLAC 1999; Source: Population censuses and household surveys.	✓	✓	✗	✗	✗	✓	✗	P	P
Proportion of illiterate women aged 15 and over, compared to men, over time [24]	UNESCO 2000	✓	✓	✗	✗	✓	✓	✗	✓	r
Proportion of young people not in school neither at work among each age group, 1998 (Country; 15–19, 20–24 years; Men and Women, Men, Women; Countries are ranked by increasing order of joblessness youth for the age group 20–24) [336]	OECD Society at a Glance 2001 – Underlying Data; OECD, Labour Force Statistics, 2000.	✓	✓	✗	✗	✗	✓	✗	?	r

Appendix D:

Indicators found on topics within Dimensions and tiers, and selected details of the indicators

The tables below show, for each tier of the Health Information Framework, the individual dimensions within the tier, and within each dimension, the Indicator topics for which indicators were expected to be found among the collected indicators. For some topics there were no indicators found, and these are marked “No indicators”. Topics for which indicators were found are shaded. Where a similar topic is presented in a different dimension or tier, this is noted as a *See* or *See also* reference. Some topics were only partially covered by the found indicators, and this is either noted, or a portion of the topic is underlined to show the indicator coverage. Where additional topics (i.e. not in the Framework) were found among the collected indicators, these are noted last for each dimension as “*Other topics found [not in framework]:*” followed by the topic (e.g. *climate change*).

Selected details on the indicators found are given: the total number of indicators, the number that were sex-disaggregated, sex-specific, age-disaggregated, ethnicity disaggregated, and socioeconomic group disaggregated; followed by the number of indicators that reported over time, included a comparator, resulted from participatory development, and that were embedded in a gender analysis. Because not all indicators were examined in relation to gender analysis (and some, such as proposed indicators, were not applicable to be assessed) this is shown as a subtotal of the total number of indicators, and in some cases as “N/a”.

For further explanations of these concepts, see the text of this report, or of Part II, *An information framework for evaluating and developing gender sensitive indicators for gender equity in health*.

HEALTH STATUS (Tier 1)

Well-being dimension: indicator topics	Total number of indicators	No. Sex-disaggregated	Sex-specific	Age-disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Self-rated health	1	0	0	0	0	0	1	0	0	0/1
Empowerment/political representation/ rights/capacity to make decisions	No indicators	-	-	-	-	-	-	-	-	-
Quality of life	6	1	0	0	0	0	1	0	0	0/5
Freedom from violence	No indicators	-	-	-	-	-	-	-	-	-

Illness, Injury and Health-related States dimension: indicator topics	Total number of indicators	No. Sex-disaggregated	Sex-specific	Age-disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Burden of disease/ill health (e.g. DALYs)	20	8	0	3	0	0	1	0	0	0/13
TOTAL Specific conditions [All - including individual conditions below]	68	14	15	2	0	1	3	2	0	0/25
<i>Specific conditions: FGM</i>	2	0	2	0	0	0	0	0	0	N/a
<i>Specific conditions: HIV/AIDS</i>	17	5	5	0	0	0	1	0	0	0/7
<i>Specific conditions: RTIs</i>	No indicators	-	-	-	-	-	-	-	-	-
<i>Specific conditions: STIs</i>	1	0	1	0	0	0	0	0	0	N/a
<i>Specific conditions: STIs: age of 1st</i>	No indicators	-	-	-	-	-	-	-	-	-
Medical procedures (e.g. hysterectomies)	4	1	3	0	0	0	1	1	0	0/2
Low birth weight	5	0	0	N/a	0	0	1	0	0	0/3
Damage at birth (e.g. through lack of trained attendants)	No indicators	-	-	-	-	-	-	-	-	-
Injury (traffic, fire, violence, self)	11	1	7	0	0	0	3	0	0	0/5
Morbidity in the community – vulnerability to illness	No indicators	-	-	-	-	-	-	-	-	-
Major causes of acute admissions	See <i>Specific conditions above</i>									
Major causes of disease	See <i>Burden of disease above</i>									
Related medical procedures (e.g. caesareans, abortions)	See <i>Medical procedures above</i>									
Teenage pregnancy/Age at 1st pregnancy, and/or	3 [births, or specific fertility rate, 14–19 yrs or 15–19 yrs]	0	3	0	0	0	1	0	0	0/1
No of children in time period	No indicators	-	-	-	-	-	-	-	-	-
Growth (malnutrition, stunting, failure to thrive; over nutrition)	5 [2 also reported in Specific conditions [malnutrition] above]	2	0	0	0	0	0	0	0	0/2
<i>Other topics found [not in Framework]: congenital anomalies, dental health</i>	2	0	0	0	0	0	1	0	0	0/1

DETERMINANTS OF HEALTH (Tier 2)

Environmental Factors dimension: indicator topics	Total number of indicators	No. Sex-disaggregated	Sex-specific	Age-disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Safe water	9	1	0	0	0	0	2	0	0	0/4
Sanitation	5	0	0	0	0	0	3	0	0	0/2
Electricity, power, biofuels	3	0	0	0	0	0	2	0	0	0/3
Pollution: Air pollution: Cooking fuels; Indoor air pollution; Acid rain; Pesticide exposure (+ labelling); soil and food chain contamination, noise pollution	14	3	0	0	0	0	2	0	0	0/4
Safe fresh food, access to and availability	No indicators	-	-	-	-	-	-	-	-	-
Workplace exposures and hazards	5	5	0	0	0	0	0	0	0	N/a
Land clearing, changing ecosystems, new diseases	<i>See forested land area and land clearing, in the Economic Resources dimension, Tier 4.</i>	-	-	-	-	-	-	-	-	-
Built environment, access to	No indicators	-	-	-	-	-	-	-	-	-
Green/open and smoke-free spaces	No indicators	-	-	-	-	-	-	-	-	-
<i>Other topics found [not in Framework]: climate change</i>	1	1	0	0	0	0	0	0	0	N/a

Socioeconomic factors dimension: indicator topics	Total number of indicators	No. Sex-disaggregated	Sex-specific	Age-disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Education	46	25	6	3	0	0	7	22	0	4/25
Literacy, and	26	14	1	1	0	0	7	9	0	1/13
Health literacy	3	0	0	0	0	0	0	0	0	N/a
Early childhood development	1	0	0	0	0	0	0	0	0	N/a
Employment status (e.g. un- and underemployment)	22	11	3	2	0	0	10	4	0	0/13
Occupation and Working conditions: Enforced labour (e.g. child and adult sex trade); Age of labour (e.g. child labour); Hours of paid and unpaid (e.g. overwork); Employment segregation, Access to training opportunities	3	2	0	0	0	0	0	2	0	N/a
Income: access to, % disposable	1	0	0	0	0	0	1	0	0	N/a
Per capita out of pocket expenditure on health (co-payments, purchase of food in hospital, "attention" co-payments to (salaried) doctors)	1	0	0	0	0	0	0	0	0	0/1
Insurance coverage	No indicators	-	-	-	-	-	-	-	-	-
Living standards	6	0	0	0	0	0	4	0	0	0/3
<i>Other topics found [not in Framework]: child care</i>	1	1	1	0	0	0	0	1	0	N/a

Social and Community Factors dimension: indicator topics	Total number of indicators	No. Sex-disaggregated	Sex-specific	Age-disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Geographic area	No indicators [i.e. there are no indicators for geographic areas smaller than the country/nation reporting unit]	-	-	-	-	-	-	-	-	-
Community demographics: as for Population demographics, (Tier 4)	<i>See Community and Health and Welfare System Characteristics (Tier 4)</i>									
Transport (availability, to work, to market, to safe water, to health centre)	No indicators	-	-	-	-	-	-	-	-	-
Preventive services (availability): Antenatal care; Cancer screening; Family planning; Immunization	No indicators	-	-	-	-	-	-	-	-	-
Community support services (availability): Self-help groups; Civil society organization; Local community centres; Women's and children's shelters (protection from violence, legal assistance)	No indicators	-	-	-	-	-	-	-	-	-
<u>Democracy</u> , personal power, empowerment	1	1	0	0	0	0	0	1	0	N/a
Leadership at all levels and access to training opportunities (e.g. skill levels of community representatives)	No indicators	-	-	-	-	-	-	-	-	-
<u>Social capital</u> , e.g. sense of social and community belonging	3	1	0	0	0	0	0	0	0	0/3
Volunteers and volunteering	No indicators	-	-	-	-	-	-	-	-	-
Freedom of movement (e.g. social mobility restrictions)	No indicators	-	-	-	-	-	-	-	-	-
<i>Other topics found [not in Framework]: violence (contextual indicator)</i>	1	1	0	0	0	0	0	0	0	N/a

Household Factors dimension: indicator topics	Total number of indicators	No. Sex-disaggregated	Sex-specific	Age-disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
<u>Access to economic resources</u> : income, land, credit, property (houses, equipment, appropriate technology) and livestock	5	4	0	0	0	0	0	4	0	N/a
Housing, squatting, lack of housing, homelessness, <u>overcrowding</u>	1	0	0	0	0	0	0	0	0	N/a
Distribution of resources within households	No indicators	-	-	-	-	-	-	-	-	-

Continues...

Health-related Mediators: Health Behaviours and Psychosocial Factors dimension: indicator topics (continued)	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Coping/resilience	No indicators	-	-	-	-	-	-	-	-	-
Spirituality	No indicators	-	-	-	-	-	-	-	-	-
<i>Other topics found [not in Framework]: violence</i>	7	2	1	1	0	0	1	0	0	N/a
<i>Bullying</i>	1	0	0	N/a	0	0	0	0	0	N/a

Biomedical Factors dimension: indicator topics	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Specific biological risk factors/states: <u>Bodyweight</u>	14	4	1	0	0	1	1	0	0	0/6
Other Specific biological risk factors/ states: e.g. <u>Blood pressure</u> , <u>Cholesterol levels</u>	9	5	0	0	0	0	0	0	0	0/1
Effects on disease	No indicators	-	-	-	-	-	-	-	-	-
Genetic inheritance	No indicators	-	-	-	-	-	-	-	-	-

HEALTH SYSTEM PERFORMANCE (Tier 3)

Accessibility dimension: Availability subdimension: indicator topics	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Formal system characteristics: whether service/care/interventions/information exist (e.g. antenatal care, cancer screening, health promotion campaigns)	1	N/a	N/a	N/a	N/a	N/a	N/a	N/a	N/a	0/1
Service utilization (e.g. contact with health professionals of all types)	8	0	0	0	0	0	0	0	0	0/6
Affordable care/services/interventions/ information including relative affordability, absolute affordability [<i>very partial coverage</i>]	2 [No "mainstream indicators", Benchmarks of Fairness (Daniels et al., 2000) only]	0	0	0	0	0	0	0	0	N/a
Financial access (e.g. universal basic services, access to insurance cover)	1 [Fairness of financial contribution, WHO, 2000]	0	0	0	0	0	0	0	0	0/1

Continues...

Effectiveness dimension: Service/Programme Effectiveness subdimension: indicator topics	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Ambulatory care sensitive conditions (e.g. diabetes/asthma admission rates)	1	1	0	1	0	0	0	0	0	0/1
Immunization rates	8	0	0	N/a	0	0	1	0	0	0/2
Cancer screening rates [Also reported under Service Access, this Tier]	3 [breast and cervical cancer only]	0	3	0	0	0	1	1	0	0/3
Effectiveness rates (e.g. of specific clinical practices)	26 [including avoidable mortality]	13	3	15	0	0	0	0	0	0/22
Information and communication strategies effective	No indicators	-	-	-	-	-	-	-	-	-

Effectiveness dimension: Safety subdimension: indicator topics	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Over-use (not related to client, e.g. Caesarean sections)	No indicators	-	-	-	-	-	-	-	-	-
Misadventure, iatrogenic outcomes, nosocomial infections	3 [unsafe injections]	1	0	0	0	0	0	0	0	0/1
Environment in which health care delivered	No indicators	-	-	-	-	-	-	-	-	-
Safe disposal of biomedical waste	No indicators	-	-	-	-	-	-	-	-	-
Safe use of medications (used within due dates/storage temperature e.g. immunization cold chain for transportation of vaccines)	No indicators	-	-	-	-	-	-	-	-	-

Effectiveness dimension: Appropriateness subdimension: indicator topics	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Inappropriate use of services (e.g. inappropriate hospital admissions, re-admissions)	1	1	0	1	0	0	0	0	0	0/1
Inappropriate treatments (e.g. sterilization, inappropriate contraception (e.g. female feticide, female sex-selective abortion), inappropriate medication (self medicating))	No indicators	-	-	-	-	-	-	-	-	-
Over-use, under-use and mis-use (variations from standard e.g. Surgery rates - inter-regional variation, variation from benchmarks (e.g. hip replacement, hysterectomy))	2 [Caesarian section, Vaginal birth post Caesarian]	0	2	0	0	0	0	0	0	0/2

Continues...

COMMUNITY AND HEALTH AND WELFARE SYSTEM CHARACTERISTICS (Tier 4)

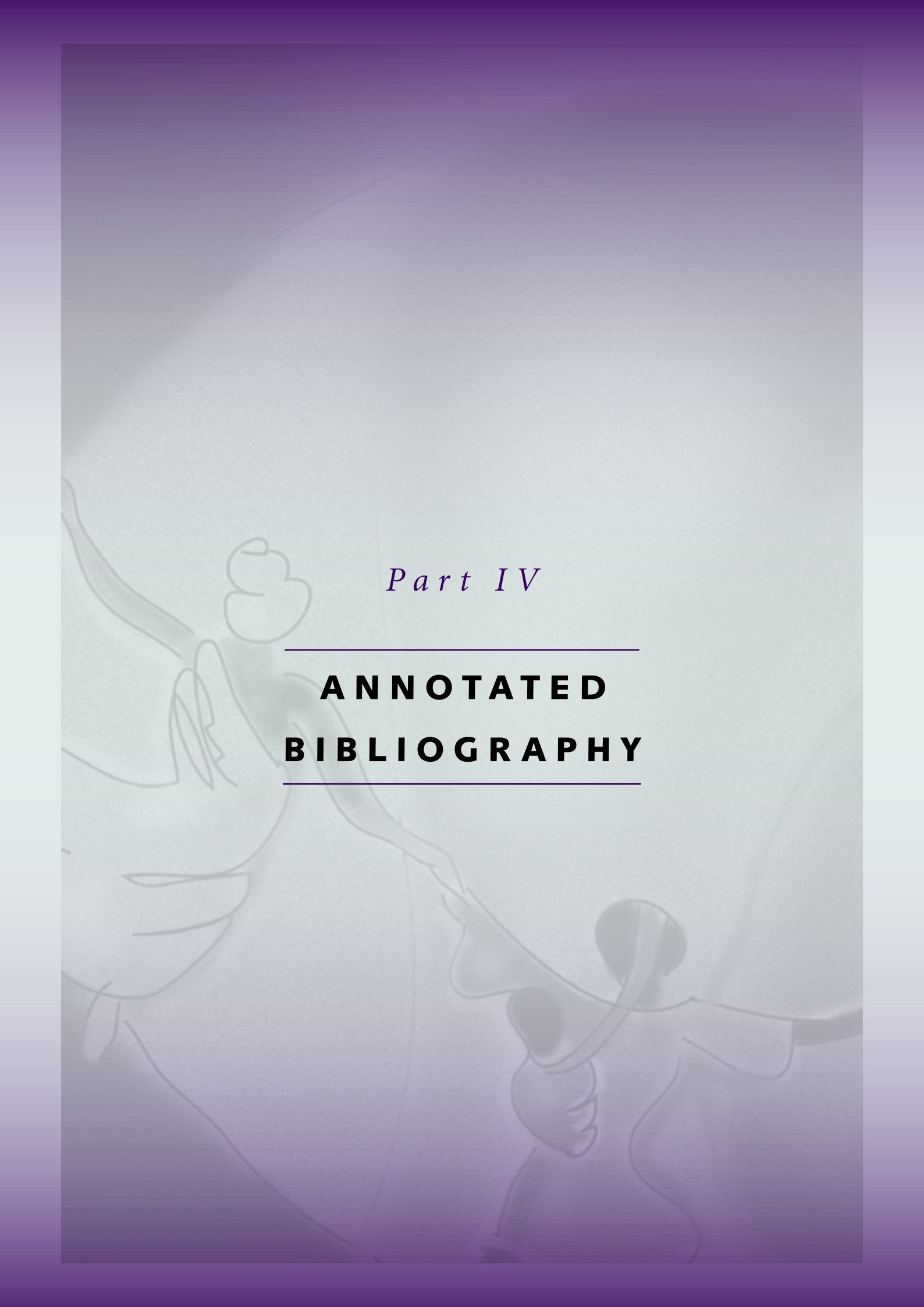
Economic Resources dimension: Indicator topics	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
GDP/GNP/GNI expanded to incorporate non-formal contributions	30	2	0	0	0	0	9	1	0	0/19
Income/resources distribution/inequality (e.g. GINI index)	12	0	0	0	0	0	2	1	0	0/6
Allocation of financial resources:	56	2	1	0	0	0	23	0	0	0/41
Gender budget analysis (allocation of resources to women and children)	3 <i>[partial topic only]</i>	0	3	0	0	0	0	0	0	N/a
Workforce: Education; Training; Maintenance; Facilities; How protected/regulated	98	62	13	0	0	0	50	44	0	5/71
Research: How supported; Monetary resources; Extent of gender-specific research	6	0	0	0	0	0	0	0	0	0/5
Sustainability	10	0	0	0	0	0	1	0	0	N/a
Aid given/received (tied or untied; health and welfare or bridges and roads; focus on gender and development or gender blind)	20	0	0	0	0	0	12	0	0	0/11
Rate of industrialization/ urbanization (e.g. Media/marketing/advertising effects, degree of market penetration)	2	0	0	0	0	0	2	0	0	N/a
Economic model (e.g. free market, planned economy; centralized/decentralized)	1	0	0	0	0	0	0	0	0	0/1
External effects (e.g. of globalization, statism/multinationalism)	5	0	0	0	0	0	0	0	0	0/5
Extent of international trade	14	0	0	0	0	0	7	0	0	0/9
Other topics found [not in Framework]: time allocation	8	7	0	0	0	0	0	5	0	0/6
Capital formation	1	0	0	0	0	0	0	0	0	0/1
Consumption expenditure	2	0	0	0	0	0	0	0	0	0/2
Forested land area and land clearing	2	0	0	0	0	0	0	0	0	N/a
Area under cultivation of illicit drugs	1	0	0	0	0	0	0	0	0	N/a

Human Settlement dimension: Indicator topics	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Population demographics: Population and household density; sex and age structure; distribution, urbanization; Mobility; Dependency ratio; Aboriginal/Indigenous population, Immigrant population, Visible minorities, Orphans, People who have disabilities; Family types (e.g. lone heads); Household types (e.g. sole person); Who's responsible for family, for caring	89	21	15	5	1	0	44	2	0	3/64

Human Settlement dimension: Indicator topics (continued)	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Vulnerable individuals in society (e.g. proportion living below official poverty line, under- or malnourished at differing levels)	24	2	0	1	0	1	1	1	0	1/12
Caring role of women, impact of (e.g. employment – change jobs and change insurance levels)	No indicators	-	-	-	-	-	-	-	-	-
Migrating to work and assoc issues: language, mental health, % of income repatriated; sex trade	No indicators	-	-	-	-	-	-	-	-	-
Religious institutions	No indicators	-	-	-	-	-	-	-	-	-
Civil strife, societal breakdown	6	0	0	0	0	0	3	0	0	0/4
War, leftover munitions (e.g. land mines)	No indicators	-	-	-	-	-	-	-	-	-
Other topics found [not in Framework]: TFR	10	0	10	0	0	0	6	0	0	0/6
Fertility (actual)	2	0	2	1	0	0	2	0	0	0/2

Governance dimension: Indicator topics	Total number of indicators	No. Sex- disaggregated	Sex-specific	Age- disaggregated	Ethnicity	Socioeconomic	Over time	Comparator	Participatory	Gender analysis
Democracy, participation, empowerment	27	16	4	0	0	0	8	13	0	1/17
Access to/provision of safety net social protection (“welfare”)	1	0	0	0	0	0	1	0	0	N/a
Legal rights (Women’s, Health, Human, Employment) and Legislation (Occupational Health and Safety– OHandS, Antidiscrimination)	7	2	1	0	0	0	1	0	0	N/a
Enforcement of legal rights and legislation	1	0	1	0	0	0	0	0	0	N/a
Accountability and transparency	5	3	0	0	0	0	0	1	0	N/a
Policy (e.g. poverty reduction, gender equity, gender mainstreaming, social inclusion, comparable worth (wage parity), inter-sectoral healthy public policy, anti-discrimination)	6	0	0	0	0	0	0	0	0	0/1
International governance: ratification of international conventions (e.g. Child labour, CEDAW, Disability rights)	15	0	1	0	1	0	2	0	0	0/13
Other topics found [not in Framework]: Enforcement: Illicit drugs	1	0	0	0	0	0	0	0	0	N/a

Continues...



Part IV

**ANNOTATED
BIBLIOGRAPHY**

Introduction

This bibliography was undertaken as part of the La Trobe Consortium's Comparative Evaluation of Indicators for Gender Equity in Health Project funded by the World Health Organization Centre for Health Development (WHO Kobe Centre/WKC). The literature summarized in the bibliography focuses on critiques of indicators for gender equity and gender equality relevant to health; in particular, what authors say about the advantages and limitations of these indicators, and any suggestions they might have for improving them. The type of health-related indicators the Consortium was interested in were those included in its four-tier framework for health indicators: health status, determinants of health, health system performance, and community and health and welfare system characteristics. This framework is described in Part II, *Comparative Evaluation of Indicators for Gender Equity in Health Project: Health Information Framework*.

While there are extensive critiques of many of these indicators (such as indicators for poverty) the Consortium focused only on those critiques which examined indicators through a gender lens. Similarly, while there are many studies – such as those on women and poverty in different countries – which may be extremely useful in informing indicator development, these studies were not included unless they had a focus on indicators. In addition, several potentially valuable articles were not received in time for inclusion in the bibliography.

Search strategy

Search strategy

A systematic and extensive search of the literature was undertaken. This included searching electronic databases and the World Wide Web. Searches were limited to documents from the ten-year period 1992–2002, and included entering key terms (such as those described below) and searching the sites of key international organizations.

Two sets of key words were combined for searching electronic databases:

- the first set of key words were: “gender equity”, “gender inequity”, “gender inequality”, “gender equality”, “gender sensitivity”, “gender indicator”, “gendered indicator”, “gender empowerment” or “gender bias”;
- the second set of key words were: “measure”, “indicator”, “social indicator”, “index”, “framework”, “performance”, “determinant” or “assessment”.

Electronic data bases searched were: the Cumulative Index to Nursing and Allied health Literature (CINAHL), Current Contents, PsycINFO, MEDLINE, PreMEDLINE, SocioFile, Embase, Educational Resources Information Center (ERIC), Social Sciences Citation Index and Sociological Abstracts.

Structure of the bibliography

The bibliography is structured into three sections. In section 1 there is a brief summary of the key points found in the literature. section 2 contains annotations/summaries of the key documents in alphabetical order by author, and in section 3, this information is ordered into three sets of summary tables: Tables 1.1–1.4 provide an overview of the advantages, limitations and suggested improvements relevant to specific indicators and indices; Tables 2.1–2.4 summarize key points made about methods and activities associated with indicator development; and Table 3 summarizes key elements of frameworks useful for indicator development.



Summary of key points

This section includes a brief listing of the key points identified in the literature on gender equity indicators. Where multiple authors have made these points, the authors are not cited, but where only one or two authors make key points, these authors are cited.

Conceptual frameworks/issues

1. The conceptual frameworks used to define health and social concepts like gender relations or equity will determine the measures and indicators developed. Many of the existing frameworks for defining health assume gender neutrality, resulting in a gendered analysis only being undertaken when it is the key interest of individuals or organizations. This approach results in women either being left out or being “added into” existing frameworks for analysis, rather than the development of frameworks in which gender or gender relations are a central unit of analysis. Similarly, using existing data and indicators which have not been examined for their gender bias can result in the creation of statistical pictures which do not accurately reflect gender (in)equity.
2. Frameworks for assessing women’s progress often include measures for: education and training, health and physical well-being, employment and economic independence, and family responsibilities. Gaps in frameworks for assessing women’s progress may result from the manner in which such definitions of progress are developed, and from poor data collection in some areas significant to women’s lives.
3. Gender equity is generally not incorporated into existing frameworks, although it is often assumed to be part of all dimensions of these frameworks. It is important to include the capacity for analysis of multiple factors, such as socioeconomic status, ethnicity, age and gender, in measures of (in)equity/(in)equality.
4. To develop an improved understanding of the situation of women in any country and to enable appropriate policy development, it is important to develop and utilize qualitative (as well as quantitative) methods of collecting information. This could include developing a set of questions to be asked to determine *why* the situation highlighted by the indicator has arisen,

Summary

- what* this situation says about gender relations, and *how* the situation can be changed (Beck, 1999). Another strategy is to supplement indicators with an historical and sociocultural analysis and so-called “satellite indicators” which are useful for particular countries or groups of countries (Wieringa, 1999). Without this kind of analysis, the information provided by quantitative indicators has limited use for policy and programme development.
5. The concept of empowerment is undertheorized and there are a range of issues involved when defining and measuring it. In this connection, key points made by the authors reviewed in this bibliography are that:
 - (a) while empowerment is context-specific, it is important to include standards situated outside local gender systems (e.g. universal human rights) when measuring it;
 - (b) it is important to measure different dimensions of empowerment (e.g. resources, agency and achievements) and triangulate these dimensions to enable an understanding of the meaning of empowerment;
 - (c) it is important to distinguish between factors which enable women to undertake their socially-prescribed roles more effectively, and factors which create the conditions for transformation of those roles and the position of women;
 - (d) more work needs to be done on measuring the psychological aspects of empowerment.
 6. It is important to start developing sets of indicators which accurately measure complex multidimensional problems/issues and enable attribution of meaning to identified issues or achievements. Triangulation of indicators measuring different aspects of a situation is one method suggested for doing this (Kabeer, 1999). Another suggestion is to develop indicators to measure causal links over time. For example, Dijkstra and Hanmer (2000) suggest developing indicators of “stock” and “flow” dimensions of inequality. The stock dimensions are those elements (e.g. assets) which have the potential to produce a flow-on effect (e.g. income).
 7. Many indicators tend to focus on women in their reproductive years. A life span approach should be included in the development of frameworks, to ensure that the issues associated with girl children and older women are included.
 8. It is important to ensure indicators are located within a human rights framework so that apparent achievements are not made at the expense of the human rights of women.
 9. In order to monitor the rights of women as specified in the United Nations International Covenant of Economic, Social and Cultural Rights (ICESCR), more work needs to be done to define, operationalize and measure these rights. For example, some of these conventions do not include timetables for the realization of goals or standards. A further issue is that while some conventions, such as the Convention on the Elimination of all Forms of Discrimination Against Women (CEDAW), outlaw discrimination, they do not specify that equalizing the status of men and women should not occur at the expense of reducing the standard of living for both.

10. Significant work is being undertaken to develop frameworks and indicators for monitoring against the declarations of the world conferences on women, in particular, the Beijing Platform for Action (BPA). These frameworks include different types of indicators, such as enabling/input indicators, process indicators and outcome indicators. However, a key problem is that many countries do not have the resources or infrastructure for appropriate data collection.
11. There should be more public participation in defining the issues to be measured and the manner in which they should be measured.
12. The presence of factors that can undermine attempts to improve gender equity should be highlighted through the development and measurement of risk indicators. An example of a risk indicator could be the extent of privatization of health care.
13. It is important to “mainstream” the production of gender statistics because while data on men and women are often collected at the national level, they are often not published as sex-disaggregated statistics.
14. A lot of health-related indicators focus on illness and disease rather than on health and well-being. In other words, while the concept of health as defined by WHO has been adopted theoretically, this is not always reflected in conceptual models for indicator development.
15. There are key questions about how to ensure emerging issues – such as women in situations of armed conflict and the trafficking of women – are measured.

Indicator development

16. A number of authors identified that the criteria for developing gender-sensitive indicators outlined by Beck (1999) were useful.
17. Many indicators are not gendered, but the biases of statisticians, indicator developers and surveyors are often reflected in the development of indicators. This reflects a lack of capacity in gender analysis among these groups.
18. There is often poor consistency in the definitions of indicators used by different countries, making it difficult to make inter-country comparisons.
19. Inequalities between groups tends to become obscured as data is aggregated, resulting in the difficulties and barriers faced by the most marginalized groups being left out of analyses.
20. There is a set of issues related to data collection. These can be grouped into technical issues (e.g. the way irregularities and biases can be introduced into data collection) and conceptual issues (e.g. that the categories for data collection often reflect the aspects of life considered important by governments and agencies). Lack of attribution of value to women’s lives can result in: women’s activities being underrepresented/undercounted; the complexities of women’s lives and work not being represented in data collection categories; and women and girls who die in disproportionate numbers to men in some countries not being counted. Some authors suggest that data collection for indicators needs to be supported at different levels (for example, at national and regional levels), especially in developing countries. In addi-

Summary

- tion, feedback about how the data is used should be given to those who are responsible for collecting it in order to facilitate improvements. There also needs to be some rationalization of data collection to reduce the burden on agencies and governments.
21. There was a paucity of literature focusing on gender equality and gender equity in relation to the third tier of the Consortium's framework (health system performance). Those authors that did focus on this area suggested that the primary focus in this area has been on the technical aspects of health care rather than on its more relational aspects. Consequently, quality has not been seen as a relative concept influenced by complex social determinants (including gender), and has generally been defined by service providers and managers rather than consumers and communities. Failing to take gender differences into account can result in inequity: when equal treatment is provided for men and women when their gender needs are different; when different treatment is provided for men and women when the need is the same; and when care is provided in a way that reinforces gender stereotypes which have an impact on health and reinforce gender inequality.
 22. Different indicators will have different currency in developing and developed countries. For example, in developed countries where there is a high level of access to education indicators (rates of enrolment in schools, basic literacy), such indicators will be less useful than they would be in many developing countries (with a caveat that even in developed countries, some groups (e.g. indigenous peoples) may still have poor access to services such as education).
 23. The weightings used for measures like Disability-adjusted Life Years (DALYs) are often determined by experts and do not reflect the perspective of other groups, such as people with disabilities, their families and the public. In addition, equal weightings are often attributed to the same condition for men and women, although the consequences of having a particular disability may impact differently on the lives of men and women.
 24. Many traditional health-related indicators assume an androgynous body and do not take into account the differences between men and women. In addition, many of these indicators rely on medical definitions of health and illness.

Indicators

25. Existing indicators do not adequately describe the situation of women or gender relations. For example, existing indicators do not accurately measure women's economic contribution, women's work, the poverty of women, intrahousehold distribution of resources, violence against women, and issues affecting the girl child. Information about the limitations of these indicators can be found in Tables 1.1–1.3.
26. There is a need for the development of improved indicators for accountability of governments in improving gender equity (for example, women's budgets).

27. Indicators often focus on outcomes, but there is also a need for process and output indicators.
28. It is important to be able to measure progress towards targets over time.
29. There is very little attention given to the development of indicators for gender equity in childhood. This is an important omission for two reasons: firstly, because many of the patterns of inequity established in childhood impact on later life; and secondly, because the relationships between adults and children often place children (girl children in particular) at high risk when living conditions are poor.
30. Indicators for women's health often focus on reproductive issues, but these issues are not often focused on the broader dimensions of women's reproductive health. In addition, there is a range of specific issues associated with measuring women's reproductive health, issues including: lack of data; misclassification of maternal mortality; that maternal mortality does not include an estimation of lifetime risk; and that morbidity and mortality associated with abortion are not recorded in countries where abortion is illegal.

Indices

31. Tools like the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM) are important in highlighting the need for a gendered analysis, but they contain a number of flaws. It is suggested that a lack of knowledge about what would constitute relevant dimensions for measuring gender equality (especially at the international level) constrains the development of appropriate indices. Criticism of the GDI and the GEM relates to both the way the indices are calculated and to the domains they prioritize.
32. A number of alternative indices to the GDI and the GEM have been proposed. These include a Relative Status of Women Index (Dijkstra and Hammer, 2000), a Standardized Index of Gender Equality (Dijkstra, 2000), and a Gender Equality Index (Wieringa, 1999).

Monitoring

33. There are a range of issues associated with monitoring the implementation of strategies aimed at increasing gender equity and/or improving the lives of women. These include: recognizing the importance of engaging nongovernmental organizations (NGOs) and local women's organizations to challenge the work of governments and to participate in monitoring; recognizing the importance of having clearly defined objectives (including for gender equity), as the objectives will determine evaluation criteria; identifying process, output and outcome indicators; and improving the capacity for gender analysis of organizations.
34. The development of concepts, such as "health equity gauges", are useful in improving the monitoring of actions/initiatives intended to improve women's lives. Equity gauges use a combination of monitoring against key indicators, coupled with advocacy and community participation, to ensure that action is taken.

2

Annotations/Summaries of documents

This section includes annotations/summaries of documents specifically focusing on the gender sensitivity of indicators and measures. The documents are listed in alphabetical order by author.

1. Abdool SN, Vissandjée B. (2001). An inventory of conceptual frameworks and women's health indicators.

Abdool and Vissandjée outline an inventory of health and social indicators relevant to women's health. They include a discussion of the conceptual frameworks for women's health to enable the identification of key indicators for the Report Card on Canadian Women's Health. They highlight that different conceptual frameworks for thinking about health (14 such frameworks are outlined) will determine the measures and indicators used. They also highlight that many of these frameworks assume gender neutrality, which means that the incorporation of a gender perspective is dependent on those interpreting and utilizing the framework and that there is a large number of indicators used to measure women's health in non-gender-sensitive ways. They also suggest that rather than adding women into existing frameworks, it is important to include gender or gender relations as a key unit of analysis. For example, in a "social determinants of health" model, some of the social determinants will be the same for men and women, but when these determinants are observed through their interaction with gender, differences appear.

These authors argue that many of the indices used to rank countries are limited, as inequalities in health favour some groups over others, obscuring the increasing barriers and difficulties faced by some groups (such as indigenous peoples, immigrants and refugees) in maintaining and improving their health status. They also identify that there is some confusion about what is

considered to be a "determinant" of health and what is considered an "indicator" (e.g. poverty is considered by some to be a determinant and some to be an indicator).

Abdool and Vissandjée argue that an understanding of the factors constituting gender relations and gender inequalities is important in informing the development of indicators. They identify three common components of gender relations:

1. Allocation of political, social and economic resources.
2. Perceived sex differences determining patterns of social, political and economic organization.
3. The distinctions that assign men and women to different areas of the economy and society.

The authors outline a series of (historical) issues with indicators, including:

- The biases of surveyors and indicator developers are often reflected in the development of indicators.
- Economic indicators related to employment often exclude women's unpaid work.
- Women are often defined by their reproductive health and motherhood roles.
- Some argue that gender indicators are not adequate for informing policy development, as they don't capture women's experiences well enough.
- Some argue that if indicators can't account for gender inequality, they are ineffective for determining the health or social progress of any population.

Suggested ways of overcoming these issues include:

- Use of qualitative and quantitative methods to measure gender-related changes over time.
- Involve women in identifying priorities to address different types of inequalities (women: men; women: women from different groups; women: health care providers).
- Conduct proper surveillance.
- Include a focus on a social model of health as well as a biomedical one.

Key points made about indicators are:

- An indicator is a pointer that measures change over time and has a reference point which enables value judgements to be made.
- Gender indicators should measure women's status against some normative standard or reference group (for example, men) and should be able to measure changes in women's status and roles over time to identify whether equity is being achieved.
- Health status indicators represent measurable pointers to directly unmeasurable phenomenon, and any one indicator cannot fully reflect complex phenomena. For example, mortality is only one measure of population health and represents only part of the picture.
- Health status indicators often measure death or illness rather than health or well-being, but are useful because they are internationally recognized and consistently defined.
- All indicators contain a degree of imperfection, and theories of validity and reliability are generally used to inform consensus about acceptable degrees of imperfection. However, it is important to apply a gender lens to these discussions to ensure indicators are applicable to women's health. This is illustrated by the fact that in the calculation of the Human Development Index, Canada is the top ranked country in which to live, but when a gendered analysis (even an imperfect one such as the Gender-related Development Index is applied, the ranking drops to fourth.

This report cites Beck and Stelcner's (1997) checklist for indicator development, and adds several criteria from the National Women's Law Centre report (2000) for developing indicators for women's health. These additions include the selection of indicators which: have a significant impact on women's quality of life, functioning and well-being; impact on a large number of women, or women from a particular group; measure something where intervention, prevention or improve-

ment leads to change; are measurable; and represent an emerging issue.

In addition, indicators should be complemented by gender analysis to enable understanding of how gender relations are shaped, and should be disaggregated by country of origin, culture and geographic location to reflect the diversity of women.

Finally, an inventory of indicators for women's health is proposed with four domains: basic population characteristics, determinants of health, health status, and health consequences. Indicators are analysed for their quality and limitations.

2. Abdool SN et al. (2002). Towards gender-sensitive health indicators.

This article provides a good summary of the information outlined in Abdool and Vissandjée (2001); see summary above.

3. Abdulla R. (2000). A framework of indicators for action on women's health needs and rights after Beijing.

This framework was developed for the Asian-Pacific Resource and Research Centre for Women to assist in monitoring against the Beijing Platform for Action (BPA), specifically in relation to women's health needs and rights. The author notes that there were 79 general recommendations relevant to women's health in the BPA, and that all of them need to be broken down into more specific actions to enable implementation and monitoring. This framework addresses practical monitoring issues, the critical issues to address, and indicators for monitoring change, and has been used by a number of organizations.

This framework focuses on four key priority areas from the BPA: women's health and rights; sexual and reproductive health and rights; violence against women; and gender-sensitive health programmes. Under each of these priority areas, several components have been listed.

Women's health and rights includes: life expectancy; women's right to high-quality health, access to safe water and sanitation, women's well-being, mental health, and public health expenditure on women's health.

Sexual and reproductive health and rights includes: reproductive rights, maternal health, contraception, abortion, sexuality rights, breastfeeding, food and nu-

trition, reproductive cancers, reproductive tract infections, and HIV/AIDS.

Violence against women includes: rape, physical and emotional abuse by an intimate partner and in armed conflict, and sexual coercion resulting in sexually transmitted diseases and HIV.

Gender-sensitive health programmes includes: health; family planning and reproductive health services; male responsibility in reproductive health; gender-equality goals incorporated into national policies and plans; extent of gender issues being incorporated into health, family planning and reproductive health services; medical and health personnel training/health information and interpersonal communication; and health research.

Indicators relating to: women's health status; health service provision, use and quality (availability, accessibility and affordability of services); and national laws, policies, plans and regulations, have been identified for each of the areas outlined above and are designed to be able to be used to monitor change over time. Both process and outcome indicators are included.

4. AbouZahr C, Vaughan JP. (2000). Assessing the burden of sexual and reproductive ill-health: questions regarding the use of disability-adjusted life years.

AbouZahr and Vaughan support the idea of the Disability-adjusted Life Year (DALY) because it enables estimation of the contribution of years lived with disability to be considered, allowing a better understanding of the dimensions associated with reproductive ill-health. The authors note the challenges of developing systems of measuring reproductive health rather than reproductive illness.

The authors outline a range of criticisms on the use of the DALY as the unit for estimating the disease burden associated with reproductive ill-health. These include:

- There is missing and inadequate data (for example, underreporting of maternal mortality and misclassification of maternal deaths).
- It is difficult to accurately measure disability (and where there is inadequate data there is reliance on "expert judgement").
- Co-morbidities are not adequately dealt with.
- There is a lack of transparency in the process of de-

termining the weightings given to disabilities associated with sexual and reproductive health issues.

There are also difficulties in defining and detecting some conditions, and some do not become apparent until there are extensive complications. Questions have also been raised about the validity of self-reporting required for population-based reproductive morbidity surveys. Further issues about DALYs include that they exclude socioeconomic, cultural and environmental factors which may affect the overall burden and ability to cope, and these may impact more on women than on men.

A further question with respect to weighting is whose perspective counts. The general public, health-care providers, individuals with a condition and their families, and experts, may attribute different weightings. Equal weightings were ascribed to each condition for women and men, despite the fact that some conditions may impact differently on the lives of women and men. There is not adequate distinction between temporary and permanent loss of function, and it is difficult to attribute weightings to some conditions, such as asymptomatic HIV infection.

When DALYs were used in the Global Burden of Disease study (1990), a number of sexual health and reproductive conditions were left out of the calculations. These include: indirect obstetric conditions (such as diabetes and cardiovascular disease); conditions not listed in the ICD-9 (such as female genital mutilation, rape and sexual abuse); conditions causing gynaecological morbidity (such as genital herpes and warts, bacterial vaginosis, endometriosis, fibroids, menstrual disorders); contraceptive morbidity (such as puerperal psychosis); psychological morbidity (such as postnatal depression); morbidities attributable to HIV; stillbirths; and conditions experienced by men (such as erectile dysfunction and prostate cancer).

Suggestions for improvement include:

- Undertake case studies in a range of countries to collect and analyse all available information on reproductive health.
- Develop a standardized and common approach to analysing existing data collected in longitudinal studies to enable a better understanding of the extent, nature and risks for sexual and reproductive ill-health.
- Establish longitudinal studies to determine the incidence, prevalence and risk of long-term complications of reproductive health conditions.

- Develop an international research agenda to select and test multidimensional indicators of reproductive health and well-being.
- Map the “natural history” of sexual and reproductive health conditions (in women and men) to develop a comprehensive understanding of these conditions and their sequelae to facilitate the collection of appropriate data.
- Develop “valuation instruments” to reflect severity and which can be modified to reflect prognosis to assist with weighting (these might include domains like those included in a World Health Organization pilot study, such as mobility, self-care, usual activities, pain/discomfort, anxiety/depression, cognition, sensory, energy/vitality, shame/ embarrassment, participation).
- Review the DALY methodology to identify ways of reducing methodological and gender bias.

5. Apodaca C. (1998). Measuring Women's Economic and Social Rights Achievement.

There is increasing recognition of the importance of economic rights and the need to enhance women's enjoyment of these rights on a level comparable to that of men. Despite this emerging recognition, there has been little work on empirical strategies to define, operationalize and measure these rights. This has largely been due to the lack of sufficiently valid data and availability of reliable measures. This article outlines an attempt to quantify the inequality between men and women with an index which allows the comparative and longitudinal analysis of women's human rights specified in the United Nations International Covenant on Economic, Social and Cultural Rights (ICESCR).

The importance and the relative absence of disaggregated and precise indicators on the situation of women has been noted by the Convention on the Elimination of All Forms of Discrimination Against Women. It is highlighted that although data analysis is important in evaluating the status of women's rights, aggregated data can hide the differences in the realization of economic and social rights between males and females. For example, in 1985, 60% of the developing world's adult population was literate, but disaggregating the numbers reveals that 70% of the males were literate while only 49% of the females were literate.

As a result of the ICESCR's identification of numerous rights, the author was faced with the task of reduc-

ing a complex list of rights into a manageable number of variables. In going about this task, an index was developed using those rights generally accepted as essential for human subsistence. The index includes:

1. The Right to Work (measured by rates of economic activity disaggregated by sex).
2. The Right to an Adequate Standard of Living (as indicated by the ratio of anaemia rates of women and the total daily caloric intake per country).
3. The Right to Health and Well-being (measured by sex-differentiated mortality rates, sex ratios, and child mortality rates).
4. The Right to an Education (evidenced by literacy rates and rates of primary school enrolment disaggregated by sex).

A ratio for each indicator (female rate/male rate) is calculated because each indicator has different units of measure. The ratios are added together to form a composite score that becomes the Women's Economic and Social Human Rights Index. This index was found to be particularly useful in evaluating whether countries were complying with their obligations under the Covenant.

6. Austen S, Jefferson T, Preston A. (2000). The challenges of defining and measuring women's social and economic progress.

Austen et al. examine six studies of indicator sets for assessing women's status and progress. They identify that: education and training, health and physical well-being, employment and economic independence, family responsibilities, and participation in society's institutions are the common areas addressed by these studies. They also identify a number of gaps in these indicator sets, and suggest that these may result from the methods by which definitions of women's progress are developed, and poor data collection in some areas significant to women's lives. They argue that failure to involve women in determining indicators of progress is a key contributor to these issues. Austen et al. note that in their search of the literature they found no work where women had been involved in this way, and suggest that existing indicators often reflect research priorities that don't have women's progress as their main focus. They also note, that while it is important to compare information about women's status to that of men, only focusing on areas where comparisons can be made limits

measurement of women's progress to areas where men have already achieved "success", potentially giving an incomplete picture of women's experiences, goals and interests. Austen et al. also highlight the importance of comparisons between women and the danger of leaving out the most marginalized when aggregating up.

The authors identify four criteria for identifying successful indicators for monitoring women's progress:

- Reflect women's understanding of the progress of their lives (including in the definitions of progress and in the articulation of clear goals for progress).
- Reflect the diversity of the aspirations and experiences of women in the community.
- Permit comparisons of the economic, political and social achievements of men and women.
- Permit comparisons of the progress of women between jurisdictions and within a jurisdiction over time.

In relation to specific indicators they note:

- Using the gross domestic product as a proxy for economic well-being does not capture information about well-being.
- Indicators for education and training: indicators of basic education such as literacy rates and primary school participation are still highly relevant for some groups of women in Australia, such as some indigenous groups. However, a focus on other areas, such as post-secondary education, is potentially more relevant as an indicator for many Australian women. These types of indicators do not reflect the way education is delivered, and women's access to things like on-the-job training.
- Indicators of health and well-being: studies including developing countries often focus on indicators, such as infant mortality rates, life expectancy and fertility, while those in developed countries included broader lifestyle issues, such as participation in sport, risk-taking behaviour (such as alcohol and tobacco use), and experience of domestic violence (from crime and survey data). Many of these indicator sets leave out mental health (such as suicide rates, use of specific prescription drugs).
- Employment and economic independence: indicators that recognize family responsibilities and employment, economic and financial independence are not independent of one another (Australian Bureau of Statistics Survey data is available and may be able to be used to investigate this). Data is also needed on intrahousehold allocations of income and other re-

sources as well as access to income transfers would assist in better identifying women's access to economic resources. Indicators that use the household as the unit of study are limited, especially when assets are a key part of the household's economic base. Indicators of material hardship might be useful, such as: incidence of poor households not meeting essential expenses; incidence of poor people living in crowded conditions; incidence of upkeep problems; phone electricity or gas disconnections; evictions; and food shortages.

- Family responsibilities: often these indicators focus on women's fertility (and their capacity to control it). There is need for additional indicators to identify the nature and distribution of work undertaken within households, such as information gained through time use studies, and information about physical and social infrastructure, such as paid maternity leave and childcare.
- Participation in society and decision-making: often indicators focus on the right to vote, participation in government and protection against sex-based discrimination.

7. Austen S, Jefferson T, Thein V. (2002). Developing gendered social and economic indicators: a pilot program of broadening research methods.

This paper describes a pilot project in which qualitative research methods (focus groups) are used to find out what women and men consider to be the key elements/issues related to women's progress. The authors aim to demonstrate that applying grounded theory and associated research methods to the process of indicator development is potentially useful in enabling the development of indicators and measures that reflect women's own views of progress. While the sample size was too small to allow broad generalizations (particularly given the diversity of participants and their interests), the method resulted in the identification of four key areas that were of interest to women in most of the focus groups. These were:

1. The manner in which change and progress are identified (including careers, work, identity, unpaid work at home).
2. Home and work.
3. Social context (including expectations of women, re-

lationships between men and women, regional and social variations, cultural differences).

4. Goals and aspirations (a balanced life, self-employment, contributing to the community, financial security and independence, physical safety).

8. Bardhan K, Klasen S. (1999). UNDP's gender-related indices: a critical review.

The authors critically review two gender-related indices, the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM). The GDI consists of three components which have equal weight in the construction of the index. These include: life expectancy, education and income. The GEM includes the indicators: female share of parliamentary seats; female share of administration, professional, technical and managerial positions; and female share of earned income. These two measures are an important tool for analysing gender inequality and its impact on overall development compared to other nations. However, the authors argue that the particular ways in which the indices were constructed and the assumptions made to overcome data gaps severely limit their usefulness and produce a number of unreliable results.

GDI is argued to be dominated by a problematic estimate of gender gaps in earned income, while downplaying the role of gaps in education and mortality, which arguably are two of the most important problems facing women in many developing countries. The authors summarize three shortcomings of the GDI: it ignores the impact of past (and present prenatal) discrimination in mortality by concentrating on the life expectancy measure; the earned-income component is problematic conceptually as well as in its estimation procedure; and lastly, the overall assessment ends up neglecting the life expectancy measure completely and the education measure by giving too small penalties for gaps in these achievements.

The GEM is criticized for being too heavily focused on representation at the national political level and in the formal economy, neglecting many important aspects of women's economic and political roles that exist outside of national politics and the formal economy. It is also criticized for concentrating too much on income earning, ignoring indicators of access to work-related facilities that are of importance for the female working poor. For example, access to institutional credit, access to production and marketing information, and access to childcare.

A number of suggested improvements are given to the GDI. Firstly, it is suggested that the aversion to inequality factor applied to the longevity and education components could be increased to ensure substantial penalties for any large gender gaps in these areas, with the option of increasing the penalty in the longevity component more than the education component. In addition, the weight of the gender gaps in the life expectancy component could be increased by reducing the range of possible life expectancies from 60 years to the actual range of life expectancies in the world today (40–82.5 years for women, and 37.5–76.5 years for men). In this way, the same life expectancy gaps (of –7 to +6 years) would be larger in percentage terms, leading to higher penalty for them. Similarly, it is suggested that the range of literacy could be reduced to the presently existing range.

9. Baume E, Mercedes J, Standing H. (2000). Gender and health equity resource folder.

The authors present a resource pack which aims to provide a practical reference guide on gender equity in health. It includes an overview of gender-sensitive interventions and initiatives with information on approaches, methods and tools. The pack incorporates a discussion, "good practice" case studies, key questions, suggested indicators and an annotated bibliography in five key areas. These are:

1. Gender mainstreaming and organizational change.
2. Implementing rights and accountability through networks and advocacy.
3. Tools to enhance and implement gender equity.
4. Life span perspective in gender and health.
5. Issues in gender and health equity.

A number of checklists are also included.

The authors argue that while the central focus of gender-sensitive indicators is on outcomes, they should also include measures of both process and output. They also note that quantitative indicators generally focus on areas where data is easy to collect through processes such as census and administrative records or surveys, and that these methods often ignore gender-sensitive data. In addition, interviewers collecting data are often not trained to be gender-sensitive, and may overlook a range of issues relevant to women, such as aspects of women's work. They suggest that many of the

concepts underpinning surveys, such as “active population”, are not clearly defined and overlook work in the “informal” sector/seasonal work. In addition, the use of words such as “job”, “work” and “employment” are generally associated with paid work, and often result in the exclusion of a large proportion of women’s work. The authors argue that there are currently no mechanisms for collecting information on female labour force activities and time use in rural and marginal urban areas.

Key suggestions for improvement are that qualitative indicators should be generated and qualitative analysis should be done as part of all stages of monitoring and evaluation to enable the development of an understanding of the issues and social processes, and to inform how to achieve improvements. Qualitative analysis can ensure the views of those who are most marginalized are included. They also argue for the importance of taking a “life-span perspective” to enable an understanding of the differences in health and health needs between men and women as they age. Different indicators will be relevant to women across their life cycle. The authors also suggest that interviewers conducting surveys should be trained to reduce gender bias, and that more women interviewers (including women from different classes, ages and ethnic groups) should be employed, not only to reduce bias of the interviewers but to facilitate open dialogue with interviewees.

10. Baunach DM. (2001). Gender inequality in childhood: toward a life course perspective.

Baunach argues that as gender inequality occurs across the life span, it is surprising that little attention has been given to the development of appropriate indicators relevant to children. She suggests that this is particularly surprising, given that inequalities established in childhood often set the scene for the maintenance of inequality in adult life. Where indicators for childhood inequality have been developed, they often focus on health and education. Considering gender inequality in childhood requires looking at the intersections between gender and age (or two “stratification systems”).

Baunach explores the differences between gender inequality in childhood and adulthood, and argues that childhood differs structurally from adulthood in the following ways: children experience more social control than adults; adults have more power; adults can better take advantage of available resources and control many of them, like water and food. In addition, adults have

accumulated advantages over time and very young children cannot contribute economic resources and may be a drain on those resources (which may result in gender inequality being greatest at the youngest ages). Similarly, factors like harsh environments are likely to intersect with age and gender to produce circumstances for great gender inequality for children.

The author notes that many of the indicators used to identify gender inequality, such as those relating to occupations and wages, have little applicability to children. Similarly, work on age stratification generally focuses on issues of ageing for older people. In addition, she notes that “children’s value is not conceptualized in terms of inequality but instead as the fertility behaviour of adults”.

Baunach notes a range of factors that may contribute differentially to gender inequality in childhood. These include: environment, culture, warfare, political issues, violence, familial issues and economic issues. She also suggests a number of indicators pertaining specifically to childhood, such as female infanticide, son preference, corporal punishment, social ceremonies, affection, protection, and social inclusion of girls and boys.

Following this she uses the Standard Cross-Cultural Sample (which provides macro-level indicators on beliefs and practices in 186 “pre-industrial” societies) to measure gender inequality in childhood (using the composites of the above indicators with weightings; for example, female infanticide is given a double weighting to indicate that it suggests a much lower valuing of girls than just preferring sons or punishing daughters) and to cross-correlate it with measures of gender inequality in adulthood. Cross-correlations of these variables allow exploration of which factors contributing to gender inequality in childhood link most strongly to gender inequality in adulthood.

11. Beck T. (1999). Using gender-sensitive indicators: a reference manual for governments and other stakeholders.

The author presents a manual to guide selection, use and dissemination of gender-sensitive indicators. It includes data sources (and a list of recommendations to improve gender sensitivity of data collection, see Table 2) and a checklist of methodological points for using gender-sensitive data at national levels (see Table 3).

Beck categorizes important gender-sensitive indica-

tors used at national levels by large organizations such as the United Nations into ten groups:

- Population composition and change.
- Human settlements and geographical distribution.
- Households, families, marital status, fertility.
- Learning in formal and non-formal education
- Health, health services, nutrition.
- Economic activity and labour force participation.
- Access to land, equipment and credit.
- Legal rights and political power.
- Violence against women.
- Macroeconomic policy and gender.

Examples of indicators for each group are provided.

Beck suggests that for each of the groups of indicators listed above, a set of related questions should be asked that deal with socioeconomic issues related to the topic and to gender relations at a national level. These questions should be aimed at finding out why the situation highlighted by the indicator has arisen, what it says about gender relations, and how the situation can be changed. Examples of questions to go with each of the indicator groups above are provided.

Specifically in relation to health indicators, Beck suggests five key areas for data collection: the state of health of the population; availability and accessibility of resources; use of health resources (such as hospitals); environmental data; and outcomes of preventive and curative measures.

In relation to economic activity and labour force participation, Beck notes the under representation of women's economic activity and the difficulty in measuring it. He notes that the term "economic activity" refers to disparate components, including work-related topics such as: activity status, employment status, employment characteristics and duration of employment. Beck cites the work of Anker (1988), who identifies anomalies in definitions and proposes a four-part typology to measure labour force activity. This includes: paid labour force, market-oriented labour force, International Labour Organization-defined labour force, and extended labour force. This typology still does not include unpaid work like housework and childcare.

Beck also discusses the System of National Accounts (SNA) and the GDP, both of which focus on paid employment and leave out much of women's contribution to the economy and society. The SNA defines unpaid work under the following three categories: housework, childcare and other family related services (not measured by SNA); subsistence and non-market activities,

such as agricultural production for household consumption (to be valued at the rate of market values from 1993); household enterprises producing for the market where unpaid labour is contributed (to be valued from 1993).

Attempts to value unpaid work have focused on setting up additional "accounts" to supplement the SNA, and there is some work being done to make sure that there are some consistencies between countries in these measurements. There is some agreement about what should be included in measurements of unpaid work, although there may not be identified ways to estimate its value (generally reliant on time use studies to date). These areas are: domestic work (meal preparation, cleaning, clothing care, repairs and maintenance); help and childcare (including adult care); management and shopping; transportation and travel; volunteer work (including fundraising, meetings, research); and unpaid work in the labour force.

A series of indicators that could be used are included.

Beck notes that there has not been a systematic focus on women's access to land, equipment and credit, and that some agricultural censuses might provide gender-sensitive indicators. He notes that access to credit is an important indicator, but that even when women have this access, men might make the key decisions about its use, highlighting the importance of supplementing indicators with qualitative analysis.

In relation to legal rights and political power, Beck notes that signatories to the Convention for the Elimination of Discrimination Against Women have to report against cultural, legal and political areas not often covered in other standard mechanisms. These areas are: sex roles and stereotyping; suppression and exploitation of women; political and public life; international representation and participation; equality before the law and in civil matters; and equality in marriage and family law.

Collection of data on violence against women have been limited, reported through crime statistics primarily. Other means are required to identify and measure violence against women. In particular, development of questions about violence and the context in which the questions are asked should be considered, and interviewers carefully selected and trained.

In relation to macroeconomic policy and women, Beck notes that although indicators are sporadic, more countries are integrating gender into budgetary processes. Some of the means of doing this include checking

national budgets for gender sensitivity and money spent on priority areas affecting men and women. The author outlines the policy options developed by the Commonwealth Secretariat for doing this. They include: sex-disaggregated beneficiary assessments (women are asked, if they were the finance minister, how they would allocate the resources, and this is compared to the existing budget); sex-disaggregated public expenditure incidence analysis (analysis of public expenditure as it benefits women, men, girls and boys); gender-aware policy evaluation of public expenditure (evaluation of policy assumptions underpinning budget allocations to identify their potential impact on gender differences); gender-aware budget statement (gender implications of the budget); sex-disaggregated analysis of the impact of the budget on time use (the macroeconomic implications of unpaid work); and gender-aware medium-term economic policy frameworks.

Beck advises caution in using and interpreting indicators, due to the following key limitations of indicators:

- They don't provide information on wider social patterns, such as how gender relations have been shaped and how they can be changed. Consequently, they point to questions and should be complemented by gender analysis.
- Accuracy of data (for example, problems with national censuses include infrequent collection, sex bias, poor enumeration, imprecise definition of terms).
- Care is required in determining the benchmark or norm for comparison. It is important when comparing across countries to make sure the definitions of what is measured by each indicator are the same.
- Lack of participation from the public and from non-governmental organizations and governments.
- Lack of attention to cross-cultural dimensions.

Beck highlights the importance of gender-sensitivity training for people involved in designing and collecting data for national census, and of the participation of women (especially those most marginalized) in the design of gender-sensitive indicators. He also outlines the usefulness of qualitative indicators in enhancing public participation in indicator use, and notes that there have been significant developments in qualitative indicators (such as the Participatory Poverty Assessments).

Beck suggests caution in the interpretation of indicators for policy development.

Beck also includes a discussion of the current work

in developing gender-sensitive indicators and tools for measuring them. These include the United Nations Development Programme (UNDP) 1995 Human Development Report (and the use of the Gender-related Development Index and the Gender Empowerment Measure), other United Nations publications, publications of the World Bank and of other donor organizations. A number of "good practice" case studies are also included.

12. Beck T, Stelcner M. (1997). Guide to gender sensitive indicators.

This is a "how-to" guide on the use of gender-sensitive indicators. It includes information about what gender-sensitive indicators are, how they should be used by organizations, the types of indicators and their limitations, and how they can be used at project, branch, region and country levels.

Key points include:

- Indicators should compare one group to a norm and enable the measurement of changes over time. There should be careful choice of the norm or benchmark (for women, this could be men in the same country, or women in a different country).
- All indicators, including quantitative ones, have a "political heritage" and bias, and it is important to keep the political nature of indicators and their use in mind. For example, indicators of employment have often excluded women's work, possibly because most surveys have been designed and implemented by men. Responses to reducing this bias have included the collection of gender-disaggregated data and information about women's experience to supplement indicators.
- Use of gender-sensitive indicators in development agencies has been weak, and the terminology used in indicator use is inconsistent. Four key ways agencies have approached the use of indicators are to:
 - (a) apply knowledge/indicators useful in developed countries to developing countries without participation of relevant communities;
 - (b) focus on whether women are involved in projects rather than on development of indicators;
 - (c) focus on the implementation of the project within the agency rather than on developing indicators about effectiveness of the programme;
 - (d) focus on quantitative rather than qualitative indicator development.

- There is a need to use both qualitative and quantitative methods to measure gender-related changes over time, to cross-validate findings, and to identify why the problem exists and what can be done about it. The guide outlines the differences between quantitative and qualitative indicators, discusses why qualitative indicators are important, and provides case studies illustrating this. There is also a discussion of validity and reliability of indicators and the usefulness of triangulation.
- More community participation in indicator development is required to enable the incorporation of people's own indicators of development into frameworks.
- There are limitations to many quantitative indicators. For example, the number of women in parliament as an indicator of women's political participation and empowerment is limited in that it does not capture whether women actually have more input into decision-making. Qualitative indicators for women's political participation and empowerment might include: how many times issues related to gender equity are raised in parliament, what legislation related to gender equity is passed and enforced, and whether women's speeches are making an impact.

The Guide outlines a range of strategies for improving the use of indicators. These include:

- Link indicators to development objectives. This requires being clear about objectives (they should be explicit, clear and precise, feasible and realistic, measurable and verifiable and have realistic timeframes with intermediate targets). There are two types of objectives: those with relatively easily quantifiable results and those which are less-easily quantifiable and generally related to social processes. The former can often be measured by quantitative indicators of outcome, and the latter can be measured by indicators like empowerment or participation and may require process indicators.
- Use of different types of indicators (examples of these are given in the Guide) risk/enabling indicators (measure the influence of external factors); input indicators (measure resources); process indicators (measure delivery activities and monitor achievement during implementation); output indicators (measure intermediate results); and outcome indicators (measure longer term results).

The Guide suggests a limit of six indicators for each domain for any one project, including:

- Use the following criteria for development and selection of indicators:
 - indicators should be developed in a participatory fashion, including all stakeholders wherever possible (this often doesn't occur due to cost, time constraints, mistrust of stakeholders, lack of methodological knowledge);
 - indicators must be relevant to the needs of the user, and at a level that the user can understand;
 - all indicators should be sex-disaggregated;
 - both qualitative and quantitative indicators should be used;
 - indicators should be easy to use and understand;
 - indicators must be clearly defined;
 - the number chosen should be small;
 - indicators should be technically sound;
 - indicators should measure trends over time;
 - the ultimate focus should be outcome indicators.

The Guide provides examples of indicators for education and health sectors, and illustrates how they can be used at project level.

The Guide also provides a discussion of participation and its evaluation, and provides examples of quantitative and qualitative indicators of participation. It distinguishes between two types of participation in development projects: involvement in a project that is formulated externally, and involvement in decision-making and control over the project. Evaluation of the first is often through labour force participation (sex-disaggregated), and indicators for evaluation of the latter are still being developed. However, much of the literature on indicators of participation is not gendered.

Indicators of empowerment are also discussed. It is noted that empowerment is a difficult concept to measure and there are no agreed- indicators. Difficulties include:

- It is difficult to measure changes in people's state of mind from disempowered to empowered.
- It can be difficult and time-consuming to measure elements of empowerment, such as who is making decisions (this can require in-depth qualitative analysis).
- Participation is a key element of empowerment and is also difficult to measure.
- Definitions of elements of empowerment may be

culturally specific, thus varying across locations and groups.

Development of empowerment indicators will require a definition of “empowerment” and the construction of indicators measuring personal, socioeconomic and political change. Some of the components of empowerment are discussed. These include: women’s and men’s sense of internal strength and confidence to face life; the right to make choices; and the ability to influence the direction of social change towards the creation of a more just social and economic order nationally and internationally. In addition, there are two main aspects of empowerment: that relating to personal change, and that relating to organizations aimed at social and political change. Beck and Stelcner suggest a set of quantitative and qualitative indicators for empowerment covering legal, political, economic and social empowerment. They also include the nine indicators of empowerment developed by Schuler and Hashemi (1994). These are: mobility, economic security, ability to make small purchases, ability to make larger purchases, involvement in major decisions, relative freedom from domination and violence within the family, political and legal awareness, participation in public protests, and political campaigning.

Finally, the Guide discusses indicators in education, health and women’s work and the problems associated with their use. One point to note here is that, with respect to labour force participation, the International Labour Organization- indicator definition now includes subsistence labour. The inclusion of subsistence labour has enhanced the relevance to developing countries and to women, but data is difficult to collect. In addition, different countries may vary in the activities they include in subsistence labour, and some may focus on agriculture. Problems still remain in estimating women’s contribution in domestic and voluntary spheres, and housework is often left out of national accounts. The authors suggest that while there has been progress in conceptualising women’s work, there has been little progress in measuring it. In addition, standard indicators of employment like “average expected years of working life” may not be useful, because women might enter and leave the workforce many times.

The Guide includes case studies of examples of indicator use in the areas of: women, work and labour force participation, water supply and sanitation, training in agriculture, and women’s empowerment.

13. Beck T, Stelcner M. (1997). The why and how of gender-sensitive indicators: a project level handbook.

This is a companion document to Beck and Stelcner’s *Guide to gender-sensitive indicators* (1997) described above. It is a practical guide which outlines how to go about identifying and using gender-sensitive indicators in development projects.

14. Cantillon S, Nolan B. (2001). Poverty within households: measuring gender differences using non-monetary indicators.

Cantillon and Nolan critique the conventional models of analysing poverty and income inequity which assume that households are the basic unit for assessment, and that resources are shared equally between household members. Failure to understand the differences between individuals within households has implications for understanding poverty and policy development. Where gender and poverty have been studied—such as in the work on the feminization of poverty—the household has generally remained the unit of analysis. Consequently, these studies focus on female-headed households and poverty, or the proportion of women in poor households. (There is also a gender bias in the assumption that in couple-households, the man is the head.) The authors discuss the use of non-monetary indicators to inform estimates of household poverty and intrahousehold differences in developed countries.

The authors outline that the use of income as a measure of household poverty (against some threshold) is based on the assumption that income is a good indicator of availability of economic resources and of living standards. Limitations of measuring income at a fixed point include: income fluctuations and households with similar incomes having different levels of debt and savings, access to social support networks, and non-cash income. The authors cite a number of studies where non-monetary indicators of deprivation have been developed, and deprivation or hardship indices have been constructed, generally to complement income measures (and in some cases, to identify those who are excluded from participating in society due to lack of resources). These include asking people whether they have access to items or activities, which of these they would like to have but can’t because of lack of access to resources, and which ones they believe are ne-

cessities. Generally, one person in the household is asked the questions and this is taken to represent the household. Many of these items are shared by households (such as a bath or refrigerator), but some (such as access to a second pair of shoes or a warm overcoat) may be useful as indicators of access to resources of individuals within households.

The study reported in this paper asked all adults in a sample of households a set of questions (as above) to identify whether they were useful as a basis for measuring intrahousehold differences. While there were differences between men and women, with more women than men experiencing disadvantage, the measures didn't result in the identification of significant differences between adults in poor households (even when only those indicators associated with access to personal items were used). The authors argue that this might be because the indicators were originally developed to measure non-monetary access to resources rather than intrahousehold differences, and therefore more sensitive indicators are required.

Based on focus groups with women and literature from qualitative studies, the authors propose a set of such indicators to identify differences between men and women in households, including differences in: consumption (at the household and individual level); control and management of resources; and access to and expenditure on leisure activities. They also pose a set of questions to ask about the position of children. Finally, they note that it is important when undertaking such surveys to make sure adults are interviewed on their own and that questions are asked in a way that emphasizes that the focus is on the individual and not the household.

15. Curry J. (2002). Establishment of a core set of gender-sensitive indicators for the agriculture sector: a preliminary proposal.

This article, developed for the Socio-economic and Gender Analysis (SEAGA) Programme of the Food and Agriculture Organization of the United Nations, discusses the need for a core set of gender-sensitive indicators for agriculture and examines an appropriate gender-analysis framework for establishment such indicators using available data sources. The framework operates at three levels of analysis: the field level (targeting government and nongovernmental field workers, local communities and institutions); the interme-

diated level (focusing on development workers engaged in institutions that act as bridges between the field and macro levels); and the macro level (addressing policy- and decision-makers who work at the international and national levels).

The advantages of this framework include that the focus is on individuals and households in rural settings, and tools are provided for analysing gender relations at household and community levels. This is important for developing a core set of gender-sensitive indicators specific to agriculture, since agricultural surveys – the principle sources of data on the agricultural sector – use agricultural holding or the household as the unit of observation. The SEAGA framework proposes a core set of indicators in the areas of: ownership of land, access to productive resources (machinery, fertiliser and pesticide use), and participation in the agricultural labour force. The authors evaluate the indicators to be reasonably policy-relevant, user-friendly, measurable and cost-effective. However, as these indicators are untested, there may be potential problems with specificity, validity and reliability. In addition, data availability may be limited due to: the limited scope of agricultural censuses; limited geographic coverage of existing sex-specific data from censuses; inconsistent use of definitions and data collection protocols; and the inability of a one-dimensional measure to reflect complex phenomena.

The authors make a number of recommendations, particularly in relation to issues of validity and reliability. These include:

- Indicators should be reviewed on a regular basis to assess whether they are policy-relevant.
- Policy-relevant indicators should be used and policy analysts and decision-makers should be trained in gender issues.
- More specific indicators of female contributions to agriculture (particularly female labour) should be developed.
- Further efforts should be made to encourage national statistical services to use consistently standardized concepts and methods of data collection to increase the validity and reliability of the data used to estimate the core set of indicators.
- The number of indicators should be limited to the current number (with new indicators replacing existing indicators) to promote user-friendliness.

16. Danner M, Fort L, Young G. (1999). International data on women and gender: resources, issues and critical use.

Danner, Fort and Young examine the definition, production, compilation and use of international data on women and gender. They argue that it is important for data users to become “critical users”, and develop an understanding of the underpinning assumptions (and the social and political contexts) associated with data collection and issues associated with irregular collection practices. The article also provides a short history of data collection about women.

The authors outline a range of technical and conceptual issues. Technical issues include:

- Variability in the way information is collected in different countries makes intercountry comparisons difficult.
- There are many levels at which irregularities in data collection can be introduced—from data collectors in the field to government officials (these can be due to factors such as people’s agendas, assumptions, resources and training).
- A lot of information is collected but not processed or published.
- Data collected by private organizations will be determined by their criteria and agendas, and may not be publicly available (or may require payment).
- Using countries as the unit of analysis collapses the differences between women (such as social class, race, ethnicity, age, rurality).
- Data are presented in tabular format (rather than in case by variable matrix) and most are not computerized, creating problems for multivariate analysis.
- There is often missing data.

Conceptual issues include that the data collected and the categories into which it is organized reflect the aspects of life considered important by governments and agencies (that is, it is a political process reflecting how women are valued). In addition, many statistics reflect three assumptions about women: the first is that women and their activities are less valued than those of men; the second is that women are often defined with respect to their capacity to reproduce (consequently ignoring their contribution to other aspects of production and community life); the third is that western/northern constructions of women, families and progress are valid.

Lack of attribution of value to women results in: women’s activities being undercounted; the complexity and multiple dimensions of women’s lives and work not being represented in the categories for data collection; women and girls not being represented in populations because in some countries they die in disproportionate numbers to men and these deaths are not counted (so-called “missing women”); and statistics on violence against women not being available.

In relation to measuring the currently invisible aspects of women’s contribution to production, the authors suggest the use of traditional instruments for measuring market activities, such as time-use or time-allocation studies. They also suggest using the household as the unit of production. They argue that this would require a two-step process—asking questions about what gets done and then who does it and for how long.

The authors propose a set of “21 Social Indicators of Gender Inequality” which can be calculated using data from the Women’s Indicators and Statistics (Wistat) Database (United Nations Statistics Division, 1988). This set has five key dimensions of social life grouped under either “human rights” (basic and civil rights) or “social relations” spheres. The human rights sphere includes physical well-being and public power (seats in legislative body), and the social relations sphere includes family formation, education and economic activity. The indicators are comparative (ratios of the number of women per 100 men by age group).

The data available limited the indicators that could be included, for example, violence against women was not comprehensively reported and consequently, there is no indicator in the set.

17. Dijkstra AG. (2002). Revisiting UNDP’s GDI and GEM: towards an alternative.

This paper reviews the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM), with a focus on the latter. Following this, Dijkstra proposes a new measure, the Standardized Index of Gender Equality (SIGE) as a measure of gender equality.

Dijkstra points out that in studies of the relationship between gender equality and development, different conclusions are reached, not only depending on the context, but also depending on the variables used to assess gender equality.

Key issues raised by Dijkstra include:

- The GDI and GEM include both absolute achievement and a punishment for inequality, and are therefore not a measure of equality *per se*.
- Criticisms of the dimensions and variables used in the indexes: in relation to the GDI, this is largely about the calculation of income [see Dijkstra and Hanmer, (2000), this bibliography] and the procedure used to calculate the penalty associated with the gender gap in income. Dijkstra argues that this results in countries with higher levels of absolute income getting relatively lower penalties for income inequality. In addition, data on life expectancy does not include “missing women”. In relation to the GEM, key points include: that the data on women in parliament often does not reflect women’s capacity to influence decision-making and does not reflect this at lower levels within society; that the use of population-weighted harmonic means in calculations of women’s shares results in a softening of inequality and problems with calculation of the income domain.
- Inequality is accounted for in different ways for the different variables.
- Problems with the construction of composite indices, including that in cases where the variances on the three indicators vary widely, that with the largest variance has the most impact on the index—generally this is “income”—the variable with the most problematic method of calculation.

Dijkstra argues that because neither the GDI nor the GEM measure gender inequality as such, they cannot be used to examine the relationship between economic performance and gender equality. She suggests that a new index should be developed, and she proposes four criteria for the development of such an index:

5. The index should include a number of indicators that together represent all relevant dimensions of gender equality.
6. It should be a relative measure (that is, a measure of gender (in)equality) and not include some relative and some absolute measures.
7. Weightings should not unintentionally give some variables more weight than others.
8. Data should be available for many countries, be reliable and internationally comparable.

Dijkstra suggests that a lack of knowledge of the relevant dimensions for measuring gender equality, es-

pecially at an international level, constrains the development of appropriate indices. In exploring this to identify the key elements for her proposed index, she refers to eight key dimensions of gender equality and inequality that might hold in different cultures, identified at a workshop held at The Hague in the late 1990s. These are: gender identify (including cultural issues, such as socialization of boys and girls and the sexual division of labour); autonomy of the body (including gender-based violence, control over sexuality and reproduction); autonomy within the household (including freedom to marry and divorce, custody of children, decision-making power and access to assets within the household); political power (including decision-making at above household levels); social resources (including access to health and education); material resources (including access to land, housing and credit); employment and income (including distribution of paid and unpaid work, differences in wages, and informal and formal labour); and time (including relative access to leisure and sleep).

Dijkstra then goes on to propose that there are four key elements underpinning all of these variables: culture, power, access to social assets, and access to economic assets. She notes that while culture will influence the elements of societies measured by data, it is particularly difficult to measure culture itself. She also notes that there is no internationally available data for time use. She also identifies that different dimensions will be more relevant in some countries than in others, and that “different dimensions of gender equality may move together, but not necessarily so”.

Dijkstra proposes the SIGE using data from the Women’s Indicators and Statistics Database (Wistat). The indicators she includes are:

- Relative female/male access to education.
- Relative female/male longevity.
- Relative female/male labour market participation.
- Female share in technical and professional, and administrative and management positions.
- Female share in parliament.

She provides a discussion of the usefulness of each of these indicators against the eight criteria listed above, a discussion about how each would be weighted and calculated, and a sample calculation using the Wistat data.

18. Dijkstra AG, Hanmer LC. (2000). Measuring socioeconomic gender inequality: towards an alternative to the UNDP gender-related development index.

Dijkstra and Hanmer critique the measurement of socioeconomic aspects of gender inequality as represented in the United Nations Development Programme (UNDP) Gender-related Development Index (GDI). This index includes the same indicators as the Human Development Index (HDI). These are: life expectancy at birth, educational attainment, and real per capita income. They examine the relevance of the index, the validity of the index (variables and weights) and the reliability of the data used to calculate the index, and use the same data to construct an alternative index—the Relative Status of Women (RSW) index. However, the authors suggest that these data are not the most appropriate for measuring gender inequality and propose an alternative framework.

The authors point out the value of having an index like the GDI in prompting policy debate and development in the area of gender inequality. However, they argue that this is all the more reason to make sure such a measure identifies the extent and causes of gender inequality, and be useful for monitoring changes over time.

Dijkstra and Hanmer suggest that a socioeconomic gender inequality measure should be defined to meet three criteria:

1. It identifies the extent of gender inequality.
2. It identifies the causes of gender inequality to enable development of policies to address this.
3. It can be used to monitor gender inequality over time.

The authors describe the process for calculating the GDI. They also outline a range of key issues with the GDI, and these include:

- Technical issues with weighting of inequality may result in measures which are not easily understood by those who are not specialists.
- While there is relatively good sex-disaggregated data for life expectancy at birth and education, there is little internationally comparative data for measuring women's standard of living.
- Equating higher female shares of income with gender-sensitive development is problematic, as this might represent women taking on double and triple burdens for work (and as a result, a reduction in

their welfare and rights). In other circumstances, access to paid work might be an important aspect of women's status. This highlights that the gains and losses associated with paid income might be context-specific.

- Gender equality cannot be understood using only one composite index and must be contextualized with a range of other qualitative and quantitative information.
- The GDI includes measures of both absolute levels of well-being and levels of inequality. This means that countries with low absolute levels of achievement but high gender equity will get a low score. When they compared the GDI with GDP per capita, the authors observed a high correlation, and argue that GDI scores tend to increase as a country gets richer. This occurs almost independently of the inclusion of a gender-equality measure. The authors argue that while absolute levels of achievement are important, they should not be combined with gender equality, and that consequently, the GDI does not measure the extent of inequality.
- Indicators for measuring absolute levels of human development might not be the most useful for measuring gender equality or inequality. The authors discuss each of the indicators used in the construction of the GDI, arguing that there are problems with their validity (see three points below).
 - (1) Women's earned income is determined by multiplying relative female urban wage by female share in employment. The authors note that the relative female wage does not take into account: rural earnings, earnings from the informal sector, earnings from subsistence activities, or intrahousehold distribution of income.
 - (2) In addition, data on average male and female wages was only available in 55 countries. The average female/male wage difference from these countries (75%) was then used for all other countries, resulting in problems with validity of the measure and a possible overestimation of female income. This measure also includes an estimation of female share of employment, but because there is no data available on this in many countries, it is based on an estimation of female share of the economically-active population that could be underestimated, because much of women's work is not included in these measures.
 - (3) A third issue is that intrahousehold income distribution is not considered, so even if women

earn income, they may have little control over it. Dijkstra and Hanmer argue that these three biases makes female share of earned income a poor indicator of women's standard of living.

- Life expectancy at birth is calculated in different ways depending on data available. In poorer countries, it may be estimated using infant and child mortality rates. While this might reflect the different values placed on girls and boys, this measure will not include information about impacts on life expectancy later in life, such as access to nutrition and risks of childbearing. In more developed countries where age-specific mortality rates are available, this data is used. This means that it is not possible to compare countries.
- In relation to education, adult female literacy rates and combined primary, secondary and tertiary school enrolment ratios are used. However, these indicators do not provide information on the quality or outcome of education.
- While time-use data is collected for some countries, this is not included in the measure, yet this has a significant impact on women's quality of life. It is also an improved way of measuring women's work.
- The GDI focuses on measuring inequality at individual points and does not enable examination of the relationships (including causal ones) between variables.

The authors propose and describe the method of calculation of the RSW index to overcome some of these issues, using the HDI indicators. This index compares the relative status of women to men; that is, it includes indexes for the relative achievements of women to men (female/male education index; female/male life expectancy and female/male rate of return to labour time). Like the GDI, this index does not include some aspects of gender relations, such as violence against women.

Following this, they propose and discuss a framework for an alternative index for measuring socioeconomic gender inequality. This framework aims to identify dimensions, variables and indicators of inequality that are most relevant for measuring gender inequality at any given time (and over time), and to indicate causal links. The framework is based on the idea that "human well-being, and also inequality of well-being has a *stock* and a *flow* dimension. The former is measured in appropriate units, while the latter is measured in appropriate units *per unit of time*". The "stock dimensions" (for example, assets) are the elements that will potentially flow onto

the "flow" dimensions (for example, income). Thus, the "stock" dimensions are the independent variables and the "flow" dimensions are the dependent variables. The dependent variables proposed are: income, health, and time use; and the independent variables are: land, physical assets, monetary savings, and education (a human capital asset).

19. Di Noia J. (2002). Indicators of gender equality for American states and regions: an update.

This paper illustrates the data and methods used by Di Noia to update the Gender Equality Index developed by Sugarman and Straus (1987). This index uses the concept of gender attainment, defined as "the degree to which members of a particular gender have achieved socially valued statuses such as education or occupational prestige." By state, American women's equality relative to men's is measured in the economic, political and legal spheres. All of the research used relative measures to determine women's level of equality. These indicators would probably not be as applicable in a developing nation.

Twenty four indicators are described. Those pertaining to economic and political variables were calculated as the percentage of gender attainment of women in each state as a percentage of the gender attainment scores of men in each state. Legal variables, such as the form of statutes (for example, the equal pay laws), were categorized as "present" or "absent", and were coded as 0 or 1. States were scored by the percentage of statutes present. Subscales from the three domains were combined and standardized to form the overall index.

20. Douthitt RA. (1994). "Time to Do Chores?" Factoring home-production needs into measures of poverty.

Douthitt critiques the use of income as a measure of poverty, arguing that many people living on low incomes (but above the poverty line) have to work so many hours that they have no time to perform the kinds of work at home (such as childcare, meal preparation and washing) required for the maintenance of a reasonable standard of living. She suggests that this is particularly an issue for single parents. The author uses the 1985 American Time Use Survey to estimate the inci-

dence of “time poverty” and discusses the policy implications of this analysis.

21. Doyal L. (2000). Gender equity and public health in Europe – A discussion document.

Doyal provides a comprehensive overview of gender equity and public health in Europe, including an outline of the trends and patterns relevant to health. In relation to data and indicators in the European Union (EU), she makes the following points: very little health data is disaggregated by sex; mortality data provides little information about patterns of health and illness across the life cycle; information on morbidity is limited at the EU level; and there is poor incorporation of the information that does exist into policy-making.

Doyal suggests a number of strategies for creating gendered public health information systems in the EU. The first of these is to make sex and gender a central part of the conceptual framework for the collection and analysis of data. In particular, there is a need for better collection of morbidity data across the life cycle to enable a better understanding of the differences between men and women in relation to mortality and morbidity. There is also a lack of disaggregated data on: morbidity associated with mental health issues (such as depression and anxiety); sexual and reproductive health; and gender violence. In relation to gender violence, Doyal suggests that each member country should develop ethical and culturally appropriate ways of collecting this information, and that this effort should be supported by the EU through the dissemination of information about existing good practices.

The second strategy is to develop information systems which recognize diversity in the measurement of gender and health status. In particular, information should be disaggregated by age, class, nationality and ethnicity. The third strategy is to measure health in a broader social context to enable examination of the links between individual behaviour and the circumstances that shape these behaviours, and the structural links between health and daily life. Finally, Doyal outlines a range of strategies for addressing the gender bias in medical research, for mainstreaming gender in policy and programmes, and for intersectoral collaboration for gender equity in health.

22. Drensted-Nielsen S, Luige T. (2002). Gender indicators and policies: linking statistics with policy initiatives

This paper reports on a project undertaken for the United Nations Economic Commission for Europe and the United Nations Development Programme to develop a common set of indicators to monitor the equality of women and men. The authors give an overview of the issues related to different sets of indicators developed to measure progress in gender equity in relevant areas worldwide. The set of indicators were divided into seven groups: population; families and households; work and the economy; education and communication; public life and decision-making; health; and crime and violence.

Key points made about indicators of population are as follows:

- *Ageing*: Data availability is good, particularly for indicators such as mid-year de facto population by age and population projection to 2025. More specific data is required on the impacts of ageing on women and men, and the implications on society of the gender structure of the ageing population.
- *Population decline*: Data availability is good, though the actual number of live births to mothers aged under 20 is often not available. The indicators reflect the population decline only from the aspect of decreasing fertility and live births, which overlaps with the indicators covering the topic of families and households. A longer time period is required to assess the effect of family policies based on these indicators.
- *Migration*: There are no indicators for migration. There is data on illegal immigrants, but no indicators or data on the gender differences in the reasons for migration and the conditions under which people migrate.
- *Refugees*: Women refugees are particularly vulnerable due to their specific needs, such as reproductive health and protection from violence. Approximately 50% of data available on refugees is available by age and gender and is only available in a limited number of countries.

Issues pertaining to indicators of families and households include:

- *Diversification of lifestyles*: Indicators include those relating to cohabitation, childbearing outside of marriage, rates of divorce and separation, and rates

of remarriage. Data availability is poor for indicators such as: children living in one-parent families by sex of parent and one-person households by age. Data is needed on: care arrangements for children; who takes parental leave; responsibility sharing within families; and the impact that small children have on men's and women's labour force participation.

- *Family size*: Data availability is good for indicators such as: abortion rate, fertility rate and population by age and marital status. Indicators such as the total number of one-parent families and children living in one-parent families have limited data availability. These indicators are criticized for looking at the outcomes and not the causes of decreasing family size. It is recommended that analysis should concentrate on: accessibility of child care services, the existence of adequate family and social policies, and reconciliation of work and family life.
- *Contraceptive information*: Data availability for indicators such as the number of persons using contraception is very poor, and data for the number of live births to mothers aged under 20 is often missing. However, the authors make the point that even when data is available, its quality is highly questionable. The definition needs to be improved and a more relevant indicator is suggested, such as access to contraceptive information, as the use of contraception is difficult to measure.
- *Gender roles and responsibility sharing*: Data for the indicator of time spent in paid, unpaid and other work is very limited. Except for time use, there are no indicators in this area.

Key points about indicators relating to work and the economy include:

- *Labour force participation*: There are a lot of indicators about labour force participation and type of work, and the data availability is generally very good. Data for the unemployment rate is always available but there are problems with different definitions and sources, and so are not always comparable between countries. Data availability is poor for the indicator of time spent per week in paid and unpaid work, and is very poor for the indicator of average annual earnings for women and men by level of education completed, with there also being a lot of criticism concerning data quality.
- *Labour market segregation*: Availability of data on the indicator of employment in public and private sectors is about 75% and does not show gender inequal-

ities. There is no data available on top executives in most businesses. These indicators have been criticized for not being detailed enough to analyse specific policy initiatives.

- *Unemployment*: Unemployment and employment rates both have very good data availability, about 95%, similarly for indicators such as long-term unemployment and long term unemployment rates by age, which also have good availability. However, more detailed data is needed to identify the critical issues for becoming employed (education, children, etc.).
- *Entrepreneurship*: There is very little data to reflect the effectiveness of policy programmes to support women entrepreneurs. Where there is good data availability for the indicator of persons in employment by status of employment as stated above, there is almost no data on top executives in important businesses. More data is needed on specific constraints for women in starting their business.

Issues related to indicators of education and communication include:

- *Availability of data on education*: The availability of data on education is very good, and provides a basis for further analysis. Data for the indicator of teachers by International Standard Classification of Education levels (full-time equivalent) is available, but needs to be more specific.

Key points about indicators of public life and decision-making are as follows:

- *Key positions in political decision-making*: In general, limited data is available in countries to assess gender equality in public life and decision-making. There is good data availability for the indicator of members of national parliament; however, availability for the indicators of government ministers, senior civil servants and members of municipal councils is about 60%, 50% and 50 % respectively. There is poor data available on voters and voting, as only a few countries have it broken down by sex.
- *Key positions in economic decision-making*: The lack of accurate and comparable data make this topic difficult to analyse. Again, there is no data on top executives in important businesses, and data availability on bank board members is about 50%.
- *Key positions in other areas (e.g. judiciary, education, and the media)*: Data availability for indicators such as heads of universities, judges, chief editors of na-

tional newspapers and journalists, is very low. While it is quite easy to get these data, it has not been considered important until recently.

In relation to indicators relating to health, the following key points were made:

- *Women and men differ biologically*: Data availability for indicators such as mortality rates are well reported from the World Health Organization; however, it is not sufficient to analyse policies in this area.
- *Gender differences in life style*: Data is available for some indicators such as life expectancy, disability-adjusted life expectancy and mortality rates, but there is no data for alcohol consumption and drug use. Suggested future indicators are proposed, such as: the number of mammography per female population, persons living with sexually-transmitted diseases, self-perceived health status, alcohol consumption, and regular/daily exercise.
- *Health problems specific to women*: There is good data availability on mortality rates due to different causes; however, there is little other data available with gender breakdown.

Key issues raised in relation to indicators of crime and violence include:

- *Perpetrators and types of crime*: There is a gap in the data on convictions of foreign prisoners for specific crimes in that it is often not available, nor is it broken down by gender.
- *Women against violence*: Again, there is very little data available, particularly for victims with breakdown according to type of crime.

23. Durbin E. (1999). Towards a gendered human poverty measure.

At the time of publication, the United Nations Development Programme did not publish a gendered Human Poverty Index (HPI). This paper argues that more direct measures of women's human poverty are possible using available data. Current non-income human poverty measures (in the HPI) include: short life span (proportion dying before 40), illiteracy (proportion illiterate), and decent standard of living (averaging three variables—access to health services, safe water, and malnutrition of children). The first two measures can be disaggregated by gender, but there are problems getting appropriate disaggregated data for the elements of

the third measure. For example, while it may be possible to get information about malnutrition of girls and boys under five, it is difficult to estimate access of males and females to health services and safe water, thus resulting in difficulty in gendering these elements of the HPI. Durbin suggests using other measures that reflect women's health status and access to health services (such as maternal mortality rates or infant mortality) and possibly their access to fresh water (such as the proportion of women living in more sanitary areas or the incidence of disease caused by unsafe water).

Durbin points out a range of issues with calculating composite indices, such as weighting issues and assumptions about the distribution of achievements (both between men and women and between countries). She also points out difficulties in gendering composite indices, and suggests that separate HPIs could be calculated for men and for women to overcome some of these issues.

Important dimensions of poverty are missing from the HPI, including access to land, credit, housing and social participation; and women's social position (indicators for the latter could include differences in marriage laws, availability of divorce, female circumcision and domestic violence).

Durbin argues for the development of a Gender Poverty Index for comparison to the HPI. She also argues for additional indices reflecting additional aspects of women's poverty, such as those mentioned above.

24. Eckermann L. (2000). Gendering indicators of health and well-being: is quality of life gender neutral?

Eckermann argues that traditional indicators of health measure quantity of life rather than quality of life. While measures of quality of life have been developed to measure people's subjective experiences, they still do not enable sufficient exploration of the impact of a range of variables, such as: gender, ethnicity, age, socioeconomic status, cultural background, rurality and sexual orientation.

Neither do they enable analysis of how these variables interact with each other or how they might change over time.

The author maintains that much epidemiology has used the idea of an androgynous "common-or-garden-variety" human body as the norm, and questions the use of data generated using this norm for the generation of public policy. While she acknowledges that gen-

der is just one element influencing a person's experience of health, she suggests that it is also a key "dimension of difference in health and well-being experiences". Consequently, she argues that all indicators of health and well-being should be gendered.

Eckermann discusses mortality, morbidity and social indicators, and the position of women compared to men as measured by these indicators. In relation to morbidity, she outlines others' arguments that women's higher morbidity rates could be due to the use of hospital and health service utilization statistics (and women's use of these services in developed countries for childbirth) and the (potential) explanation that women are more likely to seek out these services than men. She suggests that while there is an acknowledgement that people's social situation and health cannot be separated, there is no straightforward relationship between social indicators and traditional health indicators. In some cases, this might be because data aggregated to the regional, national or global level may hide big inter-group differentials.

While social indicators do point towards some possible factors influencing quality of life, they do not actually identify whether quality of life is experienced (that is, people's subjective experiences). To examine gender inequities, Eckermann suggests that we need morbidity, mortality, social and quality of life indicators which (are):

1. General for all people but are gender-disaggregated.
2. Gender-sensitive.
3. Gender-specific in non-reproductive areas of health.
4. Acknowledge the differences between different men and women (such as: race, ethnicity, age, class).
5. Deal with the specific reproductive health issues of women.

The author suggests that many social indicators (such as housing status) don't tell us much about whether quality of life is being achieved, and that more subjective social indicators need to be developed to enable this to occur. She also suggests that specific indicators should be developed for different groups and that subjective perspectives should inform the further development of indicators.

Eckermann generally supports the use of Disability-adjusted Life Years (DALYs) because they recognize the impact of morbidity and disability (and their social and economic costs), both of which have a big impact on the lives of women. Problems she identifies include: poor data; the framework in which the method is used

(the Global Burden of Disease Study) can limit the opportunities for methodological innovation; they are still largely based on an illness/absence of disease model of health; and health experts rather than consumers quantified health burden and attributed weightings to different states of disability and degree of loss estimates, thus excluding subjective ratings of loss.

The measurement of DALYs also does not include the social costs of disfigurement. Consequently, the Global Burden of Disease Report does not reflect the lived experience of people who are disabled and could be supplemented by use of quality of life measures, such as Quality-adjusted Life Years.

Quality of life measures include subjective assessments of well-being, satisfaction, and self-worth or empowerment, and attempt to measure people's positive experiences of health (moving away from the illness/lack of disease model). "Quality of life" however is a nebulous concept which is difficult to operationalize. There are over 100 different quality of life measures with different definitions and dimensions. Many have problems with reliability and validity, especially those based on the views of professionals about well-being, rather than the views of consumers. This is being addressed by having more consumers involved in developing them. In addition, very few quality of life measures are gender-sensitive or include gender-specific questions, and most are based on gender-neutral assumptions. Therefore, they are limited in reflecting the lived experience of women.

Two further points made by Eckermann are that good national statistics mask huge discrepancies in the health status of some groups, such as indigenous people, and an emphasis on women's reproductive health results in ignoring of health needs of older women and young girls.

25. (United Nations) Economic and Social Commission for Western Asia. (2002). ESCWA Role in developing gender statistics in the Arab countries.

This article reports the findings from a project that the Statistics Division of ESCWA initiated to support work on gender statistics in Arab countries. The aim of the project was to build national capacities in the production, use and dissemination of statistics related to gender that would promote action and monitor changes for the benefit of women. It provides a detailed methodology of the activities conducted, the strate-

gies formulated, and the deficiencies and weaknesses in gender statistics in the Arab region. It serves as a tool for future use by other countries who wish to incorporate the gender concept into their development programmes and policies.

A number of activities were carried out in three phases at the national and regional levels. At the national level, activities included the establishment of a steering committee, a national working group, and national workshops. At the regional level, ESCWA facilitated the network and exchange of information and experiences among participating countries, provided technical advisory services for the implementation of national strategies, disseminated regional gender statistics for comparison and conducted three training workshops to review best practices and progress in national gender statistics programmes.

At the second regional workshop, the participating countries proposed a series of national strategies in the following areas: capacity building (the sensitization and training of users and producers of gender statistics); study tours (to facilitate the sharing of knowledge from counterparts in the region); institutional agreements (it was recommended that gender statistics units be established within the statistical office of the country); concepts, definitions and measurements (a review of existing concepts and definitions related to gender issues in light of revised international standards and national requirements); and dissemination (publicity and dissemination activities include a national publication on women and men published every two to three years and the production of supporting material, such as brochures, pamphlets, fact sheets and wall charts).

The major deficiencies which countries participating in the project encountered during the implementation of the project included:

- Existence of stereotypes in the region with regard to the traditional roles of women and men.
- Lack of a clear understanding of gender.
- Problems with “gender blindness” (statistics generated tended to be gender-neutral).
- Lack of a centralized system of data compilation (some countries lacked such a system despite a central bureau of statistics).
- Lack of a unified set of statistical definitions and concepts in the region.
- Poor linkage between producers and users of statistics.
- Uneven coverage of statistical indicators related to the critical areas in the Beijing Platform for Action.

The project has been successful in a number of areas, including bringing the issue of gender statistics to public attention, building national capacities, and getting gender statistics prioritized on the national agendas and work plans of the participating countries. The methodology can be used as a guide for other countries to initiate similar project activities.

26. (United Nations) Economic Commission for Latin America and the Caribbean. (1999). Gender Indicators for follow-up and evaluation of the Regional Programme of Action for the Women of Latin America and the Caribbean, 1995–2001, and the Beijing Platform for Action.

This document provides a set of indicators developed on the basis of the measures recommended in the Beijing Platform for Action and the Regional Programme of Action for the Women of Latin America and the Caribbean, 1995–2001. These indicators can be used to follow up and evaluate regional and international agreements concerned with improving the situation of women and promoting gender equity.

Benchmarks are given for indicators to specify when equity is attained. For example, the indicator of gender gap among owner-occupiers in poor households is calculated by:

- (a) the percentage of women heads of households without partners who own the housing they occupy, minus the percentage of male heads of household without partners who own the housing they occupy;
- (b) the percentage of female owner-occupiers minus percentage of male owner-occupiers in families where both partners are present. Equality is attained when the indicator approaches zero, and negative values reflect the extent to which women are disadvantaged in relation to men in the two types of households.

Several new indicators are suggested, such as spending per woman on the prevention of violence. This is calculated by the amount of domestic funding for activities to prevent and punish violence against women and attend to its victims, divided by the number of fe-

males of all ages, expressed in dollars. The authors suggest that information be obtained on the existence of and budgets allocated to women's police posts, training of officials, victim assistance programmes, and advertising campaigns. Funding available for all of these should be converted into dollars/woman.

The following principles were incorporated into indicator development:

- Indicators were calculated separately for women and men.
- Indicators were constructed so that positive values reflect positive situations, and these values rise as the situation of women improves.
- Values correlating with optimum situations were calculated and a discussion of their limits of variation included so that enough is known about the value of an indicator to determine how close to/far from achieving equality between men and women is in a country.
- Indicators follow international conventions to increase the likelihood of comparability.
- Measurements will be undertaken annually or biannually.

27. Elder S, Johnson LJ. (1999). Sex-specific labour market indicators: what they show.

This article focuses on sex discrimination in employment and highlights the fact that although improvements have been made in women's working conditions and the legal environment for creating greater equity, questions as to the evidence of this improvement remain. In order to address the need for improved labour market information, 18 key indicators emphasizing gender issues were selected and data collected from as many countries as possible.

Labour force participation and employment-to-population ratios of men and women both have the potential for female employment to be undercounted. The employed population covers all types of employment situations, including those in which the people concerned do not perceive themselves as persons who "work" or are not perceived by others as "working". As more women than men are found in such situations, it is suggested that unless special measures are taken, there will be a greater tendency to underestimate the number of women in employment than the numbers of men in employment.

Another measurement issue that affects women concerns employed persons who did not work during the reference period when data was collected. For example, countries with legislation allowing workers to take extended leaves of absence while maintaining their jobs will have a higher proportion of workers absent from work for long periods. This often includes women who are on extended maternity leave.

"Employment status" definitions which identify only three categories of the employed (wage and salaried workers; self-employed workers; and contributing family workers/unpaid family workers) are prone to measurement limitations. This can be due to biased reporting or misclassification, whereby women may be reported as unpaid family workers even when they work on an equal footing as others in the family enterprise or farm. Therefore, as mentioned above, female employment status tends to be underestimated, as these activities are seen as an extension of their domestic responsibilities. The wide range of paid employment covered in this category has brought into question the comparable quality of female and male employment. For example, paid employment as a home worker differs vastly from that of a stockbroker.

Employment by sector also has the potential to underestimate the contribution of women. Women's contribution to agriculture may not be as apparent in many countries as statistics may only cover urban areas or paid employment in the formal sector. As a result of this limited coverage, the contribution of women (and men) in agriculture and small enterprises will tend to be underestimated. Furthermore, the activities of workers engaged in subsistence and other unpaid work, in which women are more numerous than men, may also be underreported.

Two measurement issues may have an impact on the number of women and men identified as belonging to the informal employment sector. The first relates to the activities explicitly excluded from the scope of the informal sector in the international definition. These include:

- (a) those activities carried out by enterprises exclusively engaged in production for own final use (i.e. all persons who produce goods for the consumption of their own households);
- (b) paid domestic activities carried out by maids, drivers and gardeners in private households;
- (c) activities of home workers with paid employment jobs, when their employer belongs to the formal sector.

These activities fall in a grey area between informal and formal employment, and since women are usually more likely to be engaged in one of the three forms of employment outlined above, their exclusion decreases the number of women identified as belonging to the informal sector.

The second limitation relates to data collection. Due to informal sector employment often operating illegally, there will be a certain amount of underreporting that is inevitable, even in statistical surveys where confidentiality is promised. There is also a risk of under enumerating the informal employment sector, as people surveyed tend to discount their economic contributions when it occurs in “invisible” or small-scale economic units. Special data collection strategies are suggested in order to identify female informal sector workers properly.

Again, measurement issues are also evident in the extent to which men and women are included in unemployment measures. The stipulation that workers be available for work during the reference period creates problems, as this short period excludes those who need to make personal arrangements before starting work, such as childcare or housing. This problem has been acknowledged by countries which have attempted to solve this problem by extending the “availability” period to the two weeks following and including the reference period. However, women are more likely to be excluded from unemployment as this period is not long enough to consider the constraints which are more likely to affect women.

28. Edstrom J. (1992). Indicators for women's health in developing countries: what they reveal and conceal.

This article discusses the indicators for women's health with respect to maternal morbidity. It focuses on areas of health care that are specific to women, and that affect their lives more directly than those of men. Gender differentials in age-specific mortality rates in developing countries are most prevalent in the reproducing age groups and early childhood, when women suffer excess mortality over men. The article argues that women's health generally needs to be broadened, not only from maternal health care to reproductive health (including family planning, fertility and abortion issues), but also in a more holistic way, including socioeconomic and cultural issues.

Different indicators which were found to be cor-

related with maternal mortality when in isolation include: poverty, proportion of childbirths attended by trained health staff, proportion of total population living in urban areas, total fertility rate, contraceptive prevalence, and proportion of relevant age group of girls enrolled in secondary education.

The question is raised as to whether maternal mortality is the most appropriate indicator of women's health. Although fertility has a direct influence on maternal mortality, Edstrom argues that it does not consider the socioeconomic and cultural linkages between fertility and women's well-being, and in doing so, does not capture the full medical risk which women face in their reproductive role. The maternal mortality rate is defined as the number of deaths per 100 000 live births (within one year on average), which means that it reflects the risks associated with individual deliveries. Edstrom argues that maternal morbidity fails to take into account the fact that the number of pregnancies and deliveries a woman goes through alters the overall risk she faces. Instead, the concept of “lifetime risk” is argued to capture this, as it takes into account both the risk of individual childbirths and the average number of children women produce in a lifetime. Thus, lifetime risk could be a more useful all-round indicator of women's reproductive health than maternal mortality, not only because it captures the interrelationship between fertility- and pregnancy-related mortality better than the maternal mortality rate does, or because it accentuates regional differences and intertemporal trends, but primarily because it treats the woman rather than the birth as the subject. That is, it measures the full risk of death faced by the average woman in her capacity as the bearer of children, rather than those associated with the process of giving birth.

29. Ford Foundation Reproductive Health Affinity Group Indicators Committee. (2002). Critical areas, issues and topics in sexual and reproductive health indicator development: an annotated bibliography.

An annotated bibliography providing references to sets of indicators used to assess women's reproductive rights. The paper provides information on widely used indicator sets and more recently developed indicators, including those for monitoring implementation of the Beijing Platform for Action. Key indicator topics for reproductive health included are: family planning, safe

motherhood, abortion and post-abortion care, reproductive tract infections and sexually transmitted diseases, HIV/AIDS, youth sexual and reproductive health, male involvement in sexual and reproductive health, and sexuality.

Indicators on broader aspects relating to sexual and reproductive health also included are social context/culture, health sector reform, and migration. In addition, a range of indicators and frameworks for women's empowerment are included. These focus on gender equity, rights, education and violence against women.

30. Forrester D, Harwin J. (2000). Monitoring children's rights globally: can child abuse be measured internationally?

The United Nations Children's Fund is developing indicators to measure the compliance of signatory states to the United Nations Convention on the Rights of the Child (1989). Signatories to the Convention must present reports to the United Nations to demonstrate their compliance. Currently, the terms used within these reports have not been adequately defined. For example, signatories are asked to report on the rates of children without "an adequate standard of living" even though this indicator is not defined. Subsequently, the definition is left to the discretion of the respective signatories, reducing the quality of the reports in addition to impeding any international comparison. Also, these reports do not contain the more impartial opinions of nongovernmental organizations. Forrester and Harwin question whether child abuse can actually be measured internationally. The authors conclude that currently no effective measure exists.

31. Fukuda-Parr S. (1999). What does feminization of poverty mean? It isn't just lack of income.

Fukuda-Parr, co-author of the Human Development Report (HDR) since 1995, questions the merits of measuring female poverty through income, arguing that the concept of "human poverty" rather than "income poverty" is more useful when considering gender. Currently, the proportion of female-headed households whose income falls below the "poverty line" is generally used as a measure of female poverty. Fukuda-Parr argues that this method is inaccurate, as in many Asian

and African countries, while there is no difference in poverty (on this measure) between male and female-headed households, it does not mean that women aren't poorer than men. Rather, it indicates that the measure is inadequate, as it focuses on incomes and on the household as a unit, ignoring intrahousehold disparities. An alternative framework, focused on human outcomes and disaggregated data, is proposed.

The framework proposed is based on the definition of human poverty as: "the denial of opportunity and choices most basic to human life—the opportunity to lead a long, healthy, and creative life, and to enjoy a decent standard of living, freedom, dignity, self-esteem, and respect from others" (HDR, 1997). This definition highlights that poverty is not only lack of material wealth, but also of opportunity and choices, and measures of these latter elements should be included in indicators. Some relevant non-income indicators were developed for the Human Poverty Index (HPI) which were included in the 1997 HDR. These indicators covered four dimensions: survival, knowledge, decent standard of living and social participation. However, the HPI is not disaggregated by gender and Fukuda-Parr suggests that it would be useful to either build a gender measure of human poverty (or use other data) for the HPI to enable disaggregation; or, make an adjustment to the HPI to take gender disparity into account.

Not all aspects of human poverty can be directly measured; these include: political freedom, personal security, reduced choices, and exclusion from power and decision-making. In addition, the same poverty measures are not easily applied in countries with very different socioeconomic conditions, such as Canada and Sierra Leone. To account for this, a second HPI was developed for industrialized countries using the same four domains, but with different measures.

Commenting on other ways of measuring poverty, Fukuda-Parr notes that participatory rural appraisals: tend to provide rich qualitative data but do not quantify poverty very well; are more focused on local and community levels; and are less useful for regional or national level analyses.

Composite indices such as the Gender Development Index and Gender Empowerment Measure are useful because they show up the disparities between women and men.

32. Gomez E. (2000). Integrating gender and ethnicity issues in monitoring health equity.

Gomez discusses her work in the context of a meeting on “equity gauges” [see Health Systems Trust. (2000), this bibliography]. An equity gauge “is an approach to promoting equity which includes monitoring of key indicators, coupled with advocacy and community participation to ensure that information is acted upon”.

Gomez argues that analysis of health equity issues – either by advocates, policy-makers or researchers – is incomplete if it does not account for the roles gender and ethnicity play in inequality. She also suggests that indicators of ethnicity and gender have either been ignored or subsumed under economic categories. Ethnicity and gender interact with economic factors to compound inequality in health; for example, poverty disproportionately affects women. Equity in health should be derived from principles of social justice and human rights and result in minimizing avoidable disparities in health and its determinants. This article highlights the biological, economic, systemic and political causes of gender inequality, and is a good source of points to be considered in an equity framework. However, it does not provide a set of indicators, but rather a framework for developing them.

Gomez outlines the Pan American Health Organization’s five-angled approach to health, which is underpinned by the following principles:

1. Avoidable disparities in health service.
2. Allocation of health care resources according to need.
3. Utilization of appropriate health care services according to need.
4. Payment for health care services according to ability to pay.
5. Distribution of power and responsibility in health production.

She includes a discussion of key issues to be considered if each of these principles is to be put into practice in ways that increase gender and ethnic equity.

Gomez identifies a range of difficulties in monitoring gender and ethnic inequities. These include: lack of disaggregated information; cost of disaggregating data; reluctance by authorities to admit discrimination; disenfranchised women often have difficulty demanding social justice from public and private sectors; and lack

of leadership for establishing participatory processes for policy implementation and monitoring.

Strategies for improvement (adapted by Gomez from *Braverman*) include: identify a minimum set of avoidable gender disparities to be monitored; find sources of disaggregated data; select or construct simple and appropriate indicators and identify information gaps and needs; develop a process for involving women’s groups, researchers and policy-makers in all aspects of the work (including adapting indicators, identifying current patterns and trends, identification of policy implications, development of priorities and policies to address these); and develop a strategic plan which incorporates all of these activities and ongoing monitoring and research.

33. Hartigan P. (2001). The importance of gender in defining and improving quality of care: some conceptual issues.

Hartigan argues that work on improving quality in health care services has largely focused on technical aspects of care at the expense of examining the more relational aspects of care, such as the way consumers and providers perceive the care required and the care received. She defines “quality” as a relative concept, influenced by complex social determinants (one of which is gender), which has generally been defined only by service providers and managers.

Gender is not only relevant to the socially constructed relations between men and women but is:

...institutionally structured, as it refers not only to the relations between the sexes at the individual personal level, but also to a complex array of values and norms that permeate organizational systems, such as the health system... [it] is not a variable that can be isolated and manipulated. It is a fundamental organizing principle that is modified by time, culture and socioeconomic groupings.

The intersection of gender with other aspects of disadvantage, such as poverty, usually results in women being more disadvantaged than men in the same group.

Intersections between the way gender is constructed and biological sex differences create different health issues, situations and problems for women and men. Developing an understanding of this among health professionals is more likely to result in more effective and equitable health services.

Access to responsive health services is considered a key element of quality. Five aspects of access are: availability (existence and sufficiency of services); affordability (ability to pay); accessibility (location of population and services, transportation and opportunity cost); accommodation (service's adjustment to the time and communication needs of clients); and acceptability (fit between the service and the individual client or community).

Hartigan suggests that accommodation and acceptability are particularly influenced by gender.

Most of the work done on gender equity and health has focused on the impact of gender inequities on women's health, rather than the impact of gender on quality of care (for example, the difference in the quality of care received by women and men attending the same clinic). Neither has much work been done on the impact of gender on health workers; that is, how gender differentially affects the health workforce. Hartigan refers to an earlier article by Pittman and Hartigan (see summary in this bibliography) that identified four aspects of research on gender and quality of care. These were: differences in providers' attitudes towards male and female patients; differences in the ways health care providers act in caring for men and women (this includes in decision-making, information exchange, diagnosis, treatment and follow-up); differences between male and female service providers' attitudes towards patients; and appropriateness of male or androgynous norms and associated protocols for treatment of women (this extends to critiques of resource allocation for research and the androcentric biases in medical research).

Hartigan notes the importance of distinguishing between inequality and inequity. She defines "equality" as being determined by the biological or natural, unavoidable differences between men and women. "Equity" on the other hand, is defined as differences that are avoidable and constructed through complex social relations. Not all inequalities in health are inequitable (for example, the fact that women get cervical cancer and men don't because of biological differences). Issues of equity arise through the intersections of biological difference and socially constructed relations (for example, if women are at greater risk of getting cervical cancer because of poverty or because of inability to prevent risky sexual behaviour). Following from this, Hartigan reminds us that inequity may be greater between women from different groups than between poor women and poor men, and that that it is impossible to make generalizations about what is specific to one group of men

or women or what is common to all men or women. To avoid differences in health outcomes, the different needs of men and women must be addressed.

Three examples of the differences between equality and equity in health are outlined. Inequity can result when: equal treatment is provided for men and women when their gender needs are different (an androcentric or "gynocentric" response); different treatment is provided for men and women when the need is not different ("gender polarization"); and care is provided in a way that reinforces gender stereotypes which have an impact on health and reinforce gender inequality.

Hartigan suggests training of health service providers about the ways gender influences the "health-illness-care" process, and about how gender influences the way they live and work.

34. Health Systems Trust. (2000). Equity gauge: an approach to monitoring equity in health and health care in developing countries.

This article outlines the concept of an "equity gauge" as: "... an approach to promoting equity which includes monitoring of key indicators, coupled with advocacy and community participation to ensure that information is acted upon".

An equity gauge focuses on measuring and monitoring agreed indicators for a particular issue and is a way of tracking gaps in health status at the national and sub-national levels. It has five key components:

1. A basic organizing principle is fair distribution.
2. Participation of key health system stakeholders in the development and implementation of projects.
3. Community ownership.
4. Technical component (indicators and measures) are valid, reliable and sustainable.
5. The work informs decision-making and is timely, user-friendly, accessible and takes the different levels of awareness and demand within countries into account.

The key issues and challenges for equity gauges relate to technical methodology, advocacy, and community involvement. In relation to technical issues, these include: there is a need to have a well-defined purpose and a small number of indicators agreed through consultative processes; where possible, use simple measures and existing data sets; there are many challenges in par-

ticipatory processes and development of non-traditional indicators; and to effectively inform policy development, gauges need to be of high quality.

Key issues related to advocacy include: the need to understand the relevant social and political context; the importance of exploring different models for involving key stakeholders and engaging them early in all stages of gauge development; sustaining partnerships; identification of policy levers and important elements for action; providing the community with feedback about findings; and making sure that it is not only those who are the most well-off benefit.

In relation to community involvement, the following points were noted:

- The scope of the gauge and the level at which the gauge operates will impact on the extent of community participation possible.
- Resources are required to enable community participation.
- It is important to recognize that communities may be based in a place (or may be a community of) interest.
- More attention needs to be given to the presentation of complex information to communities and their capacity to mobilize.

This article summarizes the key features of 14 gauges, and includes the one outlined by Gomez (2000) on gender and ethnicity included in this bibliography.

35. Hunt J. (2000). Understanding gender equality in organizations: a tool for assessment and action.

This paper sets out a framework for assessing the gender equality in organizations under the following headings: organizational mandate; policy on gender and development or gender equality; commitment to gender equality; organizational structure; programmes, projects, activities and procedures; building capacity/ a learning organization; personnel management practices; organizational culture; organizational context; sex-disaggregated employment and profile.

Questions to assist with assessing the gender equality within organizations are provided under each of these headings. These questions could form the basis for indicator development.

A set of suggestions for building the capacity of organizations to become more equitable is provided in the following areas: personnel management, training,

participation and consultation strategies, and negotiation.

36. Hussain TM. (1999). Indicators for gender equity: taking measures of women's lives in rural Bangladesh.

Through the analysis of the Bangladesh Demographic and Health Survey (Mitra et al., 1994), Hussain investigates how nongovernmental organizations and micro-credit schemes have changed Bangladeshi women's lives, resulting in greater access to education, reproductive choices, credit sources, as well as women having more control over household expenditure. Hussain found that loan schemes and women's empowerment programmes had improved many aspects of women's lives, from physical autonomy to attitudes to family planning. This report provides social indicators which measure factors that have a profound impact on women's lives. These include: education (highest level), membership of community organizations, access to credit schemes, autonomy (the ability for women to leave the household unescorted), reproduction choices (e.g. are women able to decide on child numbers), and income spending discretion.

37. Jara L. (2001). Experiences with analysis and monitoring of gender equity in health and development: experience in Ecuador.

This paper describes the work of the National Council of Ecuadorian Women to have a gender perspective—based on the real conditions of women—built into policy development at the national and municipal levels. Towards this end, the Council has developed an information system with gender indicators to enable: the identification of gender inequalities and issues, monitoring of activities, evaluation, and analysis of the impacts of policies on women's lives. The information system has three key areas, each with relevant indicators which are described in the paper. The three areas chosen were based on the different roles of women: the private sphere (including demographic, home and family issues); the public sphere (including women's participation in the labour market, income differences by gender, and education); and social equity or distribution of social well-being (including health and disease, vio-

lence, women's participation in government and political posts, access to housing and land).

The Council is working with government institutions to improve data collection and analysis.

38. Kabeer N. (1999). Resources, agency, achievements: reflections on the measurement of women's empowerment.

A useful overview of the difficulties in understanding, defining and measuring empowerment is provided. For the purposes of this paper, "empowerment" is defined as: "the process by which those who have been denied the ability to make strategic life choices acquire such an ability". There are three aspects to measuring empowerment: resources/preconditions (access and future claims) to material, human and social resources; agency (processes of decision-making, and other factors like negotiation, deception, manipulation); and achievements (well-being outcomes).

One key issue with the measurement of empowerment is that, given the same circumstances, different people will make different choices. A means of getting around this is to identify functions most likely to be "universally valued", such as proper nourishment, good health and adequate shelter—because any gender differences in these factors are more likely to be evidence of inequalities in underlying capabilities (resources and agency) rather than differences in preference. The problem with this approach is that it tends to equate disempowerment with scarcity and poverty (i.e. basic functioning domains) and misses social restrictions on women who are better off. It also excludes elements of gender disadvantage outside basic functioning for women who are poor (for example, there may be no income or consumption disadvantage between women and men in a given community, but women might have to work harder or be subject to violence or male domination).

The authors note that the United Nations Development Programme Human Development Index and Gender Empowerment Index both attempt to overcome these obstacles by measuring broader achievements (such as women's political representation) over time. In relation to empowerment, the problem with this is that it moves away from measuring women's choices (and the values important to their communities) to measuring achievement—which is generally defined by those doing the measuring. A second prob-

lem with measuring achievement is that, given a choice, some women will choose an option that impacts negatively on their well-being and the well-being of other women. The authors suggest that this is because the operation of power within existing social structures may mean that women may not be able to "imagine" making other choices. Therefore, in measuring achievement, it is not only important to consider whether women have the resources to make choices, but whether the choices are "conceived to be within the realms of possibility".

Different studies of women's empowerment have focused on different dimensions of empowerment, how they conceptualize power (as a characteristic of individuals or of structures), and how they view social change.

Measuring resources should be the simplest of the three domains described (resources, agency, achievements). However, access to resources represents "potential" choice, not "actualized" choice, and the capacity to actualize choice will depend on the context in which women live. Attempts to measure the capacity of women to actualize choice have used "bridging concepts" (i.e. that bridge the gap between access to resources and actualized choice). The most common of these is "control" (such as having a say in use of household resources, control over resources, control over aspects of their lives, control over choice, decision-making, ownership). The concept of control is difficult to define and tends to be used interchangeably with access, ownership and entitlement.

Measurements of agency include those for both positive and negative agency. Women's mobility in the public domain and participation in public action are examples of the former, and male violence against women of the latter. The most commonly used are measures of "decision-making agency" that are generally based on asking women questions about their roles with respect to specific decisions. Some examples of these are: household budget, purchase of household items, children's education, children's health, number of children, and the decision of women to work outside the house.

However, not all of these indicators have equal strength in measuring women's empowerment as they don't all have the same "consequential significance" for women's lives (that is, some represent the decision-making domains commonly associated with women in their capacity as wives, mothers and daughters, and do not have the same consequence for women's lives as strategic life choices; for example, those which are often the decisions that men are more likely to make). The author argues for consequential significance to be taken into

account in indicator selection. In addition, she argues that it is important to identify at what “critical control points” women participate in decision-making—where “control is defined in terms of the consequential significance of influencing outcomes at different points”. For example, do women participate in the “control” or policy-making decisions, or only in the “management” or policy implementation decisions? In addition, women often exert “informal” (or behind-the-scenes) power in decision-making, which enables the appearance of social norms with respect to roles to be maintained and, consequently, statistics may underestimate this informal exercise of power.

In relation to measuring achievement, Kabeer argues for the importance of distinguishing between what she calls “effective agency” and “transformative agency”. Effective agency is when women become more able to achieve those tasks contingent with gender roles (such as achieve the survival of children). Transformative agency is when women are able to act against prevailing practice or change prevailing gender relations (such as the achievement of increased survival of girl children in countries where girl children are undervalued).

Kabeer suggests that the three domains of women’s empowerment (resources, agency and achievement) are “indivisible in determining the meaning of an indicator and hence its validity as a measure of empowerment” and consequently, she argues for the triangulation of indicators against each domain to identify whether each indicator means what it is postulated to mean and to enable an understanding of women’s empowerment.

Finally, it is argued that indicators of women’s empowerment must be sensitive to the ways context will shape the process of empowerment, and developers of indicators should be sensitive to the assumptions and values they bring to definitions of empowerment.

39. Kim Y. (2002). A summary: gender indicators for the regional implementation of the Beijing Platform for Action.

This paper outlines the development of a set of indicators to monitor the implementation of the Beijing Platform for Action (BPA) in the Asia Pacific Region. Development of such indicators was specified in the BPA. The author notes that while some progress has been made, there are also some areas where inequality is increasing and where new challenges are emerging

(such as new types of armed conflict, and trafficking in women and girls).

Regional and intercountry differences provide challenges in monitoring the implementation of the BPA, and indicators should reflect variances. Indicators should provide accurate measurements of changes occurring over time and enable comparisons between countries and, where relevant, compare the situation of women to men (or the gap between them). Some of the indicators developed are women-specific (absolute position of women at points in time), some refer to measures that would need to be implemented to improve women’s positions, and some refer to results required for gender equality to be achieved.

This paper is concerned with quantitative indicators which can be developed using available data. Kim emphasizes that while indicators attempt to provide an accurate description of a situation, they will always be measuring the outcome of “a synthesis of situations that are generally far more complex”, and that they generally do not measure a range of issues related to women’s subjective experiences. She notes that subjective indicators are useful for providing this information.

This paper includes a useful discussion on the key areas identified in the BPA: poverty; education and training of women; women and health; women and armed conflict; women and the economy; women in power and decision-making; institutional mechanism for the advancement of women; human rights of women; women and the media; women and the environment; and the girl child.

There are a number of obstacles in developing gender-sensitive indicators that are still not solved, despite considerable work being done on them. These include issues of measuring women’s economic work, of defining households, of gender biases in statistics, and of political influence on social indicators. Potential causes of gender biases in statistics and indicators include that: cultural stereotypes (such as assumptions about women’s work or that men are the heads of households) impact on survey design, data collection and processing, and the way the results are announced; data is not gender-disaggregated; and male-oriented assumptions about women and definitions that leave out women (such as definitions of work) result in lack of accurate reflections of women’s situation.

In addition, much work on gender-sensitive indicators has been done by collecting and compiling existing information – complete with its biases – rather than developing new structures to build gender-sensi-

tive indicators. This has also resulted in an imbalance in the number of indicators and the areas they cover. Inconsistent data collection over time has resulted in data which is not useful for time series comparisons. Kim suggests producing data from the beginning and undertaking research in areas where information to inform indicator development is lacking (such as focusing on the girl child or human rights) as a way of addressing these issues, and suggests the BPA as a useful framework for this. She also suggests developing more qualitative indicators.

A total of 144 indicators were developed to monitor and evaluate implementation of the BPA in each of the key areas outlined above, in addition to institutional mechanisms and financial arrangements. Indicator development was influenced by available data and the clarity of recommendations in the BPA.

Kim identifies a range of issues relevant to developing indicators in the 12 areas for action (plus institutional mechanisms and financial arrangements). The issues directly focused on indicators are outlined below:

- *Women and poverty*: There is limited data available, and more work to develop criteria, indicators and methods to ensure all forms of poverty are recognized, is critical.
- *Education and training of women*: Notes that a year of education in different countries might be qualitatively different, resulting in limited years of education as a comparative indicator questionable. Adult literacy may be a better indicator than enrolment, as it reflects a level of completed schooling. Interpretation of the definition of literacy may also vary among countries.
- *Women and health*: Life expectancy, maternal mortality and percentage of women with anaemia remain important indicators because in many countries, women are still not assured of basic well-being. Maternal death or abortion should be used to indicate dangers of childbearing. Alcohol and tobacco consumption should be included as there is an increase in the number of women drinking and smoking. There is a need for greater attention to women in medical research.
- *Violence against women*: Domestic violence is often regarded as a private issue and statistics are often not collected or under represent incidence. Stigmatization of women survivors of sexual violence can result in women not reporting crimes.
- *Women and armed conflict*: Difficult to develop indicators because it is difficult to quantify.
- *Women and the economy*: Difficulty in measuring women's contribution to the economy makes indicator development difficult. Work in the informal sector is often seasonal, illegitimate, unrecognized, small-scale and unstable, and consequently, uncounted. Similarly, women's unpaid work in their spouse's businesses can also be uncounted. In addition, definitions of unemployment often exclude those who have given up actively looking for work because they have no hope of getting a job (Kim suggests relaxing the criteria of "seeking work"). She also suggests including "parental leave" and payment while having this leave as an indicator of the degree of responsibility a society takes for childcare. In addition, there are few statistics on the male role in the family and fatherhood.
- *Women in power and decision-making*: There can be considerable differences in the power of different portfolios in government (such as between the president and prime minister or between different ministers), which means that the relative positions of power can be obscured in counts of women in government. Where people have multiple ministries, Kim recommends that the most important is measured, as counting multiple ministries can result in double-counting the number of women.
- *Institutional mechanism for the advancement of women*: Importance of developing gender-disaggregated statistics to inform policy development.
- *Human rights of women*: Legal protection of women's human rights and legal literacy education are important indicators of the status of women's rights because unless women know about their legal entitlements, they are unlikely to access them. There also needs to be indicators of change at three levels—the law itself, the legal structure (at the level of institutions) and the culture.
- *Women and the media*: Focuses on women's access to, utilization of, and participation in the media.
- *Women and the environment*: Focuses on involvement of women in the environmental field and gender analysis of environmental policies.
- *The girl child*: While this area overlaps with others, it focuses on whether a country's legal and institutional system favours boys over girls. Indicators include: gender ration of births, education and health levels of girls, legal acknowledgement of inheritance rights of female children, and legal protection against violence and exploitation (girl's human rights).
- *Institutional mechanisms*: Focuses on whether na-

tional plans for action have been put into place and whether funds have been made available and implementation is monitored.

- *Financial arrangements*: Focuses on the budget available for expenditure on improving the lives of women. Kim notes that it is very difficult to get accurate information on finances and expenditure, so the indicators focus on gender analysis of the budget and existence of gender budgets.

40. Licuanan P. (1999). Monitoring and evaluation strategies for the empowerment of women.

A review of the monitoring and evaluation efforts of the 41 member countries of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP) against the Beijing Platform for Action (BPA) is presented. This paper provides: a general discussion of monitoring and evaluation; summarizes progress in monitoring implementation of the BPA; discusses the state of sex-disaggregated data collection and analysis; comments on improving reporting structures; and discusses measures for strengthening monitoring and evaluation against the goals of the BPA.

This paper identifies that key gains since Beijing have included governments developing policies endorsing the BPA and the establishment of national machineries for the advancement of women. The progress of ESCAP member countries against the BPA's 12 key areas (women and poverty, education and training of women, women and health, violence against women, women and armed conflict, women and the economy, women in power, institutional mechanisms for the advancement of women, human rights of women, women and the media, women and the environment and the girl child) are reviewed.

Key issues relevant to measuring progress and indicators identified include:

- The usefulness of “substantive monitoring” (which includes more detailed information about the contexts of women’s lives, rationale for activities undertaken, and relevant issues and results) compared to monitoring which simply reports against activities.
- The presence of factors that could be measured by risk indicators which “signal either mismanagement of operations, threats, and/or any barrier to the effective implementation of any given action”. The example given is privatization of health services, re-

sulting in reduced accessibility and affordability of health care.

- The importance of nongovernmental women’s organizations in enriching and challenging the content of government reports, and the importance of regional cooperation and collaboration among women’s groups and nongovernmental organizations (NGOs) in developing indicators for better monitoring.
- The importance of “mainstreaming” gender statistics, because while data on men and women are often collected at a national level, they are often not published as sex-disaggregated statistics (which can lead to duplication of data collection to get gender-disaggregated information). Suggested strategies for achieving this are increasing the gender sensitivity of statisticians, and involving data users and researchers in development and review of statistical systems.
- Need for capacity building in monitoring and reporting structures, improved coordination between government departments, and between government departments and NGOs. Other issues include reporting overload for agencies and local governments and lack of feedback about how the data is used, which results in diminishing interest in providing the data. Strategies to address this include rationalisation of reporting requirements and reduction of the frequency of reporting.

In relation to measuring against the specific criteria in the BPA, the following issues were identified:

- *Paid and unpaid work*: A lot of resources are required to develop new ways to measure women’s work. Some of the strategies being adopted include: surveys of time use, child labour, homeworkers, and urban and informal sectors.
- *Poverty and access to resources*: There is no standard methodology among ESCAP countries for measuring poverty, and poverty statistics are often not reported by sex. Many countries have statistics on levels of absolute poverty (proportion of the population or families having incomes or expenditures below a certain threshold) with different countries estimating the threshold in different ways. Suggested strategies for improving measurement of poverty include: development of non-monetary indicators (such as minimum basic needs indicators), community participation in indicator development, and inclusion of socio-demographic characteristics of poor and non-poor households.

- *Access to comprehensive sexual and reproductive health services, maternal care, family planning (with special priority to adolescent mothers and the elderly)*: Indicators in this area have focused on women as mothers rather than the health of women in general.
- *Violence against women*: Most information comes from organizations working with survivors of violence, and cultural norms prevent many women from reporting violence or seeking services. A second source is statistics of crimes against the person, and these may not reflect violence against women due to lack of gender sensitivity of those responsible for data collection. This points to the need for new and innovative ways of collecting information about the extent and types of violence against women, such as women's safety surveys or identification of spousal violence through hospital records.
- *Women and men with disabilities, including their access to resources*: Most of this information is collected through organizations providing services to people with disabilities. There have been some attempts to collect this information through census, but a key issue is that census collectors may not be able to identify people with disabilities other than those with obvious physical ones.
- *Sharing of power and influence in society (including number of women and men in senior decision-making positions in both public and private sectors)*: Statistics are often provided by bodies supervising elections. Only a few countries report on women's involvement in the election process (voter turnout, candidates and winners of elections). There is also lack of information about women employed in the civil service and women's participation in organizations, such as unions.

The author proposes a gender-sensitive monitoring index that contains three types of indicators for the 12 critical areas in the BPA. These are: enabling/input indicators (resources committed to implementing policy); performance indicators (combination of activities and associated outputs); and progress indicators (distance from/nearness to specific outcomes or targets).

She argues for the need to develop innovative indicators to systematically measure the psychological changes that occur for individual women and groups of women as they participate in processes that are empowering, and proposes such indicators in each of the 12 critical areas. Additional psychological indicators of empowerment (such as subjective well-being, happi-

ness, self-esteem, locus of control, empowerment and social-psychological growth) are also suggested.

41. Luxton M. (1997). The UN, women, and household labour: measuring and valuing unpaid work.

The central thesis of this paper is that the way women's work is measured and valued will have implications for policy development. Luxton outlines critiques of the United Nations Systems of Accounts which failed to measure unpaid work). She also notes that there is an extensive literature on time use studies, and that some authors claim that time use surveys are as useful in assessing unpaid work as money is in assessing paid work. Luxton agrees that these studies do allow the calculation of statistics and correlations to compare time use of large groups of people and enable the development of different perspectives on changing divisions of labour. However, she argues that there is a range of limitations to time use surveys, including that they do not allow in-depth examination of work or the complexity of women's roles. In addition, questions on time use studies tend to limit the information obtained, and people may be asked to nominate their primary activity at any one time, so that anyone performing multiple activities at once (such as childcare and doing the washing) has to nominate only one of these for a given time period. (Cited studies indicate that this generally results in an underestimation of time spent on childcare.) In addition, those women who have the heaviest workloads are those least likely to have the time to participate in studies. There is also a lack of appropriate and commonly used language for discussing domestic labour.

Time use and childcare diaries may overcome some of these problems. For example, time use diaries do not ask pre-determined questions and may enable women to record doing more than one activity at a time. Childcare diaries, where people write down exactly when they are looking after children, can be used to better calculate time spent looking after children. Other methods, such as in-depth interviews or participant observation, are useful, but often the number of women who can participate means that not enough data can be collected to enable comparability. Some researchers have argued that a combination of time use surveys, diaries, interviews and participant observation would be the ideal.

Luxton critiques the use of time as the dominant measure, and argues that this hides some of the ine-

qualities between women and men and some of the “oppressive characteristics of women’s unpaid work”.

- Firstly, she points out that for paid work, hours of work are generally agreed, while domestic work is task-oriented. However, the time taken for tasks can vary each time they are done and the frequency with which they are done can also vary.
- Secondly, in paid jobs, there are often guidelines or regulations about how to perform tasks which are not available for informal domestic work, which means it may be more difficult to estimate time spent on tasks.
- Thirdly, often people doing domestic labour don’t pay a lot of attention to how much time different tasks take and can underestimate the amount of time spent on activities they do often, or not consider some of the tasks done automatically, or not consider some tasks that they may not consider to be difficult or to be “work”.
- Fourth, measuring time means that those who work more slowly and/or inefficiently (or simply have more time to spend on tasks) can appear to have the greatest workload.
- Similarly, the use of time doesn’t enable estimation of the qualitative differences in the way tasks are done. For example, simply watching children to make sure they don’t get hurt without attending to their other needs, such as changing nappies and social interactions, compared to actively caring for children, can both be considered “childcare”.

A further problem is the intersection between relationships and domestic work, and how to define whether time spent on activities of caring for another person are “work” or “creating and maintaining interpersonal relationships” (such as with a child or partner). Similarly, while most unpaid domestic work will be in one household, work in another household (such as caring for an elderly parent) may not be classified as domestic work by some. Luxton suggests that developing a common language to describe domestic work would assist in measuring it.

How to value unpaid work raises a second set of issues. Economists have put forward three methods where market values are used to calculate the value of domestic labour. These are calculation of opportunity cost, replacement cost, and input/output costs. There are a number of problems with these methods. For example, *opportunity cost* estimates the income that would have been earned if the person had spent an equivalent

amount of time in the paid labour force. This means that the value attributed to the same unpaid task done by a highly paid person will be greater than that of a poorly paid person. *Replacement cost* estimates how much a person undertaking the same task in the paid workforce would earn. An issue with this is that people in jobs such as childcare and cleaning are generally the most poorly paid, potentially resulting in underestimation of the value of housework. In addition, Luxton poses the question as to why childcare is valued at the rate of childcare workers and not at the rate of teachers, nurses and child psychiatrists. *Input/output cost* is calculated by estimating the market value of raw materials, production and labour, and similar issues arise in relation to the estimation of the value of household labour. Luxton maintains that the acceptance of existing pay inequities between women and men and the sex-based division of labour re-enforces inequalities and does not challenge the subordination of women.

42. Malhotra A. (2003). Conceptualizing and measuring women’s empowerment as a variable in international development.

This paper provides a good summary overview of the content covered by Malhotra, Schuler and Boender (2002) (see summary below).

43. Malhotra A, Mehra R. (1999). Fulfilling the Cairo Commitment: enhancing women’s economic and social options for better reproductive health.

This paper argues that the implementation of recommendations from the Cairo Conference has focused largely on reproductive health rather than on the broader determinants of women’s economic and social development articulated at the Conference. The authors suggest that failing to address social and economic development (and as a result, women’s capacity to make and act on reproductive choices) will undermine the capacity for long-term and sustainable improvements in reproductive health.

Consequently, most of the indicators devised to measure progress against the Cairo Agenda focus on reproductive health outcomes and associated service delivery factors (such as prevalence of sexually trans-

mitted diseases, maternal mortality ratios, use of reproductive health services and quality of care) while indicators measuring the socioeconomic determinants of reproductive health (such as poverty, skills and mobility) have not been developed.

Malhotra and Mehra propose the inclusion of a number of indicators in the following areas: education, gender and social resources, and gender and economic resources. Of these, only the education indicators are currently gender-differentiated and incorporated into evaluation. Some, such as the prevalence of violence against women or mobility, are not available, while others, such as poverty rates and income levels, are available (although not necessarily gender-disaggregated) but not incorporated into evaluation schemes.

44. Malhotra A, Schuler S, Boender C. (2002). Measuring women's empowerment as a variable in international development.

This paper provides an in-depth discussion of: the ways empowerment has been conceptualized; approaches to measuring and tracking empowerment; the ways the effects of interventions to enhance women's empowerment are measured; and evidence on the impact of women's empowerment on development outcomes.

After reviewing the literature on empowerment, Malhotra et al. make a number of observations about how it is defined and measured and then propose a framework for measuring women's empowerment. They argue that empowerment of women includes additional elements to that of other marginalized groups. These are that: women occur in most other marginalized groups; household and interfamilial relations are a key aspect of women's disempowerment; and women's empowerment requires transformation of institutions supporting patriarchal structures.

The authors identify that there is diversity in the emphases, agendas and terminology used to discuss women's empowerment, but that a majority of studies refer to two common elements: the "process" (movement from one state to another) and "agency" of women. To them, this suggests that there is some consensus on the conceptualization of empowerment, and they adopt Kaber's (2001) definition as reflective of much of the literature (see summary in this bibliography). Malhotra et al. go on to argue, that while improvements implemented by governments or organizations are very im-

portant, they are not really "empowerment" unless women themselves are significant actors in making the changes. In addition to agency, resources are also critical if women are to have choices. These can be considered as "enabling" factors rather than as part of empowerment itself, as while resources are critical, if women are to be empowered they are not always sufficient. Malhotra et al. cite a number of examples to illustrate this, including that changes to laws may not result in changes in practice, and women politicians may not always act to enhance the position of women generally.

Malhotra et al. draw from the work of others to propose a framework with suggested measures for assessing women's empowerment. In this framework, they highlight that women's empowerment should be measured along six dimensions, each with sub-domains. The six dimensions are: economic, socio-cultural, familial/interpersonal, legal, political and psychological.

For practical purposes, it is useful to think about indicators at three different levels of social aggregation: household, community and broader arenas. The authors provide examples of possible indicator topics within each of the fields of dimensions at each level of social aggregation. They also note that there is overlap across the dimensions.

Issues in measuring women's empowerment outlined by the authors include:

- The "complexities of measuring empowerment must be taken into account in developing conceptual frames and research designs".
- While empowerment is context-specific, indicators of empowerment must include standards that are situated outside the local gender systems and that incorporate recognition of universal elements of gender subordination. The authors suggest using a universal human rights framework as a useful tool for this. Following this, while it may be possible to develop indicators which apply in a wide range of situations, there will always be some places where these are not relevant.
- It should not be assumed that if women become empowered in one aspect of their lives, this will translate to empowerment in other dimensions of their lives.
- While variables such as education and employment are often used as proxies for empowerment, there is growing evidence that this is problematic.
- Some dimensions of empowerment are closely inter-linked with others. However, because empowerment is multidimensional and different variables may have a stronger association with empowerment than oth-

ers, care should be taken in constructing indices, as combining items may result in masking differential effects.

- There is variation in the definition of levels of social aggregation for the measurement of empowerment. For example, to an economist, the macro level might include the broader political and market systems, while the micro level might relate to individuals, households, communities and institutions. For sociologists and demographers on the other hand, the micro level might only relate to individuals and households and the macro level might include communities and institutions. Thus, while there is agreement about the highest and lowest aggregations, there has been less attention (at least in practice) on the middle (or “meso”) level. This is important, as it is at the point of communities and institutions where gender relations are often recreated and reinforced, and where many interventions operate and changes may occur.
- While in theory the dimensions outlined in their framework could be implemented at all levels of aggregation, the legal and political dimensions tend to be put into practice at the higher levels (such as regional and national); and the familial, social and economic dimensions at the individual or household level. The psychological dimension is rarely measured.
- A key challenge for measuring empowerment is that it is context-specific, in that indicators of empowerment in one setting may not indicate empowerment in another. The authors propose that one way around this is to develop a consistent, conceptual framework which allows variation in the indicators used to populate it (and their weightings), based on the “normative frontiers that need to be crossed for women to be empowered”. These “frontiers” can be identified through participatory processes and conceptual analyses, and will also require some balancing between universalist principles and local context.
- While it may not be conceptually difficult to distinguish between “resources” and “agency”, in practice, the same variable might be an indicator of access to resources, an indicator of women’s agency or an indicator of depending on the context. For example, while access to micro-credit or employment might be considered resources for women’s empowerment, the act of a woman seeking either of these might also represent her agency, and the outcomes of obtaining

micro-credit or employment might be an achievement. In some cases, having resources produced by economic achievement is treated as a resource or enabling factor and a predictor of other outcomes, such as control over decisions. Similarly, ownership of assets could be seen as sources of empowerment (or resources) or achievement.

- Most indicators do not put into practice a definition of empowerment incorporating process and agency (the elements of the common conceptualization of empowerment).
- It is difficult to measure the process domain, and many measures do not include it. Key issues include: the use of proxy measures, such as indicators of health and employment (which may in fact not be particularly associated with empowerment); lack of availability and use of data across time; subjectivity associated with the measuring process (including whose perspective is valued by evaluators); and shifts in relevance of indicators across time (especially as “normative frontiers” change).
- The authors recommend that the best way of measuring process is to do so at two different points in time (at least), and that measures should include women’s views on what is important.
- Interpretation of the meaning of empowerment indicators generally requires additional information.
- Data limitations (especially lack of gender disaggregation).

The authors also reviewed empirical studies on women’s empowerment. They noted that most reports from nongovernmental organizations on efforts at empowering women lack conceptual rigour. Many of the studies from other sources used both qualitative and quantitative methodologies and tried to triangulate their data; however, very few measured process over time. Most of the studies focused on fertility/contraceptive use and child health/welfare outcomes, with very few focusing on broader issues of well-being or women’s health. In addition, most of the work has been done at the individual or household level, with the most frequent indicators being those associated with domestic decision-making, access to or control over resources, and mobility or freedom of movement. However, little work has been done on the actual association of many of these indicators with empowerment, and the authors raise a number of questions about each of the indicators.

It is difficult to measure empowerment at higher lev-

els of aggregation and there were very few studies that did this. Most of these used indicators related to enabling factors or conditions for empowerment, such as laws, literacy, education, labour force participation, characteristics of marriage and kinship and political representation. Indices were constructed in a number of these studies. However, the indicators included were often arbitrarily selected in the absence of a conceptual framework. The authors argue that existing composite indices and single indicators are not adequate for the measurement of women's empowerment at this level. They suggest that an evaluation of a cluster of aggregate level indicators on a specific dimension of empowerment across two points in time is required to improve indicator development for control and decision-making at the macro level.

Malhotra et al. put forward four key recommendations for improvement. They suggest that the following is required:

1. Development of a framework of domains or dimensions that can be applied across settings.
2. Better, more coordinated efforts at data collection.
3. Greater attention to measuring women's empowerment at meso levels.
4. Greater interdisciplinary engagement to develop indicators that capture key elements of empowerment, have scientific merit and are acceptable to many stakeholders.

40. McKinley ED et al. (2001). Performance Indicators in women's health: incorporating women's health in the Health Plan Employer Data and Information Set (HEDIS).

This article outlines the process undertaken to develop additional measures for women's health to improve the assessment of quality of care provided by managed care organizations in the United States of America. Existing quality assessment measures focused on reproductive issues, breast and cervical cancer screening, and a number of issues common to women and men, such as diabetes and heart disease. An expert group (Measurement Advisory Panel) was set up to do this work and used the following criteria to identify potential indicators: *relevance* (will the measure enable collection of information that is of major health importance, reflect appropriate and cost-effective care, demonstrate potential for improvement, capture vari-

ance among plans and allows appropriate attribution of results); *scientific soundness* (clinical evidence, validity and reproducibility, potential for case mix adjustment); and *feasibility* (is it logistically feasible, clearly defined, measurable from existing data, has standardized methods of data collection and reporting, and can be measured at reasonable cost).

A number of clinical conditions were prioritized (based on prevalence, associated morbidity and mortality, and availability of interventions to affect care) and assessed against the above criteria. The top conditions were: cardiovascular disease, unintended pregnancy, osteoporosis, breast cancer, mental health, violence, lung cancer, cervical cancer, and obesity/eating disorders. Potential new measures for these conditions were identified. Three of these—counselling women on management of menopausal hormone changes, prevention of unintended pregnancy, and testing for or treating osteoporosis in women with incident fractures—are further discussed. Key issues encountered included:

- need to carefully define the intervention, how it should be delivered and how it should be measured (this included commissioning of work to develop new surveys);
- lack of evidence about effective treatments for conditions affecting women (partly because research has often focused on men);
- lack of validated and reliable measurement tools for measuring performance;
- lack of information about quality of care provided to men and to women for conditions experienced by both sexes so that there can be no gender-specific reporting or identification of differences in care provided to men and women;
- slow uptake of evidence-based guidelines means that measurement might begin before an intervention becomes accepted practice;
- readily available data is often not useful (which has to be balanced with the increasing cost of collecting and reporting appropriate data).

45. Moser C. (1995). Evaluating gender impacts.

Moser notes that an awareness of the central role of gender in development work has not always translated into the procedures, tools and techniques of development practice. She also notes that many development initiatives have unclear objectives, which makes them

difficult to evaluate and may hide competing agendas. She emphasizes the importance of including gender when evaluating development activities, and that this should include impact as well as process evaluation. As projects are generally evaluated against their goals, the way goals are stated is critical in determining what is measured and how the evaluation methodology is set up (for example, is the focus on the impact on women, or the changes in the gendered nature of society?).

Moser outlines that the different roles of men and women indicate that they may have different needs, and that these needs can be conceptualized as “practical” and “strategic” gender needs. Practical gender needs are those which women identify within their roles, and strategic gender needs are those needs “women identify as arising from their subordinate position to men in society”. The former usually relate to things like access to water, health care and employment, and the latter generally relate to divisions of labour, political power and the control of resources (and may require the development of indicators to measure changing processes). Working with women to meet strategic gender need is more likely to result in greater gender equality.

Moser suggests that two sets of indicators—implementation indicators and impact indicators—should be used for all projects, and notes that often the distinction between these indicators aren’t identified in the literature. She outlines three important steps for developing indicators to measure impacts: undertake a comprehensive gender analysis; involve women and gender-sensitive local organizations throughout the planning process; and undertake an institutional analysis to identify the capacity of organizations to analyse gender differences and apply gender-sensitive approaches.

Moser also includes information on how to incorporate gender into other aspects of development projects. She notes that collecting disaggregated data by sex enables the counting of women, but it doesn’t make projects themselves gender-sensitive.

46. Moss N. (2002). Gender equity and socio-economic inequality: a framework for the patterning of women’s health.

This article explores the interrelationship between gender inequality and socioeconomic inequality, and how they affect women’s health at the macro (country) and micro (household) levels. A unified model

that brings gender equity and socioeconomic inequality together in a common framework is developed. The framework is comprehensive in that it considers gender equity and socioeconomic inequality while situating health in specific historical, political, legal and social contexts.

The framework encompasses the multiple ways in which women’s health is shaped. Determinants of women’s health in the geopolitical environment include: country-specific history and geography; policies and services; legal rights; organizations and institutions, and structures which shape gender and economic inequality.

Culture, norms and sanctions at the country and community level, and sociodemographic characteristics at the individual level, influence women’s reproductive and productive roles in the household and workplace. The consideration of culture is important, as it moves beyond the rhetoric of dominant institutions into the understanding women themselves have about their health-related behaviours and into a more rounded consideration of the ways in which equity and power are expressed in everyday life.

Social capital, roles, psychological stresses and resources, health services and behaviours mediate social, economic and cultural effects on health outcomes. Inequality between and within households contributes to the patterning of women’s health. Relationships may vary within the framework depending upon women’s life stage and cohort experience.

Examples of other relevant theoretical frameworks are given, such as the “weathering” hypothesis which proposes that women age in different ways, depending on how varying life circumstances undermine or promote health. The authors suggest a variety of ways to make progress in research and policy-making as gender and socioeconomic equity is promoted. These include: further research to develop integrated approaches to women’s health using frameworks considering the historical, political, legal and social contexts; further research to test the variety of hypotheses about the social and economic patterning of women’s health; and the creation and maintenance of appropriate data systems for monitoring and reporting on socioeconomic inequalities and gender equity.

47. Nayar SB. (2002). Some methodological issues in the measurement of women's health.

This paper examines the biases against women in developing countries inherent in health indicators used in health surveys, and argues that there is unreliability in the data on women's health associated with the tools and techniques used to measure it.

Key issues include:

- Lack of accepted, common definitions of health and illness, and predominant use of medical definitions to inform measurement of population health.
- Key indicators used are: mortality, morbidity, life expectancy at birth, health expectancy or Disability-free Life Expectancy (DFLE).
- Reproductive health is the major indicator used to measure women's health (includes maternal mortality and morbidity, female mortality and general morbidity, female life expectancy at birth and DFLE or Healthy Life Expectancy (HALE)). Maternal, fetal, perinatal and neonatal mortality are the critical indicators of poor female reproductive health.
- Maternal mortality data are collected from vital registration, health service statistics, hospital records and sample surveys. Hospital statistics are limited, as many women, especially in developing countries, don't access hospitals, and then often only those most at risk do. In developed countries, maternal mortality is also underreported as statistics may not include women dying from a non-obstetric condition precipitated by an obstetric condition. The estimated underreporting in the United States of America is 33–50%. In addition, miscarriage, stillbirth, perinatal and neonatal mortality are often not recorded.
- Despite the fact that many women experience it, reproductive morbidity data is difficult to obtain in developing countries, and thus the incidence of maternal morbidity is largely unknown. Indicators of maternal morbidity, or a system for classifying them, haven't been developed. Mortality associated with abortion is often not recorded because abortion is illegal. Many illnesses associated with reproduction are not reported as women don't seek medical attention due to sensitivities and often use traditional remedies.
- HALE is often measured through self-rated health. Problems with this include different cultural expectations/understandings about what it means to be healthy. In addition, a small study comparing

self-rated health and clinical health status found that women were more likely to overestimate their health status, and men were more likely to underestimate their health status.

48. Organisation for Economic Co-operation and Development. (1998). Development Assistance Committee (DAC) Source book on concepts and approaches linked to gender equality.

This book outlines a set of practical guidelines for advancing the goals of the Beijing Platform for Action and the OECD. It includes discussion of accountability, empowerment, equality issues, gender equity and empowerment of women, equality and culture, gender training, institutional analysis, mainstreaming, men, monitoring and evaluation, national machinery for women's affairs, participatory approaches, policy-related issues, and resistance.

In relation to monitoring, reporting and evaluation, the book raises the following key points: there is often a focus on inputs and processes rather than results and impacts; there are often no specific goals/objectives focusing on gender equity or women's participation, resulting in few criteria for measuring performance; and gender equity issues and women's participation are often considered as an add-on and are often separate to from the overall discussion.

Key strategies for improving this include: make equality issues explicit in the terms of reference for evaluation, select evaluators with expertise on equality, and apply rigorous standards to assessments of the evaluators to ensure gender-equality analysis is included throughout the evaluation. In addition, when developing indicators, identification of best practice models and comparative analyses of strategies for addressing specific problems need to be considered.

49. Pittaway E. (2000). Modalities, measures and strategies to meet the challenges of gender equality, development and peace for the 21st century in the Asian and Pacific region.

This document outlines a potential regional framework for monitoring against the Beijing Platform for Action (BPA) and the United Nations General Assembly Special Sitting Outcomes Document (OD) in the

Asian and Pacific Region. It highlights the diversity of the countries in the region and the importance of developing a framework that is useful/common for each of these countries, yet flexible enough to incorporate differences. The author emphasizes the importance of collaboration between countries within the region to address critical issues.

A range of actions are being undertaken by countries in the region to support implementation of the BPA and the OD. These include: establishment of equivalent bodies to the United Nations Commission on the Status of Women (called "Departments for Women" by the author); establishment of formal collaborative processes with nongovernmental organizations (NGOs); legislative measures; capacity building for women, women's groups and NGOs to assist them to participate in programme design, implementation and monitoring; ratification of United Nations laws and treaties and incorporation into country legislature and policy; gender and development and mainstreaming policies; education and research; acknowledgement of the importance of comprehensive and disaggregated data; and reform of existing practices to incorporate a gender perspective.

Challenges to implementation include: political and social will; lack of a holistic and integrated approach so that all of the key areas for action are acted on together, rather than in isolation; lack of effective mechanisms to promote the status of women; resource issues, difficulties with monitoring, measuring and evaluation; and lack of an integrated human rights framework.

The proposed framework for action includes five steps:

1. Development of national plans to address both national and regional priorities and including budget allocations.
2. Developing a "whole of government" approach and establishing a department for women to take responsibility for the plan.
3. Establish a regional clearinghouse.
4. Implementation of strategies.
5. Establishing integrated national and regional frameworks for measuring and evaluation.

In relation to indicators, Pittaway makes the following points:

- Both qualitative and quantitative measures are required.
- While a number of indicator sets have been proposed for measuring achievement against the BPA,

many countries in the region do not have the infrastructure for data collection disaggregated by gender, and a key priority should be to provide resources for this.

- To include the needs of rural, migrant and indigenous women requires collection of data by sex, age, ethnicity, class and location.
- The Human Development Index, the Gender-related Development Index, the Gender Empowerment Measure and the United Nations Country Assessment indicators are all potentially useful measures (and elements can be taken from them and combined with measures that reflect individual country requirements).
- Establishment of agreed benchmarks for each country enables monitoring of rates of progress towards agreed goals. Benchmarks (as outlined in the Human Development Report) should be specific, time bound and verifiable; set with the participation of the people whose rights are affected; and reassessed independently with accountability for performance.

Pittaway argues that it is important to measure outcomes and not simply outputs. She provides a discussion of women's employment to illustrate this.

50. Pittman P, Hartigan P. (1996). Gender inequity: an issue for quality assessment researchers and managers.

Pittman and Hartigan argue for attention to gender inequity in methods of quality assessment. This article is useful as a conceptual guide which raises important points about indicators, including the dangers of norms (gender insensitivity) and the importance of consumer participation in determining quality indicators. However, no indicators are proposed.

Pittman and Hartigan argue that gender is a central organizing principle of society as well as the locus of power imbalance, which in turn manifests in productive and reproductive roles, plus access and control of resources. Similarly, decision-making in health, at both management and clinical levels, is affected by subjectively-ascribed roles influenced by factors such as ethnicity, gender and class. Consequently, health services committed to providing services that meet the needs of different groups within their communities should incorporate gender equity issues into quality assessment.

In their review of the literature, the authors identified that most research has focused on technical issues

of quality assessment, while women's health researchers and others have focused on quality of reproductive healthcare services (this focus on quality in reproductive health care has not produced information on equity, as there is often no comparator group; that is, men). In addition, equity has generally been considered an access or health outcome issue, and not as an issue to be incorporated into the process of producing health care. Other studies focusing on gender inequity found that gender affects provider's attitudes towards male and female patients; that health care providers act differently in caring for men and women (this includes in decision-making, information exchange, diagnosis, treatment and follow-up); that male and female service providers have different attitudes towards patients; and that often a male or androgynous norm is assumed, and protocols for treatment of women are based on this norm.

A central challenge for those wanting to incorporate gender equity into health services is identifying an appropriate set of standards for measuring quality. This is partly because much of the research resulting in identification of standards has ignored women and been based on a male norm, which could result in the provision of similar care to men and women (equal care) that actually results in inequity. A second issue, that quality "is a relative concept" and may mean different things to different players, such as clinicians and consumers, women and men. Thus, incorporating gender equity into quality measurement will require new ways of thinking about what is being measured and why, and involving women in the process of developing and evaluating standards. It will also require recognising that both biological and socially constructed differences create different risk and protective factors, and that responding to the consequent health care needs might require taking these into account and developing appropriate strategies. A key challenge then is to develop standards that will enable measurement against different standards for men and women, and not only comparison with norms.

The authors propose two approaches to incorporating gender equity into quality improvement practices. The first is to make equity a key component of quality, and include a gender perspective (using the tools and questions from gender-sensitive planning work) into every quality improvement cycle. This would include collecting information against all indicators disaggregated by sex. The second approach is to "place gender at

the centre of the process itself". That is, to focus on areas where there is known inequity.

51. Saith R, Harriss-White B. (1999). The gender sensitivity of well-being indicators.

This article evaluates whether different indicators of health, nutrition and education – in addition to composite indices – reliably identify gender differentials in well-being. Well-being is assessed using the analytical framework of "functionings". Indicators that are specifically related to the elementary functionings of "being healthy", "being nourished" and "being educated" are examined.

One of the most useful indicators of "being healthy" is the disaggregated juvenile sex ratio, the under-10 female-male ratio (0–4 years and 5–9 years). These age-specific, female-male ratios are easily measured and are reliable compared to indicators of morbidity and nutritional intake. Morbidity and nutrition outcome indicators are methodologically flawed and have a number of conceptual problems which make them unreliable. For example, "causes of death" data are variable and difficult to obtain where morbidity data gathered through questionnaires can suffer from major biases. Similarly, indicators of nutritional intake, such as an estimation of food intake, is time-consuming, expensive and prone to error. An anthropometric approach to assessing nutritional outcome which rests on the assumption that people's physical appearance reflects their nutrition and health status, is advantageous in that it is a more direct and simple method, and less reliant on data collection.

Anthropometric measures are considered potentially useful when norms are "fixed" and cut-off points standardized, and when the limitations of adaptation and a failure to capture extreme bias are kept in mind when interpreting the findings. It is controversial whether norms – which are derived from Western populations and assume that the average child is on his or her genetic potential growth path – can be applied to all populations. This problem is overcome when using norms that are derived from the local population from among a well-fed group. Opinions vary on the choice of the cut-off point below which an individual is classified as "undernourished".

Enrolment ratios were found to be useful indicators of "being educated" in developing countries. In assessing gender gaps in education, enrolment and drop-out

ratios are more useful than indicators such as adult literacy or mean years of schooling.

The trend to combine multiple elements of functioning into composite indices has been given merit for reflecting multiple dimensions of gender inequalities, but has been criticized for raising more problems than it solves. Composite indices like the Physical Quality of Life Index and Gender-Related Development Index are potentially useful, but may need to be altered if they are to be useful in developing countries.

Micro level research is needed to assess whether enrolment ratios or drop-out ratios are more useful. Presently, this is at the pre-indicator stage. It is recommended that further empirical research be conducted into the social processes of discrimination and politics of access, control, agency and empowerment in order to investigate the social processes giving rise to gender differentials. It is recommended that such research is supplied to those in the policy-making process, such as the media, political parties and activist lobbies.

52. Sharma SD. (1997). Making the Human Development Index (HDI) gender-sensitive.

Sharma outlines several advantages of the HDI over traditional measures such as the Gross National Product (GNP). These include that GNP includes only income, while the HDI includes longevity (measured by life expectancy at birth), knowledge (measured by adult literacy and mean years of schooling) and income (real gross domestic product per capita adjusted for local cost of living). Thus, the HDI attempts to measure human development and relative socioeconomic progress, which enables analysis of development over time and comparisons between countries.

Problems with the HDI include: overall indices can hide differences between groups within a country (for example, different racial and ethnic groups, men and women) and these factors are not covered in the HDI; the economic value of a lot of women's work is not included, which will result in skewing of data; and gender-based discrimination, such as violence against women and women's access to education, are not measured.

The author proposes the development of a gender-sensitive HDI which focuses on women's contribution to human development. To enable this, data must be disaggregated by sex, and economic value should be attributed to women's unpaid, underpaid and under-

reported work. Sharma advocates for increasing the number of women advisors and policy-makers in the United Nations Development Programme as a way of drawing on women's knowledge to enable the development of a gender-sensitive HDI.

53. Standing H. (1997). Gender, vulnerability and equity in health sector reform programmes: a review.

This paper provides an analysis of gender equity concerns in relation to the Health Services Reform (HSR) initiatives being implemented in many countries throughout the developing world. Distinctions are made between "taking a women's health needs" approach and an "inequality" approach, and the different implications of each are outlined. The former focuses on the consequences for women of the different "epidemiological profiles" between women and men. This approach tends to result in an emphasis on reproduction and often argues for the provision of (and cost-effectiveness of) specific health care services/interventions to address the imbalance. The gender equity approach is more concerned with the impact of power relations, and focuses on: "the role of gender relations in the production of vulnerability to ill-health or disadvantage within health care systems and particularly the conditions which promote inequality between the sexes in relation to access and utilization of services". Standing notes that an analysis based on a women's health needs approach will focus on the extent to which HSR takes into account women's specific health needs, while a gender equity approach focuses on impacts of existing imbalances in gender relations.

Standing suggests that gender is a key aspect of disadvantage because women are more likely to be found among the most vulnerable population groups, and access to services are influenced by cultural and ideological factors that might limit women's utilization of those services (an example is lack of permission to act without agreement from a male partner) and should therefore be included in any analysis of equity in health care and of HSR.

HSR is analysed according to six key components (adopted by Standing from Cassels, 1995). These are:

1. Improving the performance of the civil service.
2. Decentralization.
3. Improving the functioning of national ministries of health.

4. Broadening health financing options.
5. Introducing managed competition.
6. Working with the private sector.

Standing raises key gender issues and key questions to be asked under each of these headings. These questions could be used to inform indicator development.

54. Tilley L. (1996). Measuring women's health outcomes: gender differences and implications for health practice.

Tilley outlines the significant differences women have from men in relation to experience of health, health status, health priorities, and requirements of and response to health interventions, and argues for these differences to be taken into account in the design, implementation and management of health services and health research. She also outlines a range of issues related to measuring health outcomes. These include debate about: what are valid and reliable measures; what these measures actually say about the effects of an intervention; how the measures should be used; and at what time periods in the course of an intervention they should be used so that they are meaningful. She notes that there are few outcomes measures sensitive enough to reflect gender differences in health experiences or to reflect women's health status relative to their health priorities.

The author outlines a range of problems with standard health data collections highlighted by the Australian National Women's Health Policy. These include: inadequate indicators for health-related variables relevant to women's experience; inappropriate use of gender-based indicators; generalization from men's experience to women's experience; exclusion of women or variables relevant to women from clinical trials; unreliable data on "stigmatized events" such as domestic violence; research on issues principally affecting women is under funded; and there is a need for research to identify the extent of inappropriate treatment of women within the health system.

A health outcome is defined as: "a change in the health of an individual, a group of people, or a population which is attributable to an intervention or a series of interventions aimed [at producing] that outcome".

Key issues with respect to measuring health outcomes include:

- Complexities associated with defining health more

broadly than the "absence of disease". These include issues with establishing baseline status, identifying and accounting for demographic variables influencing health; attributing and measuring changes associated with interventions; and interpreting these findings.

- Women are not a homogenous group—women from different groups will have different health needs, priorities and access to services.
- Difficulty with interpreting morbidity and mortality data and attributing explanations to these.
- Absence of some women's health problems—such as menstrual problems, incontinence and tiredness—from official health statistics and therefore, from morbidity data.
- Health outcome measures need to be sensitive to gender. Even when generic measures are used (for example, to compare outcomes between men and women) data must be able to be disaggregated. Currently, this does not often occur.
- Disability-adjusted life years do not include people's subjective experience of disability, and weightings have been calculated by experts.
- Quality of life measures are generally generic or condition-specific, and rarely identify gender differences.
- Indicators rarely reflect women's subjective experiences.
- There is often a focus on quantitative measures that tend to only address those elements of health reducible to numbers (and are often based on men's health). In addition, these indicators may focus attention on clinical outcomes rather than health outcomes more broadly.
- Qualitative indicators are useful to ensure women's experiences are included and the author recommends including focus groups to define the parameters of health outcome measures.
- It might be useful to identify short-term (such as access to health services or screening), medium-term (such as changes in the social conditions of women's lives) and longer-term (such as capacity building) outcome measures for women's health.

A range of issues related to specific health issues and health risks are discussed. These include those relating to: cardiovascular disease, psychological disorders, kidney disease, diabetes, HIV/AIDs, alcoholism, exposure to environmental hazards, and domestic violence. The design of health services and the cost implications of

gender differentials in health outcomes are also considered. The article also includes a discussion of current initiatives within Australia to further develop gender-sensitive and gender-specific indicators for measuring health outcomes.

55. Tisdell C, Roy K, Ghose A. (2001). A critical note on UNDP's gender inequality indices.

Tisdell et al. argue that the Human Development Index (HDI), the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM) do not reflect or measure the disparity between men and women in India.

All of the indices have the following problems:

- They fail to take into account the real situation of women, especially their economic welfare.
- They do not capture the differences between different groups of people, such as the rural poor and urban poor, the educated and uneducated, the poor and the extremely poor.
- They do not enable regional comparisons, and in large countries like India, an overall rise in the index might be due to a rise in one part of the country at the same time as conditions are deteriorating in another part of the country. (Regional studies, work with specific groups and micro level field studies would result in the collection of improved information.)
- They do not include information about non-market access to resources.
- The indicators used do not enable good measurement of gender income inequality and focus on sources of income rather than users of income. (Studies of income distribution among households/families to identify who controls family income need to be done to redress this.)
- Poverty is not consistently defined. For example, the World Bank and the United Nations have different definitions. Measures of poverty based on income do not provide a real picture of poverty, and these measures should include capabilities, such as being healthy and having enough nutrition.

Additional limitations of the HDI include: that a fixed weight is attributed to each of its three variables (life expectancy, educational attainment, income); it is assumed that the variables are independent of each

other and have a linear relationship, i.e. gains in one can be equally traded for the same losses against another; and its focus is too narrow as it does not take into account issues like income security, employment security, or psychological well-being.

A range of limitations of the GDI are outlined. These are largely focused on problems with calculating the equally distributed indexes for the three variables (life expectancy, educational attainment, income); poor data availability; and calculation of the weighting attributed to inequality. In addition, the GDI does not include an indicator of female poverty.

The limitations of the GEM include: lack of available data; issues in the calculation of the indexes for the two of the three variables (parliamentary representation and administrative, managerial, professional and technical occupations; and gender-related shares of earned income); calculation of the weighting attributed to inequality; and that the variable representing power over economic resources is unadjusted real GDP per capita. In addition, there is no weighting given to the differences in power different parliamentarians will have, depending on their role.

Tisdell et al. suggest that the purpose of calculating the GDI and GEM and their operational use are unclear. They caution that “the estimation of inadequate gender-sensitive indices can do more harm than good or be a waste of scarce resources”.

56. United Nations Development Fund for Women. (2000). Progress of the world's women 2000: a new biennial report

This is the first of a new proposed biennial report focusing on achievements made towards gender equality and economic empowerment from the mid-1980s to the end of the 1990s within and between countries. The key remaining challenges are also discussed. The document provides information on empowerment and economics, rights and targets, linking targets to indicators, accountability for the progress of women and aims for future progress. It reports progress against three indicators of women's empowerment: the ratio of girls to boys enrolment in secondary school, women's share of parliamentary representation, and women's share of paid employment in industry and services across countries at one point in time (and within countries over time). It is argued that there is a long way to go to fulfil the promises of the Beijing Platform for Action

(BPA), and that greater accountability is required (this includes developing targets and indicators, mechanisms for accountability of individuals and institutions, and measures for accelerating progress for women). The importance of building structures and processes for furthering women's rights is highlighted in the context of an increasingly globalized system of trade, finance, investment and use of technology. Data used in this report comes from the Women's Indicators and Statistics Database and from the United Nations Educational, Scientific and Cultural Organization, the International Labour Organisation (ILO) and the Human Development Reports.

Chapter Three of the report contains a good discussion of measuring the progress of women and the organizations undertaking this work. Four levels of assessment with different levels of aggregation and different contexts are described: local level (women can conduct context-specific participatory assessments with qualitative indicators); national level (women can use national level surveys such as censuses, household, enterprise and labour force surveys, and lobby for statistics disaggregated by gender, age, ethnicity, geography, etc.); regional level (women can use regional data bases and identify regional indicators reflecting relevant social economic and political characteristics); and global level (focus on a few key indicators for many countries using global data bases which are limited by the different ways data is collected in different countries, and uneven data collection).

Some of the specific points made about measuring progress and indicators include:

- There are many ways of assessing the progress of women, including through statistics, indicators and women's stories, and all should be used. The authors note that qualitative indicators are not available for national level comparisons and are more appropriate for local level work.
- There is a lack of comparative indicators for women's economic empowerment and economic rights (for example, to measure gender equality in the labour market, or in time spent in unpaid work, or the "feminization" of poverty).
- Conventional economic indicators may suggest progress, in that more and more women may be entering into paid work and there may be increasing efficiency. However, there may also be an increasing transfer of real costs (in women's time and effort) from the public domain to households where the costs are not "monetarized" and therefore, not counted. These costs need to be taken into account in an economic analysis that is gender aware.
- The System of National Accounts is meant to include all types of production of goods and services, but because the questions in the surveys and census are inadequate, it misses a lot of subsistence production performed by women.
- Issues with naming unpaid work means that it is often left unmeasured.
- International data bases don't show differences in the proportion of men and women working in unpaid care work, volunteer work, informal paid and unpaid work, and formal paid work. Consequently, there is no information to compare the balance of time spent in these four sectors by women and men.
- Outlines a "gender mainstreaming matrix" (with the dimensions of policy commitments, legislation, fiscal measures, positive action including special training, institutional mechanisms, and the collection of baseline and monitoring data) as an example of how institutional change can be assessed. However, this also needs to have an audit of the way in which the rules underpinning organizations are determined, based on the needs of men.
- There are some limitations in utilizing human rights conventions for monitoring advances in women's economic progress. For example, the Convention on the Elimination of All Forms of Discrimination Against Women outlaws discrimination but does not cover "equalizing down", where a reduction in the gap between men and women may occur but at the expense of a reduction in the standard of living for both. Some agreements (such as the International Covenant on Economic, Social and Cultural Rights) don't include timetables for realization of goals or standards, and others, such as a number of the ILO conventions, don't cover workers in the informal sector. A convention on "Home Work" was developed by the ILO but does not contain gender-specific language, despite the fact that most of this work is done by women.
- All targets should be articulated within a human rights framework to avoid the occurrence of advances being made at the expense of the human rights of women.
- Targets agreed upon at the International Conference on Population and Development (Cairo, 1994), the World Summit for Social Development (Copenhagen, 1995), and the Fourth World Conference on Women (Beijing, 1995) have been incorporated into

the International Development Targets brought together by the Organisation for Economic Co-operation and Development (OECD). Many of the agreed targets have focused on education and health. Of the targets identified at the three United Nations conferences above, the one indicator adopted for empowerment of women and progress towards gender equity is closing the gender gap in primary and secondary education. There are no targets for women's economic position, the feminization of poverty, or women's representation in decision-making positions.

- Of 24 core indicators to measure progress in development produced by the OECD, only two aim to measure gender equity or women's empowerment, and they both relate to education. There are no indicators that measure feminization of poverty, gender balance in decision-making or gender balance in the labour market. These OECD indicators are the most widely used in international development work.
- Two regional sets of indicators were developed to measure progress against the BPA (one by the Economic Commission for Latin America and the Caribbean—see summary in this bibliography, and one by the Economic and Social Commission for Asia and the Pacific—see Licuanan in this bibliography).
- United Nations agencies selected a set of 40 indicators in 1999 to guide Common Country Assessments. This set, also known as the United Nations Development Assistance Framework, has 37 sex-disaggregated indicators to measure progress towards gender equity and women's empowerment, covering: income, poverty, food security and nutrition, health and mortality, reproductive health, child health and welfare, education, employment, housing, environment, and crime prevention. Three of these used in the UNIFEM report focus on gender equality and empowerment: ratio of girls to boys enrolment in secondary school, female share of paid employment in non-agricultural services, and women's share of seats in parliament. These measure the environment for empowerment rather than the subjective aspects of empowerment, and are constrained by available data.
- There are no reliable indicators to identify how much women are over-represented in those living below the poverty line, and none of indicators for income poverty are gender-sensitive. Raw data from household surveys exists which could be used to calculate gender poverty ratios.

- There are incomplete statistics for violence against women, incidence of HIV/AIDs in women, and sharing of unpaid care work.

There are differences in the methodology for measuring empowerment of women at the global level (where it is not possible to do in-depth interviews) as compared to measurement at the local level (see summary of Kabeer, 1999). Analysing empowerment requires the measurement of two dimensions: the creation of conditions to enable women to have autonomy and exercise human rights; and women engaging in a process of critical and collective reflection which enables them to redefine what they can and should do. The UNIFEM report focuses on the first dimension.

Commentary on the three indicators used in the UNIFEM report includes:

- Enrolment ratios don't show attendance or drop out rates, do not identify whether education reinforces gender stereotypes, and do not show how effective the education is. Enrolment is only the first step in education and more indicators are required on completion rates and patterns of study. In addition, equal years of education for males and females aren't necessarily linked to equal job opportunities
- There are no internationally agreed indicators for gender equality and women's empowerment in employment; there is no indicator in United Nations data bases about women's and men's average real earnings adjusted for price increases; and there are no indicators for quality of work rather than quantity of work. The share of paid employment in industry and services (non-agricultural) was selected by the United Nations as an indicator to track progress towards gender equality, and not to show changes in women's standard of living. Agriculture was excluded because much of the associated data is particularly unreliable and much of the waged and salaried work is outside agriculture. Advantages of this indicator include that it: focuses on women's share of paid jobs; it should be able to reflect women's share of formal (rather than informal) employment; and it includes information across a range of types of jobs. Limitations include that increases in women's share of employment: do not necessarily correlate with an increase in women's share of national income due to wage disparities between women and men; can indicate an addition to women's workloads as they maintain their unpaid work; might correlate with women in poor households being forced to take low-paid

work rather than it being their choice to enter paid employment; and might correlate with a reduction in women's human rights. In addition, data availability is variable across countries.

- Women's share of seats in parliament. Some of the limitations of this indicator include that women in parliament may: have little say in decision-making for a range of reasons; come from a limited range of backgrounds and focus on the needs of those groups; and be unable to change policy directions. In addition, much of the decision-making power about economics has moved from the state to the corporate sector or become concentrated in certain parts of state machineries, such as the financial ministries and central banks.

The report develops the idea of scoreboards to relate changes in gender equality (such as in the domains of education, employment and parliament) to scores on other domains (such as increases in per capita gross national income, equality in distribution of income among households, and debt reduction).

The report also highlights that a wider range of indicators than those designed for agreed-on targets is required to assess the progress of women against the BPA. A number of these are discussed, such as those pertaining to women's economic status (including women's work, equality in decision-making occupations, gender gap in wages, economic inequality between women, and feminization of poverty), social obstacles to women's empowerment, and composite indicators.

Key points made in relation to these topics are as follows:

- With regard to measuring women's economic status, the authors suggest that looking at the proportion of women working as unpaid family workers, and at women's share of positions as employers and in self-employment, would be useful in identifying the reduction in barriers to women's economic advancement. However, these indicators would not necessarily provide a good indication of: women's increased economic power, how remunerative their businesses are, or how much economic power women running their own businesses have.
- In relation to women's equality in decision-making occupations, the authors identify that tracking women's seats in parliament is easier than in other public decision-making processes, and that women's share in managerial, administrative, technical and professional occupations is often a proxy for this. These in-

dicators will result in an overestimation of women's power in decision-making because: women tend to be concentrated at the lower end of these occupations (working for male decision-makers); there is a concentration of women in some professions like teaching and nursing (still with a higher proportion of males in senior positions); and clerical work is sometimes included in managerial/administration work.

- Similarly, indicators that show an increase in women's share of paid employment do not identify whether women's share of wages in this employment has been increasing, and international databases have limited information on wage parity. Like other indicators for measuring work, wage gap is likely to miss out much of women's work, because surveys concentrate on full-time employees, often omitting part-time, home-based, seasonal and temporary employees or employees in very small businesses. Wage gap may measure a decreasing inequity at the same time as wages are falling for both men and women. The authors recommend that indicators of gender wage gaps be complemented with information about real wages of men and women.
- A further point, is that as the incomes of some of the more well-educated professional women increase, incomes for poorer women with less access to education may be decreasing, and information about dispersion of incomes is lacking.
- Feminization of poverty is not clearly defined and encompasses a number of ideas (cite Cagatay, 1998) (including that women have a higher incidence of income poverty compared to men; this is more severe for women and over time, women's income poverty is increasing). Indicators for income poverty are generally not produced or reported in a gender-sensitive way. The authors suggest that focusing on additional dimensions to household income, such as: common property resources, state provided commodities, assets, dignity, autonomy, and spare time, may be useful. Analysis of existing data for number of women and men living in poor households, and their ages, would also assist. A useful indicator might be the gender-poverty ratio (the number of women per 100 men, or per man, in the population below the poverty line, or in the poorest quintile).
- The report identifies social obstacles to women's empowerment as a critical issue, and suggests that: violence against women, the burden of HIV/AIDS, and the unequal sharing of unpaid caring work are three

critical barriers. There are big gaps in data collected about each of these.

The report outlines the importance of composite indicators, such as the Gender-related Development Index and the Gender Empowerment Index, in drawing attention to gender equality and the relationship (or lack of it) between economic growth and progress for people. While these indices do not measure gender inequality because they include both relative indicators and absolute achievements, this can also be seen as a positive, because including absolute achievement mitigates against a reduction in inequality at the expense of real levels of achievement (such as standard of living) being seen as positive. However, the combination of these dimensions creates problems in construction and weighting of the indices. The calculation of wage disparity between men and women is the most unreliable dimension of the index because of problems with the data resulting in reliance on estimates.

The report highlights five priority topics for the collection of sex-disaggregated data. These are: gender poverty ratios to track feminization of poverty; business ownership by sex of owner and size of business; job quality by proportion of women and men in paid employment with jobs that have social protection rights attached to them; income inequality among women; and incidence of violence against women.

57. United Nations Development Programme. (1995). Human Development Report 1995: gender and human development.

This report documents the rising gender disparities that have occurred alongside development over the twentieth century. It outlines: that 70% of the world's poor (and two-thirds of those who are illiterate) are women; that women are poorly represented in managerial and administrative jobs and in parliaments; that while women often work longer hours than men, their work is undervalued; and that women experience high levels of violence. The report identifies that "human development, if not engendered is endangered", and introduces the Gender-related Development Index (GDI) and Gender Empowerment Measure (GEM) (and includes information about their calculation). The report also highlights the important policy and development implications of leaving out a gender analysis.

The report includes the following key points about measurement of gender inequality:

- The GDI and GEM can only include what is measurable and do not include some dimensions of gender inequality, such as participation in community life and decision-making, consumption of resources within the family, dignity, and personal security.
- Allowance is made for the "biological edge" women have in life expectancy as "biology is not country-specific", and a higher life expectancy for women than men in any country is not in itself an achievement. There are a number of problems in calculating the disparity in earned income, especially the lack of data (and particularly gender-disaggregated data, and data from the rural and informal sectors) which has resulted in estimates being used.

- Women's work is undervalued because no economic value is attributed to unpaid work. This failure to value women's work has a flow on effect of women being reduced to "virtual non-entities in most economic transactions—such as property ownership or offering collateral for bank loans". In addition, the underpayment of women for their paid work is also not valued, nor is the fact that it is women's work that enables many men to work in a paid job (that is, such paid work requires "joint production"). This report includes a survey of time use for women and men in 31 countries. The countries were included because they had existing time use data but the information was collected differently. Time use was categorized in two ways:

1. Personal or non-economic activities (things a person has to do for himself or herself, such as eating breakfast), and productive or economic activities (including cooking for others, for example).
2. Productive activities that are market-oriented (and qualify to go into the System of National Accounts) and those that are not market-oriented.

While some activities, such as producing goods for one's own consumption and carrying water, will be included in the System of National Accounts, most household and community work is excluded.

- Time use studies may not take account of intensity of work or its drudgery, which is particularly high in developing countries where women may not have the same appliances and services as women in developed countries (and may not be able to buy goods which are already processed). In addition, time use studies often do not measure the performance of multiple

tasks at once. As many poor women take on contract work at home, it can be difficult to separate production activities outside the household from household work as they may be undertaken simultaneously, and these may be left out. Some time use studies only collect information on “working days” or during the day, thus excluding women’s work on weekends and in evenings.

- There is difficulty in comparing time use studies because there is no uniformity in survey design, sampling, collection method, or year of the survey.
- Methods of valuing unpaid work, such as attributing the value of a market wage to the labour, usually results in a low estimate because people performing household-type duties in the market place are generally paid at a low level.

58. United Nations Development Programme. (2002). Human Development Report 2002: deepening democracy in a fragmented world.

This report provides an analysis and discussion of human development with a focus on democracy. The state of different countries is reported against a range of indicators, and some of this information is provided by sex or gender. For example, there is an analysis of the number of women national parliamentarians. An interesting indicator relevant to women is the number of countries ratifying human rights treaties (although the report does note that ratification is no guarantee of action). However, in relation to other issues, like civilian deaths and injuries in armed conflict, there is no breakdown by sex.

The report introduces the concept of a “human development balance sheet” which lists global progress and global fragmentation in each of four areas: democracy and participation; economic justice; health and education; and peace and personal security. This includes some limited gendered information. For example, in terms of global progress, it states that 90 countries (with 60% of the world’s people) have achieved or will achieve gender equality in primary education by 2015. However, in terms of global fragmentations, it notes that 60% of children not in primary school across the world are girls, and that 544 million of the 854 million illiterate adults worldwide (63.7%) are women.

The report also assesses progress of countries against the United Nations Millennium Development Goals to be achieved by 2015. These goals are to: eradicate

extreme poverty and hunger; achieve universal primary education; achieve gender equality and empower women; reduce child mortality; improve maternal health; combat HIV/AIDS, malaria and other diseases; ensure environmental sustainability; and develop a global partnership for development. The report notes that “a goal that cannot be monitored cannot be met or missed – and one of the most startling conclusions is the lack of data”.

Some of the points relevant to gender made in the report (about assessing progress against the millennium goals) include:

- Poverty, HIV/AIDS and maternal mortality cannot be directly monitored using current international data, and there are big gaps in the data for other targets that can be monitored. It is possible that those countries where the situation is the worst are those that have the least data, potentially resulting in an overestimation of progress.
- There is not enough data on maternal mortality or on births attended by skilled health personnel to assess progress towards reducing maternal mortality.
- There are 100 million “missing women” who do not appear in statistics due to female infanticide.

Progress against the Gender-related Development Index (GDI) and the Gender Empowerment Measure (GEM) are also reported, noting that all countries perform worse on the GDI than the Human Development Index (HDI), which indicates that gender inequality operates everywhere. These three indices, plus the Human Poverty Index (HPI), are all discussed in this report. The HDI (which measures longevity, knowledge and standard of living) is a useful starting point for measuring human development, but leaves out key aspects, such as capacity to participate in decision-making. The report notes that the success of the HDI has:

...reinforced the narrow, oversimplified interpretation of the human development concept as being only about expanding education, health and decent living standards. This has obscured the broader more complex concept of human development as the expansion of capabilities that widen people’s choices to lead lives that they value.

The HPI measures deprivation on the same measures as the HDI. There are two versions, one for developing and one for developed countries, using different indicators to reflect the different social and economic

conditions. The GDI measures gender equality using the same measures as the HDI and the GEM measures women's participation in political and economic life, highlighting inequalities in opportunity. Information on the calculation of all of these indices is provided.

The report also discusses a range of issues about women's participation in public life and governments. This includes discussion of quotas and gender responsive budget initiatives as tools.

59. United Nations Statistics Division. (2000). The world's women 2000: trends and statistics.

This report provides updated statistics and indicators on women and men around the world in the areas of: population, families, health, education and communication, work, human rights, and political decision-making. This is a comprehensive report which reflects on the achievements or otherwise associated with the Beijing Platform for Action.

Key points about data and indicators raised in this publication include:

- There are gaps in the data, especially with respect to coverage of important topics, timeliness (international data is not available for one to three years after the year in which it is collected and some data is five to ten years old), comparisons with men, comparisons over time, and in coverage of many countries.
- Censuses are generally only collected every 10 years, and household level surveys are not generally conducted regularly. In many countries, data on basic issues (e.g. literacy, health and cause of death, family status, economic activity) are not regularly collected. Many countries do not have vital statistics registration systems and where these do exist, different definitions and indicators are often used, making inter-country comparison difficult.
- Data on violence against women, time use, and school drop out rates are only collected in a few countries.
- There has been an increase in the production and dissemination of gender-sensitive data following the various world conferences on women. The report includes a number of examples of agencies which are now disaggregating data by sex and age, and undertaking a range of activities to reduce gender biases in data collection and reporting. Other actions that have been taken include developing dialogues (and holding workshops and training) between policy-makers, nongovernmental organizations, activists, researchers and statisticians.
- More work needs to be done on collecting information about: violence against women, maternal health and men's roles related to reproductive health, fatherhood, and unpaid work.
- There is little data about adolescents and issues like access to educational and employment opportunities, exploitative living arrangements, discriminatory social and cultural norms in marriage, and the rights and needs of young married women (it is often assumed that once a young woman is married, she is an adult and consequently, she can be deprived of the rights and services available to others her age). This is reflected in policy development which does not take the needs of adolescents into account.
- Data collected on maternal mortality is often poor and maternal deaths are often underreported in vital statistics compilations. Collecting this information is difficult in household surveys, as maternal mortality is a relatively rare event and therefore, large sample sizes are required to achieve reliable estimates. A proposed solution to this is to report on process indicators that are based on conditions which have been found to reduce maternal deaths. The percentage of births attended by trained, skilled health personnel is an example of a process indicator.
- Most sources of data for measuring education have problems with respect to the accuracy of the picture they present. Interviewers asking questions about literacy may not always be successful in developing an accurate picture, due to: sensitivities about the topic, standard definitions of literacy may not be adopted, and there can be biases in self-reporting. There are also issues associated with measuring gross enrolment and net enrolment, and educational achievement.
- Difficulties exist with concepts, definitions and measurement related to: the labour force, employment, the informal sector and home-based workers, and with the measurement and valuing of unpaid work.
- Definitions of activities of daily life are generally those pertaining to life in developed countries, and therefore may not be relevant for use in developing countries.
- Measures of poverty are often focused on income poverty and not on other dimensions of poverty, such as the public provision of goods and services,

and access to common property resources. Also often ignored are other dimensions of a satisfactory life, such as: clean air, dignity, autonomy, and low levels of disease and crime. In addition, intra-household distribution of resources are not often measured.

- The importance of including information on women in statistics collected about refugees, as women refugees will have different needs and experiences of conflict and displacement to men. Difficulties with getting this information occur because: it is hard to make reliable estimates in emergency situations; populations within refugee camps can be transient and sudden arrivals and departures occur; not many countries receiving refugees maintain a register; and often only incoming refugees, and not those leaving countries, are recorded.

60. United States Census Bureau. (2002). Gender equality indicators.

This article examines some of the commonly used gender indicators utilized to evaluate the status of women and men. It focuses on three areas critical to women's and men's well-being: health, education, and economic status. It emphasizes the importance of collecting and evaluating sex-disaggregated measures on health in order to understand the different socioeconomic contributions and circumstances of women and men.

Mortality measures (such as life expectancy at birth and infant mortality rates) are commonly used, not only as health indicators but also as measures of overall living conditions. These measures have advantages and are readily used because they are usually available in many countries where other measures of living standards are not. Health indicators are also useful in that they can also be used to assess the effects of policy changes.

Educational attainment is linked to many aspects of well-being. Research has shown that higher levels of education usually translate into: better health status, higher incomes, and as a result, higher standards of living. Literacy is the most basic measure of education. The traditional definition of literacy is the percentage of persons aged 15 and over who can, with understanding, both read and write a short simple statement of their everyday life. This indicator is most meaningful in countries which have not yet achieved high levels of education. However, for developed countries where education is universal, this measure is not as useful. The authors suggest that when examining sex differentials in educational attainment in developed countries and

some developing countries, an indicator of completed years of schooling is a more appropriate measure of education than literacy rates.

There are several indicators which can be used to measure economic status. However, many of these have a disadvantage in that either they may not be comparable across countries, or they may not capture the information needed for policymakers. For instance, one of the common problems with data on economic activity is that much of the work that women engage in, particularly in developing countries, is not counted or captured in typical labour force surveys. Activities such as housework, childcare, and subsistence agriculture are often not well documented by conventional data collection methods. Therefore, women are thought to be inactive when they may be producing food for household consumption or caring for children or family members.

The percentage age of economically active men and women aged 20–29, cross-correlated with the presence of a preschool child, is highlighted by the authors as a useful indicator for illustrating the different impact that small children have on women's and men's labour force participation. It is suggested, that although this indicator is a relatively simple, it can help policy-makers understand why women may have lower economic activity rates than men, and provides policy-makers with information that can help guide them in developing programmes to increase women's economic activity.

61. Wang G-Z, Pillai VK. (2001). Measurement of women's reproductive health and reproductive rights: an analysis of developing countries.

Wang and Pillai describe the construction of scales to measure women's reproductive rights and women's reproductive health in developing countries. These scales are tested using data from 125 countries. The authors argue that increasing reproductive rights is an important aspect of improving reproductive health, and that measures to address these two dimensions have not been adequately developed.

Women's reproductive rights were defined following the Cairo Conference's definition as:

...the right to decide freely and responsibly the number and spacing of their children, to be educated and informed in this respect, to have access to reproductive health services, and to have control over their bodies and attain the highest reproductive health standards.

Five indicators based on this definition and data availability are proposed:

1. The right to legal abortion.
2. Personal rights to interracial, interreligious, or civil marriages.
3. Personal rights for equality of sexes during marriage and for divorce proceedings.
4. maternity leave benefits.
5. Women's singulate mean age at marriage.

Women's reproductive health, also defined following the Cairo Conference, is:

... a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity, in all matters relating to the reproductive system and its functions and processes. Reproductive health therefore implies that people are able to have a satisfying and safe sex life and that they have the capacity to reproduce and the freedom to decide if, when and how often to do so.

The indicators developed for the reproductive health scale include some of those proposed by the World Health Organization (WHO) (see WHO, 1997); however, some of these were not included due to poor data availability. The indicators used are:

1. Percentage of births attended by trained personnel.
2. Births per 1 000 women aged 15–19.
3. Estimated of HIV seroprevalence for pregnant women.
4. Infant mortality rate per 1 000 live births.
5. Maternal mortality rate per 100 000 live births.
6. Percentage of pregnant women immunized against tetanus.
7. Total fertility rate.
8. Percentage low-birth-weight infants.
9. Contraceptive prevalence rates for women aged 15–49.

Following testing of these scales, a number of issues were identified, including lack of data availability and the need for further research and theoretical development in the area of reproductive rights to inform scale development. The authors also suggest that these scales should be revised as the meanings of terms change.

62. Wang CCY et al. (2002). Reproductive health indicators for China's rural areas.

The authors describe the development of practical reproductive health indicators to measure the reproductive health and well-being of women in rural China, reflecting the definition of reproductive health as a: "state of physical mental and social well-being and not merely the absence of disease or infirmity in all matters relating to the reproductive system and to its functions and processes" developed at the 1994 International Conference on Population and Development in Cairo. The authors acknowledge the importance of the World Health Organization (WHO) list of 17 indicators for reproductive health (WHO, 2001), but note the difficulty and costs associated with collecting relevant data.

Nominal group technique was used to seek reproductive health workers' ideas on potential indicators, which should result in culturally appropriate and effective indicators. Following this, reproductive experts were asked to prioritize the indicators (using the Delphi technique). The major criteria for the indicators were: practicality, feasibility, and measurability in rural China. Indicators were tested in low-, middle- and high-income counties.

Community-based reproductive health indicators developed were:

1. Total fertility rate.
2. Contraceptive prevalence rate.
3. Maternal mortality ratio.
4. Percentage of women attended at least once during pregnancy by skilled health personnel.
5. Proportion of villages with access to a formally-trained midwife.
6. Proportion of pregnant women who receive regular prenatal care.
7. Perinatal mortality rate.
8. Proportion of women with freedom to choose which type of contraception to use.
9. Proportion of children aged 0–5 immunized.
10. Prevalence of women who have reproductive tract infections.
11. Child mortality rate below age five (by age and gender).
12. Proportion of deliveries under antiseptic conditions.
13. Proportion of women with legal right to decide whether to bear children.

14. Neonatal mortality rate.
15. Proportion of women with high-risk pregnancy delivering at hospital.
16. Proportion of women with prenatal self-care knowledge.
17. Incidence of delivery complications.
18. Induced abortion rate.
19. Proportion of villages with emergency obstetric care.
20. Number of health care personnel who can diagnose and treat common reproductive tract infectious diseases per 100 000 women.
21. HIV prevalence among women of reproductive age.

Of these, eight were identical to or comparable to indicators on the WHO list. An additional eight indicators were developed to measure achievements in improving reproductive health. These were:

1. Proportion of villages with basic essential health care available.
2. Proportion of the local government's budget allocated to reproductive health matters.
3. Proportion of villages with safe, potable water.
4. Proportion of villages with transportation from village to town/city.
5. Proportion of villages with electricity.
6. Proportion of women who share in decisions about family expenditures.
7. Existence of an organization responsible for women's crisis intervention.
8. Proportion of women of reproductive age who received tetanus vaccine.

63. Whitehead A, Lockwood M. (1999). Gendering poverty: a review of six World Bank African poverty assessments.

This paper reviews World Bank Poverty Assessments undertaken by four sub-Saharan African countries (two successive reports from Ghana and Zambia, and one from Tanzania and Uganda) during the 1990s. The focus is on key questions, such as why gender appears (or is made invisible) in the ways that it is in the evidence in the poverty assessments, and in the policy analysis of the Assessments. The authors note that definitions of poverty will inform how it is measured, and that the relationship between gender and poverty is multi-dimensional, and that this complexity is generally not

explored in the reports. The authors argue that gender cannot be "added on" to poverty, but that the way poverty is defined, measured and analysed will "have profound consequences for the way in which we characterize gender relations and inequalities". Whitehead and Lockwood identify that while there are significant gaps in the collection of data about poverty and about gender, this data is used in a highly selective and partial way to inform policy recommendations.

Key issues identified include:

- The reports don't reflect a common approach to the measurement of poverty, and variously include: poverty lines, nutritional and health data, education data and participatory assessment.
- Even when other dimensions are measured, the Assessments prioritize money-related household poverty lines, based on income or consumption and an estimation of the percentage of those living in poverty. This results in reliance on expenditure data from surveys, and gives little information about the process of impoverishment or of inequality within households. Some Assessments have attempted to redress this by including a Participatory Poverty Assessment.
- Variation in the methods for undertaking the Assessments and for establishing the household poverty line, with some using absolute values (such as the cost of a minimum food basket) and others using relative values (a proportion of mean expenditure). Different adjustments are made (some on size of the household, and some estimated per adult equivalent).
- Great variation in the way women and/or gender issues are included in the Assessments with no common language (some use women, others use gender) or definitions of concepts associated with gender (such as gender relations). In some reports, women and/or gender are almost absent. Consequently, there are inconsistencies, fragmentation and gaps in the analyses: "where it is not ignored, gender is made visible in many different ways, with no attempt to systematize the gender analysis implied by these discussions". The authors attribute this to poor capacity within the World Bank with respect to gender issues.
- "Female-headed households" is the most common way women appear in the assessments. This is not a very useful indicator of poverty of women as it combines different categories of households occurring at different times and places for different reasons. In ad-

dition, it doesn't enable examination of intrahousehold inequities.

- Gender is “largely used to describe a relatively fixed status or category with little reference to its relational implications”.
- Three reports include a Participatory Poverty Assessment (PPA), and this qualitative work appears to result in greater gender sensitivity (with information about, for example, who benefits from social spending and intrahousehold inequity). However, quantitative data is generally privileged over qualitative data, and qualitative data isn't used for triangulation.
- While PPAs allow for a broader range of poverty concepts to be included, they generally use traditional qualitative methods, such as key informant interviews, which are not strictly participation, and may still result in the exclusion of the poorest and most marginalized groups and may not improve the gendered nature of the assessment.

64. Wieringa S. (1999). Women's empowerment in Japan: toward an alternative index on gender equality.

This article outlines key critiques of the United Nations Development Programme's Gender-related Development Index (GDI) and Gender Empowerment Index (GEM). The author proposes an alternative index, the “Gender Equality Index” (GEI), and examines gender (in)equality in Japan.

Key issues with the GDI outlined by Wieringa include that: it is strongly correlated with the gross domestic product (GDP), and thus the level of gender equity appears to be explained by the GDP of the country; there are issues with the validity of the indicators and how they are measured (see Dijkstra and Hanmer, this bibliography); it is “more concerned about the human resources needed to sustain economic growth rather than challenging the workings of the global economy and its structural inequalities”; it omits a number of variables critical to human development, such as: human rights, ecology, care, freedom from hunger or other forms of social and political freedom; and it has a very narrow focused view of the factors contributing to gender equality.

Wieringa discusses power and empowerment, and argues that undertheorization of these concepts results in ambiguous and weak use in the development field. She suggests a “Women's Empowerment Matrix”

to emphasize the interconnections between spheres where women's (dis)empowerment is enacted and the different levels where this occurs. This matrix consists of: physical, sociocultural, religious, political, legal and economic dimensions at the global, regional, national, meso (provincial), family and personal levels. Wieringa notes that the ways the interconnections between the domains and levels of the matrix will interconnect will vary in different historical and cultural contexts.

Following this, Wieringa argues that the GEM has a number of flaws. These include similar problems to those inherent in the GDI. In addition, she argues that the GEM has a limited view of power and empowerment, and notes that it does not include issues related to: the body, sexuality, religious issues, cultural issues, legal issues, ethics, women's rights and care. Neither does it include any indicators for those levels of power relationships where women's inequality may be considered natural or obvious within a culture.

Wieringa notes that “neither GDI nor GEM is able to capture politics, gender ideology and issues related to sexuality and culture in general”. She suggests that national level sociocultural and historical analyses should be undertaken to identify what these measures exclude.

Wieringa then describes work in development by a group associated with the Institute of Social Studies in The Hague to develop a GEI. Key challenges include developing concepts of gender power so that they can be measured at a national level and comparable across countries. She suggests that for an index to be able to do this it must be supplemented by two things: the historical context; and country specific satellite indicators which may be relevant for individual countries or groups of countries. The key dimensions of the GEI are:

1. *Gender identity*. Two indicators are proposed for measuring this: maintenance of rigidity of the sexual division of labour; and tolerance of transgender practices.
2. *Autonomy of the body*. Three indicators are proposed: incidence of and legal protection against gender based violence; the control women have over their sexuality; and women's independent access to contraception.
3. *Autonomy within the family and the household*. This will be measured by freedom to marry and divorce; whether women have the right to custody of children after divorce; and women's decision-making power within the household and access to household assets.

4. *Women's political power at above household levels.* This would be measured by women's access to decision-making processes in municipalities, labour unions, the government and parliament.
5. *Women's access to social resources.* This could be measured by access to health (through measuring stunting and nutritional levels) and to education (by drop-out levels). Satellite indicators for education might include: the quality of education, and the sexist content of school curricula.
6. *Material resources.* These could be measured by gendered access to land, houses and credit.
7. *Income.* This could be measured by three indicators: gendered wage differentials; the gendered distribution of paid and unpaid labour; and the gendered division of formal and informal labour.
8. *Time use.* This could be measured by the gendered division of time spent in paid and unpaid work, and access to leisure and sleep.

Wieringa explores the use of the GDI, GEM and GEI using data from Japan, and concludes that using the GDI results in a culturally richer analysis than the other two indices.

65. Williamson JB, Boehmer U. (1997). Female life expectancy, gender stratification, health status, and level of economic development: a cross-national study of less developed countries.

Williamson and Boehmer note that while there has been some work to identify the causes of cross-national differences in life expectancy, this work often averages results across the population, and only a few studies have focused on differences in female life expectancy at birth. The authors set out to test the significance of two theories—industrialism theory and gender stratification theory—in predicting the factors associated with different female life expectancy in larger less developed countries.

Industrialism theory suggests that “the transition from a lower level of development to a higher level of development will be achieved when a country undergoes a number of structural changes linked to the process of industrialization”. Variables considered by those utilizing this approach include: per cent urban, school enrolment (or equivalent), and gross domestic product per capita. These are often measured on an absolute, not relative to gender, basis. Subsequently, these meth-

ods “omit any analysis of male/female differences with respect to either the causes or consequences of industrialization and economic development.”

Gender stratification theory focuses on the status women hold relative to men. Proponents of this approach highlight the importance of comparing women's status relative to that of men, rather than women's absolute status. The types of indicators informed by this theoretical approach include: women's educational status, political status, economic status, and autonomy and independence. The authors note that most studies have focused on educational achievement of women, and argue for the importance of including measures of the other three domains identified.

Previous authors have argued that factors associated with industrialism have been more important than relative positions between women and men in determining differences in women's health status. This article reports on the findings of multivariate analyses of cross-national female “life-expectancy at birth” differences, and suggests that while indicators informed by industrialism theory are useful, those associated with the status of women (that is, the gender-stratified variables) were effective predictors of life expectancy at birth when the four dimensions of women's status were included.

The indicators from the four main gender stratification domains included in this study were:

1. Women's educational status: female literacy, primary school enrolment, secondary school enrolment.
2. Women's autonomy: women's legal equality, equality in the family, age first married (earlier equals less empowered), contraceptive prevalence (control over reproduction), crude birth rate (again, control over reproduction).
3. Women's political status: number of years women have had suffrage, percentage of parliamentary seats held by women.
4. Women's economic status: ratio of women to men working in agriculture, ratio of women to men working in the industrial sector, ratio of women to men working in the service sector.

Measures related to development included: urbanization, access to sanitation, birth attended by a trained person, social welfare expenditure, political and civil rights, and physician to population rates.

The study presents a lot of information about the relationship between various indicators and female life expectancy and their predictive power.

66. Women in Development Service. (2001). Gender-sensitive indicators: a key tool for gender mainstreaming.

This paper introduces the work on gender-sensitive indicators for gender mainstreaming of the Food and Agriculture Organization of the United Nations. It provides an overview of what gender-sensitive indicators are and examples of quantitative and qualitative indicators. It also provides a ten-point guide to the development of gender-sensitive indicators, summarized as follows:

1. Ensure that the project objectives for each output include both a people-focused component (which differentiates between women and men) as well as a technical or environmental component. Always assume that project objectives will affect men and women differently.
2. Ensure the description of each output refers to women and men (their roles and responsibilities/in-equities that will be addressed).
3. Ensure the description includes how the activities will address the different needs and priorities of women and men.
4. Describe how women and men will be involved in the activities, and how the different positions of women and men will influence their participation.
5. Ensure both immediate and longer-term outcomes for both women and men are included. Previously, objectives considered to be gender-neutral have resulted in different outcomes for women and men, and sometimes, in outcomes which were negative for women.
6. Include organizations with a gender focus in the user group.
7. Identify quantitative and/or qualitative indicators to measure gender sensitivity of the objective, activities, impacts and outputs.
8. Identify indicators to measure the participation of women and men at each stage of the project.
9. Identify indicators to measure outcomes for women and men after five years.
10. Plan to allow for the sex-disaggregation of all data (including budgeting for it).

67. World Bank. (2001). Integrating a gender dimension into monitoring and evaluation of rural development projects.

Developed in collaboration with the World Bank Gender and Development Group, this paper proposes a framework for assessing progress in achieving broad-based and inclusive rural development. Strategies for enabling gender-sensitive monitoring at all stages of project development (identification and preparation design and appraisal; implementation and implementation completion) are outlined. The paper also provides: examples of projects and associated gender-sensitive performance indicators; monitoring and evaluation data sources and underpinning assumptions; a list of key questions to ask in engendering the project design; suggested (qualitative and quantitative) data collection and analysis methods; and a rural score card. The importance of: input, output, outcome, impact and risk/enabling indicators, and the importance of participatory approaches to project monitoring and evaluation are highlighted.

68. World Health Organization. (1997). Monitoring reproductive health: selecting a short list of national and global indicators.

This report outlines the process and outcomes of selecting of a short list of reproductive health indicators that together reflect a holistic view of reproductive health. The indicators are for use at the national and global levels. The purpose for undertaking this exercise was to address a concern about the proliferation of indicators in the context of a shortage of health information and data.

The steps involved in selection included:

- Identification of lists of existing indicators.
- Aggregation of existing indicators and identification of commonalities, overlaps and gaps.
- Evaluation of each indicator and identification of “strong indicators”. The criteria used for this were that the indicator must be:

- (d) ethical (that is, the data is ethical to collect, analyse and present);
- (e) useful at the national and international levels and be a marker of progress;
- (f) scientifically robust (valid, specific, sensitive and reliable);

- (g) representative (covers all the issues and/or population groups expected);
 - (h) understandable (easy to define and interpret);
 - (i) accessible (the data required is already available or easy to collect).
- Identification of gaps in the coverage of these strong indicators and identification of the “least problematic” of the weak indicators.
 - Development of a short list of indicators.
 - Expert review of the short list.
 - Finalization of the short list.

No one indicator met all of the selection criteria, and those that best met the criteria did not provide a full picture of reproductive health, leaving out: maternal nutrition, newborn health, complications of unwanted pregnancies, female genital mutilation, violence against women, cancer of the reproductive tract, adolescent health, and infertility. Consequently, the weaker indicators were reviewed to choose the best to measure reproductive health in these areas. The report includes an analysis of each of the selected indicators against the selection criteria.

The 15 indicators identified were: total fertility rate; contraceptive prevalence rate; maternal mortality ratio; percentage of women attended, at least once during pregnancy, by skilled health personnel for reasons relating to pregnancy; percentage of births attended by skilled health personnel; number of facilities with functioning basic essential obstetric care per 500 000 population; number of facilities with functioning comprehensive essential obstetric care per 500 000 population; perinatal mortality rate; percentage of live births of low birth weight; positive syphilis serology prevalence in pregnant women attending for prenatal care; percentage of women of reproductive age screened for haemoglobin levels who are anaemic; percentage of obstetric and gynaecological admissions owing to abortion; reported prevalence of women with female genital mutilation; percentage of women of reproductive age at risk of pregnancy who report trying for a pregnancy for two years or more; reported incidence of urethritis in men; and HIV prevalence in pregnant women.

This process highlighted the lack of indicators in 13 key areas. These are: abortion, violence against women, quality of care, access to care, antenatal care, postpartum care, adolescent reproductive health, “male factor”, reproductive health policy, HIV/AIDS, reproductive tract infections, preventative behaviour, and cervical cancer.

69. World Health Organization. (2001). Reproductive health indicators for global monitoring: report of the second interagency meeting.

This paper reports on a meeting held to review the reproductive health indicators outlined by WHO (1997) (see this bibliography), and to identify two HIV/AIDS indicators to add to the list. In addition, the meeting was organized to develop a plan for further work on reproductive health indicators as well as on assistance to countries to collect and report on indicators.

The review of the indicators was informed by work done on them by a number of international agencies, and these projects are described in the paper. The existing indicators were identified to be the best currently available; however, it was noted that more work needs to be done to improve them. In refining and developing the indicators, the following should be taken into consideration: use a multilevel (or “bottom-up” approach) so that data is useful at a local level; as global indicators do not provide information about equity at regional and district level, consider developing indicators for these levels; collect data in a way that recognizes the interlinked nature of data to avoid confusion; and review how the indicators are used to inform policy-making and outcomes. In addition, it was considered that research into indicators for quality of care and prevention was needed. Recommendations were also made about how to improve data collection, analysis and dissemination of these indicators.

The new indicators proposed were to monitor HIV prevalence in pregnant women and knowledge of HIV-related prevention practices. The indicators were: percentage of pregnant women (15–24 years) attending antenatal clinics; whose blood has been screened for HIV, who is seropositive for HIV; and the percentage of all respondents who correctly identify all three major ways of preventing the sexual transmission of HIV and who reject three major misconceptions about HIV transmission or prevention.

70. World Health Organization. (2002). The world health report: reducing risks, promoting healthy life.

This report attempts to quantify important risks to health and to assess the cost-effectiveness of some of the measures to reduce them. In the report, “risk” is defined as: “a probability of an adverse outcome, or a factor that

raises this probability”, and “risk assessment” is defined as: “a systematic approach to estimating the burden of disease and injury due to different risks”. The report identifies: (being) underweight, unsafe sex, high blood pressure, tobacco consumption, alcohol consumption, unsafe water, poor sanitation and hygiene, iron deficiency, indoor smoke from solid fuels, high cholesterol, and obesity as the ten leading health risks accounting for more than one-third of deaths across the world.

The report includes in-depth discussions on defining and assessing: risks to health, perceiving risks, quantifying selected major risks to health, some strategies to reduce risk, strengthening risk prevention policies, preventing risk, and taking action. The report also explores the relationship between risk factors and poverty.

While many of these risks will impact differently on men and women, they are not reported in a sex-disaggregated way, and gender equality or equity is generally not commented upon. There are some indicators which do pertain directly to particular risks for women, including: childhood and maternal nutrition, lack of contraception, and violence.

71. World Health Organization. (2002). The world report on violence and health.

This report was developed in response to a World Health Assembly resolution that declared violence a serious and growing public health problem. It covers: violence as a global public health problem, youth violence, child abuse and neglect by parents and other caregivers, violence by intimate partners, abuse of the elderly, sexual violence, self-directed violence, collective violence, and recommendations for action. In each of these categories, there are discussions concerning: definitions, the extent of the problem, risk factors, consequences, what can be done to prevent it, and recommendations.

In relation to the measurement of violence and its impact, the report notes:

- Different types of data are needed for different purposes (including for identification of: the magnitude and impact of violence, the factors associated with increased risk, and the effectiveness of prevention programmes).
- Mortality data can: provide an indication of lethal violence, enable identification of groups at high risk, facilitate monitoring over time, and allow comparisons between countries. However, mortality data is

limited because violence often results in non-fatal violence.

- Data on non-fatal violence are highly underestimated because: not all assaults result in injuries requiring treatment; many countries don't have systems to enable collection of data; and in many countries, reporting of some types of violence—such as rape—can result in death. Often, information on non-fatal violence is collected through surveys requiring self-reporting, and it is not known whether this results in accurate estimations.
- In order to developing a better understanding of violence and its impact, other types of data are required. These include: health data on diseases, injuries and health conditions; self-reported data on attitudes, beliefs, behaviours, cultural practices, victimization and exposure to violence; community data on population characteristics and socioeconomic variables; crime data; economic data (especially on costs of treatment and services and savings from prevention programmes); and data on policy and legislation.
- Sources of data include: individuals, agencies and institutions, local programmes, community and government records, population-based surveys, other surveys, and special studies. Other surveys and special studies are important in finding out about attitudes, behaviours and involvement in violence, and about violence that does not show up in other types of reportage.
- There are a range of problems with the collection of data, including variability between countries on the availability, quality and usefulness of different data sources. In relation to availability, mortality data might be widely collected, but it is difficult to calculate rates of violence because population data is often unreliable, especially in countries where populations are in flux. In addition, data on non-fatal outcomes is often not available. The quality of data is often poor and inadequate for identification of prevention strategies or for research—one reason for this is that it is often collected by services for treatment purposes. Other issues include: that it is difficult to link data from different sources and organizations (such as the coroner and the police); there is a lack of uniformity in collection of data on violence; it is difficult to develop measures that are relevant and specific to different groups and cultural contexts; there are a range of issues concerned with ensuring confidentiality and safety of victims; and ethical issues related to research on violence.

**72. Young G, Fort L, Danner M. (1994).
Moving from the status of women to
gender inequality – conceptualization,
social indicators and an empirical
application.**

Young, Fort and Danner identify that theoretical advances for conceptualizing gender inequality have not been translated into practice. They develop a set of indicators for measuring gender inequality (as opposed to measuring the status of women) to assist in redressing this gap. The authors argue that that gender inequality needs to be measured in multiple dimensions, such as in terms of: health, political systems, economic systems, education systems and family systems.

The authors propose a set of 21 Social Indicators of Gender Inequality which can be calculated using data from the Wistat (United Nations, 1988) database, and use this to analyse gender relations in 70 countries (this is also discussed in Danner et al., 1999; see above). This set has five key dimensions of social life grouped under one of two spheres: human rights (basic and civil rights), or social relations. The human rights sphere includes: physical well-being, and public power. The social relations sphere includes: family formation, education, and economic activity. The indicators are comparative (ratios of the number of women per 100 men by age group).

In discussing the use of available statistics, the authors note that there is often a difference between what one wants to measure and the data that is available for indicator construction. Limitations of this data includes that even where data is available, quantitative information often doesn't capture the complexity of the concepts it attempts to measure, and this is especially the case with respect to "subjective considerations", such as how gender inequality is perceived and determined by the values and expectations of a community and its members. In addition, even gender-disaggregated data is rarely disaggregated for other important differences, such as: race, ethnicity, age, rurality and social class. Measures are also often based on Western perspectives.

3

Summary Tables

Introduction to summary tables

The tables in this section are designed as a snapshot of some of the literature reviewed to provide a quick reference for those wanting to get an overview of the scope of the work done in a particular area.

Tables 1.1–1.3 focus on specific indicators, grouped according to the tiers of our framework: health status, determinants of health and community, and health and welfare system characteristics. (Note: There was little information about specific indicators pertaining to the health system performance level, though there is some information on quality assessment in Table 2.4.)

Table 1.4 focuses on composite indices. For ease of reference, indicators on the same topic are grouped in the one box (e.g. indicators pertaining to women's work), and the key advantages, limitations and suggested strategies identified by all of the relevant authors are summarized together. Consequently, not all of the authors will have identified all of the issues nor all of the strategies for improvement for any one topic area.

Tables 2.1–2.4 focus on methods and activities associated with indicator development. These summaries are tabulated in the same way as for Tables 1.1–1.3.

Table 3 summarizes frameworks for indicator development.

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Table 2.3 Methods/activities for monitoring implementation of international conventions, declarations, agreements and development projects

Table 2.4 Methods/activities related to measuring quality in services

Table 3 Frameworks

Table 1.1 Health Status Indicators

Indicator/topic	Advantages	Limitations
Traditional health status indicators, such as mortality	<ul style="list-style-type: none"> • Internationally recognized, consistently defined • Good data available in some countries 	<ul style="list-style-type: none"> • Measure death and illness, rather than health and well-being. Therefore they do not reflect current conceptualizations of health • Often leave out mental health • Indicators and data are not sufficient to analyse policies in this area • Some women's health issues, such as menstrual problems and tiredness, may not appear in traditional health statistics and therefore will not be included in mortality data
Life expectancy	<ul style="list-style-type: none"> • Commonly used 	<ul style="list-style-type: none"> • When a person dies will reflect conditions over their whole life and not only the conditions in the year they died; consequently, the indicator has a lag period
Healthy life expectancy		<ul style="list-style-type: none"> • Often measured through self-rated health. • Problems with this include different cultural expectations/understandings about what it means to be healthy • Women may be more likely to over-estimate their health status and men may be more likely to underestimate their health status
Crude death rate (number of deaths/year/1000)		<ul style="list-style-type: none"> • Can be misleading because higher average age in a country could result in a higher death rate. Thus, falling death rate might indicate falling average age
Infant mortality rate	<ul style="list-style-type: none"> • Reflects infants and mothers health, environmental health, and socioeconomic issues • Commonly used 	<ul style="list-style-type: none"> • Accurate data may not be available • May be a poor predictor of life expectancy (especially where health technologies are targeted to infants and children)
Maternal mortality	<ul style="list-style-type: none"> • Indicates dangers of childbearing 	<ul style="list-style-type: none"> • Data is often collected through: vital registration, health service statistics, hospital records, and sample surveys. Many women in developing countries do not access services, so there is underreporting • Deaths due to other causes precipitated by obstetric causes often are not recorded in developed countries • Miscarriage, still births, perinatal and neonatal deaths are often not recorded • Mortality associated with abortion is not recorded where it is illegal
Maternal morbidity and reproductive morbidity		<ul style="list-style-type: none"> • Does not incorporate the socioeconomic and cultural linkages between fertility and women's well-being • Fails to take into account that the number of pregnancies and deliveries a woman goes through alters the overall risk she faces • Data is difficult to obtain in developing countries, and the incidence of maternal morbidity is largely unknown • Indicators of maternal morbidity or a system for classifying them have not been developed • Many illnesses associated with reproduction are not reported, as women do not seek medical attention due to sensitivities, and often use traditional remedies
Percentage of women with anaemia	<ul style="list-style-type: none"> • Reflects basic well-being 	
Nutrition		<ul style="list-style-type: none"> • Indicators of nutritional intake are: time-consuming, expensive and prone to error • Anthropometric measures have limitations when adapting them to different population groups • Bias of assessors is also possible
Number of women and men with disabilities		<ul style="list-style-type: none"> • Most information collected by organizations providing services • Collection through census difficult if collectors cannot identify people with disabilities other than those with obvious physical ones

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> Abdool and Vissandjée propose an alternative set of indicators (see framework in Table 3) More detailed data is needed on deaths from external causes, such as accidents, homicide and suicides 	Abdool and Vissandjée, 2000 Austen, 2000 Drensted-Nielsen and Luige, 2002 Tilley, 1996 Doyal, 1996 United Nations Statistics Division, 2000
<ul style="list-style-type: none"> Use an indicator with a short time between birth and death, such as infant mortality 	Beck, 1999 Beck and Stelcner, 1997 Nayar, 2002
	Beck, 1999
	Beck, 1999 Beck and Stelcner, 1997
<ul style="list-style-type: none"> Improve reliability and validity of data collection 	Nayar, 2002 Kim, 2002 United Nations Statistics Division, 2000
<ul style="list-style-type: none"> Lifetime risk may be a more useful indicator of women's reproductive health Lifetime risk takes into account both the risk of individual childbirths and the average number of children women produce in a lifetime Lifetime risk focuses on women rather than the birth as the subject 	Edstrom, 1992 Nayar, 2002
	Kim, 2002
<ul style="list-style-type: none"> Anthropometric approach to assessing nutrition is a simple and more direct method 	Saith and Hariss-White, 1999
	Licuanan, 1999

Continues...

Table 1.1 Health Status Indicators (*continued*)

Indicator/topic	Advantages	Limitations
World Health Organization (WHO) reproductive health indicators (2002)	<ul style="list-style-type: none"> • Begin to incorporate a focus on reproductive health and well-being 	<ul style="list-style-type: none"> • Largely reflect a clinical approach • Data collection is difficult and costly for health workers in rural China • Rural health workers need practical and feasible indicators to guide programmatic development • Data is not readily available for seven of the 15 indicators in many developing countries
Disability-adjusted Life Years (DALYs) (including for assessment of reproductive and sexual ill-health)	<ul style="list-style-type: none"> • Enables combination of quality of life and life expectancy in one measure • Recognizes the impact of morbidity and disability and their social and economic costs 	<ul style="list-style-type: none"> • Missing and inadequate data • Largely based on illness/absence of disease model • Difficulties with measuring disability • Difficulties with weighting morbidity associated with different conditions and lack of transparency in doing this • Comorbidities are not well dealt with • Equal weightings given to each condition for men and women despite the impacts of these conditions being different • DALYs for some sexual health and reproductive conditions have been left out of estimates for Burden of Disease • Excludes socioeconomic, cultural and environmental factors which may impact on the overall burden and ability to cope, and which may impact more on men than on women • Does not include the social costs of disfigurement • Does not reflect the lived experience of people with disabilities
Quality of life measures and Quality-adjusted Life Years	<ul style="list-style-type: none"> • Include subjective assessments of well-being, satisfaction and self-worth or empowerment. • Attempts to measure people's positive experiences of health 	<ul style="list-style-type: none"> • Nebulous concept, difficult to measure • Problems with reliability and validity • Often based on professional views about well-being rather than consumer views • Over 100 measures • Different measures have different definitions and dimensions • Most are not gender-sensitive and do not include gender-specific questions

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> • Develop and field test community-based reproductive health indicators (using participatory techniques of nominal group process and Delphi surveys) • WHO (1997) provides a report on the indicators and an analysis of each against 6 criteria (see Table 3) • WHO (2001) provides information on a review of the indicators and proposes two additional indicators related to HIV/AIDS • Wang and Pillai develop scales for reproductive health (using some of these indicators) and reproductive rights 	<p>Wang et al., 2002 WHO, 1997 WHO, 2001 Wang and Pillai, 2000</p>
<ul style="list-style-type: none"> • Develop a standardized and common approach to analysing existing data collected in longitudinal studies to enable a better understanding of the extent, nature and risks for sexual and reproductive ill-health • Establish longitudinal studies to determine the incidence, prevalence and risk of long-term complications of reproductive health conditions • Develop international research agenda to select and test multidimensional indicators of reproductive health and well-being • Develop instruments that reflect severity and that can be modified to reflect prognosis to assist with weighting • Involve consumers in developing weightings 	<p>AbouZahr and Vaughan, 2000 Eckermann, 2000</p>
	<p>Eckermann, 2000</p>

Table 1.2 Determinants of health indicators

Indicator/topic	Advantages	Limitations
Access to land, equipment and credit		<ul style="list-style-type: none"> • No systematic approaches to measuring women's access • While women might have access to credit, men may make the decisions about how the credit is used
Poverty		<ul style="list-style-type: none"> • No standard methodology for assessing among ESCAP countries • Measures use the household as a basic unit (assumes that resources are shared equally between household members) • Work on the feminization of poverty often uses household as the basic unit, and focuses on number-of-woman-headed households, or number of women in poor households. This is an inaccurate measure as it may indicate no differences between male and female poverty when female poverty is actually greater • Measures focus on income at a specific point, which by itself may not be a good indicator because income fluctuates, and households with similar incomes may have different levels of debt and savings, different access to social support networks, and non-cash income • No common method for calculating thresholds for measuring absolute poverty • No reliable indicators at global level to identify how much women are over-represented in those living below the poverty line, and none of the indicators for income poverty are gender-sensitive • Not all aspects of poverty, such as: political freedom, personal security, reduced choices and exclusion from power and decision-making, can be measured. • Difficult to make intercountry comparisons on poverty between countries with vastly different levels of socioeconomic status • Many people living on low incomes (but above the poverty threshold) have to work so many hours that they have no time to perform the kinds of work at home required for the maintenance of a reasonable standard of living
<p>Economic indicators of women's work</p> <p>Economic activity</p> <p>Labour force participation</p> <p>Economically active population</p> <p>Gender equality and women's empowerment in employment</p> <p>Women's share of paid employment</p> <p>Women's share of paid employment in industry and services (non-agriculture)</p> <p>Women's economic status</p> <p>Sex-specific labour market indicators</p> <p>Status in employment</p> <p>Women's economic empowerment and economic rights</p>	<ul style="list-style-type: none"> • Women's share of paid work focuses on women's share of paid jobs, should reflect women's share of formal (rather than informal) employment, and includes information across a range of types of jobs • Allows for comparisons between and within countries and regions concerning women's access to paid work 	<ul style="list-style-type: none"> • Women's economic activity generally underrepresented in national surveys • Often excludes unpaid work • Focused on formal economic activities and fails to value women's work in the informal sector • Informal sector work often: seasonal, illegitimate, unrecognized, small-scaled and unstable • Women's unpaid work in spouse's business is also often uncounted • Definitions of unemployment often exclude those who have given up hope of finding a job (and are therefore not "actively seeking" work) • Measurement is complex • Unclear definition of terms such as "economically active" population. Some surveys measure seasonal activities while others measure current or usual activities • No internationally agreed indicators • No indicator in United Nations databases about women's and men's average real earnings adjusted for price increases • No indicators for quality of work rather than quantity of work • The United Nations uses share of paid employment in industry and services (non-agricultural) • Does not identify whether women's share of wages in this employment has been increasing • Increases in women's share of employment: doesn't necessarily correlate with an increase in women's share of national income, due to wage disparities between women and men

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> Supplement indicators with qualitative analysis 	Beck, 1999
<ul style="list-style-type: none"> Development of non-monetary indicators (such as indicators of minimum basic needs) Involve communities in developing indicators/survey questions Develop a scale to measure intrahousehold differences in distribution of resources Need to develop more criteria, indicators and methods to ensure all forms of poverty are recognized Analyse existing raw data from household surveys for gender and age A useful indicator might be the gender poverty ratio (the number of women per 100 men, or per man in the population below the poverty line or in the poorest quintile) Kim proposes nine indicators for monitoring against the Beijing Platform for Action Use a broader measure of poverty based on the concept of human poverty rather than income poverty. This has four dimensions: survival, knowledge, decent standard of living, and social participation (the Human Poverty Index) (In developed countries) indicators of material hardship might be useful, such as: incidence of poor households not meeting essential expenses; incidence of poor people living in crowded conditions; and incidences of upkeep problems, phone/electricity or gas disconnections, evictions and food shortages 	Licuanan, 1999 Cantillon and Nolan 2001 Kim, 2002 United Nations Development Fund for Women (UNIFEM), 2000 Fukuda-Parr, 1999 Durbin, 1999 Austen et al., 2000 Douthitt, 1994 United Nations Statistics Division, 2000
<ul style="list-style-type: none"> Develop a national level data base on women that includes gender-sensitive questions understood by everyone More research into how to define work Relax criteria "actively seeking work" Kim proposes 24 indicators for women and the economy to monitor against the goals of the Beijing Platform for Action Reconsideration of the concepts used in the United Nations System of National Accounts Complement with information about real wages of men and women Consideration of the proportion of women working as unpaid family workers, women's share of positions as employers and in self-employment would be useful in identifying the reduction in barriers to women's economic advancement. However, these indicators would not necessarily provide a good idea about women's increased economic power, assessing how remunerative women's businesses are, and how much economic power women running their own businesses have Surveys of time use, child labour, homeworkers, urban and informal work UNIFEM suggests collection of data showing the differences between the proportion of men and women working in four types of work: unpaid care work, volunteer work, informal paid and unpaid work, and formal paid work More data is needed on the specific constraints for women in starting a business 	Beck, 1999, Abdool and Vissandjée, 2001 Kim, 2002 Beck and Stelcner, 1997 United Nations Development Fund for Women (UNIFEM), 2000 Elder and Johnson, 1999 Licuanan, 1999 Drensted-Nielsen and Luige, 2002 Malhotra et al., 2002 World Health Organization, 1995 United Nations Statistics Division, 2000

Continues...

Table 1.2 Determinants of health indicators (continued)

Indicator/topic	Advantages	Limitations
		<ul style="list-style-type: none"> • Can indicate an addition to women's workloads as they increase paid work and maintain their unpaid work • Will miss much of women's work because surveys concentrate on full-time employees, often omitting part-time, home based, seasonal and temporary employees, or employees in very small businesses • Might have increasing equality at the same time as real wages are falling for both men and women • Might correlate with women in poor households being forced to take low paid work rather than it being their choice to enter paid employment • Might correlate with a reduction in women's human rights • Measurement limitations, such as: biased reporting or misclassification, undercounting and underreporting can result in an underestimation of women workers in the labour market • Lack of comparative indicators, for example: to measure gender equality in the labour market, or time spent in unpaid work, or the feminization of poverty • Conventional economic indicators may suggest progress, in that more and more women may be entering into paid work and there may be increasing efficiency. However, there may also be an increasing transfer of real costs (in women's time and effort) from the public domain to households where the costs are not "monetarized" and therefore not counted. • Indicators of economic status may not be comparable across countries, or they may not capture the information needed for policy-makers • Employment in public and private sector only has availability to about 75%, and does not directly show gender. Also data is not detailed enough to enable the analysis of specific policy initiatives • There is no data to indicate top executives in important businesses
Women's share in managerial, administrative, technical and professional occupations	<ul style="list-style-type: none"> • A way of looking at women's equality in decision-making at levels other than seats in parliament 	<ul style="list-style-type: none"> • Can result in overestimation of women's power in decision-making because: women tend to be concentrated at the lower end of these occupations (working for male decision-makers); there is a concentration of women in some professions like teaching and nursing (still with a higher proportion of males in senior positions); and clerical work is sometimes included in managerial/administration work
Time use		<ul style="list-style-type: none"> • Can hide some of the inequalities between women's and men's work • Difficult to estimate time spent on many domestic tasks (as compared to paid employment where regulations may specify work hours and procedures for undertaking tasks) • People doing domestic labour do not pay a lot of attention to how much time different tasks take; can underestimate time spent on activities they do often; not consider some of the tasks done automatically, or may not consider some tasks that they may not consider to be difficult or to be work • Those who work more slowly and/or inefficiently (or simply have more time to spend on tasks) can appear to have the greatest workload • The use of time does not enable estimation of the qualitative differences in the way tasks are done • Intersection between domestic work and relationships might make it difficult to identify what is work and what is another activity, such as maintaining personal relationships

Summary Tables

Strategies for improvement	Author
	UNIFEM, 2000
	Luxton, 1997 World Health Organization, 1995 United Nations Statistics Division, 2000

Continues...

Table 1.2 Determinants of health indicators (continued)

Indicator/topic	Advantages	Limitations
Households and families, marital status, fertility	<ul style="list-style-type: none"> Women's position within the family is a key element in gender inequity and women's position in the society Main sources of information are censuses and demographic surveys 	<ul style="list-style-type: none"> Definitions of family and households can limit the variety of living arrangements measured Very little information on the role of men in families Data availability is poor for indicators such as: children living in one-parent families; number of persons using contraception; and time spent in paid work, unpaid and other Quality of data collected about contraceptive indicators is questionable Except for time spent in paid and unpaid work, there are no indicators to reflect gender roles and responsibility sharing
Enrolment rates/ratios	<ul style="list-style-type: none"> Important for measuring the status of women and gender equity 	<ul style="list-style-type: none"> Indicate how many people enrol, but not how many attend or drop out Do not cover qualitative areas, such as content of the curriculum or whether curriculum reinforces gender stereotypes Does not show how effective the education is Are indicators of process rather than outcome; literacy rates are outcome indicators for education These indicators focus on education delivered through schools and not on other means of education and training, such as that delivered in workplaces (particularly relevant for women in developed countries)
Gross enrolment ratio (the number of children enrolled in primary or secondary school as a percentage of total number of children in the relevant age group for that level)		<p>As for enrolment rates/ratios plus:</p> <ul style="list-style-type: none"> Assumes children will be enrolled in the grade prescribed for their age group Can be greater than 100% as older children are enrolled in lower grades
Net enrolment ratio (total number of children enrolled in a schooling level who belong to the relevant age group, expressed as a percentage of the total number of children in that age group)	<ul style="list-style-type: none"> Identifies children in the class relevant to their age group by sex 	<p>As for enrolment rates/ratios plus:</p> <ul style="list-style-type: none"> Data may be less readily available than gross enrolment data
Enrolment at secondary school	<ul style="list-style-type: none"> Identifies whether girls have access to education beyond primary school (where it is available) 	<ul style="list-style-type: none"> Education at secondary level may not be available to boys or girls
Years of education		<ul style="list-style-type: none"> A year of education in different countries might be qualitatively different, limiting years of education as a comparative indicator Equal years of education for males and females are not necessarily linked to equal job opportunities
Literacy rates		<ul style="list-style-type: none"> Often measures basic literacy Assesses the functioning of the education system over a number of years, so identification of adult literacy reflects the education system available many years ago Interpretation of the definition of literacy may vary among countries, making intercountry comparisons difficult Is only meaningful to countries that have not yet achieved high levels of education. For developed countries where education is universal, this measure is not useful This indicator might be important for some groups who have less access to education in developed countries

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> • Develop flexible definitions of families and households to include a wider definition that takes into account women's roles • Define the concept of household head to take into account the role of many women as the main provider • Data and analysis should concentrate on accessibility of childcare services, who takes parental leave, responsibility sharing within families and the impact that small children have on men's and women's labour force participation (at least in developed countries) • Instead of looking at the number of persons using contraception, a more relevant indicator would be access to contraceptive information, as the use of contraception is difficult to measure 	<p>Beck, 1999 Kim, 2002 Drensted-Nielsen and Luige, 2002</p>
<ul style="list-style-type: none"> • Obtain enrolment statistics by level and by the field of study at higher levels. • Develop indicators on completion rates and patterns of study • Micro level research comparing enrolment and drop-out ratios are required to identify variables best able to reflect gender gaps in education. 	<p>Beck and Stelcner, 1997 Beck, 1999 United Nations Development Fund for Women (UNIFEM), 2000 Saith and Harriss-White, 1999 Austen, 2000 United Nations Statistics Division, 2000</p>
<ul style="list-style-type: none"> • Use net enrolment ratios rather than gross enrolment ratios • Supplement data with other ways of identifying attendance and drop-out rates, and information on curricula • Use measures of literacy to measure outcome 	<p>Beck, 1999 Beck and Stelcner, 1997</p>
<ul style="list-style-type: none"> • Supplement data with other ways of identifying attendance and drop-out rates, and information on curricula • Use measures of literacy to measure outcome 	<p>Beck, 1999 Beck and Stelcner, 1997</p>
<ul style="list-style-type: none"> • Use measures of literacy to measure outcome 	<p>Beck, 1999 Beck and Stelcner, 1997</p>
<ul style="list-style-type: none"> • Adult literacy may be a better indicator than enrolment, as it reflects a level of completed education • Kim proposes 20 indicators for measuring progress against the Beijing Platform for Action 	<p>Kim, 2002 United Nations Development Fund for Women (UNIFEM), 2000 Drensted-Nielsen and Luige, 2002</p>
<ul style="list-style-type: none"> • Perhaps measure functional literacy • An indicator of completed years of schooling may be a more appropriate measure of education than literacy rates 	<p>Beck, 1999 Beck and Stelcner, 1997 Kim, 2002 Drensted-Nielsen and Luige, 2002 Austen et al., 2000</p>

Continues...

Table 1.2 Determinants of health indicators (continued)

Indicator/topic	Advantages	Limitations
Functional literacy rates	<ul style="list-style-type: none"> Assesses capacity to read and interpret more complex information like a newspaper 	<ul style="list-style-type: none"> Data not generally collected for developing countries
Violence against women		<ul style="list-style-type: none"> Most information comes from agencies working with survivors of violence Sensitivities prevent women from reporting violence or seeking services
Crimes against the person		<ul style="list-style-type: none"> Statistics may not reflect violence against women due to gender sensitivity of those collecting the data Poor data and no unified legal definition of crime
Women and armed conflict		<ul style="list-style-type: none"> Difficult to develop indicators because data is poor
The girl child Gender inequality in childhood	<ul style="list-style-type: none"> Redresses the lack of attention given to the development of indicators relevant to children Looks at the intersections between age and gender Can be used to identify differences between gender inequality in childhood and adulthood, and links between the two 	<ul style="list-style-type: none"> Some overlap with other indicators but needs more development Need further development of theories of gender inequality in childhood to inform future work
Adolescents		<ul style="list-style-type: none"> Lack of data collection, results in lack of policy development with respect to issues such as: access to educational and employment opportunities, exploitative living arrangements, discriminatory social and cultural norms in marriage, and the rights and needs of young married women
Violence (mortality data)	<ul style="list-style-type: none"> Can provide an indication of lethal violence, enable identification of groups at high risk, facilitate monitoring over time, and allow comparisons between countries 	<ul style="list-style-type: none"> Limited because violence often results in non-fatal violence Often difficult to calculate rates because population data can be unreliable, especially for countries in flux
Violence (non-fatal data)		<ul style="list-style-type: none"> Highly underestimated because not all assaults result in injuries requiring treatment (and much data comes from service providers), many countries don't have systems to enable collection of data and in many countries reporting of some types of violence such as rape can result in death Often information on non-fatal violence is collected through surveys requiring self-reporting, and it is not known whether this results in accurate estimations Difficult to link data from different sources and organizations (such as the coroner and the police) Difficult to develop measures that are relevant and specific to different groups and cultural contexts A lack of uniformity in collection of data on violence Issues around ensuring confidentiality and safety of victims

Summary Tables

Strategies for improvement	Author
	Beck, 1999 Beck and Stelcner, 1997
<ul style="list-style-type: none"> • Develop new ways of collecting information, such as women's safety surveys, or identification of spousal violence through hospital records • Kim proposes nine indicators to monitor against the goals of the Beijing Platform for Action 	Licuanan, 1999 Kim, 2002 United Nations Development Fund for Women (UNIFEM), 2000 Beck, 2000 World Health Organization, 1995
	Licuanan, 1999 Drensted-Nielsen and Luige, 2002 World Health Organization, 2002
<ul style="list-style-type: none"> • Proposes five indicators for measuring against the goals in the Beijing Platform for Action 	Kim, 2002
<ul style="list-style-type: none"> • Kim proposes 16 indicators for monitoring against the goals of the Beijing Platform for Action • Baunach suggests and tests a range of indicators, such as: female infanticide, son preference, corporal punishment, social ceremonies, affection, protection, and social inclusion of girls and boys • Baunach suggests weighting of some indicators. For example, female infanticide is given a double weighting to indicate that it suggests a much lower valuing of girls than just preferring sons or punishing daughters 	Kim, 2002 Baunach, 2001
	United Nations Statistics Division, 2000
	World Health Organization, 2002
World Health Organization, 2002 United Nations Statistics Division, 2000	

Table 1.3 Community and health and welfare system characteristics indicators

Indicator/topic	Advantages	Limitations
Empowerment of women		<ul style="list-style-type: none"> • Empowerment is not clearly defined, and indicators used may not actually measure empowerment • Difficult to measure because it is difficult to assess changes in people's state of mind from disempowered to empowered • It can be difficult and time-consuming to measure elements of empowerment • Participation is a key measure of empowerment but it also difficult to measure • Definitions of aspects of empowerment may be culturally specific. • Often, measures of empowerment leave out the process of change • Given the same circumstances, different people will make different choices <p>Empowerment indicators are often related to: resources available, agency or achievement (see Kabeer).</p> <p>Critiques of these are as follows:</p> <ul style="list-style-type: none"> • Use of indicators of choice for "universally valued" functions equates empowerment with poverty and overlooks other forms of disempowerment • In measuring the resource domain of empowerment, indicators often point to resource availability rather than to the capacity of women to actualize a choice to utilize them • Measurements of agency include decision-making agency; however, different indicators have different consequential significance for women's lives, as some of the decision-making measured is in the domains commonly associated with women's roles while others are in domains commonly associated with men's roles • Measuring achievement can be misleading, as it may measure women being able to more effectively carry out their existing roles, rather than to act against prevailing discriminatory practice • These three domains of women's empowerment are not divisible in determining empowerment and consequently indicators for only one domain will be unable to measure/ contribute to understanding of empowerment • Indicators are not always sensitive to the ways context shapes empowerment and are often underpinned by the values of the indicator developers • Need different indicators for measuring empowerment of women at the global level (where it is not possible to do in-depth interviews), as compared to measurement at the local level • Empowerment is context-specific; however, indicators of empowerment must include standards which are situated outside the local gender systems and incorporate recognition of universal elements of gender subordination • While it may not be conceptually difficult to distinguish between resources or/and agency, in practice, the same variable might be: an indicator of access to resources, an indicator of women's agency, _____, depending on the context • While variables such as education and employment are often used as proxies for empowerment, there is growing evidence that this is problematic • Because empowerment is multidimensional, and different variables may have a stronger association with empowerment than others, care should be taken in constructing indices, as combining items may result in masking differential effects • Empowerment is most frequently measured at the individual/household (or micro level). It is very difficult to measure at the macro level, and little attention has been paid to the intermediate (community/institution) level. • It is difficult to measure the process domain of empowerment: proxy measures are often used; there is little data collected across time; there are issues about who gets to determine the important elements of process; and the relevance of indicators will shift across time • Interpretation of the meaning of empowerment indicators generally requires additional information

Summary Tables

Strategies for improvement	Author
• Requires definition of empowerment	Licuanan, 1999
• Require construction of indicators measuring persona, and socioeconomic and political change	Beck and Stelcner, 1997
• Beck and Stelcner suggest a set of quantitative and qualitative indicators for measuring empowerment	Kabeer, 1999
• Licuanan suggests indicators of empowerment: subjective well-being, happiness, self-esteem, locus of control, empowerment, and social-psychological growth	United Nations Development Fund for Women (UNIFEM), 2000
• Licuanan proposes empowerment indicators in each of the 12 critical areas in the Beijing Platform for Action	Malhotra, 2003
• Kabeer defines empowerment as “the process by which those who have been denied the ability to make strategic life choices acquire such an ability”	Malhotra et al., 2002
• Kabeer suggests three domains of women’s empowerment: resources, agency, and achievements. Indicators in each domain should be triangulated with those from the other two domains to enable understanding of the meaning of the indicator. In the resource domain, utilize “bridging indicators”, such as the idea of control over decision-making, to identify the process for women’s utilization of resources. In relation to the measurement of agency, identify the consequential significance of different types of decision-making. Also identify the critical points for decision-making (e.g. do women have input at the point of policy development, or at the point of management/ implementation of the policy). In relation to measuring achievement, distinguish between indicators of “effective agency” and indicators of “transformative agency”	
• The United Nations Development Fund for Women (UNIFEM) suggests empowerment requires the measurement of two dimensions: the creation of conditions to enable women to have autonomy and exercise human rights; and women engaging in a process of critical and collective reflection which enables them to redefine what they can and should do	
• Malhotra et al. suggest there is a common conceptualization of empowerment which includes the concepts of agency and process	
• Malhotra et al. develop a framework with suggested measures for assessing women’s empowerment (see Table 3) at three levels: household, community, and broader arenas. The domains are: economic, sociocultural, familial/interpersonal, legal, political, and psychological	
• Use a human rights framework to situate empowerment indicators	
• To enable “universal” and context-specific factors to be taken into account, develop a consistent conceptual framework, which allows variation in the indicators used to populate it (and their weightings). These factors can be identified through participatory processes and conceptual analyses	
• Improve data collection, particularly gender disaggregation of data and data collected across time	
• Increase interdisciplinary engagement to develop indicators which capture key elements of empowerment, have scientific merit, and are acceptable to many stakeholders	

Continues...

Table 1.3 Community and health and welfare system characteristics indicators (continued)

Indicator/topic	Advantages	Limitations
Number of women in parliament/women's share of seats in parliament		<ul style="list-style-type: none"> • Does not identify whether women actually have more input into decision-making • Does not identify differences in power between different positions and ministries • If one woman has responsibility for more than one ministry, she can be counted twice • Women in parliament may come from a limited range of backgrounds and focus on the needs of those groups • Much of the decision-making power about economics has moved from the state to the corporate sector or become concentrated in certain parts of state machineries, such as the financial ministries and central banks
Public life and decision-making		<ul style="list-style-type: none"> • Few data are available to assess gender equality in public life and decision-making. Indicators such as: heads of universities, judges, chief editors of national newspapers, and voters voting all have poor data availability, and only a few countries have it gender-disaggregated
Human rights of women		<ul style="list-style-type: none"> • Need for indicators of change at three levels: the law itself, the legal structure (at the level of institutions), and the culture.
Macroeconomic policy and gender		<ul style="list-style-type: none"> • Uneven indicator development and use
System of national accounts and Gross Domestic Product		<ul style="list-style-type: none"> • While there has been a commitment to include the production of all goods and services since 1993, household subsistence production is still often excluded because basic questions in censuses and surveys do not cover it appropriately. Thus, it leaves out much of women's contribution to the economy and society
Population composition and change	<ul style="list-style-type: none"> • Important in determining the process of social and economic development • Enables gender-sensitive prediction of future demand for services 	
Human settlement and geographical distribution	<ul style="list-style-type: none"> • Enables identification of areas where people have poor living conditions • Enables examination of whether rural women are discriminated against 	<ul style="list-style-type: none"> • Data difficult to collect by sex
Sex ratio	<ul style="list-style-type: none"> • Identifies biases against women (useful "diagnostic" indicator) • Can measure movement of women towards full equality • Data available through census 	<ul style="list-style-type: none"> • Data not always available by sex
Net international migration rates by sex Net internal migration rates by sex	<ul style="list-style-type: none"> • Can point to the impact of migration on households • Can point to whether women and men access opportunities associated with migration (although migrant women are often disadvantaged) 	
Number of female refugees		<ul style="list-style-type: none"> • Data often not available because: it is difficult to make reliable estimates in emergency situations; populations within refugee camps can be transient and sudden arrivals and departures occur; not many countries receiving refugees maintain a register; and often only incoming refugees, and not those leaving countries, are recorded
Ageing	<ul style="list-style-type: none"> • Good data availability 	<ul style="list-style-type: none"> • More detailed data needed on the impacts of ageing on women and men and the implications on society
Population decline	<ul style="list-style-type: none"> • Data availability good except for the number of births to mothers under 20 	<ul style="list-style-type: none"> • Indicators look at population decline only from the aspect of declining fertility and live births, which overlaps with indicators addressing the topic of families and households

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> Supplement with qualitative indicators such as how many times issues related to gender equity are raised in parliament, and what legislation related to gender equity is passed. 	Beck and Stelcner, 1997 Kim, 2002 United Nations Development Fund for Women (UNIFEM), 2000 Malhotra et al., 2002
	Drensted-Nielsen and Luige, 2002
<ul style="list-style-type: none"> Proposes a set of ten indicators to monitor against the goals of the Beijing Platform for Action 	Kim, 2002
<ul style="list-style-type: none"> Check national budgets for gender sensitivity 	Beck, 1999
<ul style="list-style-type: none"> Set up additional "accounts" to measure unpaid work Where possible, get agreement between countries about definitions and measurement Generally done by time use studies (little agreement yet about the value to attribute to the time taken on tasks) 	Beck, 1999 Luxton, 1997 United Nations Development Fund for Women (UNIFEM), 2000 Austen, 2000
<ul style="list-style-type: none"> Collect sex-disaggregated data 	Beck, 1999
<ul style="list-style-type: none"> One method should be used to collect data on male and female heads of households to determine if female household heads are discriminated against with respect to housing conditions and access to facilities 	Beck, 1999
	Beck, 1999
	Beck, 1999
	United Nations Statistics Division, 2000
	Drensted-Nielsen and Luige, 2002
<ul style="list-style-type: none"> A longer time period is required in order to analyse the effect of family policies on these indicators 	Drensted-Nielsen and Luige, 2002

Table 1.4 Composite Indices

Index	Advantages	Limitations
Human Development Index (HDI)	<ul style="list-style-type: none"> Includes measures for: longevity, knowledge, and standard of living Has several advantages over measures such as the Gross National Product, including that it measures longevity, knowledge and income Attempts to measure human development and relative socioeconomic progress which enables analysis of development over time and comparisons between countries 	<ul style="list-style-type: none"> Indices can hide differences between groups within a country The economic value of a lot of women's work is not included which will result in skewing of data Gender-based discrimination such, as violence against women and women's access to education, are not measured Does not show differences between different groups of people, or regional differences Fixed weight attributed to each of the three variables requiring value judgements Assumed that the variables are independent of each other Focus is too narrow – it doesn't take into account issues like income, employment security or psychological well-being. A useful starting point, but does not reflect vital aspects of human development, such as capacity to participate, in decisions
Gender-related Development Index (GDI)	<ul style="list-style-type: none"> Uses same country level indicators as the Human Development Index (income, education, and life expectancy) Reference group is men Imposes a penalty for inequality Draws attention to gender equality and the relationship (or lack of it) between economic growth and progress for women An important tool for analysing gender inequality and its impact on overall development compared to other nations 	<ul style="list-style-type: none"> Complex econometric techniques which may hinder widespread use, understanding and public participation Composite indices include somewhat arbitrary indicators Composite indices can have problems with weightings Very little public participation with indicators chosen by experts Does not measure equality because it includes both relative indicators and absolute achievements There are problems with the calculation of gender gaps in earned income. Female share of employment is also based on an estimation of the "economically active population", in which much of women's work is not included Does not enable comparisons between regions within a country or between groups of women Problems with calculating the weighting attributed to inequality Fails to take into account the real situation of women Does not enable good measurement of gender income inequality, and focuses on sources of income rather than on users of income Does not compare poverty between men and women Problems with calculating the equally distributed indexes for the three variables Poor data availability Unclear purpose and operational use Equating higher female shares of income with gender-sensitive development is problematic, as this might represent women taking on double and triple burdens for work. This highlights that the gains and losses associated with paid income might be context-specific Gender equality cannot be understood using only one composite index, and must be contextualized with a range of other qualitative and quantitative information Life expectancy at birth is calculated in different ways depending on data available The GDI focuses on measuring inequality at individual points, and does not enable examination of the relationships (including causal ones) between variables Data on life expectancy does not include "missing women" The index is strongly correlated with the Gross Domestic Product (GDP), and the level of gender equity appears to be explained by GDP It omits a number of variables critical to human development, such as: human rights, ecology, care, freedom from hunger; and freedom from other forms of social and political freedom; and thus has a very narrow focused view of the factors contributing to gender equality Does not capture politics, gender ideology and issues related to sexuality and culture

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> • Develop a gender-sensitive HDI which focuses on women's contribution to human development • Collect data disaggregated by sex • Attribute economic value to women's unpaid, underpaid and underreported work • Increase the women advisors and policy- makers on United Nations Development Programme (UNDP) staff 	Sharma, 1997 Tisdell et al., 2001 UNDP, 2002 World Health Organization, 1995
<ul style="list-style-type: none"> • Longevity and the education components could be increased to ensure substantial penalties for any large gender gaps in these areas • The weight of the gender gaps in the life expectancy component could be increased by reducing the range of possible life expectancies from 60 years to the actual range of life expectancies in the world today • Include an indicator of female compared to male poverty • Dijkstra and Hanmer propose a Relative Status of Women Index using the same indicators as the GDI, but focusing on relative status (or inequality) • Dijkstra and Hanmer also propose a new framework for assessing gender equality over time (see Table 3) • Dijkstra proposes an alternative index, the Standardized Index of Gender Equality (see Table 3) 	Beck, 1999 United Nations Development Fund for Women (UNIFEM), 2000 Bardhan and Klasen, 1999 Fukuda-Parr, 1999 Dijkstra and Hanmer, 2000 Saith and Harriss- White, 1999 Tisdell et al., 2001 United Nations Development Programme (UNDP), 2002 World Health Organization, 1995 Dijkstra, 2002 Wieringa, 1999

Continues...

Table 1.4 Composite Indices (continued)

Index	Advantages	Limitations
Gender Empowerment Measure (GEM)	<ul style="list-style-type: none"> Measures whether women and men can actively participate in political life. Uses three indicators: per capita income; share of jobs going to women and men classified as professional and technical or administrative and managerial; and share of parliamentary seats going to women and men An important tool for analysing gender inequality and its impact on overall development compared to other nations 	<ul style="list-style-type: none"> Complex econometric techniques which may hinder widespread use, understanding and public participation Composite indices include somewhat arbitrary indicators Composite indices can have problems with weightings Very little public participation with indicators chosen by experts Too heavily focused on representation at the national political level and in the formal economy, neglecting many important aspects of women's economic and political roles which exist outside of national politics and the formal economy Problems with calculating the weighting attributed to inequality Fails to take into account the real situation of women Lack of available data Issues in calculation of indices for the three variables No weighting given to differential power of different parliamentarians Data on women in parliament often does not reflect women's capacity to influence decisions The use of population weighted harmonic means in calculations of women's shares results in a softening of inequality
Human Poverty Index (HPI)	<ul style="list-style-type: none"> Measures non-income aspects of poverty, including survival: (proportion dying before 40), illiteracy (proportion illiterate), and decent standard of living (averaging three variables: access to health services, safe water, and malnutrition of children) 	<ul style="list-style-type: none"> Data currently not disaggregated by gender Survival and illiteracy can be disaggregated by gender, and it would be possible to disaggregate malnutrition of children. Difficult to measure and disaggregate access to health services and safe water Range of issues with calculating composite indices, such as weighting issues, assumptions about the distribution of achievements (both between men and women and between countries) Important dimensions of poverty are missing from the HPI, including: access to land, credit, housing and social participation; and women's social position (indicators for the latter could include differences in: marriage laws, availability of divorce, female circumcision, and domestic violence) Has a limited view of power and empowerment and does not include issues related to: the body, sexuality, religious issues, cultural issues, legal issues, ethics, women's rights, and care It does not include any indicators for those levels of power relationships where women's inequality may be considered natural or obvious within a culture

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> • See the Gender-related Development Index 	Beck, 1999 United Nations Development Fund for Women (UNIFEM), 2000 Bardhan and Klasen, 1999 Fukuda-Parr, 1999 Dijkstra and Hanmer, 2000 Saith and Harriss- White, 1999 Tisdell et al., 2001 United Nations Development Programme (UNDP), 2002 World Health Organization, 1995 Dijkstra, 2002 Wieringa, 1999
<ul style="list-style-type: none"> • Develop a gender measure of human poverty • Use data which will enable disaggregation for the HPI • Make an adjustment to the HPI for gender • Other measures that reflect women's health status and access to health services (such as maternal mortality rates or infant mortality), and possibly their access to fresh water (such as the proportion of women living in more sanitary areas or the incidence of disease caused by unsafe water), could be used • Develop a Gender Poverty Index for comparison to the HPI • Develop indices reflecting additional aspects of women's poverty, such as those mentioned above • National level sociocultural and historical analyses should be undertaken to identify what these measures exclude • Wieringa outlines key domains for a Gender Equality Index (see Table 3) 	Fukuda-Parr, 1999 Durbin, 1999 United Nations Development Programme (UNDP), 2002

Table 2.1 Methods/activities related to indicator development

Index	Advantages	Limitations
Participatory methods of indicator development (nominal group technique and Delphi technique)	<ul style="list-style-type: none"> • Indicators will be culturally relevant and more effective • Facilitates building consensus 	
Development of gender-sensitive indicators for evaluation of development projects		<ul style="list-style-type: none"> • Development projects often have unclear objectives which may hide competing agendas and make them difficult to evaluate
Development of gender-sensitive indicators	<ul style="list-style-type: none"> • Useful in evaluating the status of women's economic and social rights 	<ul style="list-style-type: none"> • Data may be incomplete, crude, and underdeveloped • A range of issues not solved, such as the measurement of women's work • Political influence on social indicators • Gender biases in statistics due to: cultural stereotypes which impact on survey design, data collection and processing; and data not being gender-disaggregated. • A lot of the work on gender-sensitive indicators has been done by collecting and compiling existing information – complete with its biases – rather than developing new structures to build gender-sensitive indicators. This has also resulted in an imbalance in the number of indicators and the areas they cover • Inconsistent data collection over time has resulted in data which is not useful for time series comparisons • Gaps in indicator sets might result from lack of involvement of women in developing them
Indicator development for women's health		<ul style="list-style-type: none"> • Often no clearly defined conceptual model • Conceptual model may be assumed to be gender-neutral • Indicators for measuring women's health are not gender-sensitive • Frameworks underpinning development of health indicators are not gender-sensitive

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> • Seek grassroots input through nominal group process • Seek expert input into prioritising indicators through Delphi survey 	Wang et al, 2002
<ul style="list-style-type: none"> • Define clear goals as they will determine what is evaluated (for example, the impact on women or the impact on gender relations) • See framework outlined in Table 3 	Moser, 1995
<ul style="list-style-type: none"> • Produce data from the beginning • Undertake research in areas where information to inform indicator development is lacking (use the Beijing Platform for Action as a useful framework for this) • Develop more subjective (or qualitative) indicators • Women in Development Service outline a ten-point framework (see Table 3) • Beck outlines a ten-point framework (see Table 3) • Empirical strategies are needed to define, operationalize, and measure women's rights • Apodaca describes construction of an index for measuring gender inequality (see Table 3) • Involve women in developing definitions of women's progress and indicators for this 	Kim, 2002 Women in Development Service, 2001 Beck, 2000 Apodaca, 1998 Austen et al., 2000 Austen et al., 2002
<ul style="list-style-type: none"> • Develop a clear conceptual model for women's health before developing indicators 	Abdool and Vissandjée, 2001

Table 2.2 Methods/activities related to data collection

Method/ activity	Advantages	Limitations/ issues
Formal surveys (such as censuses)		<ul style="list-style-type: none"> • Infrequent collection • Sex bias • Poor enumeration • Ethnocentricity • Imprecise definitions of terms • Biases of survey developers • Women often defined by reproductive health
Household surveys	<ul style="list-style-type: none"> • Can be carried out frequently 	
Census and labour force surveys		<ul style="list-style-type: none"> • Interviewers are not trained to identify some of women's activities associated with the production of goods and services/economic activity • Unclear definitions (such as "usually active") resulting in some types of work, such as seasonal work, being omitted • The ways questions are asked about work and language used (for example, job/employment might be interpreted as paid work)
Interviews		<ul style="list-style-type: none"> • Interviewers can lack gender sensitivity, resulting in failure to include information about women's lives, such as unpaid work
Definition, production, compilation and use of international data on women and gender		<p>Technical issues:</p> <ul style="list-style-type: none"> • Variability in the way information is collected in different countries makes intercountry comparisons difficult • There are many levels at which irregularities in data collection can be introduced, from data collectors in the field to government officials • A lot of information is collected but not processed or published • Data collected by private organizations will be determined by their criteria and agendas, and may not be publicly available • Using countries as the unit of analysis collapses the differences between women (e.g. social class, race, ethnicity and age) • Data are in table format and most are not computerized, making multivariate analysis difficult • Missing data

Strategies for improvement	Author
<ul style="list-style-type: none"> • Use both quantitative indicators and qualitative indicators to analyse changes over time, and cross-validate and extend understandings • Involve women in identifying priorities • Include indicators for health beyond biomedical ones • Include a gender analysis when determining the level of imperfection allowed within an indicator 	<p>Abdool and Vissandjée, 2001 United Nations Statistical Division, 2000</p>
<ul style="list-style-type: none"> • Focus surveys on areas where there are gaps in the data, such as: gender roles, household dynamics, decision-making, control of and access to resources, and violence against women • Use an experienced team • Include a team member with expertise in gender issues • Carry out pilot interviews to adapt questions to local conditions • Sample at least 2000 households • Include women from different ethnic, class, geographical locations and age groups in reference groups • Include those who will use the data in the reference group • Train interviewers • Employ women interviewers 	<p>Beck, 1999</p>
<ul style="list-style-type: none"> • Frame questions about women's work to include paid and unpaid work • Frame questions about women's economic activity carefully • Education, training and gender sensitization of interviewers • Participation of the public in surveys • Use a "building block" approach, designing questions to enable identification of those who are eligible for inclusion • Use non-sexist language • Develop instruction manuals to inform interviews about which concepts should be applied • Take seasonal work into account • Employ more women interviewers • Increase the detail in questions about work • Collect information on multiple labour force activities • Undertake additional work on time use data 	<p>Beck, 1999</p>
<ul style="list-style-type: none"> • Training on gender sensitivity • Increase number of female interviewers • Ensure interviewers represent different classes, ages and ethnic groups 	<p>Baume, Juarez and Standing, 2002</p>
<ul style="list-style-type: none"> • Important for data users to become "critical users", and develop an understanding of the underpinning assumptions (and the social and political contexts) associated with data collection and irregular collection practices • Danner et al. propose a set of 21 Indicators of Gender Inequality that can be calculated using data from the Wistat (United Nations, 1988) data base (see Table 3) • Widespread awareness campaigns on the important role women play in development • A periodic statistical overview on women and men would highlight the problems with gender blindness • Establish national level working groups to address lack of a centralized system of data compilation 	<p>Danner et al., 1999 Economic and Social Commission for Western Asia (ESCWA), 2002</p>

Continues...

Table 2.2 Methods/activities related to data collection (continued)

Method/ activity	Advantages	Limitations/ issues
		<ul style="list-style-type: none"> • Gender blindness in that statistics tended to be produced in a gender-neutral manner • Lack of a centralized system of data compilation • Lack of a unified set of statistical definitions and concepts <p>Conceptual issues:</p> <ul style="list-style-type: none"> • Data collected and the categories into which it is organized reflect the aspects of life considered important by governments and agencies • Many statistics reflect three assumptions about women: that women and their activities are less valued than those of men; that women are often defined by their capacity to reproduce; and that Western/Northern constructions of women, families and progress are valid • Women's activities are undercounted • The complexity and multiple dimensions of women's lives and work are not represented in the categories for data collection • Women and girls deaths may not appear in statistics • Statistics on violence against women not being available
Qualitative methods of data collection, such as public hearings and attitude surveys	<ul style="list-style-type: none"> • Provides information about women's experiences • Enables understanding of women's views about their health • Provides different perspectives • Qualitative information which can enable the views and needs of the most marginalized are included • Enables understanding of how to achieve outcomes 	<ul style="list-style-type: none"> • Can be considered too subjective • Often do not show how typical or widespread the views expressed are
Time use studies (four types: observation, random instant measurement, diaries, and recall)	<ul style="list-style-type: none"> • Becoming useful in providing gender-sensitive indicators • Generally cover utilization of human resources in the household • Improve measurement of employment, unemployment, underemployment • Valuable for improvement measures of women's work and generating gender-sensitive indicators • Allow statistics and correlations to be undertaken to compare time use of large groups of people • Enable the development of different perspectives on changing divisions of labour 	<ul style="list-style-type: none"> • Sometimes only take into account activities on "work days" or during "working hours" thus under recording women's work • In developing countries people may not have the same conceptualisation of time as people in the West and cannot be expected to keep diaries of their time use • Observation and interview methods require skilled staff and a lot of time • Lack of participation in survey design by the population • Do not allow in-depth examination of work or the complexity of women's roles • Questions on time use tend to limit the information obtained • People may be asked to nominate their primary activity at any one time, so that anyone performing multiple activities at once (such as childcare and doing the washing) has to nominate only one of these Often results in underestimation of time spent on tasks such as childcare • Women who have the heaviest workloads are least likely to have time to participate in studies • There is also a lack of appropriate and commonly used language for discussing domestic labour
Time use diaries	<ul style="list-style-type: none"> • Do not ask predetermined questions, and may enable women to record doing more than one activity at a time 	<ul style="list-style-type: none"> • Women who are the most busy may not have time to fill out studies

Strategies for improvement**Author**

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|---|--|
| <ul style="list-style-type: none"> • Use both quantitative indicators and qualitative indicators to analyse changes over time, and cross validate and extend understandings • Involve women in identifying priorities • Include indicators for health beyond biomedical ones • Include a gender analysis when determining the level of imperfection allowed within an indicator | <p>Abdool and Vissandjée, 2001
 Baume, Juarez and Standing, 2002
 United Nations Development Fund for Women (UNIFEM), 2000</p> |
| <ul style="list-style-type: none"> • Include other methods, such as: time use diaries; childcare diaries; in-depth interviews or participant observation; or combinations of these. However, as they are time-consuming, large samples are unlikely to be included, reducing comparability of data | <p>Beck, 1999
 Luxton, 1997</p> |

Luxton, 1997

Continues...

Table 2.2 Methods/activities related to data collection (continued)

Method/ activity	Advantages	Limitations/ issues
Valuation of unpaid work: opportunity cost	<ul style="list-style-type: none"> Estimates the income that would have been earned if the person had spent an equivalent amount of time in the paid labour force 	<ul style="list-style-type: none"> The value attributed to the same unpaid task done by a highly paid person will be greater than that of a poorly paid person
Valuation of unpaid work: replacement cost	<ul style="list-style-type: none"> Estimate how much a person undertaking the same task in the paid workforce would earn 	<ul style="list-style-type: none"> People in jobs such as childcare and cleaning are generally the most poorly paid, potentially resulting in underestimation of the value of domestic work Childcare undertaken in the home is valued at the rate of childcare workers and not at the rate of teachers, nurses and child psychiatrists
Valuation of unpaid work: input/output costs	<ul style="list-style-type: none"> Calculated by estimating the market value of raw materials, production and labour 	<ul style="list-style-type: none"> Similar issues as replacement cost (see above)
World Bank Poverty Assessments		<ul style="list-style-type: none"> Gender is often invisible No common definitions of poverty Gender is often “added onto” poverty assessments, rather than incorporated into definitions, measures and analysis of poverty No common approach to the measurement of poverty, or for establishing poverty thresholds Prioritizes money-related household poverty lines based on income or consumption, resulting in reliance on data from surveys which gives little information about the process of impoverishment or of inequality within households Variation in the methods for undertaking the Assessments Great variation in the way women and or gender issues are included in the Assessments with no common language or definitions of concepts associated with gender “Female-headed household” is the most common way women appear in the assessments. This is not a very useful indicator of poverty of women, as it combines different categories of households occurring at different times and places for different reasons. It doesn’t enable examination of intrahousehold inequities Gender is “largely used to describe a relatively fixed status or category with little reference to its relational implications”
Participatory Poverty Assessments	<ul style="list-style-type: none"> Allow for a broader range of poverty concepts to be included 	<ul style="list-style-type: none"> They generally use traditional qualitative methods – such as key informant interviews – which are not strictly participation, and may still result in the exclusion of the poorest and most marginalized groups, and may not improve the gendered nature of the assessment
Participatory rural appraisals	<ul style="list-style-type: none"> Provide rich qualitative data Focused on local and community levels 	<ul style="list-style-type: none"> Do not quantify poverty very well Less useful for regional or national level analyses
System of national accounts and Gross Domestic Product		<ul style="list-style-type: none"> Concentrate on measuring paid work Gender biases results in ignoring of women’s overall contribution to the economy/society

Strategies for improvement	Author
	Luxton, 1997
	Luxton, 1997
	Luxton, 1997
<ul style="list-style-type: none"> • Reports including a Participatory Poverty Assessment (PPA) appear to have greater gender sensitivity (with information about, inter alia, who benefits from social spending and intrahousehold inequity). However, quantitative data is generally privileged over qualitative data, and qualitative data isn't used for triangulation 	Whitehead and Lockwood, 1999
	Whitehead and Lockwood, 1999
	Fukuda-Parr, 1999
<ul style="list-style-type: none"> • Use national time use studies to inform further development 	Beck, 1999

Table 2.3 Methods/activities for monitoring implementation of international conventions, declarations, agreements and development projects

Method/activity	Advantages	Limitations
Reporting against indicators at the national level (generally)		<ul style="list-style-type: none"> • Reporting overload and inadequate reporting • Agencies collecting data often do not get feedback about how the data is used
Global level assessments	<ul style="list-style-type: none"> • Enables intercountry comparison 	<ul style="list-style-type: none"> • Does not capture the richness of local and national level assessments • Relies on global data bases which are limited by differences in the ways data is collected in different countries (definitions, coverage, quality of enumeration) and uneven coverage (better data is generally collected in more wealthy countries) • Focus is on a few key indicators
Reporting against the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW)	<ul style="list-style-type: none"> • Reports submitted every four years • Enables synthesis of gender-related data 	
Monitoring recommendations from the Cairo Conference		<ul style="list-style-type: none"> • Implementation of recommendations from the Cairo Conference has focused largely on reproductive health rather than on the broader determinants of women's economic and social development articulated at the Conference. Similarly, most of the indicators have focused on reproductive health • Data for some of the broader indicators are not currently gender differentiated and some are not available at all (such as prevalence of violence against women)
Monitoring implementation of the Beijing Platform for Action (BPA)	<ul style="list-style-type: none"> • Indicators can be used to follow up and evaluate regional and international recommendations promoting gender equity • These indicators have the potential to facilitate quantitative data collection and analysis on the situation of women and men 	<ul style="list-style-type: none"> • Some progress has been made in implementing BPA recommendations, but there are also areas where inequality is increasing and new issues are emerging • Regional and intercountry differences provide challenges in monitoring implementation of the BPA, and indicators should reflect variances • Indicators should provide accurate measurements of changes occurring over time and enable comparisons between countries, and where relevant, compare the situation of women to men (or the gap between them) • Indicator development constrained by the clarity of recommendations
Monitoring and evaluating gender equity in development projects		<ul style="list-style-type: none"> • The focus is often on inputs and processes rather than results and impacts • There are often no specific goals and objectives focusing on gender equity or women's participation, resulting in few criteria for measuring performance • Gender equity issues and women's participation are often considered as an add-on and are often separate to from the overall discussion
Monitoring gender and ethnic inequities		<ul style="list-style-type: none"> • Lack of disaggregated information • Cost of disaggregating data • Reluctance by authorities to admit discrimination • Disenfranchised women have difficulty demanding social justice from public and private sectors • Lack of leadership for establishing participatory processes for policy implementation and monitoring

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> Rationalize reporting Provide agencies with feedback about how the data they provide is used to encourage accurate reporting 	Beck, 1999
	United Nations Development Fund for Women (UNIFEM), 2000
	Beck, 1999
<ul style="list-style-type: none"> Recommends a set of indicators to reflect women's social and economic development and broader aspects of reproductive health 	Malhotra and Mehra, 1999
<ul style="list-style-type: none"> Beck proposes a gender-sensitive monitoring index containing three types of indicators: (enabling/input, performance, and progress indicators) against each of the 12 critical areas of the BPA Kim sets out 144 indicators under the 12 key areas in the BPA, and two additional areas (institutional mechanisms and finance) The United Nations Development Fund for Women (UNIFEM) suggests that all targets should be specified within a human rights framework so that development does not occur at the expense of women's human rights UNIFEM recommends development of a broader range of indicators ECLAC outlines several strategies for indicator development, and provides a set of indicators based on the BPA and the Regional Programme of Action for the Women of Latin America and the Caribbean. ECLAC specifies benchmarks are given for indicators to specify when equity is attained Abdulla outlines a framework of indicators for monitoring four key priority areas (see Table 3) 	Beck, 1999 Kim, K, 2002 UNIFEM, 2000 Abdulla, 2002 <u>ECLAC,</u>
<ul style="list-style-type: none"> Make equality issues explicit in the terms of reference for evaluation Select evaluators with expertise on equality Apply rigorous standards to assessments of the evaluators to ensure gender equality analysis is included throughout the evaluation Identify and share best practice models and comparative analyses 	Organisation for Economic Co-operation and Development (OECD), 1998
<ul style="list-style-type: none"> Identify a minimum set of avoidable gender disparities to be monitored Find sources of disaggregated data Select or construct simple and appropriate indicators, and identify information gaps and needs Develop a process for involving women's groups, researchers and policy-makers in all aspects of monitoring Develop a strategic plan which incorporates all of these activities and ongoing monitoring and research 	Gomez, 2000

Table 2.4 Methods/activities related to measuring quality in services

Method/activity	Advantages	Limitations
Measuring quality in health care Quality assessment		<ul style="list-style-type: none"> • Most work has focused on technical issues of quality assessment at the expense of examining the more relational aspects of care, such as the way consumers and providers perceive the care • Women's health researchers have focused on quality of reproductive health care services (which has not produced information on equity as it is not compared to services provided to men) • Equity has generally been considered an "access" or "health outcome" issue, and not as an issue to be incorporated into the process of producing health care • Standards generally based on male or androgynous norms can result in inequities in health outcomes, even if women and men receive equal treatment • The concept of quality is usually determined by professionals and not women/consumers • Intersections between: the way gender is constructed, and biological sex differences, create different health issues, situations and/or problems for women and men, but this is not reflected in the development of quality measures • Very little work has been done on the impact of gender on the quality of care, or the impact of gender, on health workers • Other factors, such as ethnicity, socioeconomic status and age, are just as important as gender, and are also not included
Developing indicators for women's health (for managed care organizations)		<ul style="list-style-type: none"> • Existing quality assessment measures focus on: reproductive issues, breast and cervical cancer screening, and a number of issues common to women and men, such as diabetes and heart disease <p>In developing new women's health indicators the following issues arose:</p> <ul style="list-style-type: none"> • Need to carefully define the intervention, how it should be delivered and how it should be measured • Lack of evidence about effective treatments for conditions affecting women_____ • Lack of validated and reliable measurement tools for measuring performance • Lack of information about quality of care provided to men and to women for conditions experienced by both sexes, so that there can be no gender-specific reporting or identification of differences in care provided to men and women • Slow uptake of evidence-based guidelines • Readily available data is often not useful

Summary Tables

Strategies for improvement	Author
<ul style="list-style-type: none"> • New ways of thinking about what is being measured and why, informed by involving women in the process of developing and evaluating standards • Recognize that biological and socially constructed differences create different risk and protective factors, and that these should be taken into account in responding to health care needs • Development of standards which will enable measurement against different standards for men and women, and not only in comparison with norms • Make equity a key component of quality, and include a gender perspective in every quality improvement cycle • Place gender at the centre of the process, and focus on areas where there is known inequity • Distinguish between equality and equity, and develop quality frameworks which incorporate the different needs of men and women • Train health service providers about the ways gender influences the “health-illness-care” process, and about how gender influences the way they live and work 	Pittman and Hartigan, 1996 Hartigan, 2001
<ul style="list-style-type: none"> • Establish an expert group • Use the criteria established by the body governing quality in managed care to prioritize indicators. These include: relevance, scientific soundness, potential for case mix adjustment, and feasibility. 	McKinley et al., 2001

Table 3 Frameworks

Author	Framework/ checklist	Elements
Abdulla, 2002	Framework of indicators for Action on Women's Health Needs and Rights after Beijing	<p>This framework provides indicators in three domains for four key priority areas of the Beijing Platform for Action.</p> <p>The domains are:</p> <ol style="list-style-type: none"> 1. Women's health status 2. Health service provision, use and quality (availability, accessibility and affordability of services) 3. National laws, policies, plans and regulations <p>The key priority areas are:</p> <ol style="list-style-type: none"> 1. Women's health and rights 2. Sexual and reproductive health and rights 3. Violence against women 4. Gender-sensitive health programmes
Anker (1988) cited in Beck, 1999	Typology to measure labour force activity	<p>Four key categories:</p> <ol style="list-style-type: none"> 1. Paid labour force (persons in wage or salary employment for which they are paid in cash or kind) 2. Market-oriented labour forces (persons in "paid labour force" plus persons engaged in an activity on a family farm or in a family enterprise that sells some or all of its products) 3. International Labour Organization-defined labour force (persons engaged in the production of economic goods and services, whether these goods and services are sold or not. This includes all activities associated with primary products, such as food production and food processing) 4. Extended labour force (all of the above, and activities, such as gathering/preparing fuel and fetching water)
Apodaca, 1998	An index measuring gender inequality (the Women's Economic and Social Human Rights (WESHR) Index	<p>The four indices used are:</p> <ol style="list-style-type: none"> 1. Employment: measured by rates of economic activity disaggregated by sex 2. Standard of living: as indicated by the ratio of anaemia rates of women, and the total daily caloric intake per country 3. Well-being: measured by sex-differentiated mortality rates, sex ratios, and child mortality rates 4. Education: measured by literacy rates and rates of primary school enrolment disaggregated by sex <p>These ratios are added together to form a composite score that becomes the Women's Economic and Social Human Rights (WESHR) Index</p>
Austen et al., 2000	Criteria for identifying successful indicators for monitoring women's progress	<ul style="list-style-type: none"> • Reflect women's understanding of the progress of their lives (including in the definitions of progress, and in the articulation of clear goals for progress) • Reflect the diversity of the aspirations and experiences of women in the community • Permit comparisons of the economic, political and social achievements of men and women • Permit comparisons of the progress of women between jurisdictions and within a jurisdiction, over time

Continues...

Table 3 Frameworks (continued)

Author	Framework/ checklist	Elements
Beck, 1999	Methodological advice for using gender-sensitive indicators at national levels	Key features of gender-sensitive indicators: <ol style="list-style-type: none"> 1. Comparison to a norm 2. Disaggregation by sex and age, socioeconomic status, national/regional origin (and note time period, geographical coverage and data sources) 3. Ease of access 4. Scope of availability 5. Reliability 6. Measurability 7. Time frames 8. International comparability 9. Measuring impact or outcome 10. Participation of stakeholders including communities/ public
Beck and Stelcner, 1997	Criteria for development and selection of indicators	<ol style="list-style-type: none"> 1. Indicators should be developed in a participatory fashion, including all stakeholders wherever possible (suggests that this often doesn't occur due to cost, time constraints, mistrust of stakeholders, lack of methodological knowledge) 2. Indicators must be relevant to the needs of the user, and at a level that the user can understand 3. All indicators should be sex-disaggregated 4. Both qualitative and quantitative indicators should be used 5. Indicators should be easy to use and understand 6. Indicators must be clearly defined 7. The number chosen should be small. A rule of thumb is that up to six indicators can be chosen for each type of indicator 8. Indicators should be technically sound 9. Indicators should measure trends over time 10. The ultimate focus should be outcome indicators
Dijkstra, 2000	Criteria for the development of an index to measure gender equity	Four criteria: <ol style="list-style-type: none"> 1. The index should include a number of indicators that together represent all relevant dimensions of gender equality 2. It should be a relative measure (that is a measure of gender in/equality) and not include some relative and some absolute measures 3. Weightings should not unintentionally give some variables more weight than others 4. Data should be available for many countries, be reliable and internationally comparable
Dijkstra, 2000	Standardized index of gender quality	A proposed alternative to the Gender-related Development Index and HE Gender-related Empowerment Measure includes the following indicators: <ol style="list-style-type: none"> 1. Relative female/male access to education 2. Relative female/male longevity 3. Relative female/male labour market participation 4. Female share in technical and professional, and administrative and management positions 5. Female share in parliament
Dijkstra and Hanmer, 2000	Criteria for determining socioeconomic gender inequality measures	Socioeconomic gender inequality measures should be defined to meet three criteria: <ol style="list-style-type: none"> 1. It identifies the extent of gender inequality 2. It identifies the causes of gender inequality to enable development of policies to address this inequality 3. It can be used to monitor gender inequality over time

Continues...

Table 3 Frameworks (continued)

Author	Framework/ checklist	Elements
Dijkstra and Hanmer, 2000	Framework for measuring socioeconomic gender inequality.	<p>The framework aims to include two dimensions:</p> <ol style="list-style-type: none"> 1. A "stock" dimension, i.e. the elements that will provide the basis for improved well-being (such as assets) 2. A "flow" dimension, i.e. elements that can flow from the stock dimension (such as income) <p>Thus, the "stock" dimensions are the independent variables and the "flow" dimensions are the dependent variables. The dependent variables proposed are: income, health, and time use. The independent variables are: land, physical assets, monetary savings, and education</p>
Eckermann, 2000	Requirements for analysis of gender inequities in health	<p>To examine gender inequities, Eckermann suggests that the following requirements are needed: morbidity, mortality, social indicators, and quality of life indicators which are:</p> <ol style="list-style-type: none"> 1. General for all people but are gender-disaggregated 2. Are gender-sensitive 3. Acknowledge the differences between different men and women (e.g. race, ethnicity, age, class) 4. Deal with the specific reproductive health issues of women 5. Are gender-specific in non-reproductive areas of health
Fukuda-Parr, 1999	Framework for measuring human poverty	<p>Four domains (as per Human Poverty Index from the Human Development Report, 1997)</p> <ol style="list-style-type: none"> 1. Survival 2. Knowledge 3. Decent standard of living 4. Social participation
Gomez, 2000	Principles for an equitable health care system adopted by the Pan American Health Organization	<ol style="list-style-type: none"> 1. Avoidable disparities in health service 2. Allocation of health care resources according to need 3. Utilization of appropriate health care services according to need 4. Payment for health care services according to ability to pay 5. Distribution of power and responsibility in health production
Hartigan, 2001	Elements of access (a key element of quality) in health services	<p>Five aspects of access are:</p> <ol style="list-style-type: none"> 1. Availability (existence and sufficiency of services) 2. Affordability (ability to pay) 3. Accessibility (location of population and services, transportation, and opportunity cost) 4. Accommodation (service's adjustment to the time and communication needs of clients) 5. Acceptability (fit between the service and the individual client or community)
Health Systems Trust, 2000	Equity Gauge	<p>An equity gauge focuses on measuring and monitoring agreed indicators for a particular issue, and is a way of tracking gaps in health status at the national and sub-national levels. It has five key components:</p> <ol style="list-style-type: none"> 1. A basic organizing principle is fair distribution 2. Participation of key health system stakeholders in the development and implementation of projects 3. Community ownership 4. Technical component (indicators and measures) which are valid, reliable and sustainable 5. The work informs decision-making and is timely, user-friendly, and accessible, and takes the different levels of awareness and demand within countries into account

Continues...

Table 3 Frameworks (continued)

Author	Framework/ checklist	Elements
Hunt, 2000	An assessment tool for understanding gender equality in organizations	Identifies key questions for assessing gender equality in organizations under the following headings: <ol style="list-style-type: none"> 1. Organizational mandate 2. Policy on gender and development or gender equality 3. Commitment to gender equality 4. Organizational structure 5. Programmes, projects, activities and procedures 6. Building capacity/a learning organization 7. Personnel management practices 8. Organizational culture 9. Organizational context 10. A sex-disaggregated employment profile
Malhotra, 2003	Commonly used dimensions of empowerment	A framework with suggested measures for assessing women's empowerment at three levels: household, community, and broader arenas within the following domains: <ol style="list-style-type: none"> 1. Economic 2. Sociocultural 3. Familial/interpersonal 4. Legal 5. Political 6. Psychological
Moser, 1995	Development of gender-sensitive indicators for development projects	Distinguish between two types of indicators: <ol style="list-style-type: none"> 1. "Practical gender needs indicators" (those that are identified with women's roles) 2. "Strategic gender needs indicators" (needs associated with transforming women's position in society) Include implementation and impact indicators Three steps for developing gender-sensitive indicators: <ol style="list-style-type: none"> 1. Undertake a gender analysis of the situation 2. Engage women and local gender-sensitive organizations in planning 3. Undertake an institutional analysis to identify the capacity of the organization to apply a gender-sensitive approach
Moss, 2002	Framework for the patterning of women's health (with attention to gender equity and socioeconomic inequality)	A framework for measuring the factors impacting on women's health. This includes five key dimensions: <ol style="list-style-type: none"> 1. Geopolitical environment (factors relating to geography, policy and services, legal rights, organizations, and economic condition) 2. Culture, norms, sanctions (factors relating to discrimination, and sociodemographic characteristics) 3. Women's roles in reproduction and production (factors relating to the household and the workplace) 4. Health-related mediators (factors relating to social capital, social networks and support, psychosocial and health services, behaviour, and violence) 5. Health outcomes

Continues...

Table 3 Frameworks (continued)

Author	Framework/ checklist	Elements
Young, Fort and Danner, 1994 Danner, Fort and Young, 1999	Indicators of gender inequality	Five key dimensions of social life grouped under two spheres: human rights (basic and civil rights), and social relations. 1. The human rights sphere includes: <ul style="list-style-type: none"> • Physical well-being (sex ratio, infant mortality, and births attended by health staff) • Public power (number of seats in legislative body) 2. The social relations sphere includes: <ul style="list-style-type: none"> • Family formation (age difference in years at first marriage, total fertility rate, and use of contraception) • Education (illiteracy in ages 15-24, achievement in ages 15-24, teachers, and enrolment) • Economic activity (labour force in agriculture, industry, and services)
United Nations Development Fund for Women (UNIFEM), 2000	Measuring the progress of women	Requires four levels of assessment with different levels of aggregation and for different contexts: <ol style="list-style-type: none"> 1. Local level (women can conduct context-specific participatory assessments with qualitative indicators) 2. National level (women can use: national level surveys such as censuses; household, enterprise and labour force surveys; and lobby for statistics disaggregated by gender, age, ethnicity, geography etc.) 3. Regional level (women can use regional databases and identify regional indicators reflecting relevant social economic and political characteristics) 4. Global level (focus on a few key indicators for many countries using global databases which are limited by the different ways data is collected in different countries, and on uneven data collection)
United Nations Development Fund for Women (UNIFEM), 2000 (source – Joint Employment Report, 1999)	Gender Mainstreaming Matrix	Six domains against which to assess the effectiveness of gender mainstreaming: <ol style="list-style-type: none"> 1. Policy commitments 2. Legislation 3. Fiscal measures 4. Positive action (including special training) 5. Institutional mechanisms 6. Collection of baseline and monitoring data
United Nations Development Fund for Women (UNIFEM), 2000	Progress of Women Scoreboard	To relate changes in gender to changes in broader measures of development: Gender equity domains <ol style="list-style-type: none"> 1. Education 2. Employment 3. Number of seats in parliament Other domains are: <ol style="list-style-type: none"> 1. Per capita gross national income 2. Equality in distribution of income among households 3. Debt reduction

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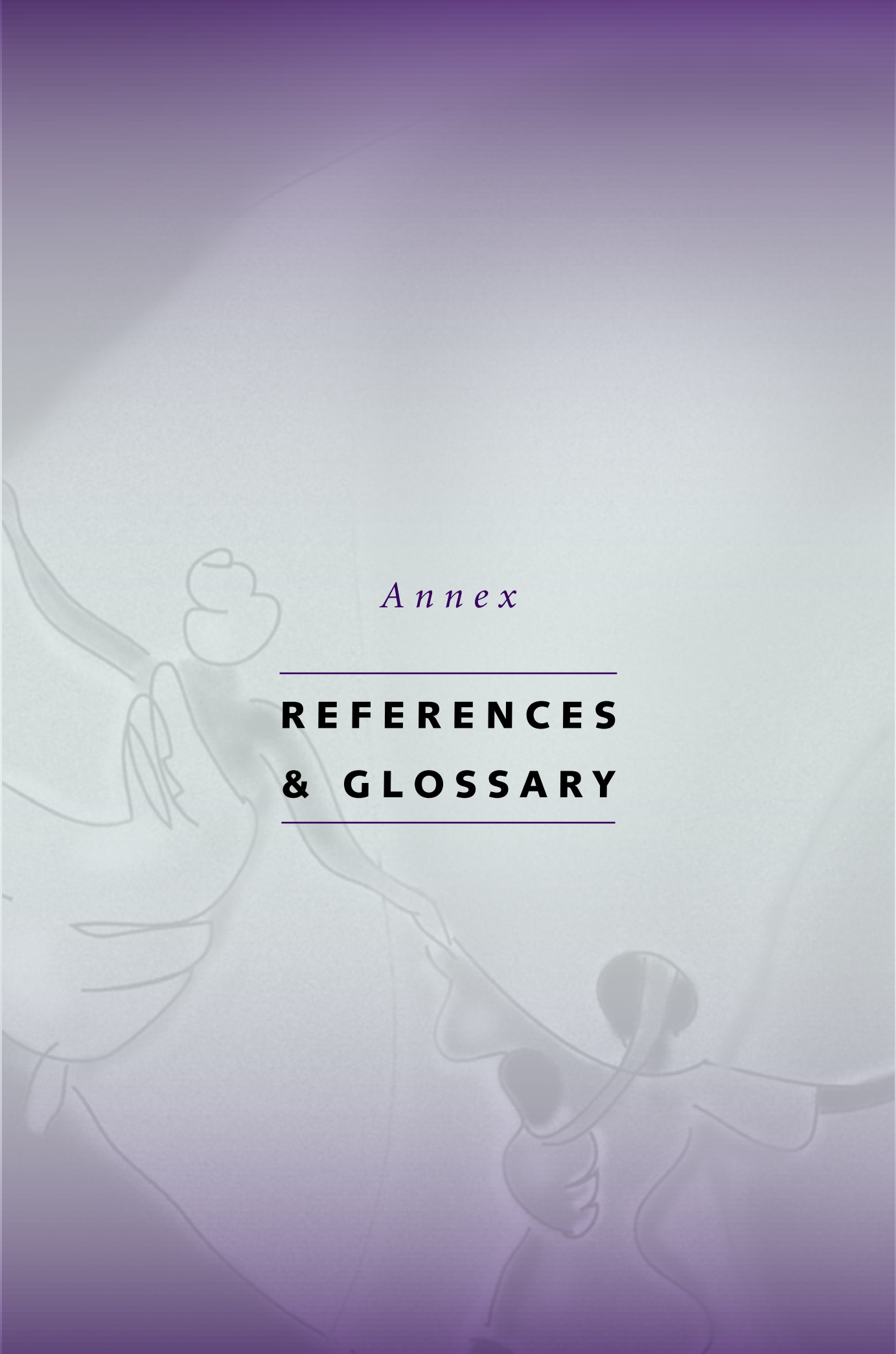
Table 3 Frameworks (continued)

Author	Framework/ checklist	Elements
Wieringa, 1999	Women's Empowerment Matrix	<p>Matrix for analysis to emphasize the interconnections between spheres where women's (dis)empowerment is enacted. This includes the following dimensions (applied at the following levels: global, regional, national, meso level/provincial, family, and personal):</p> <ol style="list-style-type: none"> 1. Physical 2. Sociocultural 3. Religious 4. Political 5. Legal 6. Economic
Wieringa, 1999	Gender Equality Index	<p>An index in development by a group at the Institute of Social Studies in The Hague. The key dimensions of the Gender Equality Index are:</p> <ol style="list-style-type: none"> 1. Gender identify (proposed indicators are: maintenance of rigidity of the sexual division of labour, and tolerance of transgender practices) 2. Autonomy of the body (proposed indicators are: incidence of and legal protection against gender based violence, the control women have over their sexuality, and women's independent access to contraception) 3. Autonomy within the family and the household (proposed indicators are: freedom to marry and divorce, whether women have the right to custody of children after divorce, and women's decision-making power within the household and access to household assets) 4. Women's political power at above-household levels (proposed indicators are: women's access to decision-making processes in municipalities, labour unions, and the government and parliament) 5. Women's access to social resources (proposed indicators are: access to health through measuring stunting and nutritional levels, and to education (by drop-out levels). 6. Material resources (proposed indicators are: gendered access to land, houses, and credit) 7. Income (proposed indicators are: gendered wage differentials, the gendered distribution of paid and unpaid labour, and the gendered division of formal and informal labour) 8. Time use (proposed indicators are: the gendered division of time spent in paid and unpaid work, and access to leisure and sleep) <p>To adequately describe gender equity, the index must be supplemented by two things: historical context; and country specific satellite indicators which may be relevant for individual countries or groups of countries.</p>

Continues...

Table 3 Frameworks (continued)

Author	Framework/ checklist	Elements
Women in Development Service, 2001	Development of gender-sensitive indicators	<p>Ten-point framework:</p> <ol style="list-style-type: none"> 1. Ensure that the project objectives for each output include both a people- focused component (which differentiates between women and men) as well as a technical or environmental component. Always assume that project objectives will affect men and women differently 2. Ensure that the description of each output refers to women and men (their roles and responsibilities/inequities that will be addressed) 3. Ensure the description includes how the activities will address the different needs and priorities of women and men 4. Describe how women and men will be involved in the activities, and how the different positions of women and men will influence their participation 5. Ensure both immediate and longer-term outcomes for both women and men are included. Previously, objectives considered to be gender-neutral have resulted in different outcomes for women and men, and sometimes in outcomes which were negative for women 6. Include organizations with a gender focus in the user group 7. Identify quantitative and/or qualitative indicators to measure gender sensitivity of the objective, activities, impacts and outputs 8. Identify indicators to measure the participation of women and men at each stage of the project 9. Identify indicators to measure outcomes for women and men after five years 10. Plan to allow for the sex-disaggregation of all data (including budgeting for it)
World Health Organization, 1997	Criteria for selection of a core set of reproductive health indicators	<p>The criteria used for this were that the indicator must be:</p> <ol style="list-style-type: none"> 1. Ethical (i.e. the data is ethical to collect, analyse and present) 2. Useful at the national and international levels and be a marker of progress 3. Scientifically robust (i.e. valid, specific, sensitive and reliable) 4. Representative (i.e. covers all the issues or population groups expected) 5. Understandable (i.e. easy to define and interpret) 6. Accessible (i.e. the data required is already available or easy to collect)



Annex

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& GLOSSARY**

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Glossary

This glossary is primarily concerned with Part II, the *Health Information Framework*. Definitions of terms used within the text can be found below. Multiple definitions are given for important concepts. The full citation to works quoted can be found in the References.

Sex

“Sex refers to biological distinctions between men and women” (WHO, 1998 cited by Abdool and Vissandjée 2001).

Gender

Gender “...includes not only biological distinctions but is socially constructed by relation of power that dictate the choices and chances available to women and men, boys and girls” (Abdool, 1998 cited by Abdool and Vissandjée, 2001).

While sex usually “...remains constant, gender is in a continuous flux, as it is socially attributed identity that shifts and transforms according to the social, political and economic changes in any given society” (WHO, 1998 cited by Abdool and Vissandjée 2001).

“Gender refers to the cultural, social, temporal and political construction of men and women” (Eckermann 2000).

“Gender is a key social stratifier that is distinct from but interactive with other social features like social class or race/ethnicity” (Evans et al. 2001).

Equity

Various dictionaries define equity as the quality of being fair, impartial, and just:

The concept of equity has a number of dimensions and interpretations. Attempting to identify one single definition may limit both understanding, and a practi-

cal approach to promoting equity. Despite the different definitions that exist, it appears that there is consensus that the following core principles should inform any definition of equity:

- Equity does not mean equality but “fair shares” and “fair opportunities” in distribution of resources and provision of services;
- The more needy groups in society should be the ones targeted for preferential treatment, that is, greater resources and more services should be made available to these groups. (Health Systems Trust, 2002)

Describing an equitable situation requires distinctions to be made between the appropriateness of equal and unequal distributions, or horizontal and vertical equity, either of which may constitute “even-handed treatment,” depending on the situation. Equity simultaneously requires that relevantly similar cases be treated in similar ways, and relevantly different cases be treated in different ways. (PAHO/WHO, 1999)

Equity is essentially about fairness, and implies that the most vulnerable and needy groups within a society require access to greater resources than those communities that are more robust. This equity is different to equal shares or equal opportunities. For example, equal shares would mean every district having the same amount of money to spend on each person. In contrast equity would mean that districts with the most vulnerable populations and worst facilities receive more money than “better-off” districts. In relation to health, such an approach is intended to improve the health of the most vulnerable at a faster rate than those whose health status is “better”, thereby reducing the gap. Equity is a measure that compares one group with another. For example rich with poor, black with white, ru-

ral with urban and women with men. The long term goal of promoting equity is to improve the health of the most vulnerable groups. (GEGA, 2001)

Vertical and horizontal equity

“**Horizontal Equity:** the allocation of equal or equivalent resources for *equal need*; **Vertical Equity:** the allocation of different resources for *different levels of need*” (Dictionary of Philosophy, quoted in PAHO/WHO, 1999).

Gender equity

“Gender equity ‘recognizes that women and men have different needs, preferences, and interests and the equality of outcomes may necessitate different treatment of men and women’” (Reeves and Baden, 2000, cited by Malhorta et al., 2002).

“Gender equity is the equally fair treatment of women and men. To ensure fairness, some societies adopt measures to compensate for historical and social disadvantages that prevent women and men from otherwise operating on a level playing field” (Bertrand and Escudero, 2002).

Gender equity in health

Achieving gender equity in health implies eliminating unnecessary, avoidable and unjust health inequities which exist as a result of the social construction of gender. It means that women and men have the same opportunity to enjoy living conditions and services that enable them to be in good health, without becoming ill, disabled or dying by causes that are unjust and avoidable. (PAHO/WHO undated original emphasis in bold)

Gender equity in health means...

- Elimination of unnecessary, unjust and avoidable differences in health status and survival.
- Differential distribution and access to resources (technological/financial/ human) according to distinct needs.
- Women and men contribute to health financing according to their economic capacity, not their need for services.
- A just social distribution of responsibilities, power and rewards for women and men’s contribution to health production.

This includes placing value on non-remunerated health work. Gender equity is not about achieving equal rate of mortality or morbidity, but about ensuring that women and men have an equal opportunity to en-

joy good health. It is often pointed out that women have a longer life expectancy than men. While this is true among more privileged socio-economic groups, the difference is not just in length of life, but also in chances of survival. All other factors being equal, girls are more likely to survive *in utero*, during childhood, during adolescence and during adulthood. Among less privileged groups, however, the gap in male and female life-expectancy narrows and even disappears, highlighting the importance of other variables such as income level. Health is about much more than life expectancy, and so we must look beyond it to male and female quality of life and their patterns of behaviour. Although women may live longer, they tend to be more affected by long-term and chronic illness, which significantly affects the quality of their lives. It is important to note that men’s health status and behaviour is as much a result of the social construction of gender as women’s. The expectations that come with being male have a significant effect on men’s health, which the gender equity perspective must also take into account. Increasing evidence also suggests that men’s propensity towards risk behaviours widens the life-expectancy gap. Violence, unsafe sexual contact, smoking, alcohol and drug consumption, poor eating habits, lack of exercise, and a higher suicide rate can all go a long way toward explaining premature death among men. (PAHO/WHO undated)

Gender equality

Gender equality implies “equivalence in life outcomes for women and men, recognizing their different needs and interests, requiring a redistribution of power and resources” (Reeves and Baden, 2000, cited by Malhorta et al., 2002).

Health equity

Equity in health has been conceptualized and defined in several ways, as its principles derive from the fields of philosophy, ethics, economics, medicine, public health, and others. Common to most definitions of health equity is the idea that certain health differences (most often called inequalities in health) are unfair or unjust. The subset of health inequalities that are judged unjust or unfair constitute health inequities. Although the difference between these two terms is acknowledged in much of the literature ...many authors are inconsistent in their use of terminology. Two main forms of health equity are identified, vertical equity (preferential treatment for those with greater health needs), and horizontal equity (equal treatment for equivalent needs) (Macinko and Starfield, 2002). Macinko and Starfield also note that most of the pub-

lished literature covered in their review focus on horizontal equity.

A world in which any group of individuals defined by age, gender, race-ethnicity, class or residence can achieve its full health potential". The concept includes that of "health inclusion": continued improvements in health for all but bringing the bottom up at the same rate or faster than the top". Dimensions of inequity in health include:

- Equity strata: sex, race, ethnicity, region, education, occupation, place;
- Dimensions of health status across which inequities exist: risk, disease, death, social consequences of illness;
- Health care inequities: access, quality and cost of treatment. (PAHO/WHO 1999)

Health systems

Health systems are defined as comprising all the organizations, institutions and resources that are devoted to producing health actions. A health action is defined as any effort, whether in personal health care, public health services or through intersectoral initiatives, whose primary purpose is to improve health. (WHO, 2000)

Affordability

...encompasses the client's ability to pay for services, and includes the client's ability to pay for services, and includes free services and various forms of coverage. The emphasis is on cost recovery, reduced government provision of services and increased emphasis on privatization of health care that constitutes health reform packages currently underway in many countries and have particular equity implications. (Hartigan, 2001)

Allocative efficiency

The allocation of resources between types of services within the health sector, in a way that results in greatest gain overall:

Allocative efficiency is concerned with the types of health care goods and services provided by governments, and emphasizes provision of public good types of health services where at least some of the consumption benefits accrue to the community at large. Examples of these types of health services include immunizations, infectious disease control, health education, family planning, and maternal and child health. It is important to know if decentralization leads to the provision of more or less public good types of health care, or

whether governments choose to allocate more or less to private, non-public good types of health care (e.g. curative hospital services) which only benefit the individual who consumes them. Equally important is whether or not local governments have the capacity to effectively organize and deliver public health goods. (Schwartz et al., 2002)

As opposed to:

Efficiency (or "technical efficiency")

The optimal use of health care resources in a way that maximizes output (at a given level of resources) or minimizes expenditure (for a given level of output), while maintaining adequate quality of services.

Indicator

An indicator is a pointer. It can be a measurement, a number, a fact, an opinion or a perception that points at a specific condition or situation, and measures changes in that condition or situation over time. In other words, indicators provide a close look at the results of initiatives and actions. For this reason, they are front-line instruments in monitoring and evaluating development work. (Beck and Stelcner, 1997)

Gender-sensitive indicators

Gender-sensitive indicators have the special function of pointing out gender-related changes in society over time. Their usefulness lies in their ability to point to changes in the status and roles of women and men over time, and therefore *to measure whether gender equity is being achieved*. Because use of indicators and other relevant evaluation techniques will lead to a better understanding of how results can be achieved, using gender-sensitive indicators will also feed into more effective future planning and program delivery. (Beck and Stelcner, 1997: our emphasis)

Triangulation

"In general, the validity of an indicator can be enhanced by triangulation, or use of multiple sources of information and data. It is in this context that quantitative and qualitative approaches can be fruitfully mixed." (Beck and Stelcner, 1997)