Appendices

Appendix A: Advisory Group*

An Advisory Group provided support to PHIDU on the project.
Chair:
Professor Tony McMichael, National Centre for Epidemiology and Population Health (NCEPH), Australian National University (ANU)

Members
Dr Sophie Couzos, National Aboriginal Community Controlled Health Organisation
Ms Liz Furler, Motor Accident Commission
Dr Diana Hetzel, Public Health Information Development Unit (PHIDU), The University of Adelaide
Ms Michele Herriot, Health Promotion Branch, SA Dept of Health
Dr Jim Hyde, National Public Health Partnership
Professor Vivian Lin, School of Public Health, La Trobe University
Ms Helen Moore, Centre for Epidemiology and Research, NSW Health – working at University of NSW
Ms Cora Shiroyama, Population Health Division, Australian Dept of Health and Ageing (DoHA)

Appendix B: List of contributors*

Public health practitioners and experts who participated in the survey, shared their thoughts on the public health successes of the last century, and consented to being identified in the report are listed below.

A warm ‘thank you’ is extended to all the participating survey respondents, who provided not only their opinions but a wealth of material to support them; and feedback on the survey process itself.

Mr Brad Adams Environmental Health Officer, Queensland Health
Dr Rosemary Aldrich Associate Director, Clinical Governance, Hunter New England Area Health Service, NSW
Dr Elizabeth Barrett Medical Advisor, NSW Rural Doctors’ Network
Dr Kuldeep Bhatia Head, National Health Priorities and Environmental Health Unit, Australian Institute of Health and Welfare (AIHW)
Dr Graham Brown Head, Division of Infection and Immunity, The Walter and Eliza Hall Institute of Medical Research
Dr Jeff Brownscombe District Medical Officer; Remote Health, NT Department of Health and Community Services
Dr Graham Burgess Deputy Director Public Health Unit, Sydney South West Area Health Service
Dr Tim Churches  
Manager, Population Health Information Branch, Centre for Epidemiology and Research, NSW Department of Health

Assoc Prof Joan Cunningham  
Head, Environments, Services and Populations Research Division, Menzies School of Health Research, NT

Dr Ian Darnton-Hill  
Senior Advisor, Child Survival and Nutrition, UNICEF

Professor Mike Daube  
Professor of Health Policy, Curtin University of Technology

Ms Mary-Ann Davey  
Epidemiologist, Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity

Mr Mark Denoe  
Manager, Counselling Outreach Education Unit, Kirketon Road Centre NSW

Professor Stephen Duckett  
Executive Director, Reform and Development Division, Queensland Health

Ms Sophie Dwyer  
Director, Environmental Health Unit, Queensland Health

Professor Terry Dwyer  
Director, Murdoch Children's Research Institute, Melbourne

Ms Sue Ellis  
Project Manager, Southern Lakes Communities for Children, The Benevolent Society

Professor Mark J Ferson  
Director, Public Health, South Eastern Sydney Illawarra Area Health Service

Ms Rachelle Foreman  
Director, Cardiovascular Health Programs, National Heart Foundation of Australia (Qld Division)

Dr Coeli J Geefhuysen  
Retired Senior Lecturer, Tropical Health. Program, University of Queensland

Professor Sandy Gifford  
Head, Refugee Health Research Centre, La Trobe University

Dr Gerard Gill  
Postgraduate student, University of Tasmania

Assoc Prof James Harrison  
Director, Research Centre for Injury Studies, Flinders University

Dr Basil S Hetzel AC  
Chairman, Hawke Centre, University of South Australia

Professor Konrad Jamrozik  
Professor, Evidence-based Health Care, University of Queensland

Mr Andrew Jones-Roberts  
Public Health Association of Australia (Victorian Branch)

Dr Louisa Jorm  
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Mr David Kelly  
Coordinator, Health Promotion and Development, South East Regional Health Service Inc., SA

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Dr Stephen Langford  
Medical Director, Royal Flying Doctor Service (Western Operations)
Professor Stephen Leeder
Professor of Public Health and Community Medicine, University of Sydney

Professor Ian Lowe
Emeritus Professor, Griffith University

Dr Robyn Lucas
Research Fellow, National Centre for Epidemiology and Population Health, The Australian National University

Professor Donna Mak
Head, Population and Preventive Health, University of Notre Dame

Professor Timothy Mathew
Medical Director, Kidney Health Australia

Assoc Prof Bruce Maycock
School of Public Health, Curtin University of Technology

Professor Peter J McDonald
Emeritus Professor, Flinders University and Professorial Fellow, University of NSW

Dr Cathy Mead
Senior Lecturer, La Trobe University (and (then) National President PHAA)

Ms Robyn Milthorpe
Assistant Director, Department of Health and Ageing

Dr John Moss
Senior Lecturer, Division of Public Health, Faculty of Health Sciences, The University of Adelaide

Professor Mark Nelson
School of Medicine and General Practice, University of Tasmania

Ms Mary Osborn
Senior Policy Officer, The Royal Australasian College of Physicians

Ms Alison Pascoe
Senior Project Officer, Southern Adelaide Health Service

Dr Susan Rennie
Senior Manager, Nillumbik Community Health Service, Victoria

Professor Ian Ring
Professorial Fellow, Centre for Health Service Development, University of Wollongong

Dr Andy Robertson
Divisional Director, Health Protection Group, WA Department of Health

Dr Priscilla Robinson
Senior Lecturer, La Trobe University

Dr Peter Sainsbury
Director, Population Health, Sydney South West Area Health Service

Dr Rosalie Schultz
Public Health Medical Officer, Department of Health and Community Services, NT

Assoc Prof John Scott
Health Sciences Faculty, The University of Queensland

Mr Ian Scott
Department of Injuries and Violence Prevention, World Health Organization

Prof Mary Sheehan
Director, Centre for Accident Research and Road Safety, Queensland University of Technology

Ms Joan Shortt
Health Promotion Manager, Dental Health Services Victoria

Ms Kate Silburn
Senior Project Officer, Australian Institute for Primary Care
Lastly, a ‘thank you’ to the members of our pilot group for testing the survey.

*Please note that the individuals above have been identified by the titles and positions they held at the time of their contribution.
Appendix C: Methodology used to develop this report

A literature search and review of the evidence of successful public health measures in Australia were undertaken. These identified only a slender amount of material that analysed and assessed the economic benefits of public health activity in Australia over the period 1901-2005. This report has drawn on the material identified in the literature review, and on interventions identified by those public health practitioners who responded to the survey.

Survey

The project team developed a survey questionnaire in order to ascertain the views of a wide range of public health practitioners and specialists.

Methodology of the survey

The survey was piloted by a small group and revised on the basis of feedback from the pilot and comments from the Advisory Group members.

The final survey was initially publicised by:

- the Public Health Association of Australia (PHAA) in their April 2006 newsletter to an estimated 800 members;
- the Australian Health Promotion Association (AHPA) by an email to members;
- the Australasian Faculty of Public Health Medicine (AFPHM) to all fellows and trainees of the Faculty;
- the Health Services’ Research Association of Australia and Zealand via their listserv to members;
- the Biostatistics Collaboration of Australia to Steering Committee members;
- reviewers and contributors to *Environmental Health*, the journal of the Australian Institute of Environmental Health via the Institute; and
- the Public Health Information Development Unit (PHIDU) at The University of Adelaide on the PHIDU website.

It was also mailed to a shortlist of 150 nominated public health practitioners and researchers. A telephone interview was offered as an alternative to completing the survey, and practitioners were asked to distribute the survey among their colleagues. Reminders were emailed with an extended deadline. The time period over which the survey sought input was from the beginning of April to the middle of June, 2006.

The survey was also distributed by third parties to:

- all public health staff of the Victorian Department of Human Services by an officer of that department; and
- the Aboriginal and Torres Strait Islander Public Health Special Interest Group of the PHAA by the head of that group (170+ members).

A total of 100 surveys were completed and returned. There were 11 apologies. Results of the survey analysis are shown below.

Ranking of ‘Public Health Successes’ topics

Respondents were given the choice of working from a ‘Blank slate’ or using a ‘Work from lists’ in order to rank topics, with number 1 being the most important. There was also an option to add any
important public health successes that were not listed. Table A.1 shows the results from those who worked from lists (79 out of 99 surveys).

The highest ranking topics were ‘Infectious disease control’ (placed first, with an overall score of 2.7), ‘Safe drinking water’ (second, with a score of 3.1), ‘Infant and maternal mortality reductions’ (third, score of 3.8), and ‘Tobacco control’ (fourth, score of 4.8) (highlighted in the table below). The most frequently ranked topic was ‘Road traffic safety’ (ranked by all 79 respondents). The next most frequently ranked topics were ‘Infectious disease control’, ‘Infant and maternal mortality reductions’, ‘Tobacco control’, and ‘Safe drinking water’. There was good agreement that these were successful public health interventions.

Table A.1: Respondents’ ranking of topics from the Public Health Successes’ Survey

<table>
<thead>
<tr>
<th>Most often ranked</th>
<th>No. of respondents ranking this topic (n=79)</th>
<th>Overall score</th>
<th>Rank</th>
<th>Topics listed in the survey (Part B – 14 topics)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Equal 2nd</td>
<td>78</td>
<td>2.7</td>
<td>1</td>
<td>Infectious disease control</td>
</tr>
<tr>
<td>5th most often ranked</td>
<td>77</td>
<td>3.1</td>
<td>2</td>
<td>Safe drinking water</td>
</tr>
<tr>
<td>Equal 2nd</td>
<td>78</td>
<td>3.8</td>
<td>3</td>
<td>Infant and maternal mortality reductions</td>
</tr>
<tr>
<td>Equal 2nd</td>
<td>78</td>
<td>4.8</td>
<td>4</td>
<td>Tobacco control</td>
</tr>
<tr>
<td>1st most often ranked</td>
<td>79</td>
<td>6.0</td>
<td>5</td>
<td>Road traffic safety</td>
</tr>
<tr>
<td></td>
<td>74</td>
<td>6.4</td>
<td>6</td>
<td>Advances in occupational &amp; industrial safety</td>
</tr>
<tr>
<td></td>
<td>64</td>
<td>6.4</td>
<td>6</td>
<td>Public health influence on health &amp; other policies</td>
</tr>
<tr>
<td></td>
<td>71</td>
<td>7.9</td>
<td>7</td>
<td>Organised screening, early detection &amp; treatment</td>
</tr>
<tr>
<td></td>
<td>65</td>
<td>9.3</td>
<td>8</td>
<td>Water fluoridation</td>
</tr>
<tr>
<td>Least often ranked (one of two)</td>
<td>61</td>
<td>9.9</td>
<td>9</td>
<td>Aboriginal Community-Controlled Health movement</td>
</tr>
<tr>
<td></td>
<td>68</td>
<td>10.0</td>
<td>10</td>
<td>Environmental lead reduction</td>
</tr>
<tr>
<td>Least often ranked (one of two)</td>
<td>61</td>
<td>10.1</td>
<td>11</td>
<td>Food fortification</td>
</tr>
<tr>
<td></td>
<td>63</td>
<td>10.5</td>
<td>12</td>
<td>Alcohol-related harm reduction and minimisation</td>
</tr>
<tr>
<td></td>
<td>64</td>
<td>10.6</td>
<td>13</td>
<td>Domestic injury prevention</td>
</tr>
</tbody>
</table>

‘Public health influence’ although ranked sixth overall, was not ranked by 15 respondents (in other words, there was less agreement that this was a success than on the topics ranked 1 to 5 above).

The least often ranked topics (i.e., ranked by the fewest respondents) were ‘Aboriginal Community-Controlled Health movement’ (with rankings from 1—most important—to 14), ‘Food fortification’ (rankings from 1 to 14), and ‘Alcohol-related harm reduction’ (rankings from 1 to 15). ‘Alcohol-related harm reduction’ and ‘Domestic injury reduction’ received the lowest overall scores (10.5 and 10.6 respectively).
Additional important public health successes nominated

As well as ranking the topics provided in the ‘Work from lists’ section of the questionnaire, some respondents ranked and/or nominated additional topics. Other respondents working from the ‘Blank slate’ area also provided additional topics. The following topics were most often nominated as ‘important public health successes’ that had not been listed in the questionnaire.

- Safer, healthier foods, improved nutrition, dietary changes (13 respondents).
- Sun Safety campaigns / Sun protection / Skin cancer prevention (11).
- Medicare - universal health system / Medicare & PBS (10).
- Measures to address chronic diseases and associated risk factors (10). Improvements in cardiovascular health were most frequently nominated together with breast and cervical cancer screening. Obesity was most frequently identified as a challenge.
- Sewerage and sanitation (waste disposal & control) / Sanitary engineering (8).
- Harm reduction and minimisation for addictions (8).
- Mental health – promotion, awareness and early detection (3 respondents saw substantial gains - despite bad press).
- Free oral health / Public dental programs (3).
- Disaster and emergency preparedness and management (3).

Among existing topics, the most frequently nominated subtopic was immunisation (13 respondents). Other sub-topics under ‘Infectious disease control’ that were specifically nominated were (in order) HIV/AIDS control (5 respondents), Polio campaign & eradication (4), Tuberculosis (4), near eradication of *Haemophilus influenzae* type b (Hib) invasive infection (2), Smallpox (2), as well as Diphtheria, Leprosy, Malaria, Congenital syphilis; and control of STIs, animal borne infections (e.g., brucellosis), and milk-borne infections (through pasteurisation and refrigeration). Delaying the entry of influenza into Australia and quarantine measures to safeguard human, animal and crop health (2), and improvements in the surveillance and notification of infectious diseases (2) were also nominated.

A range of measures addressing the social determinants of health were also nominated, such as better education and general living standards, improved health literacy through work in schools and the active role of the media, better housing (less over-crowding), smaller family size, greater wealth, etc.

Public health legislation (3), training, and professional advocacy (3) were also nominated, as well as the influence of basic science supporting epidemiology, and transactional research. Occupational and industrial legislation was also identified (3) as contributing to improvements in worker health.

In environmental health (aside from sanitary engineering and waste control) the topics most often nominated were reduced exposures to toxins and poisons (including lead and asbestos) and improved air quality. Global warming and environmental degradation were also mentioned in comments.

A range of measures affecting infant and maternal health and mortality were nominated including reduction in SIDS (6), sepsis control, improved medical treatment, breastfeeding, antenatal clinics, birth control, and improvements in birthweight of Aboriginal babies (although methods used were questioned).

The role of the Aboriginal Community-Controlled Health Movement was identified as reducing health inequalities, and was ranked both very high and very low by respondents who included it (61 respondents), some of whom blamed it for not improving the health of Indigenous peoples (as if it were solely responsible for their health); others concerns expressed concerns about only relying on one model of health care delivery. Some respondents commented that they could not rank it because they lacked personal experience or knowledge. Environmental Health Workers in Indigenous communities were nominated as a success by some, with the qualification that more needed to be done. There were many comments made by respondents generally in relation to the parlous state of the health Australia’s Indigenous populations (see below).
Comments

In free form comments, the most frequent topic cited was the poor health of Indigenous populations, with remarks such as ‘the overall health of people in remote NT Aboriginal communities remains appalling’, ‘the state of Aboriginal health is a national disgrace’, ‘Aboriginal Health is most important and impact of the many programs has been very poor’, and ‘Indigenous health needs to be a top priority’. No other area of public health received so many adverse and angry comments on what had not been achieved. A few respondents identified the inequitable gains in specific areas (e.g., Safe drinking water, 1901- Except for Aboriginal communities who still don’t have this; Infant and maternal mortality reductions, 1901- Except for Aboriginal communities who still don’t have this, Aboriginal Community-Controlled Health movement - There is a long way to go to reduce the health inequalities) and so on.

Selection criteria

Ranking of selection criteria

Respondents who worked from lists were asked to rank the factors that they considered important in making their selection of public health successes over the last century. The highest scored selection criteria were Impact (ranked by all respondents who ranked criteria with an overall score of 2.3) and Importance (ranked by 68 of 69 respondents, score of 2.8) (highlighted in pale blue in Table A.2 below).

Table A.2: Respondent ranking of selection criteria from the Public Health Successes Survey

<table>
<thead>
<tr>
<th>Most often ranked</th>
<th>No. of respondents ranking this criteria (n=69)</th>
<th>Overall score</th>
<th>Rank</th>
<th>Selection criteria</th>
</tr>
</thead>
<tbody>
<tr>
<td>1st most often ranked</td>
<td>69</td>
<td>2.3</td>
<td>1</td>
<td>Impact</td>
</tr>
<tr>
<td>2nd most often ranked</td>
<td>68</td>
<td>2.8</td>
<td>2</td>
<td>Importance</td>
</tr>
<tr>
<td></td>
<td>63</td>
<td>4.1</td>
<td>3</td>
<td>Ambitious in scale</td>
</tr>
<tr>
<td></td>
<td>63</td>
<td>4.5</td>
<td>4</td>
<td>Directly attributable to the public health effort</td>
</tr>
<tr>
<td></td>
<td>62</td>
<td>4.6</td>
<td>5</td>
<td>Duration</td>
</tr>
<tr>
<td></td>
<td>63</td>
<td>5.1</td>
<td>6</td>
<td>Cost-effectiveness</td>
</tr>
</tbody>
</table>

Cost-effectiveness received the lowest overall score (5.1), which may reflect the lack of available and appropriate data on which to base assessments of cost-effectiveness.

Additional selection criteria nominated

As well as ranking the selection criteria provided in the ‘Work from lists’ section of the survey, some respondents nominated additional factors that were important in forming their decision. These are roughly grouped, using shading to highlight similar concepts, in Table A.3.

Factors were identified as positive and negative factors. Among positive factors, general and specific outcome criteria (e.g., severity of effects if no intervention, increase in healthy life years) formed the largest group nominated. ‘Equity and universality’, ‘ethics’, ‘bravery and imagination’ were among specific qualities identified as important factors, along with ‘evidence-based’ and ‘intellectually
Targeting of interventions, including those focusing young people was another important positive factor. Community-controlled, empowering and democratising factors were also identified, along with the comprehensiveness of strategies and the importance of public perception, acceptance and support.

There were fewer negative factors identified. These were ‘avoiding catastrophic failures’, ‘flawed community development approaches’, and ‘the impact on rural communities’.

Table A.3: Additional selection criteria nominated by respondents to the Public Health Successes Survey

<table>
<thead>
<tr>
<th>Positive factors</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Outcome</strong></td>
<td>Interventions that proved to have long term health benefits for the whole population (2 respondents)</td>
</tr>
<tr>
<td><strong>Severity of non-intervention</strong></td>
<td>Severity of effect if no intervention took place/ Type of risk – e.g., minimal deaths occur without water fluoridation.</td>
</tr>
<tr>
<td><strong>Increase in healthy life years</strong></td>
<td>Interventions which resulted in net gain in life expectancy for the population (related to Impact)</td>
</tr>
<tr>
<td><strong>Disability years saved</strong></td>
<td>Interventions which reduced injury- or illness-related disability years (also related to Impact)</td>
</tr>
<tr>
<td><strong>Equity</strong></td>
<td>The most important programs often addressed issues of equity.</td>
</tr>
<tr>
<td><strong>Universal</strong></td>
<td>Interventions that had an impact on the whole population and where the individual did not incur a specific cost or charge.</td>
</tr>
<tr>
<td><strong>Legislative impact</strong></td>
<td>Smoking and seat belt laws, for example, had universal application and a dramatic public health impact</td>
</tr>
<tr>
<td><strong>Ethical</strong></td>
<td>Adherence to millennium development goals and other internationally recognised ethical yardsticks.</td>
</tr>
<tr>
<td><strong>Brave / Courageous</strong></td>
<td>Dr Neil Blewett’s response to HIV showed immediate and clever thinking with relatively little evidence to inform the decision.</td>
</tr>
<tr>
<td><strong>Imaginative</strong></td>
<td>Farsighted in use and development of resources.</td>
</tr>
<tr>
<td><strong>Evidence-based</strong></td>
<td>Relied upon convincing scientific fact</td>
</tr>
<tr>
<td><strong>Intellectually rigorous</strong></td>
<td>Good use of intellectual capacity</td>
</tr>
<tr>
<td><strong>Correct targeted approaches for disadvantaged groups</strong></td>
<td>Targeted approach, targeting of disadvantaged groups, correct targeting. Addressed those with the most needs such as Aboriginal populations. (3 respondents)</td>
</tr>
<tr>
<td><strong>Measures aimed at young people</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Community-controlled</strong></td>
<td>Public health efforts which encouraged the public to be participants in their own health and well-being, not solely objects on which health professionals acted to produce health</td>
</tr>
<tr>
<td><strong>Community and personal empowerment</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Democratisation of knowledge</strong></td>
<td>The efforts put into effective translation of knowledge about health issues and risk to health in order to dispel misinformation, malpractice and public anxiety.</td>
</tr>
<tr>
<td><strong>Factors that had multiple criteria and obvious political support and funding had a greater success.</strong></td>
<td>Persons driving the program were highly motivated and committed and had the political backing and funds to succeed. Legislation was amended for the purpose and media was involved in the support of the initiative.</td>
</tr>
<tr>
<td><strong>Comprehensive, multi-strategy effort</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Unique Australian contribution</strong></td>
<td>Alcohol/ driving/ tobacco</td>
</tr>
<tr>
<td>Positive factors</td>
<td>Details</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Australia is not an island</td>
<td>WHO/ immunisation/ smallpox eradication/ polio</td>
</tr>
<tr>
<td>Public engagement</td>
<td>Addressed a problem perceived by the public to be important / Public acceptance / Public support (3 respondents)</td>
</tr>
<tr>
<td>Partnership in delivery</td>
<td></td>
</tr>
<tr>
<td>Physical environment</td>
<td></td>
</tr>
<tr>
<td>Personal experience/ Exposure</td>
<td>Interventions you were informed about or had personal experience with might often bias your decision making</td>
</tr>
</tbody>
</table>

The Public Health Successes’ Survey Questionnaire is in Appendix D.
Appendix D: Public Health Successes – Australia, 1901-2005: Survey questionnaire

What are the outstanding public health successes of the last century?

We are interested in learning which Australian public health measures you believe have been the most successful over the last 100 years or so (from 1901 to 2005). They may be current or no longer operating. We are also keen to understand why you believe these have been the most successful public health measures or interventions - what factors were important in making your choice?

The questionnaire should take approximately 10 minutes to complete. You may choose to work from a ‘blank slate’ to nominate your public health successes and criteria (start at Part A), or you may prefer to work from a ‘starter’ list to select the most important, or add any that are not listed (start at Part B).

Whichever method you prefer, the last thing we ask you to do is to make any extra comments and provide acknowledgement information (finish at Part C).

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The aim of the project is to publish a report on the public health successes that have improved the health of Australians over the last century.

The project has been commissioned by the Australian Government Department of Health and Ageing and is overseen by the National Public Health Information Working Group. A small group chaired by Professor Tony McMichael is advising the project.

We’ve made a start on listing public health achievements in Australia over the last century including some priority public health interventions in the last 20 years. These are in Section B.1, and organised chronologically. Selection criteria that have been used in similar exercises (e.g., to choose between competing topics) are listed in Section B.2.

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To complete the questionnaire, start at Part A if you prefer to work from a ‘blank slate’ or start at Part B if you would rather work from or add to starter lists already compiled. Whichever method you use, please also complete Part C.

Responses can be emailed, faxed or posted to:

PHIDU,
The University of Adelaide,
Level 9, 10 Pulteney St,
Adelaide SA 5005.
Instructions: Please complete both sections of EITHER Part A OR Part B AND finish with Part C.

PART A: WORK FROM A ‘BLANK SLATE’

A.1 Topics: In the blank table below, please nominate the key Australian public health successes that you believe have contributed to the improved health of Australians over the last hundred years or so (i.e., from 1901 to 2005). The achievements or interventions may be current.

Please nominate up to ten public health successes in the table below, with number 1 being the most important.

<table>
<thead>
<tr>
<th>No.</th>
<th>Public health successes</th>
<th>Details (additional explanation)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
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<tr>
<td>6</td>
<td></td>
<td></td>
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<tr>
<td>7</td>
<td></td>
<td></td>
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<tr>
<td>8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A.2 Selection criteria: What factors were important in forming your decision about the public health successes you nominated in Section A.1?

Please rank the criteria that were of importance, with number 1 being the most important.

<table>
<thead>
<tr>
<th>No.</th>
<th>Criteria</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please finish the survey by completing Part C.
**PART B: WORK FROM LISTS**

B.1 Topics: In the tables below, please nominate from the first table (or add to the second table) the key Australian public health successes that you believe have contributed to the health of Australians over the last hundred years or so (i.e., from 1901 to 2005). The achievements or interventions may be current.

Please nominate by numbering, in order of importance, topics from the first table (insert a number in the third column, with number 1 being the most important), and add any topics you believe should be there but are missing, to the second (blank) table following.

<table>
<thead>
<tr>
<th>Topics</th>
<th>Details of intervention/s and outcome/achievement</th>
<th>No.</th>
</tr>
</thead>
</table>
| Public health influence on health and other policies, 1901-
[i.e., the whole of the twentieth century] | Promulgation of the concepts and practice of public health, today defined as the organised response by society to protect and promote health and to prevent illness, injury and disability through the public health practices of health assessment, health protection, health promotion, and prevention of disease, disability and injury. | |
<p>| Safe drinking water, 1901- | Public health engineering, and setting and monitoring of standards for drinking water quality to achieve reductions in water-borne diseases. | |
| Infant and maternal mortality reductions, 1901- | Improved sanitation and hygiene, living and birthing conditions; ante and post-natal care; breastfeeding support, education &amp; promotion; parent education; better nutrition programs including the school milk program, and health-promoting schools programs; to achieve reductions in infant and maternal mortality, healthier babies and children, improved immunity and life expectancy. Targeted services and programs to improve birthweight and health of Aboriginal babies and mothers (from the 1980s-). Monitoring and researching SIDS (Sudden Infant Death Syndrome) to identify prevention strategies, and health education and health promotion campaigns to promote preventive SIDS strategies (1991- ). | |
| Infectious disease control, 1901- | Control of epidemics; immunisation against vaccine-preventable diseases; screening and early intervention for tuberculosis; STI clinics; needle exchange programs; and infection control in hospitals leading to fewer deaths and illnesses from, and eradication of, some infectious diseases. Includes: HIV/AIDS control (1985- ). | |
| Advances in occupational and industrial safety and improvements in working conditions, 1901- | Advances in occupational and industrial safety, and improvements in working conditions; occupational health and safety legislation; environmental and occupational exposure standards setting, monitoring and regulating; and environmental mitigation programs to achieve improved safety at work and fewer occupational fatalities, injuries, and hazardous exposures. | |
| Water fluoridation, since the 1960s- | Fluoridation of drinking water to strengthen teeth from childhood. | |</p>
<table>
<thead>
<tr>
<th>Topics</th>
<th>Details of intervention/s and outcome/achievement</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Road traffic safety, 1960s-</td>
<td>Seat belt legislation, random breath testing; all-states maximum speed limit 110km, and blood alcohol limit 0.05; improved product design and car safety features; improved roads and traffic management; and mandatory helmet wearing legislation to achieve reductions in road trauma fatalities and injuries.</td>
<td></td>
</tr>
<tr>
<td>Food fortification, since the 1960s-</td>
<td>Fortification of salt with iodine, flour with thiamine, and various foods with folate (voluntary) to reduce preventable deficiency diseases and congenital malformations.</td>
<td></td>
</tr>
<tr>
<td>Organised screening, early detection, and treatment, from the late 1960s-</td>
<td>Organised screening, early detection, and treatment to achieve fewer deaths and less disability from preventable or treatable conditions that are amenable to detection by screening. Includes: screening newborns for congenital metabolic conditions, late 1960s-; screening for cervical cancer, 1991-; screening for breast cancer (aged 50-69 years), 1991-; newborn hearing screening, in some states from 2000-.</td>
<td></td>
</tr>
<tr>
<td>Aboriginal community controlled health movement, from 1971-</td>
<td>Aboriginal community-controlled health services delivering primary care to Indigenous populations to promote health and prevent illness.</td>
<td></td>
</tr>
<tr>
<td>Tobacco control, 1982-</td>
<td>Multi-faceted Tobacco Control Strategy to prevent smoking-related deaths and respiratory disease and to improve living conditions (smoke-free premises).</td>
<td></td>
</tr>
<tr>
<td>Domestic injury prevention, from 1986-</td>
<td>Health education and health promotion campaigns, product safety and legislated product changes, monitoring, identifying &amp; researching preventable injuries to achieve reductions in preventable fatalities and injuries in domestic settings.</td>
<td></td>
</tr>
<tr>
<td>Environmental lead reduction, 1986- (earlier in point source communities)</td>
<td>Lead-free petrol and paint; environmental lead remediation and abatement programs to achieve reduced environmental exposure to lead.</td>
<td></td>
</tr>
<tr>
<td>Alcohol-related harm reduction and minimisation programs, 1990s-</td>
<td>Risk behaviour reduction programs, liquor licensing and regulation, education and training for staff serving alcohol, designated driver programs; community-determined alcohol restrictions and bans to prevent alcohol-related harm including injuries and hospitalisations.</td>
<td></td>
</tr>
</tbody>
</table>

If you feel that there are important public health successes that are not listed above, please add them below.
B.2 Selection criteria: We are keen to understand why you believe the public health measures nominated in the previous section have been the most successful. What factors were important in forming your decision? Some selection criteria that have been used in similar exercises are shown in the table below.\textsuperscript{721}

Please rank the criteria that were most important in forming your decision on the public health successes that you nominated in Section B.1, with number 1 being the most important. If different or additional factors were important in forming your decision, please add them to the blank table.

<table>
<thead>
<tr>
<th>Suggested criteria</th>
<th>Details</th>
<th>No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ambitious in scale</td>
<td>Interventions or programs implemented on a national, nationwide, or universal scale. Programs may be characterised as ‘national’ if they represent a national-level commitment, even if they have targeted a problem affecting a limited geographic area. Programs implemented on a pilot basis, or within only a few local areas are excluded.</td>
<td></td>
</tr>
<tr>
<td>Importance</td>
<td>Interventions or programs addressing a problem of public health significance.</td>
<td></td>
</tr>
<tr>
<td>Impact</td>
<td>Interventions or programs that have demonstrated a clear and measurable impact on a population’s health.</td>
<td></td>
</tr>
<tr>
<td>Duration</td>
<td>Interventions or programs that have functioned ‘at scale’ for at least five consecutive years.</td>
<td></td>
</tr>
<tr>
<td>Cost-effectiveness</td>
<td>Interventions or programs that you believe have used a cost-effective approach.</td>
<td></td>
</tr>
<tr>
<td>Directly attributable to the public health effort</td>
<td>Interventions or programs that have had a health impact that is directly attributable to the specific public health effort rather than primarily to broad social and economic improvement.</td>
<td></td>
</tr>
</tbody>
</table>

Were there other or additional factors that were important in forming your decision? Please add them below.

|                                                                 |                                                                 |     |
|                                                               |                                                               |     |
|                                                               |                                                               |     |
|                                                               |                                                               |     |
|                                                               |                                                               |     |
|                                                               |                                                               |     |
Instructions: Finish the survey by completing Part C.

PART C: Comments and acknowledgements

C.1 Comments: Please make any other comments on related areas or issues in the box below.

C.2 Acknowledgements: We would like to acknowledge your contribution as a survey participant in the final report. Please mark the ‘Yes’ box below if you agree that we may acknowledge you in the report, and provide details. If you don’t agree, please mark ‘No’.

☐ Yes – acknowledge my contribution in the report

If yes, in order to be acknowledged, please provide your details below:

Name ...............................................................................................................................................

Position ............................................................................................................................................

Organisation ....................................................................................................................................

Email address for return of draft: ......................................................................................................

OR

☐ No – do not acknowledge my contribution in the report.

Survey process

Responses are due by [a deadline]. Responses can be emailed, faxed or posted.
Surveys will be analysed as a group to provide information to the report (they will not be individually identified). Your participation will be acknowledged in the report if you have agreed in section C.2.

>>> O <<<
Appendix E: Defining health

The Commonwealth of Australia, *World Health Organization Act 1947* (Schedule I, Section 3) initiating Australia’s membership of the World Health Organization, defines health as ‘a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity’.

The public health principles that the Act sets out are still pertinent today:

“’The enjoyment of the highest attainable standard of health is one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition.

The health of all peoples is fundamental to the attainment of peace and security and is dependent upon the fullest co-operation of individuals and States.

The achievement of any State in the promotion and protection of health is of value to all.

Unequal development in different countries in the promotion of health and control of disease, especially communicable disease, is a common danger.

Healthy development of the child is of basic importance; the ability to live harmoniously in a changing total environment is essential to such development.

The extension to all peoples of the benefits of medical, psychological and related knowledge is essential to the fullest attainment of health.

Informed opinion and active co-operation on the part of the public are of the utmost importance in the improvement of the health of the people.

Governments have a responsibility for the health of their peoples which can be fulfilled only by the provision of adequate health and social measures.”
## List of shortened forms

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Full Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>AAA</td>
<td>Australian Automobile Association</td>
</tr>
<tr>
<td>AAMS</td>
<td>Australian Academy of Medicine and Surgery</td>
</tr>
<tr>
<td>AAQ</td>
<td>Ambient Air Quality</td>
</tr>
<tr>
<td>ABA</td>
<td>Australian Breastfeeding Association</td>
</tr>
<tr>
<td>ABARE</td>
<td>Australian Bureau of Agricultural and Resource Economics</td>
</tr>
<tr>
<td>ABC</td>
<td>Australian Broadcasting Commission</td>
</tr>
<tr>
<td>ABS</td>
<td>Australian Bureau of Statistics</td>
</tr>
<tr>
<td>ACA</td>
<td>Australian Consumers Association</td>
</tr>
<tr>
<td>ACCHS</td>
<td>Aboriginal Community-Controlled Health Services</td>
</tr>
<tr>
<td>ACEM</td>
<td>Australasian College for Emergency Medicine</td>
</tr>
<tr>
<td>ACHR</td>
<td>Australian Centre for Health Research</td>
</tr>
<tr>
<td>ACIR</td>
<td>Australian Childhood Immunisation Register</td>
</tr>
<tr>
<td>ACITHIN</td>
<td>Australian Centre for International and Tropical Health and Nutrition</td>
</tr>
<tr>
<td>ACRA</td>
<td>Australian Cardiac Rehabilitation Association</td>
</tr>
<tr>
<td>ACSQHC</td>
<td>Australian Commission on Safety and Quality in Health Care</td>
</tr>
<tr>
<td>ACT</td>
<td>Australian Capital Territory</td>
</tr>
<tr>
<td>ACTM</td>
<td>Australasian College of Tropical Medicine</td>
</tr>
<tr>
<td>ADCA</td>
<td>Alcohol and other Drugs Council of Australia</td>
</tr>
<tr>
<td>ADEC</td>
<td>Australian Drug Evaluation Committee</td>
</tr>
<tr>
<td>ADRAC</td>
<td>Adverse Drug Reactions Advisory Committee</td>
</tr>
<tr>
<td>AEDI</td>
<td>Australian Early Development Index</td>
</tr>
<tr>
<td>AGPS</td>
<td>Australian Government Publishing Service</td>
</tr>
<tr>
<td>AGPSCC</td>
<td>Australian General Practice Statistics and Classification Centre</td>
</tr>
<tr>
<td>AHMC</td>
<td>Australian Health Ministers’ Conference</td>
</tr>
<tr>
<td>AHPA</td>
<td>Australian Health Promotion Association</td>
</tr>
<tr>
<td>AHURI</td>
<td>Australian Housing and Urban Research Institute</td>
</tr>
<tr>
<td>AIDA</td>
<td>Australian Indigenous Doctors Association</td>
</tr>
<tr>
<td>AIDS</td>
<td>Acquired Immune Deficiency Syndrome</td>
</tr>
<tr>
<td>AIFS</td>
<td>Australian Institute of Family Studies</td>
</tr>
<tr>
<td>AIH</td>
<td>Australian Institute of Health</td>
</tr>
<tr>
<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
</tr>
<tr>
<td>AIHW NPSU</td>
<td>Australian Institute of Health and Welfare, National Perinatal Statistics Unit</td>
</tr>
<tr>
<td>AISRAP</td>
<td>Australian Institute for Suicide Research and Prevention</td>
</tr>
<tr>
<td>AITM</td>
<td>Australian Institute of Tropical Medicine</td>
</tr>
<tr>
<td>a.k.a.</td>
<td>also known as</td>
</tr>
<tr>
<td>AMA</td>
<td>Australian Medical Association</td>
</tr>
<tr>
<td>AMI</td>
<td>Acute myocardial infarction</td>
</tr>
<tr>
<td>ANAO</td>
<td>Australian National Audit Office</td>
</tr>
<tr>
<td>ANCAHRD</td>
<td>Australian National Council on AIDS, Hepatitis C and Related Diseases</td>
</tr>
<tr>
<td>ANZFA</td>
<td>Australia New Zealand Food Authority</td>
</tr>
<tr>
<td>AOA</td>
<td>Australian Orthopaedic Association</td>
</tr>
<tr>
<td>AP Lands</td>
<td>Anangu Pitjantjatjara Lands</td>
</tr>
<tr>
<td>Acronym</td>
<td>Full Form</td>
</tr>
<tr>
<td>---------</td>
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</tr>
<tr>
<td>AQIS</td>
<td>Australian Quarantine Inspection Service</td>
</tr>
<tr>
<td>ARIA</td>
<td>Accessibility/Remoteness Index of Australia</td>
</tr>
<tr>
<td>ARTG</td>
<td>Australian Register of Therapeutic Goods</td>
</tr>
<tr>
<td>ASCC</td>
<td>Australian Safety and Compensation Council</td>
</tr>
<tr>
<td>ASHM</td>
<td>Australasian Society for HIV Medicine Inc.</td>
</tr>
<tr>
<td>ATC</td>
<td>Australian Transport Council</td>
</tr>
<tr>
<td>ATSB</td>
<td>Australian Transport Safety Bureau</td>
</tr>
<tr>
<td>ATSE</td>
<td>Australian Academy of Technological Sciences and Engineering</td>
</tr>
<tr>
<td>ATSIC</td>
<td>Aboriginal and Torres Strait Islander Commission</td>
</tr>
<tr>
<td>AUSTEHC</td>
<td>Australian Science and Technology Heritage Centre</td>
</tr>
<tr>
<td>AWSC</td>
<td>Australian Water Safety Council</td>
</tr>
<tr>
<td>BA</td>
<td>Biotechnology Australia</td>
</tr>
<tr>
<td>BAC</td>
<td>Blood alcohol content</td>
</tr>
<tr>
<td>BFHI</td>
<td>Baby Friendly Health Initiative</td>
</tr>
<tr>
<td>BMI</td>
<td>Body mass index</td>
</tr>
<tr>
<td>BoM</td>
<td>Australian Government Bureau of Meteorology</td>
</tr>
<tr>
<td>BTE</td>
<td>Bureau of Transport Economics</td>
</tr>
<tr>
<td>BTRE</td>
<td>Bureau of Transport and Regional Economics</td>
</tr>
<tr>
<td>CASANZ</td>
<td>Clean Air Society of Australia and New Zealand</td>
</tr>
<tr>
<td>CATSIN</td>
<td>Congress of Aboriginal and Torres Strait Islander Nurses</td>
</tr>
<tr>
<td>CDNA</td>
<td>Communicable Diseases’ Network Australia</td>
</tr>
<tr>
<td>CHD</td>
<td>Coronary heart disease</td>
</tr>
<tr>
<td>CHE</td>
<td>Centre for Health Economics</td>
</tr>
<tr>
<td>CHF</td>
<td>Consumers’ Health Forum of Australia</td>
</tr>
<tr>
<td>CIE</td>
<td>Centre for International Economics</td>
</tr>
<tr>
<td>CIJIG</td>
<td>Commonwealth Interdepartmental JETACAR Implementation Group</td>
</tr>
<tr>
<td>COAG</td>
<td>Council of Australian Governments</td>
</tr>
<tr>
<td>COSA</td>
<td>Clinical Oncological Society of Australia</td>
</tr>
<tr>
<td>CPI</td>
<td>Consumer Price Index</td>
</tr>
<tr>
<td>CRCATH</td>
<td>Cooperative Research Centre for Aboriginal and Tropical Health</td>
</tr>
<tr>
<td>CRCWQ&amp;T</td>
<td>Cooperative Research Centre for Water Quality and Treatment</td>
</tr>
<tr>
<td>CSANZ</td>
<td>Cardiac Society of Australia and New Zealand</td>
</tr>
<tr>
<td>CSIRO</td>
<td>Commonwealth Scientific and Industrial Research Organisation</td>
</tr>
<tr>
<td>CSL</td>
<td>Commonwealth Serum Laboratories</td>
</tr>
<tr>
<td>DAFF</td>
<td>Australian Government Department of Agriculture, Fisheries and Forestry</td>
</tr>
<tr>
<td>DCPC</td>
<td>Drugs and Crime Prevention Committee</td>
</tr>
<tr>
<td>DEC NSW</td>
<td>Department of Environment and Conservation, NSW</td>
</tr>
<tr>
<td>DEH</td>
<td>Australian Government Department of Environment and Heritage</td>
</tr>
<tr>
<td>DEST</td>
<td>Commonwealth Department of the Environment, Sport and Territories</td>
</tr>
<tr>
<td>DFaCS</td>
<td>Australian Government Department of Families and Community Services</td>
</tr>
<tr>
<td>DFaCSIA</td>
<td>Australian Government Department of Families, Community Services and Indigenous Affairs</td>
</tr>
<tr>
<td>DHAC</td>
<td>Australian Government Department of Health and Aged Care</td>
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<tr>
<td>DHFS</td>
<td>Commonwealth Department of Health and Family Services</td>
</tr>
<tr>
<td>DNA</td>
<td>Deoxyribonucleic acid</td>
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</tbody>
</table>
DoHA  Australian Government Department of Health and Ageing
EAGAR  Expert Advisory Group on Antimicrobial Resistance
EPHC  Environment Protection and Heritage Council
EU  European Union
FaCS  Commonwealth Department of Family and Community Services
FAO  Food and Agriculture Organization of the United Nations
FASTS  Federation of Australian Scientific and Technological Societies
FHBH  Fixing Houses for Better Health
FPA  Family Planning Australia
FRRC  Food Regulation Review Committee
FSANZ  Food Standards Australia New Zealand
GAP  Good agriculture practice
GDP  Gross domestic product
GM  Genetically modified
GMP  Good manufacturing practice
HACCP  Hazard Analysis and Critical Control Point
HBV  Hepatitis B virus
HCV  Hepatitis C virus
HfH  Housing for Health
Hib  *Haemophilus influenzae* type b
HIC  Health Insurance Commission
HIV  Human Immunodeficiency Virus
HMAC  Housing Ministers' Advisory Council
HMRSR  Health and Medical Research Strategic Review
HOI  Health Outcomes International
HREOC  Human Rights and Equal Opportunity Commission
HTA  Health technology assessment
HUS  Haemolytic Uraemic Syndrome
IDI  International Diabetes Institute
IFIP  Imported Food Inspection Program
ISG  Influenza Specialist Group
ISH  International Society of Hypertension
JETACAR  Joint Expert Advisory Committee on Antibiotic Resistance
LWA  Living with Alcohol program (NT)
MCDS  Ministerial Council on Drug Strategy
MDEC  Medical Device Evaluation Committee
MDRTB  Multi-drug resistant TB
MIAA  Medical Industry Association of Australia Inc.
MMR  Maternal mortality ratio
MMR  Measles, mumps, rubella (vaccine)
MRI  Magnetic resonance imaging
MRSA  Methicillin-resistant *Staphylococcus aureus*
MSAC  Medical Services Advisory Committee
MUARC  Monash University Accident Research Centre
NACCHO  National Aboriginal Community Controlled Health Organisation
<table>
<thead>
<tr>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAIHO</td>
<td>National Aboriginal and Islander Health Organization</td>
</tr>
<tr>
<td>NAS</td>
<td>National Alcohol Strategy</td>
</tr>
<tr>
<td>NCADA</td>
<td>National Campaign Against Drug Abuse</td>
</tr>
<tr>
<td>NCCI</td>
<td>National Cancer Control Initiative</td>
</tr>
<tr>
<td>NCHECR</td>
<td>National Centre in HIV Epidemiology and Clinical Research</td>
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<tr>
<td>NCIRS</td>
<td>National Centre for Immunisation Research and Surveillance of Vaccine-Preventable Disease</td>
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<td>National Coroners’ Information System</td>
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<td>National Drug and Alcohol Research Centre</td>
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<td>NDRI</td>
<td>National Drug Research Institute</td>
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<td>NEPC</td>
<td>National Environment Protection Council</td>
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<td>NEPM</td>
<td>National Environment Protection Measure</td>
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<td>Nganampa Health Council</td>
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<td>National Heart Foundation of Australia</td>
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<tr>
<td>NHMRC</td>
<td>National Health and Medical Research Council</td>
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<td>National Health Priority Areas</td>
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<td>NHPAC</td>
<td>National Health Priority Action Council</td>
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<td>NICNAS</td>
<td>National Industrial Chemicals Notification and Assessment Scheme</td>
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<td>NICS</td>
<td>National Institute of Clinical Studies</td>
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<td>NISU</td>
<td>National Injury Surveillance Unit</td>
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<tr>
<td>NJRR</td>
<td>National Joint Replacement Registry</td>
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<td>NMSC</td>
<td>Non-melanocytic skin cancers</td>
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<td>NOHSC</td>
<td>National Occupational Health and Safety Commission</td>
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<td>NPHP</td>
<td>National Public Health Partnership</td>
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<td>NRMMC</td>
<td>Natural Resource Management Ministerial Council</td>
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<td>NSF</td>
<td>National Stroke Foundation</td>
</tr>
<tr>
<td>NSPs</td>
<td>Needle and syringe exchange programs</td>
</tr>
<tr>
<td>NSW</td>
<td>New South Wales</td>
</tr>
<tr>
<td>NSW EPA</td>
<td>NSW Environment Protection Authority</td>
</tr>
<tr>
<td>NSW RTA</td>
<td>NSW Roads and Traffic Authority</td>
</tr>
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<td>NTAC</td>
<td>National Tuberculosis Advisory Committee of CDNA</td>
</tr>
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<td>NWQMS</td>
<td>National Water Quality Management Strategy</td>
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<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OHS</td>
<td>Occupational health and safety</td>
</tr>
<tr>
<td>PBAC</td>
<td>Pharmaceutical Benefits Advisory Committee</td>
</tr>
<tr>
<td>PBS</td>
<td>Pharmaceutical Benefits Scheme</td>
</tr>
<tr>
<td>PC</td>
<td>Productivity Commission</td>
</tr>
<tr>
<td>PDC</td>
<td>Prostheses and Devices Committee</td>
</tr>
<tr>
<td>PHAA</td>
<td>Public Health Association of Australia</td>
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<tr>
<td>PHERP</td>
<td>Public Health Education and Research Program</td>
</tr>
<tr>
<td>PHIDU</td>
<td>Public Health Information and Development Unit</td>
</tr>
<tr>
<td>PHOFA</td>
<td>Public Health Outcome Funding Agreements</td>
</tr>
<tr>
<td>PHRC</td>
<td>Public Health Research and Development Committee of the NHMRC</td>
</tr>
<tr>
<td>PHU</td>
<td>Public Health Unit</td>
</tr>
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</table>
PVC  Polyvinyl chloride
QA  Quality Assurance
QALY  Quality-adjusted life year
QIMR  Queensland Institute of Medical Research
QISU  Queensland Injury Surveillance Unit
Qld  Queensland
QUT  Queensland University of Technology
RACGP  Royal Australian College of General Practitioners
RACP  Royal Australasian College of Physicians
RANZCOG  Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RANZCP  Royal Australian and New Zealand College of Psychiatrists
RBT  Random Breath Testing
RDI  Recommended Dietary Intake
RLSSA  Royal Life Saving Society Australia
SA  South Australia
SAA  Standards Association of Australia
SCATSIH  Standing Committee on Aboriginal and Torres Strait Islander Health
SCC  Statistical Consulting Centre
SCRGSP  Steering Committee for the Review of Government Service Provision
SEIFA  Socio-Economic Index for Areas (disadvantage score)
SIDS  Sudden Infant Death Syndrome
SIGNAL  Strategic Inter-Governmental Nutrition Alliance
SIPP  Strategic Injury Prevention Partnership
SMH  Sydney Morning Herald
STIs  Sexually transmissible infections
TB  Tuberculosis
TGA  Therapeutic Goods Administration
UK  United Kingdom
UN  United Nations
UQ  University of Queensland
US  United States
UV  Ultraviolet radiation
UVB  Ultraviolet radiation B
VCTC  VicHealth Centre for Tobacco Control
VicHealth  Victorian Health Promotion Foundation
WA  Western Australia
WACRRM  Western Australian Centre for Remote and Rural Medicine
WARC  World Advertising Research Centre
WHO  World Health Organization
WHOSIS  World Health Organization Statistical Information System
WKS  Wernicke-Korsakoff Syndrome
WRMC  Workplace Relations Ministers’ Council
μg/dL  Micrograms per decilitre
Glossary

Abatement
Reducing the degree or intensity of, or eliminating, pollution (including from emissions). The term abatement is normally used to indicate treatment systems to reduce the emission of pollutants into the atmosphere. Typical abatement systems include scrubbers, cyclones, bag filters, electrofilters, and activated carbon beds.\textsuperscript{729}

Adverse event
An injury resulting from a medical intervention, not the underlying condition of the patient. Also referred to as ‘iatrogenic injury’ - unintended or unintentional harm or suffering arising from any aspect of healthcare management. An adverse event is preventable if it is due to an error in management due to failure to follow accepted practice at an individual or system level, where accepted practice is the current level of expected performance for the average medical practitioner or system that manages the condition in question.\textsuperscript{730}

Angina
Temporary chest pain or discomfort when the heart’s own blood supply is inadequate to meet extra needs. \textit{See also} Circulatory system disease.

Angiosarcoma
A malignant vascular tumour, which can result from prolonged exposure to vinyl chloride monomers.

Antimicrobial
An antimicrobial is a substance that kills or slows the growth of microbes like bacteria (antibacterial activity), fungi (antifungal activity), viruses (antiviral activity), or parasites (antiparasitic activity).

Apgar score
A practical method of evaluating the physical condition of a newborn infant at 1 minute and 5 minutes after birth. The score represents a number arrived at by scoring the heart rate, respiratory effort, muscle tone, skin colour, and response to a catheter in the nostril. Each of these objective signs can receive 0, 1, or 2 points. A perfect Apgar score of 10 means an infant is in the best possible condition. An infant with an Apgar score of 0-3 needs immediate resuscitation.\textsuperscript{243}

Asbestosis
A chronic and progressive lung disease caused by inhaling asbestos fibres over a period of time. It may take five to 20 years before symptoms develop. The accumulated, inhaled asbestos fibres produce scarring (fibrosis) of the lung which makes the lungs stiffen and stops them working properly. Asbestosis causes breathlessness, tightness in the chest, persistent coughing and the skin may have a bluish tinge from lack of oxygen. Getting enough oxygen from each breath needs a much greater effort. Asbestosis usually worsens over time. It can lead to respiratory failure and death. There is no cure for this disease.\textsuperscript{193}

Benchmarking
A quality assurance process in which an organisation sets goals and measures its performance in comparison to those of the products, services, and practices of other organisations that are recognised as leaders.\textsuperscript{32}

Benefit-cost analysis
A systematic compilation of net social benefits and costs associated with a project or policy change.\textsuperscript{32}

Biosecurity
Protection of natural resources from biological invasion and threats.

Biotechnology
The use of biological processes, organisms, or systems to manufacture products intended to improve the quality of human life. Many of the principles and some of the techniques involved are ancient. Fermentation, for example, in which microbes are used to produce beer, wine, cheese, bread and
yoghurt, has been practised for thousands of years. Traditional plant and animal breeding techniques involve applications of biotechnology. Biotechnology now encompasses a wide range of technologies using living organisms to create products and perform tasks for a practical result. Examples can be found in crop and livestock production and food processing, in pharmaceuticals and medicine, in industrial production, and in waste management for cleaning up oil spills and neutralising hazardous wastes (bioremediation)\textsuperscript{324}

**Breast milk substitute**  
Any food being marketed or otherwise presented as a partial or total replacement for breast milk, whether or not suitable for that purpose\textsuperscript{282}

**Caesarean Section**  
Operative birth by surgical incision through the abdominal wall and uterus.

**Campylobacter**  
A group of bacteria that is a major cause of diarrhoeal illness.

**Cardiovascular disease**  
See Circulatory system disease

**Causal pathways**  
The complex interactions between genetic and environmental risks over time which contribute to a particular outcome. Such pathways can be networks of causal factors acting together, all of which are important to produce the disease/problem.

**Cerebrovascular disease**  
Any disorder of the blood vessels supplying the brain or its covering membranes. See also Stroke.

**Chlorination**  
Use of chlorine as a means of disinfection.

**Circulatory system disease**  
Any disease of the heart or blood vessels, including heart attack, angina, stroke and peripheral vascular disease.

**Codex Alimentarius**  
A food quality and safety code developed by the Codex Alimentarius Commission of the Food and Agriculture Organization of the United Nations and the World Health Organization.

**Contaminant**  
Biological or chemical substance or entity, not normally present in a system, capable of producing an adverse effect in a biological system, seriously injuring structure or function.

**Coronary heart disease**  
See Ischaemic heart disease

**Cost-benefit analysis**  
A comparison of alternative interventions in which costs and outcomes are quantified in common monetary units.

**Cost-effectiveness analysis**  
A comparison of alternative interventions in which costs are measured in monetary units and outcomes are measured in non-monetary units, e.g., reduced mortality or morbidity.

**Cost-utility analysis**  
A form of cost-effectiveness analysis of alternative interventions in which costs are measured in monetary units and outcomes are measured in terms of their utility, usually to the patient, e.g., using QALYs.

**Cryptosporidium**  
Micro-organism commonly found in lakes and rivers that is highly resistant to disinfection. *Cryptosporidium* can cause outbreaks of gastrointestinal illness, with symptoms that include diarrhoea, nausea and stomach cramps. People with severely weakened immune systems (i.e., severely
immunocompromised people) are likely to have more severe and more persistent symptoms than healthy individuals (adapted from US Environmental Protection Agency).

**Current daily smoker**
A person who smoked one or more cigarettes (or cigars or pipes) per day, on average, at the time of interview.

**Demand reduction**
Strategies that aim to seek a reduction of desire and preparedness to obtain and use drugs, in order to both prevent harmful drug use and also prevent drug-related harm.

**Determinants of health**
Factors which influence health status and include individual factors (such as age, gender and ethnicity; behaviour such as smoking, alcohol consumption, diet and physical exercise), the physical, economic and social environments, including housing quality, the workplace and the wider urban and rural environment; and access to health care. All of these are closely interlinked and differentials in their distribution lead to health inequalities.

**Direct costs**
The fixed and variable costs of all resources (goods, services, etc.) consumed in the provision of an intervention as well as any consequences of the intervention such as adverse effects or goods or services induced by the intervention. They include direct medical costs and direct non-medical costs such as transportation or child care.

**Disease prevention**
Measures taken to prevent the occurrence of disease, to arrest or slow its progress and to reduce its consequences. See also Prevention, Primary prevention.

**Drug-related harm**
Any adverse social, physical, psychological, legal or other consequence of drug use that is experienced by a person using drugs or by people living with or otherwise affected by the actions of a person using drugs.

**Echinococcosis**
See Hydatid disease

**Effectiveness**
The extent to which a specific intervention, when used under ordinary circumstances, does what it is intended to do.

**Environmental health**
Those aspects of public health concerned with the factors, circumstances, and conditions in the environment or surroundings of humans that can exert an influence on health and well-being. More generally, it describes the effect of the environment on human health.

**Environmental tobacco smoke**
See Passive smoking

**Epidemic**
An outbreak of a disease or its occurrence at a level that is clearly higher than previously existed.

**Escherichia coli**
A type of bacteria found in the gastrointestinal system of the body; and used as an indicator of faecal contamination of water.

**Ever breastfed**
An infant that has ever been put to the breast, or has received expressed breast milk but has never been put to the breast.

**Evidence-based medicine**
The use of the best evidence from scientific and medical research to make decisions about the care of individual patients. It involves formulating questions relevant to the care of particular patients,
searching the scientific and medical literature, identifying and evaluating relevant research results, and applying the findings to the care of patients.

**Exclusive breastfeeding**
An infant who receives only breast milk and no other liquids or solids apart from drops or syrups containing vitamins, mineral supplements or medicines.273

**External causes**
See Injury and poisoning, deaths from

**Fatal heart attacks**
See Ischaemic heart disease

**Fetal death (stillbirth)**
The birth of a child who did not at any time after delivery breathe or show any other evidence of life, such as a heartbeat. Fetal deaths include only infants weighing at least 400 grams or of a gestational age of at least 20 weeks.

**Food regulation**
Actions by government which affect the safety or quality of, or the information available in relation to food; encompassing all types of government regulation-making, industry self-regulation, compliance and enforcement activities; and covering relevant activities of all businesses in the supply chain.330

**Food regulatory system**
The legislative and voluntary codes and enforcement activities associated with the various foods and food components.

**Food security**
Exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life.734

**Formaldehyde**
A component of many glues and resins, produced and used in the chemical and plastics’ industries and used in the manufacture of pressed wood products.

**Formula or infant formula**
A breast milk substitute manufactured in accordance with applicable Codex Alimentarius standards, to satisfy the normal nutritional requirements of infants up to between four and six months of age, and adapted to their physiological characteristics.273

**Fortification**
The addition of one or more essential nutrients to a food for the purpose of preventing or correcting a demonstrated deficiency of one or more nutrients in the population or specific population groups.384

**Fully breastfed**
Infants who receive almost all of their nutrients from breast milk but take some other liquids such as water, water-based drinks, oral rehydration solutions, ritual fluids, and drops or syrups. It excludes any food-based fluids.273

**Functional foods**
Those foods promoted on a health platform based on scientific evidence. They include minimally transformed foods (such as fruit and vegetables), containing known bioactive components, as well as substantially and elaborately transformed food products, including foods and beverages with known or added bioactive ingredients. The difference between functional foods and all other foods in these categories is that the benefits of the functional foods have been scientifically substantiated.735

**Gene technology**
A specific subset of biotechnology, based on the manipulation and modification (‘recombination’) of the genetic material of living organisms to develop new characteristics, processes and products.323
**Genetic modification**
The changing of organisms by the incorporation or deletion of genes in order to alter or introduce new characteristics.

**Genomics**
The study of the structure of the genome (all the genes and genetic information) and information contained in the chromosomes of an organism, and includes gene mapping, gene sequencing and gene function.

**Greywater**
Waste water from showers, baths, hand basins, laundry tubs and washing machines. It does not include wastewater from toilets, kitchen sinks and dishwashers.

**Haemolytic Uraemic Syndrome**
A condition which follows an infection (usually diarrhoea or upper respiratory tract) and is characterised by disordered blood clotting, damage to red blood cells and acute renal failure. HUS can be fatal, or result in long-term damage to kidneys and other organs, including the pancreas and brain (children and elderly people are particularly susceptible).

**Harm**
Refers to disease, injury, suffering, disability and death; it also describes the adverse effects that may result from drug use.

**Harm minimisation**
Policies and programs aimed at reducing anticipated and actual drug-related harm; and improving health, social and economic outcomes for both the community and the individual. Both licit and illicit drugs are the focus of Australia’s harm-minimisation strategy, which offers a comprehensive approach to drug-related harm, involving a balance between reductions in demand, supply and harm.

**Harm reduction**
Activities and services that acknowledge the continued drug use of individuals, but aim to minimise the harm that such behaviour causes; such strategies are designed to reduce the impacts of drug-related harm on individuals and communities.

**Hazard**
A circumstance or agent that can lead to harm, damage or loss. Public health hazards may be environmental, nutritional or related to alcohol or other drugs, food safety, communicable and non-communicable diseases, and injury.

**Hazard Analysis and Critical Control Points**
A system that enables the production of safe meat and poultry products through the analysis of production processes; the identification of all likely hazards and of critical points in the process at which these hazards may be introduced into a product and therefore should be controlled; the establishment of critical limits for control at those points; the verification of these prescribed steps; and the methods by which the processing establishment and the regulatory authority monitor the efficacy of process control through the HACCP plan.

**Health**
A state of complete physical, mental and social wellbeing and not merely the absence of disease or infirmity.

**Health care**
Those services provided to individuals or communities to promote, maintain, monitor, or restore health. Health care is not limited to medical care, and includes self-care.

**Health claim**
A statement linking consumption of a food, or a component of a food to a disease or health-related condition.

**Health hardware**
The items in a house that help maintain the health of the occupants; methodology developed by
Nganampa Health Council (in 1987) to assess health hardware identified nine essential healthy living practices: 1. washing people; 2. washing clothes/bedding; 3. waste removal; 4. nutrition; 5. reduce crowding; 6. separation of dogs and children; 7. dust control; 8. temperature control; and 9. reduced trauma.

**Health inequalities**
Differences in the health status of groups within a population. Such differences may be related to age, gender, ethnicity, genetic inheritance or access to material resources, education, satisfying and safe work, services and so forth. They may be unavoidable (e.g., those that are age-related) or may be amenable to change (those due to socioeconomic differences).

**Health inequities**
Differences in the health status of groups within a population that are potentially avoidable, and therefore, perceived as unfair or unjust.

**Health Promoting Schools**
This program aims to create a school environment where all members of the school community work together to provide students with integrated and positive experiences and structures that promote and protect their health. This includes both the formal and informal curricula in health, the creation of a safe and healthy school environment, the provision of appropriate health services, and the involvement of the family and the wider community in efforts to promote health.

**Health promotion**
Activities concerned with ‘positive health and well-being; with the whole of life… involving a complex notion of health to include bodily, mental, social and spiritual states… and [occurring] incrementally over time… linked to everyday life and community and is about changing the balance of power in the human and health domains’.

**Health promotion system**
The framework for creating supportive environments where healthy choices are either possible or easier for individuals.

**Health protection**
Activities designed to avoid any deterioration in health by preventing or minimising the exposure of the community to potential illness. It is particularly concerned with risks to health arising where the individual has little or no control.

**Health Technology Assessment**
The systematic evaluation of properties, effects, and/or impacts of health care technology, both direct and unintended consequences, to inform technology-related policy-making in health care.

**Healthy living practices**
see Health hardware

**Healthy public policy**
Policy characterised by an explicit concern for health, equity and accountability, with the aim of improving the conditions under which people live: secure, safe, adequate, and sustainable livelihoods, lifestyles, and environments, including housing, education, nutrition, information exchange, child care, transportation, and necessary community and personal social and health services. Policy adequacy may be measured by its impact on population health.

**Hepatitis**
Inflammation of the liver from any cause.

**Hydatid disease**
A potentially fatal parasitic disease that can affect animals, including wildlife and commercial livestock, and humans. A hydatid is the larval form of a tapeworm, and also describes a cyst filled with liquid that forms as a result of infestation by tapeworm larvae (as in echinococcosis).

**Hypertension**
Defined by the WHO and the International Society of Hypertension as a systolic blood pressure
measurement of 140 mmHg or more; or a diastolic blood pressure reading of 90 mmHg or more; or receiving medication for high blood pressure.\textsuperscript{696}

**Hypothecation**
The principle of using the monies raised by taxation of an unhealthy product to fund measures to remedy the harm done by the taxed product; for example, tobacco taxes used to support health promoting organisations and activities to reduce smoking.

**Iatrogenic**
Harm or injury arising from or associated with health care.

**Illicit drug**
A drug for which the production, sale, possession or use is prohibited. An alternative term is ‘illegal drug’.

**Incidence**
The number of new occurrences of a variable in a population over a particular period of time, e.g., the number of cases of a disease in a country over one year.

**Indirect costs**
The cost of time lost from work and decreased productivity due to disease, disability, or death. In cost accounting, the term refers to the overhead or fixed costs of producing goods or services.

**Infant mortality**
All deaths occurring from birth and during the remainder of the first year of life. It is expressed using the \textit{infant mortality rate}, which is the number of deaths of those aged less than 1 year divided by the number of live births for that year.\textsuperscript{698}

**Initiation of breastfeeding**
An infant’s first intake of breast milk.

**Injury and poisoning deaths**
Deaths from motor vehicle and other accidents, suicide, assault, poisoning, drowning, burns and falls, and complications of medical and surgical care.\textsuperscript{697}

**Ischaemic heart disease**
A disease characterised by reduced blood supply to the heart.

**Lifetime risk of maternal death**
The probability of becoming pregnant and the probability of dying as a result of that pregnancy cumulated across a woman’s reproductive years; more simply, it is the probability of maternal death faced by a pregnant woman.\textsuperscript{698}

**Live birth**
A live birth occurs when a fetus, whatever its gestational age, exits the maternal body and subsequently shows any sign of life, such as voluntary movement, heartbeat, or pulsation of the umbilical cord, for however brief a time and regardless of whether the umbilical cord or placenta are intact.\textsuperscript{743}

**Low birthweight**
A birthweight of less than 2,500 grams.\textsuperscript{698}

**Maternal death**
A death of a woman while pregnant or within 42 days of the termination of the pregnancy, irrespective of the duration and site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes.\textsuperscript{698}

**Maternal mortality rate**
The number of maternal deaths in a given period per 100,000 women of reproductive age during the same time period; it reflects the frequency with which women are exposed to risk through their fertility.\textsuperscript{698}
Medicalisation
The process by which non-medical problems are defined and treated as if they are medical issues.

Mesothelioma
A cancer of the outer covering of the lung (the pleura) or the abdominal cavity (the peritoneum).

Meta-analysis
Systematic methods that use statistical techniques for combining results from different studies to obtain a quantitative estimate of the overall effect of a particular intervention or variable on a defined outcome. This combination may produce a stronger conclusion than can be provided by any individual study.

Neonatal death
Death of a live born baby within 28 days of birth.698

Neural tube defects
Abnormalities in the development of the spinal cord and brain in the fetus.13

Overweight or obese adults
Overweight is defined as having a body mass index (BMI) greater than or equal to 25 and less than 30, while obesity is defined by a BMI greater than or equal to 30. BMI is body weight in kilograms divided by the square of height in metres.

Passive smoking
Exposure of a person to tobacco smoke, or the chemicals in tobacco smoke, who is not smoking. The smoke is known as ‘environmental tobacco smoke (ETS).

Pathogens
Disease-causing micro-organisms (e.g., bacteria, viruses, protozoa).

Perinatal
The period around the time of birth.

Perinatal death
A fetal or neonatal death of at least 20 weeks’ gestation or at least 400 grams birthweight.698

Pertussis
A highly infectious, bacterial disease of the air passages marked by explosive fits of coughing and often a whooping sound on breathing in. It is more commonly known as ‘whooping cough’ and is preventable by vaccination.

Population health
Organised efforts focused on the health of defined populations in order to promote and maintain or restore health, to reduce the amount of disease, premature death and discomfort and disability due to disease. The study of population health focuses on understanding health and disease in a community, and on improving health and wellbeing through health approaches that address the disparities in health status between social groups.13

Precautionary principle
An approach to the management of risk of harm or damage to human health or the environment when scientific knowledge is incomplete.

Preterm birth
Birth before 37 completed weeks of gestation.698

Prevalence
The proportion of a population having a particular condition or characteristic: e.g., the percentage of people in a city who smoke.

Primary prevention
Actions taken to avoid disease or injury before they occur.
Prognosis
A prediction of the course and probable outcome of a disease based on the condition of the patient and the activity of the disease.

Prostheses
An artificial device to replace or assist damaged or missing bodily parts; examples include cardiac pacemakers and defibrillators, cardiac stents, hip and knee replacements and intraocular lenses, as well as human tissues such as human heart valves, corneas, bones (part and whole) and muscle tissue.

Psychoactive drug
Any substance that affects the central nervous system and alters the mood, perception or consciousness of an individual who has consumed it.

Public health medicine
The branch of medical practice primarily concerned with the health and care of populations.

Public health research
Research involving communities or populations, to identify the factors which contribute to ill-health in populations and ways of influencing these factors to prevent disease. It includes epidemiology, social and behavioural sciences, health services’ research on population-based health interventions, and evaluating the efficacy and effectiveness of preventive measures.

Puerperal sepsis or puerperal fever
Infection of the female genital tract following childbirth, abortion, or miscarriage.

Puerperium
The period which elapses after the birth of a child until the mother is again restored to her usual condition.

Q fever
A zoonotic disease in Australia, caused by the bacterium *Coxiella burnetii* which mainly affects sheep and cattle but can be transmitted to humans after contact with infected animals. Symptoms are similar to those of influenza, and include fever, headache and lung inflammation.

QALY (Quality-Adjusted Life Year)
A measure of the outcome of actions (either individual or treatment interventions) in terms of their health impact; a unit of health care outcomes that adjusts gains (or losses) in years of life subsequent to a health care intervention by the quality of life during those years.

Quality assessment
A measurement and monitoring function for determining how well health care is delivered in comparison with applicable standards or acceptable boundaries of care.

Quality assurance
Activities intended to ensure that the best available knowledge concerning the use of health care to improve health outcomes is properly implemented. This involves the implementation of health care standards, including quality assessment and activities to correct, reduce variations in, or otherwise improve health care practices relative to these standards.

Quarantine
The isolation of people who have a disease or who have been exposed to a disease and may therefore become infected as a result of the exposure.

Remote
Geographical areas within the ‘Remote Australia’ and ‘Very remote Australia’ categories of the Australian Standard Geographical Classification (ASGC) Remoteness structure.

Remoteness Area
Within a state or territory, each Remoteness Area represents an aggregation of non-contiguous geographical areas which share common characteristics of remoteness, determined in the context of Australia as a whole. The delimitation criteria for Remoteness Areas are based on the Accessibility/
Remoteness Index of Australia (ARIA). ARIA measures the remoteness of a point based on the physical road distances to the nearest Urban Centre in each of the five size classes.

**Risk assessment**
The overall process of using available information to predict how often hazards or specified events may occur (likelihood) and the magnitude of their consequences (adapted from AS/NZS 4360:1999).

**Screening**
The use of a test to check people who have no symptoms of a particular disease, to identify people who might have that disease and to allow it to be treated at an early stage when a cure is more likely.

**Secondary prevention**
Action to identify and treat an illness or injury early on with the aim of stopping or reversing the problem.

**Seroconversion**
The development of a detectable level of antibodies that occurs after a person has been exposed to and become infected by a micro-organism such as the hepatitis C virus.

**Sewage**
Waste material collected from internal household and other building drains.

**Sexually transmissible infection**
An infection that is passed to another person through sexual contact.

**SIDS**
see Sudden Infant Death Syndrome

**Social determinants of health**
The economic and social conditions under which people live which influence their health.

**Stroke**
An acute injury in which the blood supply to a part of the brain is interrupted by a sudden blockage or bleeding.

**Sudden Infant Death Syndrome (SIDS)**
The abrupt and unexplained death of an apparently healthy infant aged between one month and one year.

**Supply reduction**
In relation to alcohol and other drugs, this refers to interventions designed to disrupt the production and supply of illicit drugs.

**TB**
see Tuberculosis

**Technology**
The application of scientific or other organised knowledge—including any tool, technique, product, process, method, organisation or system—to practical tasks. In health care, technology includes drugs; diagnostics, indicators and reagents; devices, equipment and supplies; medical and surgical procedures; support systems; and organisational and managerial systems used in prevention, screening, diagnosis, treatment and rehabilitation.

**Tertiary prevention**
Interventions to contain or retard the damage caused by a serious injury or a disease that has progressed beyond the early stages.

**Toxicity**
The extent to which a compound is capable of causing injury or death, especially by chemical means.

**Toxicology**
The study of poisons, their effects, antidotes and detection.
**Tuberculosis**
An infectious bacterial disease that affects the lungs, causing fever-like symptoms and ultimately, the destruction of tissue. It may spread to other parts of the body, causing secondary problems and may be fatal if not treated.

**Universal health insurance**
Health insurance which covers an entire population.

**Upstream (or macro), midstream, downstream (or micro) factors**
A model used for understanding the connection between health and socioeconomic status which involves identifying factors affecting health as ‘upstream’ (or macro) factors, ‘midstream’ (or intermediate) factors, and ‘downstream’ (or micro) factors. Macro factors include social and economic determinants outside the health system such as education, income, and housing. These are clearly influenced by government policies on economic growth and income distribution. Intermediate factors include psychosocial processes like social support networks; and the healthcare system itself, easy access to which is critical for those most socially disadvantaged. Micro factors include malfunctioning of the individual’s biological systems which directly produce illness.¹

**UV Index**
A way of describing the daily level of solar ultraviolet (UV) radiation intensity. Each point on the Index scale is equivalent to 25 milliWatts/square metre of UV radiation.

**Virology**
The study of viruses including their structures, modes of action and disease processes and the identification of possible interventions at the cellular level.

**Water recycling**
A generic term for water reclamation and reuse.

**Zoonosis**
An infectious disease that occurs naturally in animals and can be transmitted to humans. The agents of infection can be parasites, bacteria, viruses or fungi.
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