

Population in scope for the National  
Population Health Survey using objective  
measures resulting from use of the Australian  
Bureau of Statistics sampling method

John Glover

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Enquiries about or comments on this publication should be addressed to:

PHIDU, The University of Adelaide, South Australia 5005  
Phone: 08-8303 6239 or e-mail: [PHIDU@publichealth.gov.au](mailto:PHIDU@publichealth.gov.au)

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This process resulted in the preparation of a Business Case for the Australian Health Measurement Survey program (AHMS), which was undertaken by an Inter-Governmental Steering Committee (drawn from Commonwealth, State and Territory health and information agencies), assisted by a scientific Reference Group. Their expertise and contribution to the developmental process is hereby acknowledged.

# Population in scope for the National Population Health Survey using objective measures resulting from use of the Australian Bureau of Statistics sampling method

## **Introduction**

The Australian Bureau of Statistics (ABS) has offered assistance in the development, design and conduct of national population health survey using objective measures. It is expected that the ABS will select the sample of dwellings to be included in the survey: this will be done in accordance with jointly developed requirements (eg. as to the extent of clustering of the sample).

## **Discussion**

The sample will be similar to that used for its own household surveys, which excludes some groups in the population. The main inclusions and exclusions are:

### *Population included*

The population surveyed by the ABS is the population in private dwellings (houses, flats, etc.) and some types of non-private dwellings (hotels, motels and boarding houses). This approach is common in sample surveys (NHS 1999).

### *Population excluded*

Other special dwellings, such as hospitals, nursing homes and prisons, are excluded, as are population groups such as students at boarding schools, defence forces personnel and their dependants, non-Australian diplomatic personnel and persons from overseas holidaying in Australia. In addition, there were an estimated 106,034 (ABS 1999) homeless persons in Australia on Census night 1996. It is unclear how many of these would be included in the sample. For example, some in this number could spend their nights in accommodation available in boarding houses or in Supported Assistance Accommodation Program accommodation, and therefore have a chance of being selected. Others will not, as they will be itinerant or 'sleeping rough'.

Of particular interest to this survey is the exclusion from the ABS sample of a large area of Australia named 'sparsely settled'<sup>1</sup> (Map 1). The exclusion of such areas is not uncommon in countries where large areas are sparsely populated. What is of particular importance is that these areas comprise a high proportion

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<sup>1</sup> Australia's relatively small population is largely concentrated in a broad coastal strip along the east, south-east and south-west coasts. The majority (98.9%) of the population occupies a quarter (25.2%) of the land area, with just 1.1% of the population occupying the remaining three quarters of the area (74.8%). This pattern of population distribution has implications for the design of sample surveys to achieve a representative sample of all Australians. It is a particularly important issue for the Indigenous population in these sparsely settled areas, who represent almost 18% of all Indigenous persons in Australia. Note that a number of towns that are not included in the sparsely settled areas are located within the bounds of the area shaded in grey on the map. At the scale used it is not possible to see that the towns are shown in white (non-sparsely settled).

of Australia's Indigenous population. For example, while there was a larger population of non-Indigenous than Indigenous persons in these areas at the 1996 Census, they represented a much smaller proportion of the population: 117,132 [Census Count] non-Indigenous persons, 1.0% of all non-Indigenous persons; and 68,696 [Estimated Resident Population] Indigenous persons, 17.8% of all Indigenous persons.

The exclusion of these areas also substantially reduces the opportunity for publication of results on a regional basis, for example by the Accessibility/Remoteness Index for Australia (ARIA) (Note that the two categories of Remote and Very Remote would need to be combined). As shown in **Table 1**, the exclusion of the population in the sparsely settled areas reduces the population in the Remote category by 17.8% and the population in the Very Remote category by 71.0%. Without the inclusion of the sparsely settled areas it would not be possible to provide estimates from the survey even for the combination of the Remote and Very Remote areas.

**Table 1: Population estimates by ARIA category and Sparsely settled areas**

Note: The population estimates in the following table are based on the categories of remoteness recommended in Department of Health and Aged Care, Occasional Papers Series No. 6: further analyses are being undertaken by the ABS to refine the ARIA categories. The results of this work will change the population distribution, most notably adding to the population in the two 'remote' categories.

ARIA category	Incl. sparsely settled	Excl. sparsely settled	Pop. excluded	% loss*
	No.	No.	No.	
Highly Accessible	14,624,920	14,624,920	0	..
Accessible	2,106,750	2,106,515	235	0.1
Moderately Accessible	705,552	695,830	9,722	1.4
Remote	253,738	208,520	45,218	17.8
Very Remote	190,254	55,111	135,143	71.0
<b>Total</b>	<b>17,881,214</b>	<b>17,690,896</b>	<b>190,318</b>	<b>1.1</b>

- '% loss' is the population excluded (by not including the sparsely settled areas) as a proportion of the total population of the ARIA category.
- Source: Provided by ABS

The Steering Committee needs to determine whether to include or exclude these areas from the scope of the survey.

If it is decided that the sparsely settled areas are to be included, a sample could be selected to produce estimates for the population across the whole of sparsely settled. This would be an expensive exercise because of the large distances involved and the remoteness of many settlements, although clustering of the sample would be undertaken to minimise the number of separate locations at which a sample was selected. It would also require approval from Indigenous groups (possibly from several groups in some cases) to conduct interviews in the selected communities.

It should be noted that the ABS propose sampling Indigenous persons in the sparsely settled areas in the 2001-02 NHS (Indigenous).

### *Indigenous issues*

There are a number of further considerations in relation to the Indigenous population, including the relevance of some of the questions (eg. exercise for leisure, dietary information), the availability of the information (eg. their knowledge of information as to their immunization status) and the taking of blood samples. Previous work by the ABS has shown that some questions likely to be asked in this survey are of less relevance/not appropriate to, and more difficult to answer, for Indigenous persons than for non-Indigenous persons, and that this is more the case for Indigenous persons in sparsely settled areas (Advice at National Health Survey Reference Group Meeting Monday 6 November 2000).

A possible approach would be to seek approval from community leaders, with responsibility for each of the communities selected for sampling, as to the questions they will agree to be asked in their community. Only the approved questions would then be asked of the members of that community. In this way, the integrity of the survey and the rights of Indigenous persons can be maintained. It is likely that the remaining (approved) questions to be asked of Indigenous persons across the whole of the sparsely settled areas would include at least height, weight and blood pressure, as well as information from clinic records as to immunisation status, health conditions, etc.: the ABS is seeking to obtain information from clinic records in the Indigenous Health Survey in 2001/02

It would be extremely useful if a parallel process was in place to seek the views of Indigenous communities in both sparsely and non-sparsely settled areas as to an approach to collecting similar information on objective measures of health from Indigenous persons across Australia. While this would not impact on the first survey (because of the time it would take for such a planning process to be undertaken), it would add to the credibility of the survey in general and lead to a better long term outcome.

Given the difficulties noted above, an alternative would be to leave the sparsely settled areas out of scope. If this approach were to be adopted, then the Department of Health and Aged Care should consider putting in place the arrangements suggested above to obtain advice from on an approach to collecting similar information from Indigenous Australians. The exclusion of the sparsely settled areas is not recommended.

Richard Boreham, Marion Brookes, Bob Erens, Johanna Laiho, Paola Primatesta and Gillian Prior. *Chapter 8: Survey methodology and response*, Report of the National Health Survey of England 1998, 1999.

<http://www.official-documents.co.uk/document/doh/survey98/hse-08.htm>

Australian Bureau of Statistics (ABS). Occasional Paper, *Counting the Homeless: Implications for Policy Development*, ABS Catalogue no. 2041.0, 1999.