#### DISCUSSION PAPER NO. 16

# MEASURING THE HEALTH OF ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLES

A BACKGROUND PAPER FOR THE PROJECT 'ACTION-ORIENTED INDICATORS OF HEALTH AND HEALTH SYSTEMS DEVELOPMENT FOR INDIGENOUS PEOPLES IN AUSTRALIA, CANADA AND NEW ZEALAND'

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# Onemda VicHealth Koori Health Unit: Discussion Paper Series

The Onemda VicHealth Koori Health Unit (formerly VicHealth Koori Health Research and Community Development Unit), launched in June 1999, has been developed in partnership with Aboriginal communities and organisations, in particular the Victorian Aboriginal Community Controlled Health Organisation. Core funding is provided by the Victorian Health Promotion Foundation, the University of Melbourne through the Centre for Health and Society where the Unit is located, and the Commonwealth Department of Health and Ageing.

At the core of the Unit's work is a commitment to undertaking, collaborating in and supporting research that directly benefits the Koori community. The work of the Unit spans academic and applied research, community development, and medical education. The combination of these activities is a central and innovative aspect of the Unit's function, as is the identification and use of mechanisms to link research with the improvement of health care practices and policy reform. Overall, these tasks are guided by a Strategic Oversight Committee.

In relation to the research program, five key areas govern the inquiry undertaken within the Unit. These comprise: historical research into Koori health policy and practice; historical and contemporary research into health research practice, ethics and capacity building; applied research on the social and cultural experience of Koori health, wellbeing and health care delivery; health economics research on the factors and processes that impact on the provision and use of Koori health care; and the evaluation of Koori primary health care and related health promotion programs.

The Discussion Paper Series (DPS) is directly linked to this diverse program of research and provides a forum for the Unit's work. The DPS also includes papers by researchers working outside the Unit or in collaboration with Unit staff. Individual papers aim to summarise current work and debate on key issues in Indigenous health, discuss aspects of Indigenous health research practice and process, or review interim findings of larger research projects. It is assumed that the readership for the series is a broad one, and each paper is closely edited for clarity and accessibility. Additionally, draft papers are 'refereed' so as to ensure a high standard of content.

More information on the series, on the preparation of draft papers, and on the work of the Unit can be obtained by directly contacting the Unit. Copies of all discussion papers are available from the Unit, or can be downloaded as pdfs from the *Onemda* website.

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#### **Discussion Paper Titles**

- No. 1: Ian Anderson, Harriet Young, Milica Markovic & Lenore Manderson, *Aboriginal Primary Health Care in Victoria: Issues for Policy and Regional Planning* (December 2000).
- No. 2: Kim Humphery, Indigenous Health and 'Western Research' (December 2000).
- No. 3: David Thomas, The Beginnings of Aboriginal Health Research in Australia (September 2001).
- No. 4: Michael Otim, Indigenous Health Economics and Policy Research (November 2001).
- No. 5: Daniel McAullay, Robert Griew & Ian Anderson, *The Ethics of Aboriginal Health Research: An Annotated Bibliography* (January 2002).
- No. 6: Ian Anderson, National Strategy in Aboriginal and Torres Strait Islander Health: A Framework for Health Gain? (March 2002).
- No. 7: Anke van der Sterren & Ian Anderson, Building Responses to Blood-Borne Virus Infection among Kooris Using Injecting Drugs—Improving the Link between Policy and Service Delivery (December 2002).
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- No. 13: Katrina Alford, Comparing Australian with Canadian and New Zealand Primary Care Health Systems in Relation to Indigenous Populations: Literature Review and Analysis (June 2005).
- No. 14: Terry Dunbar & Margaret Scrimgeour, Ethical Assessment of Indigenous Health Research: A Review of the Literature (December 2005).
- No. 15: K. Jane Middleton, Mothers, Boorais and Special Care: An Exploration of Indigenous Health Care Workers' Perceptions of the Obstetric and Neonatal Needs of Rural Victorian Aboriginal and Torres Strait Islander Families Transferred to the Mercy Hospital for Women (October 2006).
- No. 16: Marcia Anderson, Ian Anderson, Janet Smylie, Sue Crengle & Mihi Ratima, *Measuring the Health of Aboriginal and Torres Strait Islander Peoples* (December 2006).
- No. 17: Mihi Ratima, Will Edwards, Sue Crengle, Janet Smylie & Ian Anderson, *Māori Health Indicators* (December 2006).
- No. 18: Marcia Anderson, Janet Smylie, Ian Anderson, Raven Sinclair & Sue Crengle, *First Nations, Inuit and Métis Health Indicators in Canada* (December 2006).

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#### **Abbreviations**

ABS Australian Bureau of Statistics

ACCHSs Aboriginal Community Controlled Health Services

AHMAC Australian Health Ministers Advisory Council
AIHW Australian Institute of Health and Welfare

AMS Aboriginal Medical Service

ATSIC Aboriginal and Torres Strait Islander Commission

DAA Department of Aboriginal Affairs

NACCHO National Aboriginal Community Controlled Health Organisation NAGATSIHID National Advisory Group on Aboriginal and Torres Strait Islander

Health Information and Data

NAHS National Aboriginal Health Strategy

NATSISS National Aboriginal and Torres Strait Islander Social Survey

OATSIH Office for Aboriginal and Torres Strait Islander Health

SARs Service Activity Reports

SCATSIH Standing Committee for Aboriginal and Torres Strait Islander Health

SDRF Service Development and Reporting Framework

# Introduction

Multiple indicators of Indigenous health exist in Australia and there has been a significant focus on the development of these systems over the past decade particularly. To date most of the effort has been directed at the development of macro systems. More recently there has been a significant achievement in refining the national indicators so that they articulate more clearly with a national policy framework. However, if health indicators systems are going to maximise the opportunities for health gain, through a system-wide approach to the development of service capacity, more work needs to be done at regional and local levels where the existing systems remain relatively underdeveloped. This would potentially include more focus on Indigenous understandings of health and local priorities. Community-level involvement in defining and prioritising health indicators is essential if indicator systems are to support local service development. There is tension between the collection of health performance indicators to facilitate health policy and planning and the role of indicators in fiduciary accountability.

This paper is a background document for the project entitled 'Action-oriented indicators of health and health systems development for indigenous peoples in Australia, Canada and New Zealand'. The overall goal of this study is to compare the development of indicator systems for Indigenous health in Australia, Canada and New Zealand in order to conceptualise and pilot a local health indicator development cycle that will contribute to effective health information, surveillance and monitoring systems within a defined community.

Information was gathered through a review of published and grey literature, and key informant interviews, focusing on the development of health systems performance measurement systems. In this paper we will discuss Indigenous concepts of health, the history of the Australian health care system as it relates to Indigenous peoples and the currently used Indigenous health measurement tools.

# **History of Indigenous Health Systems**

The Indigenous peoples of Australia include people of Aboriginal and Torres Strait Islander descent. According to the 2001 census Indigenous peoples comprise 2.4 per cent of the Australian population, with 30 per cent living in urban areas and the remainder in rural or remote areas (ABS 2001).

Like Indigenous peoples worldwide, Indigenous Australians have an understanding of health that is broader than the biomedical constructions that are based on the presence or absence of disease and on reductionist science. In the 1989 National Aboriginal Health Strategy (NAHS), health was articulated as:

a matter of determining all aspects of their [Aboriginal peoples] life, including control over their physical environment, of dignity, of community self-esteem, and of justice. It is not merely a matter of the provision of doctors, hospitals, medicines or the absence of disease and incapacity.

This was refined into the working definition of health as:

Not just the physical well-being of the individual but the social, emotional, and cultural well-being of the whole community. This is a whole-of-life view and it also includes the cyclical concept of life-death-life.

Pre-contact health care systems functioned within a social system based on three sets of inter-relationships: between people and the land; between people and creator beings; and between people. Aboriginal medical practices sought, and continue to seek, meaningful explanations for illness and to respond to the personal, family and community issues produced by the illness (NAHS Working Group 1989).

The arrival of European settlers in the eighteenth century led to a dramatic fall in the population. This occurred as a result of a range of factors, including introduced infectious diseases, frontier violence and the socio-economic devastation consequent on colonisation (Tilton 2001). There were no health care systems in place to address the disruption that occurred to community wellness as a result of changed relationships to the land, creator beings and other people. In fact, despite the oft-stated intention to protect dispossessed Aboriginal peoples from further harm, suffering continued under the various government systems that were established in the different colonies, such as the Victorian Board for the Protection of Aborigines (created in 1860. This board established a system of reserves across the colony and had the authority to force Aboriginal people to move away from their homelands and onto the reserves, and to forcibly remove Aboriginal children; it attempted to control essentially every aspect of their lives, including work and earnings, clothing, diet, marriage and religion (Vickery et al. 2005).

The States had the primary responsibility for health care at the time of Federation in 1901 (Anderson & Sanders 1996). However, these systems were characterised by segregation and discrimination. There were few services in Aboriginal communities and ongoing disputes about the responsibility for the provision of care (Tilton 2001). The first Commonwealth Department of Health, established in 1921, was a small policy-oriented organisation and service provision continued to rest mainly with the States (Anderson & Sanders 1996). With the exception of the Northern Territory, for which the Commonwealth assumed administrative responsibility in 1911, there were constitutional clauses (section 51(xxvi)) that prevented the Commonwealth from becoming more involved in Aboriginal affairs. Around the 1950s, Commonwealth involvement in health became more significant, primarily as a funding body, and by 1960 contributed an equal amount of funds as the States (Anderson & Sanders 1996).

At this time, there were no health systems performance measures or health measures of any kind at a national level, as the Commonwealth did not have legislative power with respect to Aboriginal people (they were also not included in the country's census). Informally, descriptions of hospital care that involved overcrowded and segregated Aboriginal wards, Indigenous people being treated on verandas, and high rates of infant death and sickness provide insight into the performance of the system during this period (Tilton 2001).

The 1967 federal referendum gave the Commonwealth legislative power in relation to Aboriginal people and allowed for the inclusion of Aboriginal peoples in the census. This was the basis for the Commonwealth to become more directly involved in Aboriginal affairs generally (Anderson & Sanders 1996). The Office of Aboriginal Affairs was established in 1968 (it changed to the Department of Aboriginal Affairs (DAA) in 1972), and began directing grants to State government Aboriginal Health Units that were formed to address Indigenous health needs and administer Commonwealth funds (Australian Indigenous Health Infonet 2004).

In 1971 the first Aboriginal Medical Service (AMS) was formed in Redfern, Sydney, followed shortly after by the Victorian Aboriginal Health Service in Fitzroy, Melbourne. These services were formed in part as a response to the inadequacies of the mainstream systems to respond to Indigenous health needs, but also to demonstrate and promote Aboriginal control and participation in both health care policy and service delivery (Anderson & Sanders 1996). Both services were initially operated on a voluntary basis, taking months to obtain funding grants from the DAA (Anderson & Brady 1995).

In 1973 the Commonwealth government made an offer to State ministers to assume full responsibility for Indigenous affairs policy and planning, which all States except Queensland accepted (Australian Indigenous Health Infonet 2004). Subsequent to this, an Aboriginal Health Branch was formed in the Commonwealth Department of Health. At the same time a National Plan for Aboriginal Health was endorsed by the Commonwealth Minister for Health, but did not have any associated system to evaluate its progress towards its goal of raising the standard of Aboriginal health (Anderson & Sanders 1996). Arguably, there was no system for the collection of Indigenous health information prior to the establishment of the Australian Institute of Health (later renamed the Australian Institute of Health and Welfare (AIHW)) within the Commonwealth Department of Health in 1985 (Australian Indigenous Health Infonet 2004).

In 1989 the NAHS was presented to, and then endorsed by, a Joint Ministerial Forum of ministers for health and Aboriginal affairs (Australian Indigenous Health Infonet 2004). Underlying principles of this strategy included acceptance of Aboriginal peoples' holistic view of health; recognition of the importance of local Aboriginal community control and participation; and intersectoral collaboration. The overall goal could be summarised as the achievement of equity in health. But, according to the evaluation undertaken in 1994, not only was the goal not achieved, the strategy was also never effectively implemented (OATSIH 1994). This evaluation may be considered one of the first instances of policy evaluation in Indigenous health. As part of the implementation of the NAHS, a draft set of 'Aboriginal and Torres Strait Islander Health Goals and Targets' was produced for the Aboriginal and Torres Strait Islander Commission (ATSIC), which replaced DAA in 1990, even though this system was never implemented.

The evaluation served as a reflection of ATSIC's inadequate efforts in implementing the NAHS and, along with the unremitting pressure of the Aboriginal Community Controlled Health Services (ACCHSs), served to have the administration of Aboriginal health programs moved to the Commonwealth Department of Human Services and Health (now the Department of Health and Ageing) (Anderson & Sanders 1996). Thus, the Office for Aboriginal and Torres Strait Islander Health Services (now the Office for Aboriginal and Torres Strait Islander Health (OATSIH)) was created (Australian Indigenous Health Infonet 2004).

Currently, Aboriginal and Torres Strait Islanders, depending on their geographical location, can choose to access one of the 140 ACCHSs for primary care purposes or the mainstream system (according to 2003–04 Service Activity Reporting data (personal communication Kirrily Harrison)). All other services are provided through joint Commonwealth–State funded or State-operated health care systems. Although there is a public and private sector within Australia, Indigenous people rarely access the private sector (AIHW 2004a).

# The Development of National Health System Performance Measures

The development of performance measures can be closely tied to the transition to government funding through program budgeting in the mid-1980s. Program budgeting involves the setting of program-specific objectives and the measurement of performance against them (Anderson & Brady 1995). Although there are no associated performance measures for mainstream programs (such as Medicare or the Pharmaceutical Benefits Scheme, which have expenditures in the billions), Aboriginal health programs have had to justify their expenditures (growing from \$50 million to \$200 million annually since the mid-1980s) through the use of performance measures since the introduction of program budgeting in 1986; this was the year that the first draft document *Performance Indicators for Aboriginal Health Services* was released (Anderson & Brady 1995).

The reaction of ACCHSs through the National Aboriginal and Islander Health Organisation (since renamed National Aboriginal Community Controlled Health Organisation (NACCHO)) has been described as hostile. The objections raised included the inappropriateness of DAA formulating health priorities (as reflected by the indicators selected); the absence of a national Aboriginal health policy; the absence of agreed program aims or objectives (which meant there was nothing to compare measured outcomes against); tying funding to quantifiable health improvements (ACCHSs are but one influence on a person's or community's health, and are unlikely in a linear relationship to aid health); and the lack of relevance of selected indicators (the selection was considered to be unprofessional and uninformed) (Anderson & Brady 1995).

In 1987 letters were sent to ACCHSs requiring them to submit throughput indicators to DAA every six months, and it was reiterated in 1989 that ongoing funding was tied to the provision of such data by grant recipients. At this point the data required included national-level information (births, deaths, morbidity rates for different diseases, hospitalisation rates, immunisation rates, infant mortality rates) and project-level information (client population, number of consultations by various medical staff, prevalence rates for significant conditions, immunisation rates). This data was meant to be able to be aggregated to regional, State and national levels. The fact that this was a centrally established process imposed on ACCHSs led to further hostility and a lack of cooperation despite the link to funding. It also revealed the lack of informed indicator selection, as indicators such as birth, death and infant mortality rates are only useful epidemiologically when collected from larger population groups than local ACCHSs serve. This problem was not rectified until 1993–94 when ATSIC obtained that information from AIHW (Anderson & Brady 1995).

In 1997 there were a few significant developments with regards to Indigenous health information. The *Aboriginal and Torres Strait Islander Health Information Plan* was released, which articulated the separate but parallel processes of 'service activity reporting' for ACCHSs and *National Performance Indicators and Targets in Aboriginal Health*: these were to be reported against by national, State and Territory government health agencies to the Australian Health Ministers Advisory Council (AHMAC) (AIHW 1997).

Service Activity Reports (SARs) form a joint data collection project of NACCHO and OATSIH. They were developed in consultation with ACCHSs and are collected annually. They include service level data on Commonwealth-funded health care and health-related activities, and comment on issues such as funding, staffing and achievements (OATSIH & NACCHO 2003). This information is used by NACCHO and OATSIH in formulating policy, in planning, and to profile the work of ACCHSs in primary health care. However, some informants argue that the current indicators do not capture the breadth of the role ACCHSs play in Aboriginal communities, and front-line workers are in doubt as to the utility of these reports at the service-provision level. Key informants from OATSIH do not fundamentally disagree, but they do note that the 2005–06 collection will include a question on 'group work', which may go some way to capturing the non-clinical work of services, even though it still does not capture the extent of this work.

The development of an approach that captures data that is more useful at a service level may require a finer level of granularity (for example, by focusing on greater detail on client and service population characteristics, services delivered, quality measures, changes in health status, local burden of disease and so on). This sort of system, when organised nationally and linked to service funding, might be construed as more intrusive. Developments in this direction will require the development of consensus across the sector and ongoing negotiations between OATSIH, ACCHSs and peak bodies such as NACCHO.

In recognition that ACCHSs play an important but not solely definitive role in Aboriginal health, the *National Performance Indicators and Targets in Aboriginal Health* were developed to measure the performance of the health care system as a whole. In a 1997 meeting the Australian Health Ministers agreed that Commonwealth, State and Territory jurisdictions would be held accountable for improving Indigenous health through these publicly available annual reports. These indicators were grouped into nine categories: life expectancy and mortality; morbidity; access; health service impacts; workforce development; risk factors; inter-sectoral issues; community involvement; and quality of service provision. Initially there were a large number of proposed indicators, but the lack of quality data limited the implementation of many. The 2000 report contains fifty-six indicators, but there is no clear policy rationale for how these indicators were chosen (National Health Information Management Group 2003).

In 2004 the *National Strategic Framework for Aboriginal and Torres Strait Islander Health* 2003–2013 was released, having been endorsed by all Australian governments as a framework in which to move forward in Indigenous health endeavours. The framework builds on the 1989 NAHS, addressing approaches to primary health care and population

health within contemporary policy and planning contexts. The overarching goal is 'to ensure that Aboriginal and Torres Strait Islander peoples enjoy a healthy life equal to that of the general population that is enriched by a strong living culture, dignity and justice' (NATSIHC 2004:6) The National Strategic Framework also articulates four specific aims, among them, for example, increasing the life expectancy of Indigenous Australians to a level comparable with non-Indigenous Australians. These aims each have an associated National Performance Indicator.

The National Strategic Framework details objectives and action areas in nine key result areas in three groups as follows:

Group A: Towards a More Effective and Responsive Health System

- Community-controlled primary health care services
- Health system delivery framework
- A competent health workforce
- Emotional and social wellbeing

Group B: Influencing the Health Impacts of the Non-Health Sector

- Environmental health
- Wider strategies that impact on health

Group C: Providing the Infrastructure to Improve Health Status

- Data, research and evidence
- · Resources and finance
- Accountability

Implementation of the National Strategic Framework is to be monitored by AHMAC through its Standing Committee on Aboriginal and Torres Strait Islander Health (SCATSIH). As such, the Aboriginal and Torres Strait Islander Health Performance Framework has been developed, and will be reported against for the first time in 2006 (Harrison & Reid 2005). This will replace the *National Performance Indicators and Targets for Aboriginal Health*, which have been described by key informants as being uninformed by any policy framework and measuring what was feasible as opposed to measuring determinants of health or health outcomes.

The Aboriginal and Torres Strait Islander Health Performance Framework is modelled on the Health Performance Framework of the National Health Performance Committee, with consideration of the health context of Aboriginal and Torres Strait Islander peoples and relevant policy questions (Harrison & Reid 2005). The framework has eighteen domains grouped into three tiers as follows: Tier 1—Health Status and Outcomes (health conditions, human function, life expectancy and wellbeing, deaths); Tier 2—Determinants of Health (environmental factors, socio-economic factors, community capacity, health behaviours, person-related factors); and Tier 3—Health System Performance (effective, appropriate, efficient, responsive, accessible, safe, continuous, capable, sustainable).

There are two overarching dimensions, quality and equity, which apply across multiple domains. Quality is defined as 'delivering the best possible care and achieving the best possible outcomes for Aboriginal and Torres Strait Islander people every time they deal with the health care system or use the services of the health care system' (Harrison & Reid 2005: 4). An important element embedded within this is the concept of cultural security, which states that the construct and services of the health system will not compromise the cultural rights, views, values and expectations of Indigenous peoples. It is difficult to conceptualise how one would measure this cultural security, or the lack of it. It can be conceived of as part of the effective, appropriate, responsive and safe domains, although the only measure in the paper that may approximate it is the number of people 'voting with their feet', such as a discharge against medical advice (Harrison & Reid 2005).

The definition of equity is given as 'the state or ideal of being just, impartial, and fair such as everyone having the same chance of good health regardless of who they are, where they live, or their social circumstances' (Harrison & Reid 2005:5). Equity is to be assessed by making comparisons between Indigenous and non-Indigenous Australians for the measures in each domain, with a view to answering the question of whether or not the current gap in health status is widening or narrowing (Harrison & Reid 2005).

In order to populate the framework with indicators, the Standing Committee for Aboriginal and Torres Strait Islander Health (SCATSIH) and the National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data (NAGATSIHID) examined the context and developed policy questions for each domain. These were then taken to a Technical Advisory Group, which selected the indicators based on policy relevance, technical merit and feasibility. In the 2006 report some of the indicators will not be able to be reported against because of data quality or availability issues, and the data will not be able to be reported below the State/Territory level. However, it is anticipated that the Health Performance Framework will drive a prioritised data development program focused on the improvement of data necessary to fully populate the framework. The articulation of the Health Performance Framework with the National Strategic Framework is a significant development in that it gives the national indicators system a much clearer rationale in Indigenous health policy and strategy.

There have been significant developments in relation to governance and Indigenous health data systems over the last decade. The National Indigenous Health Information Plan Implementation Working Group was established under the National Health Information Plan (1997) to oversee the implementation of the *Aboriginal and Torres Strait Islander Health Information Plan*. Then in October 2000 a new mechanism, NAGATSIHID, was established by AHMAC to advise the National Health Information Management Group on strategies to improve the quality and availability of data and information on Aboriginal and Torres Strait Islander health and health service delivery, and to draw together the range of existing activities already underway into a coordinated and strategic process (AIHW 2006a). When the National Health Information Group was established in October 2003, Health ministers agreed that NAGATSIHID would become a standing committee of, and provide broad strategic advice to, the National Health Information Group. NAGATSIHID

is the overarching governance structure that draws together a range of stakeholders into a strategic development process. Significantly NAGATSIHID also includes representation from the ACCHSs and independent Indigenous advisors (the recommended membership is described in Attachment 1).

NAGATSIHID also supersedes the Aboriginal and Torres Strait Islander Health and Welfare Information Unit Advisory Committee, which had previously advised the Australian Bureau of Statistics (ABS) and the AIHW on their joint work program on Indigenous statistics. However the ABS continues to have a distinct policy process to advise on the development of its statistical program on Indigenous people: the Advisory Group on Aboriginal and Torres Strait Islander Statistics.

## **Current Indigenous Health Indicator Sets**

The following section is a brief description of the currently available health indicator sets at the national, State/Territory and regional levels.

#### National-level health indicator sets

Health information at the national level is concentrated within the ABS and the AIHW. NACCHO and OATSIH co-publish the Service Activity Reports (OATSIH & NACCHO 2003), as mentioned above, and the AIHW compiles the National Performance Indicators (National Health Information Management Group), but the health outcomes data within the latter are generated from ABS and AIHW data. The Commonwealth's Department of Health and Ageing also published a report entitled *General Practice in Australia: 2004* (Dept of Health & Ageing 2005), including two chapters on Aboriginal and Torres Strait Islander primary health care and general practice, but again this contained information from ABS and AIHW sources primarily. The AIHW also produces triennial reports on expenditures on health services for Aboriginal and Torres Strait Islander people, with the first covering the 1994–96 financial years, and the most recent covering the 2001–02 financial year (AIHW 2001, 2005). These reports draw on expenditure data from the AIHW, ABS, and State/Territory and Australian governments, as well as producing estimates of non-government expenditure.

#### Australian Bureau of Statistics

The ABS performs a Census of Population and Housing on a five-year cycle; the most recent cycle for which information is available is 2001. The census asks if each person is of Aboriginal or Torres Strait Islander origin, and now allows for respondents to answer yes to both. It collects information on place of residence, language, housing and household composition, income, education and employment (ABS 2003). This allows for the examination of some of the determinants of health down to the 'Indigenous location' level.

The ABS maintains birth and death registers. Mortality data is taken from death registration forms and medical cause-of-death forms. However, despite ongoing work to increase the recording of Indigenous status on the forms, currently only Western Australia, South Australia, Queensland and the Northern Territory have consistent and publishable results.

The National Aboriginal and Torres Strait Islander Social Survey (NATSISS) (ABS 2004) was performed in 2002. NATSISS aims to provide broad information across key social concerns and outcomes, and is reportable down to broad regional levels. There is a complementary General Social Survey, which provides comparable information for

non-Indigenous Australians. NATSISS provides information on culture and language, removal of Indigenous peoples from their natural families, self-reported health, education, employment, income, housing, law and justice (including experiences of physical violence), family and community attachments (including both supports and stressors), and smoking and alcohol consumption. The survey was developed following broad consultations with Indigenous peoples.

The National Health Survey (ABS 2002b) has been performed episodically since 1977. However, it did not include an Indigenous identifier until 1989, nor did it sample enough Indigenous peoples to report on Indigenous health status until 1995 (Australian Indigenous Health Infonet 2004). The latest published cycle in 2001 provides national-level information on self-reported health measures, health service use and lifestyle factors that affect health. The results of the 2004 National Aboriginal and Torres Strait Islander Health Survey were published in April 2006, and have been sampled to provide data at the State/Territory level.

The Community Housing and Infrastructure Needs Survey (ABS 2002a) was last performed in 2001 by the ABS but was funded by ATSIC. (The next survey will be conducted in 2006 with funding from the Department of Families, Community Services and Indigenous Affairs.) It provides information on housing stock, dwelling management, and selected income and expenditure arrangements collected from Indigenous housing organisations. It also collected information from discrete Indigenous communities on the status of housing, infrastructure, education, health and other services available, and has information reportable down to the community level.

#### Australian Institute of Health and Welfare

AIHW collates information about Indigenous health primarily from administrative datasets submitted by the States and Territories. One of the main limitations of the data is the extent to which Indigenous people are given the opportunity to self-identify when accessing the health care system, and it is variable across the States and Territories and also across the various databases.

AIHW maintains the National Hospital Morbidity Database, which is based on the National Health Data Dictionary definitions for the National Minimum Data Set for Admitted Patient Care. This allows the calculation of hospital separation rates by geographic region, major diagnoses and hospital expenditures. The incompleteness of Indigenous identification means the number of hospital separations recorded as Indigenous is an underestimate of Aboriginal and Torres Strait Islander hospitalisations. The extent to which the identification of Indigenous Australians occurs in data collections is referred to as coverage. While there is incomplete coverage of Indigenous hospitalisations in all States and Territories, four jurisdictions—South Australia, Western Australia, the Northern Territory and Queensland—have been assessed as having better coverage in 2003–04 (AIHW 2005g). It has therefore been recommended that aggregate Indigenous hospital separations reporting be limited to South Australia, Western Australia, the Northern Territory and Queensland.

The National Community Mental Health Care Database was collated for the first time in 2000–01, but the quality of Indigenous identification was in need of improvement for all jurisdictions except the Northern Territory (AIHW 2004b). There is a National Minimum Data Set for Alcohol and other Drug Treatment Services, which is a subset of the information that is routinely collected by the States and Territories.

Although each State and Territory is supposed to ask patients if they have Indigenous ancestry, the cancer registries can only report reliable incidence data for Indigenous Australians in the Northern Territory, Western Australia and Queensland (AIHW 2004b).

The National Perinatal Statistics Unit collects information on Indigenous status, antenatal care (including age of mother), birth weight and perinatal mortality. An important limitation is that it does not contain any information on the father and thus does not count Indigenous children born to non-Indigenous mothers.

AIHW partnered with the University of Sydney to publish the BEACH report (Brit *et al.* 2003). This is a report of general practice activity in Australia, and is generated from information from randomly selected physicians who are asked to record data on 100 consecutive patients, including their Indigenous status. This allows for a description of the number of encounters, the characteristics of the general practitioners, the characteristics and content of the encounter, the morbidity managed, and patient risk factors. Given the small sample size (because of the small number of Indigenous patients identified), the data is presented as a collation of the past five years of collection.

AIHW also require the identification of Indigenous status in the following National Minimum Data Sets: child notifications; admitted patient palliative care; admitted patient mental health care; aged care assessment program; multiple Commonwealth housing-related data collections; Commonwealth/State/Territory disability agreement; home and community care; and supported accommodation assistance program (AIHW 2005a).

AIHW has developed an approach to reporting Indigenous data and data development that integrates with its generic publishing program, as well as producing Indigenous-specific reports including the *Indigenous Housing Needs 2005* report (AIHW 2005f) and the biennial *Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples* (ABS & AIHW 2005) (described in more detail below). Examples of recent AIHW publications that include Indigenous data integrated within a generic publication include *Commonwealth–State Housing Agreement for 2004–05 Data: Public and State Owned and Indigenous Managed Housing* (AIHW 2006b); *Chronic Kidney Disease in Australia, 2005* (AIHW 2005b); *Cervical Screening in Australia, 2002–2003* (AIHW 2005c); *Child Protection Australia 2004–05* (AIHW 2006c); and *Mortality over the Twentieth Century in Australia: Trends and Patterns in Major Causes of Death* (AIHW 2005d). The AIHW series also reports on agreed data definitions and strategies to improve data quality and examples that include discussion on Indigenous data, namely, *National Housing Assistance Data Dictionary Version 3* (AIHW 2006d) and the report *Improving the Quality of Indigenous Identification in Hospital Separations Data* (AIHW 2005e).

# Health and Welfare of Australia's Aboriginal and Torres Strait Islander Peoples 2005

The latest edition of the biennial joint publication of the ABS and AIHW (2005) combines available information on Indigenous health from the two agencies, supplemented with OATSIH and published reports. The focus of the report is at a national level, although some data is broken down to the State/Territory level. It also includes a chapter on Torres Strait Islander health compared to all Indigenous Australians. The overall aim of the publication is to provide a broad picture of the change in health and welfare of Indigenous Australians over time.

The areas covered in the 2005 report include demography and socio-economic context; education and health; housing circumstances; disability and ageing; mothers and babies; health status; health risk factors; mortality; health services provision, access and use; community services; Torres Strait Islander peoples; and data sources.

Three main issues impact on the quality of the reported data. The first is the difficulty in estimating the size of the Aboriginal and Torres Strait Islander populations. This is due to a 16 per cent growth in the Indigenous population between the 1996 Census and the 2001 Census, 12 per cent of which was accounted for by natural growth; the remainder was due to other causes, such as a change in the propensity to identify as Indigenous. (The population increase between the 1991 Census and the 1996 Census is thought to have distinct underlying factors—30 per cent of it has been explained by demographic factors.) It is not possible to predict how these factors might change over time. In addition, birth and death data are not available nationally, which limits the ability to calculate natural growth in these periods. These two factors combine to affect the quality of the population estimates needed to calculate outcome rates, limiting their comparability across time periods.

The second issue is the incomplete identification of Indigenous Australians in administrative datasets due to differing methods of collection or failure to record status. Priority has been given to the improvement of hospital separation data. Consequently, a report has recently been released with recommendations for strategies to improve the quality of Indigenous identification in hospital data (Robertson *et al.* 1995).

The final issue surrounds the data from national surveys. A common issue has been that the sample of Indigenous Australians has been too small to report reliable data, since Indigenous Australians make up a small proportion of the population and are more likely to be in remote areas, which may be excluded from the surveys. Also, there are concerns about the relevance of the questions to Indigenous Australians, the concepts used, and the reliability and comparability of self-reported information (AIHW 2004b).

#### State/Territory-level datasets

The States and Territories are responsible for reporting on the National Minimum Data Sets as described above to AIHW, and thus have access to the same datasets. However, there are significant differences in recording of Indigenous status; therefore, some States/Territories will not be able to publish data because of the poor quality. As an example, cancer data is only reported as reliable from Western Australia, the Northern Territory and Queensland (AIHW 2004b).

Different jurisdictions have developed their own reporting processes. For example, the Western Australia Department of Health, in collaboration with the West Australian Aboriginal Community Controlled Health Services, produced *Health Measures 2005: A Report on the Health of the People of Western Australia*, which has a section on Aboriginal health that includes demographic indicators, life expectancy, mortality, infant mortality, birth weight, cardiovascular disease, and injury and poisoning data (Draper *et al.* 2005). This serves as an example of state-level collation of Indigenous-specific data.

In Victoria the Koori Human Services Unit of the Department of Human Services collates information submitted by the Koori Hospital Liaison Officers into a report entitled *Koori Health Counts!* (DHS 2005). The stated aim of the report is to 'improve the availability of Aboriginal health information in Victoria and to provide the information in a way that is appropriate for use within the community' (DHS 2005:4). The information includes population characteristics, admissions data (number of admissions, reason and age of patient), birth data and death information, including why the information is needed and what it is used for. The Department of Human Services has also recently released the *Aboriginal Services Plan Key Indicators* report for 2003–04 (Koori Human Services Unit 2005). The purpose of the Aboriginal Services Plan is to improve the health and wellbeing of all Aboriginal Victorians by better focusing departmental resources: the *Aboriginal Services Plan Key Indicators* report is an integral part of the reporting and monitoring regime established for this plan.

In the Northern Territory, as part of the Public Health Outcome Funding Agreement, performance reporting measures are required to assess the progress towards achieving the priority public health outcomes in the areas of communicable diseases, cancer screening and health risk factors. The agreement specifically mentions the obligation of both parties to 'give appropriate attention to strategies and policies' in this arena as they relate to Aboriginal and Torres Strait Islander peoples (Dept of Health & Ageing 2004). The performance indicators were jointly agreed to by the Commonwealth and the Northern Territory government, and are guided by the same three-tiered framework as the Aboriginal and Torres Strait Islander Health Performance Framework, but with indicators selected to reflect the Northern Territory's specific health goals.

#### Regional-level datasets

No mainstream reports on regional-level Indigenous-specific data were identified: this relates to the inability to survey a sufficient sample size to allow reliable reporting down to this level, or the small populations of regional levels, which act as a barrier to being able to calculate statistically reliable rates.

In the Aboriginal community controlled sector there are multiple examples of regional level data. The Victorian Aboriginal Health Service publishes an annual report that is primarily service-focused, but does contain some health measures such as perinatal statistics (VAHS 2004).

The Central Australia Aboriginal Congress states in its annual report that it has developed performance measurement datasets that reflect clinic and program strategies (CAAC 2004). The report also presents some service output data. Nganampa Health Service in South Australia also publishes some service output and health outcome data in its annual reports.

OATSIH requires each ACCHS to report every six months in a Service Development and Reporting Framework (SDRF). This requires the health service to plan and set aims for the upcoming year, and to decide on strategies to accomplish them and ways to measure their progress. This is encouraged by the availability of funding every third year to do a quality improvement project. This process has the potential of integrating local priorities into performance measurement processes. However, as services define their own performance measures, the data are not able to be aggregated.

# **Published Reports**

An extensive literature review was performed in the following databases: Medline, CINAHL, AMED and APAFT Full Text. The terms used were 'health surveys' or 'health indicators' and 'community health services' or 'community based' and 'Australian Aboriginal' or 'Torres Strait Islander' or 'health services, indigenous' or 'aborigin\$\$ or Indigenous or first nation\$' and 'Australia'. The focus was to identify prior examples of performance indicator development. This literature search was supplemented by reviews of reference lists, recommendations of experts and reviews of department of health websites.

Denis Griffin authored an article discussing the development and use of performance indicators specific to the Renal Unit at Townsville General Hospital (Dept of Health & Ageing 2004). The methodology included a literature review, patient survey, health professional survey and benchmarking exercise that enabled the setting of minimal standards. It is not clear how this translated into the development of the seven performance indicators ultimately used. They included decrease admissions caused by infection, non-compliance, technique breakdown, etc.; demonstrate decreased length of stay in hospital; establish a network between the community, community health professionals and the hospital-based dialysis services; and demonstrate increased community awareness of the impact of end-stage renal failure.

The Cooperative Research Centre for Aboriginal and Tropical Health wrote a report for the Primary Health Care Access Program Working Group entitled *Development of a Performance Reporting System for Indigenous Primary Health Care* (Gollow 2003). The aim of the project was to develop an interim performance reporting system, endorsed by the Northern Territory Aboriginal Health Forum, for use by Commonwealth/Northern Territory co-funded Indigenous primary care service providers. The process involved a literature review, consultations with experts and key stakeholders, and a workshop in which the proposed performance indicators were reviewed by the steering committee and project team. This workshop identified a list of criteria for indicator selection that included the following questions:

- Is the measure useful from the service provision point of view?
- Is the measure useful from the funding point of view?
- How frequently should the measure be reported?
- Can the data be collected/reported?
- Is data available/are there any quality issues?

The first two questions acknowledge the need of performance reporting to meet the accountability of governments, and be acceptable (and useful) to service providers. The second factor is a common complaint of service-level providers with regard to reports such as SARs that were developed solely as accountability reporting and are not useful. On the other hand, key informants from OATSIH argue that SARs and the SDRF have been developed as complementary processes—SARs for national policy and the SDRF for service-level development and planning.

There are forty-three selected indicators in the paper that have been mapped using the same framework as the Aboriginal and Torres Strait Islander Health Performance Framework, with tiers for health status and outcomes, determinants of health and health systems performance. In the accompanying technical instructions the source of data for each indicator is identified, which highlights the internal medical information systems as a key source of data for ACCHSs.

On review of department websites to see if this framework has been implemented, a paper entitled *National Primary and Community Health Network Format for Reports from Peak Bodies and Jurisdictions* states that the Aboriginal Health Forum has agreed to nineteen key performance indicators (NTDHCS 2005). Steps have been taken to establish the governance for the development phase of this project and personnel have been recruited. The next phase will involve further consultation with service stakeholders and the development of a data management policy.

# **Indicators Compendium**

The National Health Performance Committee (2001) collated an inventory of potential performance measures as part of the Aboriginal and Torres Strait Islander Health Performance Framework. This inventory is arranged according to the three-tiered framework: health status, determinants of health and health systems performance. It includes the source of information for each indicator, but it is important to note that the inventory does suggest some indicators not currently collected in Australia. The inventory is presented in Attachment 2. This inventory served as the starting point for the selection and development of policy-relevant indicators for inclusion in the Health Performance Framework, although the compendium did not cover all domains. Attachment 3 includes the final set of indicators that were selected for this Health Performance Framework.

## **Indigenous Health Information Issues**

The commonly identified issues that impact on the quality of Indigenous-specific health data include lack of accurate and consistent identification of Indigenous people in health data sets; lack of national level indicators on issues important to Indigenous communities; lack of commitment by funding agencies, governments and researchers to return information to the communities/sources from which it was obtained; and the focus on collection of health or health-related information that is not useful at a service-provision level, although it should be noted the SDRF has the potential to address some of these issues.

Identification of Indigenous people relies on the person encountering the system (or an appropriate designate) being asked if they are of Aboriginal or Torres Strait Islander origin in a way in which they will feel comfortable answering. Some reports suggest that patients are only asked if they look Aboriginal for fear of offending people (Robertson *et al* 1995). The identification of Indigenous peoples in birth and death registration is improving, but at this point only Queensland, Western Australia, South Australia and the Northern Territory have reportable results (AIHW 2004:195). Refer to the sub-section 'Australian Institute of Health and Welfare' above for a review of how this affects population estimates and therefore the calculation of outcome rates.

The incompleteness of data in other jurisdictions is, for the most part, untested and unknown. As a result of this, there is a tendency to use the information of the above-named States and Territories as a proxy measure for Indigenous people in all of Australia (AIHW 1997).

The reliance on hospital separation rates as a marker of morbidity leads to an underestimation of the burden of illness of a community where there is either a high prevalence of diseases for which hospitalisation is not required or where people avoid hospitals because of previous racist encounters or other reasons. Examples of this are the recurrent undiagnosed, untreated infections (such as otitis media) that occur amongst Indigenous children (AIHW 1997:55). In the past there has been a gap with respect to the availability of measures of social and emotional wellbeing, despite the importance of this as reflected by the number of ACCHSs with such programs. The 2004–05 National Aboriginal and Torres Strait Islander Health Survey has collected data on social and emotional wellbeing for the first time, and the Health Performance Framework has a performance indicator that relates to this.

On discussion of current national-level initiatives with regional- and community-level workers, a common theme is the lack of utility of current mandatory data reporting. This is a result of two main factors: first, the lack of relevance of selected indicators at that level; and, second, the inability to report data below a State/Territory level. The first issue relates to the selection of indicators that reflect national priorities. However, there

is significant variability in the context in which ACCHSs operate, and their priorities can be quite different than those of the Commonwealth or other ACCHSs. To date the presence of reporting frameworks that include a balance of community/region-specific indicators and national or universal indicators has been lacking. The second factor is a result of either small populations in a region or survey sampling that is not large enough to provide statistically reliable results. The ABS continues to work on supplemental sampling strategies to provide better quality data.

The perceived lack of return of understandable and relevant information may lead communities and service providers to believe that the information collected is not being used at all. There may not be an understanding among data collectors, therefore, about why they need to collect such information, how the information will be used, or what privacy protection measures are in place. Although many of the ACCHSs have computer-based medical information systems, they may not have the infrastructure (including funding, human resources or training) to use them effectively to generate health measures. Given the high priority of necessary service provision, without an understanding of the importance/utility of such information, accurate collection/recording may not occur.

## **Concluding Remarks**

The Aboriginal and Torres Strait Islander Health Performance Framework has been designed to measure the impact of the National Strategic Framework for Aboriginal and Torres Strait Islander Health. Its ability to do so will be limited by the availability of appropriate quality data for reporting, a major factor of which is the inconsistent recording of Indigenous status across the States/Territories, although this is improving. The Health Performance Framework will, however, provide the basis for a prioritised national data development program to build the capacity to report against all included measures over time. As each State/Territory is responsible for designing plans to implement the National Strategic Framework for Aboriginal and Torres Strait Islander Health and to achieve the specified aims, each state/Territory will also be required to report progress on implementing the framework.

As the above health performance framework will not be able to report data below the State/ Territory level, there is still a gap in the availability of relevant Indigenous-specific data at regional and community levels, which impairs the ability of services at a local and regional level to make evidence-based policy decisions or service delivery plans. In this respect the development of the SDRF is a significant step in addressing this gap.

What is interesting about this framework is that it shifts the focus of accountability from individual ACCHSs (although they are still required to report throughput measures in the SARs and SDRF) to the State/Territory and federal governments. This health performance framework enables a greater focus on the measurement of system performance against agreed priorities. The indicators were selected to measure progress along key policy questions in each domain, and thus have significant potential to actually change relevant policies. It is hoped that this process of ongoing performance measurement will lead to an effectively implemented strategy to improve the health of Indigenous peoples in Australia, as opposed to the 1989 NAHS, which was never effectively implemented.

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# Attachment 1: Membership of National Advisory Group on Aboriginal and Torres Strait Islander Health Information and Data (NAGATSIHID)

The Australian Health Ministers Advisory Council recommends that NAGATSIHID membership comprise:

- a. A single representative from the following organisations:
  - Aboriginal and Torres Strait Islander Commission
  - Australian Bureau of Statistics
  - Australian Institute of Aboriginal and Torres Strait Islander Studies
  - Australian Institute of Health and Welfare
  - Department of Health and Ageing
  - Statistical Information Management Committee
  - Torres Strait Regional Authority.
- b. Two representatives from the Steering Committee for Aboriginal and Torres Strait Islander Health formally known as Heads of Aboriginal Health Units, Indigenous Australians.
- c. Two representatives from the National Aboriginal Community Controlled Health Organisation.
- d. Three Indigenous Advisors on Aboriginal and Torres Strait Islander health and welfare.
- e. An epidemiologist with expertise in Indigenous health issues.
- f. At the March 2002 NAGATSIHID meeting, the group agreed not to limit the number of observers. Secretariat should be approached to check the capacity of the meeting to accommodate any requests for observers.

# Attachment 2: Aboriginal and Torres Strait Islander Health Performance Framework—Inventory of Potential Performance Measures

# Tier 1: Health Conditions, Human Function, Life Expectancy and Wellbeing, and Deaths

#### Performance measures: Health conditions

- 1. Low birth weight infants (NPI 28, NHPC 4.12)
- 2. Overweight and obesity (NPI 31)
- 3. Proportion of persons with high blood pressure (NHPC 4.11)
- 4. % children passing school entry hearing screening tests (NZ)
- 5. Injuries presenting to hospital accident and emergency facilities (NPI 35)
- 6. Prevalence of anxiety and depression (NPI 36)
- 7. Vaccine-preventable disease notification rates (NPI 37)
- 8. Meningococcal disease notification rates (NPI 38)
- 9. Sexually transmitted disease notification rates (NPI 39)
- 10. Ratios for all hospitalisations (NPI 40)
- 11. The % of patients with coronary heart disease, last blood pressure reading 150/90 or less (UK Quality)
- 12. The % of patients with coronary heart disease, whose measured cholesterol is 5mmol/l or less (UK Quality)
- 13. Hospitalisation ratios for circulatory diseases (NPI 41)
- 14. Hospitalisation ratios for injury and poisoning (NPI 42)
- 15. Hospitalisation ratios for respiratory diseases and lung cancer (NPI 43)
- 16. Hospitalisation ratios for diabetes (NPI 44)
- 17. Hospitalisation for tympanoplasty associated with otitis media (NPI 45)
- 18. Incidence of heart attacks (NHPC 1.01)
- 19. Incidence of cancer (NHPC 1.02)
- 20. Proportion of diabetics with HbAlc < 6.5% (OECD)
- 21. (Prevalence of) arthritis/rheumatism (Canada)
- 22. (Prevalence of) spina bifida (OECD)
- 23. (Prevalence of) transposition of great vessels (OECD)
- 24. (Prevalence of) limb reduction (OECD)
- 25. (Prevalence of) Down's syndrome (OECD)
- 26. Decayed/missing/filled teeth (DMFT) (OECD)

- 27. Acquired immunodeficiency syndrome (AIDS) (OECD)
- 28. Cancer incidence
  - 28.1. Malignant neoplasms (OECD)
  - 28.2. Malignant neoplasms of colon (OECD)
  - 28.3. Malignant neoplasms of lung (OECD)
  - 28.4. Malignant neoplasms female breast (OECD)
  - 28.5. Malignant neoplasms of cervix (OECD)
  - 28.6. Malignant neoplasms of prostate (OECD)
- 29. Injuries in road traffic accidents (OECD)
- 30. Proportion of resident clients with diabetes with a HbA1c less than 7% and less than 9.5% in the last 12 months, Mean HbAlc level for resident diabetic clients in the last 12 months (NT)
- 31. Children's hearing loss (NPI47)

#### Performance indicators: Human functions

- 32. Self-reported absence from work due to illness (OECD, see also IHS items about time off work/study or reduction in usual activity due to illness)
- 33. Compensated absence from work due to illness
- 34. Years lived with disability (NHPC 3, 2)
- 35. Acute care management admission (UK NHS)
  - 35.1. Severe ENT infection
  - 35.2. Kidney/urinary tract infection
  - 35.3. Heart failure
- 36. Discharge rates for paediatric asthma children under 5 and 5–14 (NZ)

#### Example performance indicators: Life expectancy and wellbeing

- 37. Life expectancy for:
  - 37.1. Total population at birth (NPI 5, OECD)
  - 37.2. Females at birth (OECD)
  - 37.3. Females at age 40 (OECD)
  - 37.4. Females at age 60 (OECD)
  - 37.5. Females at age 65 (OECD)
  - 37.6. Females at age 80 (OECD)
  - 37.7. Males at birth (OECD)
  - 37.8. Males at 40 (OECD)
  - 37.9. Males at 60 (OECD)
  - 37.10. Males at 65 (OECD)
  - 37.11. Males at 80 (OECD)

#### 38. Perceived health status:

- 38.1. health > good, female, 15–24 (OECD)
- 38.2. health > good, female, 25–44 (OECD)
- 38.3. health > good, female, 45–64 (OECD)
- 38.4. health > good, female, 65+ (OECD)
- 38.5. health > good, female, all ages (OECD)
- 38.6. health > good, male, 15-24 (OECD)
- 38.7. health > good, male, 25-44 (OECD)
- 38.8. health > good, male, 45–64 (OECD)
- 38.9. health > good, male, 65+ (OECD)
- 38.10. health > good, male, all ages (OECD)
- 38.11. health > good, total, 15-24 (OECD)
- 38.12. health > good, total, 25–44 (OECD)
- 38.13. health > good, total, 45–64 (OECD)
- 38.14. health > good, total 65+ (OECD)
- 38.15. health > good, total, all ages (OECD)

#### Example performance indicators: Deaths

- 39. Infant mortality rate (NPI 6)
- 40. Early adult death (NPI 49)
- 41. Age-specific all-cause death rates and ratios (NPI 50)
- 42. Standardised mortality ratios for all causes (NPI 51, OECD)
- 43. Standardised mortality ratios for circulatory diseases (NPI 52, OECD)
- 44. Standardised mortality ratios for injury and poisoning, including suicide (NPI 53)
- 45. Standardised mortality ratios from respiratory diseases and lung cancer (NPI 54, OECD)
- 46. Standardised mortality ratios from diabetes (NPI 55, OECD)
- 47. Standardised mortality ratios from cervical cancer (NPI 56, OECD)
- 48. Causes of mortality:
  - 48.1. Infectious and parasitic diseases (OECD)
  - 48.2. HIV disease (OECD)
  - 48.3. Malignant neoplasms (OECD)
  - 48.4. Malignant neoplasms of colon (OECD)
  - 48.5. Malignant neoplasms of female breast (OECD)
  - 48.6. Malignant neoplasms of colon (OECD)
  - 48.7. Diseases of blood (OECD)
  - 48.8. Endocrine, nutritional and metabolic diseases
  - 48.9. Mental and behavioural disorders (OECD)
  - 48.10. Diseases of nervous system (OECD)

- 48.11. Ischaemic heart diseases (OECD)
- 48.12. Acute myocardial infarction (OECD)
- 48.13. Cerebrovascular diseases (OECD)
- 48.14. Influenza and pneumonia (OECD)
- 48.15. Bronchitis, asthma and emphysema (OECD)
- 48.16. Diseases of the digestive system (OECD)
- 48.17. Chronic liver diseases/cirrhosis (OECD)
- 48.18. Diseases of skin and subcutaneous tissue (OECD)
- 48.19. Diseases of musculoskeletal system (OECD)
- 48.20. Diseases of genitourinary system (OECD)
- 48.21. Complications of pregnancy/childbirth (OECD)
- 48.22. Perinatal conditions (OECD)
- 48.23. Congenital anomalies (OECD)
- 48.24. Symptoms and ill-defined conditions (OECD)
- 48.25. External causes of mortality (OECD)
  - 48.25.1. Land transport accidents (OECD)
  - 48.25.2. Accidental falls (OECD)
  - 48.25.3. Intentional self-harm (OECD)
  - 48.25.4. Assault (OECD)
  - 48.25.5. Adverse effects from medicines (OECD)
  - 48.25.6. Misadventures to patient during surgical medical care (OECD)
- 49. Maternal and infant mortality
  - 49.1. Infant mortality (OECD)
  - 49.2. Neonatal mortality (OECD)
  - 49.3. Perinatal mortality (OECD)
  - 49.4. Maternal mortality (OECD)
- 50. Potential years of life lost due to:
  - 50.1. All causes (OECD)
  - 50.2. Infectious and parasitic disease (OECD)
  - 50.3. HIV disease (OECD)
  - 50.4. Malignant neoplasm (OECD)
  - 50.5. Malignant neoplasms of colon (OECD)
  - 50.6. Malignant neoplasms of lung (OECD)
  - 50.7. Malignant neoplasms of female breast (OECD)
  - 50.8. Malignant neoplasms of cervix (OECD)
  - 50.9. Malignant neoplasms of prostate (OECD)
  - 50.10. Diseases of blood (OECD)
  - 50.11. Endocrine, nutritional and metabolic diseases (OECD)
  - 50.12. Diabetes mellitus (OECD)

- 50.13. Mental and behavioural disorders (OECD)
- 50.14. Diseases of nervous system (OECD)
- 50.15. Diseases of circulatory system (OECD)
- 50.16. Ischaemic heart diseases (OECD)
- 50.17. Acute myocardial infarction (OECD)
- 50.18. Cerebrovascular diseases (OECD)
- 50.19. Diseases of respiratory system (OECD)
- 50.20. Influenza and pneumonia (OECD)
- 50.21. Bronchitis, asthma and emphysema (OECD)
- 50.22. Diseases of digestive system (OECD)
- 50.23. Chronic liver diseases/cirrhosis (OECD)
- 50.24. Diseases of skin and subcutaneous tissue (OECD)
- 50.25. Diseases of musculoskeletal system (OECD)
- 50.26. Diseases of genitourinary system (OECD)
- 50.27. Complications of pregnancy/childbirth (OECD)
- 50.28. Perinatal conditions (OECD)
- 50.29. Congenital anomalies (OECD)
- 50.30. Symptoms and ill-defined conditions (OECD)
- 50.31. External causes of mortality (OECD)
- 50.32. Land transport accidents (OECD)
- 50.33. Accidental falls (OECD)
- 50.34. Intentional self-harm (OECD)
- 50.35. Assault (OECD)
- 50.36. Adverse effects from medicine (OECD)
- 50.37. Misadventures to patient during surgical/medical care (OECD)

## Tier 2: Environmental Factors, Socio-economic Factors, Community Capacity, Health Behaviours and Person-Related Factors

#### Example performance measures: Environmental factors

- 51. Environmental tobacco smoke: children under 15 years who live in a household with a smoker (NHPC 4,1)
- 52. Environmental tobacco smoke: workplace smoking restrictions (NHPC 4.2)
- 53. Exposure to second-hand smoke (Canada)
- 54. Housing with utilities (NPI10)
- 55. Fluoridated water (RHIF 2.1.1)
- 56. Access to clean water and functional sewerage (IDR)
- 57. Overcrowding in housing (IDR, RoGS)
- 58. Notification rates of Ross River virus by State and Territory (NHPC 4.3)

#### Example performance measures: Socio-economic factors

#### Education

- 59. Educational status of the adult population (RHIF 2.2.1)
- 60. High school retention rates (RHIF 2.2.2)
- 61. Progression from school to university (RHIF 2.2.3)
- 62. Years 10 and 12 retention and attainment (IDR)
- 63. Post secondary education—participation and attainment (IDR)
- 64. Preschool and school attendance (IDR)
- 65. Year 3 literacy and numeracy (IDR)
- 66. Years 5 and 7 literacy and numeracy (IDR)
- 67. Retention at Year 9 (IDR)
- 68. Completed secondary school education (NPI 8)
- 69. High school graduates (Canada)
- 70. Post-secondary graduates (Canada)
- 71. Average number of years of schooling (Canada)
- 72. Participation in education and training by people aged 15–24 years, by sector (RoGS)
- 73. Level of highest educational attainment of people aged 15–64 years, by labour force status (RoGS)
- 74. Apparent rates of retention from Year 10 to Year 12, Indigenous full-time secondary students (RoGS)
- 75. Year 3 students who achieved the reading benchmark (RoGS)
- 76. Year 5 students who achieved the reading benchmark (RoGS)
- 77. Year 3 students who achieved the writing benchmark (RoGS)
- 78. Year 5 students who achieved the writing benchmark (RoGS)
- 79. Year 3 students who achieved the numeracy benchmark (RoGS)
- 80. Year 5 students who achieved the numeracy benchmark (RoGS)
- 81. VET participation rates for all ages, by Indigenous status (RoGS)

#### **Employment**

- 82. Workforce and employment (RHIF 2.2.4)
- 83. Labour force participation and unemployment (IDR)
- 84. Employment (full-time/part-time) by sector (public/private), industry and occupation (IDR)
- 85. CDEP participation (IDR)
- 86. Long-term unemployment (IDR)
- 87. Self-employment (IDR)
- 88. Employment status (NPI 9)
- 89. Unemployment rate (Canada)
- 90. Long-term unemployment rate (Canada)

#### Income

- 91. Differentials in death rates across socio-economic quintiles (NHPC 4.4)
- 92. Household income (RHIF 2.2.5)
- 93. Gap between rich and poor (RHIF 2.2.6)
- 94. Sources of income (RHIF 2.2.7)
- 95. SEIFA (RHIF 2.2.8)
- 96. Household and individual income (IDR)
- 97. Home ownership (IDR)
- 98. Income poverty (NPI 7)
- 99. Low-income rate (Canada)
- 100. Children in low-income families (Canada)
- 101. Average personal income (Canada)
- 102. Median share of income (Canada)
- 103. Government transfer income (Canada)
- 104. Owner-occupied dwellings (Canada)

#### Performance measures: Community capacity

#### Demographic information

- 105. Demography (RHIF 2.3.1)
- 106. Dependency ratio (RHIF 2.3.2)
- 107. Internal migration (RHIF 2.3.3)
- 108. Fertility (RHIF 2.3.4)
- 109. Population (Canada)
- 110. Population density (Canada)
- 111. Dependency ratio (Canada)
- 112. Urban population (Canada)
- 113. Aboriginal population (Canada)
- 114. Immigrant population (Canada)
- 115. 1 and 5-year mobility (Canada)
- 116. Population within strong Census Agglomeration Influenced Zones—MIZ (Canada)
- 117. Lone-parent families (Canada)
- 118. Visible minorities (Canada)

#### Safety and crime

- 119. Community safety (RHIF 2.3.5)
- 120. Perception of risk (RHIF 2.3.6)
- 121. Repeat offending (IDR)
- 122. People in prison custody (NPI 11)
- 123. Children on long-term care and protection orders (IDR)

#### Other

- 124. Carer activity (NHPC 4.5)
- 125. Voluntary work participation rates (NHPC 4.6)
- 126. Transport (RHIF 2.3.9)
- 127. Cost of living (RHIF 2.3.10)
- 128. Business activity (RHIF 2.3.11)
- 129. Proportion of Indigenous people with access to their traditional lands (IDR)

#### Performance measures: Health behaviours

#### Tobacco, alcohol and other drug use

- 130. Proportion of adults who are current smokers (NHPC 4.7)
- 131. Proportion of adolescents who are current smokers (NHPC 4.8)
- 132. Tobacco (RHIF 2.4.1)
- 133. Tobacco consumption (IDR)
- 134. Smoking status (Canada)
- 135. Smoking initiation (Canada)
- 136. Changes over time in smoking behaviour (Canada)
- 137. Smoking prevalence (NPI29)
- 138. Alcohol (RHIF 2.4.2)
- 139. Alcohol consumption (IDR)
- 140. Frequency of heavy drinking (Canada)
- 141. Alcohol consumption (NPI 30)
- 142. Illicit drugs (RHIF 2.4.3)
- 143. Drug and other substance abuse (IDR)

#### Physical activity

- 144. Proportion of adults (aged 18 years and over) who are insufficiently physically active to obtain a health benefit (NHPC 4.9)
- 145. Physical activity and inactivity (RHIF 2.4.4)
- 146. Leisure-time physical activity (Canada)

#### Nutrition

- 147. Nutrition (RHIF 2.4.5)
- 148. Breastfeeding practices (Canada)
- 149. Dietary practices (Canada)

#### Other health behaviours

- 150. Sexual practices (RHIF 2.4.6)
- 151. Problem gambling (NPI 33)

#### Performance measures: Person-related factors

The Defining the Domains paper limits measures under this domain to measures about genetic susceptibility to particular diseases. No existing measures were found in the national or international literature. Note—the actual Person-related Factors domain itself is not limited to genetic susceptibility to disease. The only limit is to the measures that will sit under this domain. In reports, under Person-related Factors, it will be possible to comment on measures that are relevant to the Person-related Factors domain that sit under other domains.

### Tier 3: Accessible, Safe, Continuous, Capable and Sustainable, Effective, Appropriate, Efficient and Responsive

#### Performance measures: Accessible

#### Affordability

- 152. Bulk billing (also look at regional variations) (NHPC 3.17, RoGS)
- 153. Problems in paying medical bills e.g. IHS (CMWF)
- 154. Number or proportion of Indigenous/non-Indigenous persons assisted through medical subsidy and prescription items (PHCAP 31)
- 155. Not filling a prescription due to cost by income/insurance (CMWF)

#### Access to pharmaceuticals

- 156. Availability of pharmaceuticals by area (CMWF)
- 157. Medicines management: The number of hours from requesting a prescription to availability for collection by the patient is 72 hours or less. (UK Quality)

#### Access to after-hours care

- 158. Difficulty getting care weekends/evenings by income/insurance (CMWF)
- 159. % practices providing after-hours care for patients (GP)
- 160. SAR data on after-hours care

#### Access to service

- 161. Access to nearest health professional (IDR, OECD)
- 162. Distance to nearest hospital, community centre and medical centre (RHIF 3.5.1, NPI 16 and 17, Canada)
- 163. Rates public/private/acute beds per 1000 population by area (CMWF)
- 164. Unable to get care because not available where live (CMWF)
- 165. Adults' access to preventative/ambulatory health services (US HEDIS)
- 166. Availability of mental health/chemical (US HEDIS)
- 167. Proportion of Indigenous Australians experiencing barriers to accessing the health system compared to non-Indigenous, i.e. cost, location, discrimination (IHS)
- 168. Median delay between onset of chest pain and presentation for emergency care at hospital (NHPA)

- 169. Median delay between onset of stroke and presentation for emergency care at hospitals (NHPA)
- 170. % of patients admitted to hospital with acute stroke who are managed in specialised stroke units (NHPA)

#### Workforce

- 171. Frequency of visit to community—GPs, nurses, AHWs, AHP, specialists in rural and remote areas (availability GPs NHPC 3.18 and Ind Disadvantage)
- 172. Number of days at work in clinical services by staff category (doctors, nurses, health workers, counsellors, allied health workers and Aboriginal health workers) (PHCAP 28)
- 173. Availability of staff for *x* days per week by staff category (doctors, nurses, health workers, counsellors, allied health workers and Aboriginal health workers) (PHCAP 29)
- 174. Numbers of GPs and EFW, community health services, maternal and child health services. Indigenous health services, public dental, alcohol and other drug treatment services by region (RHIF 3.5.2, RoGS)
- 175. Female GPs (RoGS)
- 176. Number of patients per GP by area (CMWF)
- 177. Number of GPs per person adjusted for community need (CMWF)
- 178. Difficulty seeing specialist by age/income (CMWF)
- 179. Workforce availability in primary health care services where there are large numbers of Aboriginal and Torres Strait Islander people (PHCAP 107, NPI 22)
- 180. Workforce availability in hospitals that provide services to Aboriginal and Torres Strait Islander populations (NPI 23)
- 181. Availability of primary care providers (US HEDIS)
- 182. Children's access to primary care providers (US HEDIS)
- 183. Availability of obstetrical/prenatal care providers (US HEDIS)
- 184. Number of primary health care per head of service population (doctors, nurses, health workers, counsellors, allied health workers and Aboriginal health workers) (PHCAP 107)
- 185. Ratio of full time equivalent staff to estimated zone population, by profession (NT 26)
- 186. Rate of Aboriginal environmental health workers employed in the public sector per 1000 Aboriginal persons (PH)—Tier 2

#### Access to surgery

187. Access to elective surgery (NHPC 3,19)

#### Access dental

- 188. Dental care (US CF)
- 189. Availability of dentists (US HEDIS)

#### Performance Measures: Safe

#### Surgery and medical misadventure

- 190. Rates of medical and surgical misadventure (reporting complaints and critical incidents in hospitals NPI 14.1) (RHIF 3.6.1)
- 191. Estimated deaths associated with medical mistakes compared to the leading causes of death in the US (US CF)
- 192. Discharge in an unstable condition by race/ethnicity (CMWF)
- 193. Hospital separations with adverse event by external cause group—Indigenous Rate Ratio to all Australian rate (NHPC 3.21, NHPC 5.17).
- 194. Hospital-acquired infection (NZ) Surgical site infection rates (RoGS)
- 195. Admissions having missed diagnosis or inadequate treatment in emergency patients (US MS)
- 196. Hip fractures while in health care facilities and in the community (Canada 6a, 6b, 6c)
- 197. Perineal status after delivery—% mothers with third or fourth degree lacerations (RoGS)

#### Staff safety

- 198. Workers compensation claims for health sector workers (Canada)
- 199. Some local info. on needle stick injuries etc. (Canada)
- 200. Number of OH&S incidents compared to previous year (PHCAP 95–96)

#### Clinical management

- 201. Preventable adverse events and causes (US CF)
- 202. Preventable adverse events and outcomes (US CF)
- 203. Preventable adverse drug events (US CF)
- 204. Trends and types of medication-prescribing mistakes (US CF)
- 205. Potentially inappropriate prescribing for the elderly (US CF)

#### Records management

- 206. Electronic prescribing and clinical data in general practice (NHPC 3.20, GP)
- 207. General practice with electronic information management systems (RoGS)
- 208. % PIP practices using computers for clinical purposes (RoGS)

#### Performance measures: Continuous

#### Usage of care planning

- 209. Rate of usage of enhanced primary care services (NHPC 3.22, NHPC 5.18, RoGS)
- 210. Health assessments by GPs (NHPC 3.23 and suggested by population health, RoGS)
- 211. Local/provincial information on how often formal plans are made for care of patients after they leave hospital (Canada)

- 212. % of Canadians who have a regular family doctor by province (Canada)
- 213. Care planning and case conferencing (RHIF 3.7.1)
- 214. Effective use of PIRS care plans and case management (PHCAP 97–98)
- 215. Proportion of clients with preventable chronic diseases managed on care plans (by disease) (NT 11)

#### Collaboration

- 216. SAR questions of linkages with hospitals, e.g. discharge planning, antenatal and chronic disease share care arrangements between service and hospital. Rates of AHP/ specialists visiting AMSs
- 217. SAR data on rates of AHP and specialists visiting AMSs

#### Waiting times

- 218. Waiting times, e.g. emergency department, elective surgery, AHP, specialists (NHPC 3.16)
- 219. Emergency department waiting times by triage category (RoGS)
- 220. Waiting times for elective surgery by clinical urgency category (RoGS)
- 221. In-hospital waiting time for femur fracture (OECD)
- 222. Waiting time cataract surgery (Eye)
- 223. Waiting times for radiotherapy (Cancer) (NZ CAN 01)
- 224. Numbers waiting longer than 6 months for CABG/angioplasty (cardio) (NZ CAR 03 and CAR 05)
- 225. Size of inpatient waiting list per head of population (weighted) (UK NHS)
- 226. Local/provincial waiting time data (Canada 8)
- 227. Patients who wait less than 2 hours for emergency admissions (through A&E) (UK NHS)
- 228. % of outpatients seen within 13 weeks of GP referral (UK NHS)
- 229. % of those on waiting list waiting 12 months or more (UK NHS)

#### Performance measures: Capable

#### Quality assurance

- 230. Accreditation—% AMSs (Accreditation in GPNHPC 3.24, PHCAP 110–112, RoGS)
- 231. Accreditation—hospital (RHIF 3,8.1)

#### Level of skill of staff

- 232. Level of qualifications of GPs, nurses, AHW etc. working in AMSs and mainstream health services
- 233. % GPs with vocational recognition (RoGS)

#### Training

- 234. Workforce strategies—continuous training, cultural training, orientation policies (Higher education and training in key health professions NPI 21, PHCAP 101)
- 235. Provide details of training and development opportunities by professional group and type of training undertaken (RHIF 3.9.1)
- 236. Proportion of new staff who have been employed *for* at least 6 months who have attended an orientation program (NT 40)
- 237. Number of OR proportion of health workers trained in hearing health (PHCAP 44)
- 238. Number of OR proportion of health workers who have nutrition-specific training (PHCAP 65)
- 239. Selected local/provincial records on continuing education, quality assurance activities, disciplinary proceedings etc. (Canada)
- 240. Education and training, e.g. all clinical employees trained in basic Hie support skills in the preceding 18 months. All practice-employed nurses have an annual appraisal and personal learning plan. All new staff receive induction training. All non-clinical staff have annual appraisal. (UK Quality)

#### Performance measures: Sustainable

#### Expenditure

- 241. Expenditure on Aboriginal and Torres Strait Islander health (NPI 2) compared to needed—is modelling of this sufficiently robust?
- 242. Expenditure on health (RoGS, OECD) e.g. per person, by Indigenous status, by source of funds, public/private hospital, sector
- 243. Proportion of annual health expenditure, as defined by the Public Health Expenditure Project, on core public health activities (PH)

#### Workforce

- 244. Recruitment and turnover of GPs (Note: NHPC 3.25 indicator GPs over 50 years not appropriate as many work in AMSs early in career)
- 245. Workforce strategies—staff recruitment and retention policies (Higher education and training in key health professions NPI 21, PHCAP 101)
- 246. Reduction in staff turnover rate (PHCAP 105)
- 247. Staff turnover (NZ)
- 248. Staff stability rate (NZ)

#### Performance measures: Effective/Appropriate

Note that measures that could be suitable for the Effective and Appropriate domains are presented together below. Because of the large overlap issue between these domains, the Defining the Domains paper recommended that the 'Appropriate' domain will be limited to measures of care, interventions or actions that are based on standards that have been specifically established for Indigenous Australians.

#### *Immunisation*

- 249. Child Immunisation rates (NHPC 3.05, NHPC 5.6, RHIF 3.1.1, PHCAP 48, NPI26, NT 15, RoGS, GP, NZ–CHI01, OECD, CFN, US IHS, USCF, US HEDIS, UK NHS, World Bank) e.g. Proportion of children seen in the health centre in the previous month who have immunisations due that are given the relevant immunisation (NT)
- 250. Adult immunisation rates (NHPC 3.06, PHCAP 50 and 51, NPI 27, NT 16, PH, RoGS, GP, Canada 14d, US IHS 5127, USCF, US HEDIS) e.g. Proportion of adults seen in the health centre in the previous month who have immunisations due that were given the relevant immunisation (NT)
- 251. Adolescent immunisation (US HEDIS)
- 252. Pneumonia (US HCF A)
  - 252.1. Influenza vaccinations
  - 252.2. Pneumococcal vaccinations
  - 252.3. Blood culture before antibiotics are administered
  - 252.4. Appropriate initial empirical antibiotic selection
  - 252.5. Initial antibiotic dose within 8 hours of hospital arrival
  - 252.6. Influenza vaccination or appropriate screening
  - 252.7. Pneumococcal vaccination or appropriate screening
- 253. Use of prevention services (e.g. pap smears and flu shot) by province (Canada)

#### Women's health and early childhood

- 254. Cervical cancer screening rates (NHPC 3.03, NHPC 5.4, RHIF 3.1.2, PHCAP 3 and 4, NPI 25, NT 20, NHPA, GP, OECD, Canada, US HEDIS, UK NHS, World Bank) e.g. Proportion of resident female clients having pap tests for cervical cancer in the previous 24 months period for the target group (15–69 years)
- 255. Breast screening rates (NHPC 3.04, NHPC 5.5, RHF 3.1.2, PHCAP 5, NHPA, GP, OECD, Canada, US CF, US HEDIS, US HCFA, UK NHS)
- 256. Proportion of resident clients who have an abnormal pap smear in the previous 12 months who have had appropriate follow-up (NT 24)
- 257. Proportion of pregnant women attending their first antenatal visit at or before 20 weeks gestation (PH)
- 258. Proportion of pregnant resident clients attending their first antenatal visit at or before 13 and 20 weeks gestation (NT 28)
- 259. Prenatal care in the first trimester (US HEDIS)
- 260. Average number of antenatal visits per pregnant current client (PHC AP 63)
- 261. Number of OR proportion of mothers who attend postnatal follow-up consultation (i.e. normally provided at six weeks) (PHCAP 64)
- 262. Check-ups after delivery (US HEDIS)

- 263. Timely initiation of prenatal care (US CF, US HEDIS)
- 264. Number of OR proportion of babies presenting for 2-4 week postnatal check (PHCAP 17)
- 265. Average number of visits per child for child health and growth assessment in children aged:
  - 265.1. < 6 months
  - 265.2. 7-18 months
  - 265.3. 19 months to 3 years (PHCAP 18)

#### Child health

- 266. Number of OR proportion of children screened according to GAA Guidelines by indigenous and non-indigenous status (NT 2 & 3 specific) (PHCAP 21)
- 267. Number of OR proportion of children screened at school entry (by Indigenous and non-Indigenous status) (PHCAP 23)
- 268. Proportion of resident clients aged 5 and 10 years who have been screened according to the guidelines for Healthy School Aged Kids in the previous 12 months, by gender (NT 18)
- 269. Number of OR proportion of children screened for ear disease, by age group:
  - 269.1. 0-5 years
  - 269.1.1. 5 years (PHCAP 45)
- 270. Treating children's ear infections (US HEDIS)
- 271. Proportion of 10-year-old children having Mantoux test (NT 18)
- 272. Appropriate treatment of chronic otitis media in young children (US IHS 5153)

#### Adult health

- 273. Proportion of resident clients aged 15 years and over who were screened for chronic diseases in the past year, by age group and gender (NT 1)
- 274. Smoking cessation counselling (PHCAP 2, US CF and US HEDIS)
- 275. Number of OR proportion of persons screened for social health issues (drug and alcohol/emotional and social wellbeing) (PHCAP 71)
- 276. Colorectal cancer screening (US CF)
- 277. Primary prevention for non-communicable diseases (nutrition, physical activity, injury prevention and mental health—Tier 2) (PH)
- 278. Communicable disease surveillance and response (including immunisation) (PH, Canada 13a 13b 13d)
- 279. Effective screening of STIs (World Bank, PHCAP 69)
- 280. STI contract tracing (SAR)
- 281. Services provide free condoms in the community, in public areas in the clinic, during consultations (SAR)
- 282. Treatment for HIV (US CF)

- 283. Service runs needle exchange service for intravenous drug users (SAR)
- 284. Primary prevention for illicit and licit drugs (PH)
- 285. Proportion of injecting drug users, reporting less than 3 years drug injection, seen at needle and syringe programs, who were tested for hepatitis C antibody, who had hepatitis C antibody 1995–2000 (PH)
- 286. Proportion of population who have been tested for chlamydia, gonorrhoea, syphilis and HIV/AIDS in the last 12 months, by age group and gender (NT 19)
- 287. Number and proportion of resident clients who have been seen by a dentist or dental therapist in the previous twelve months (NT 17)
- 288. Annual dental visit (US HEDIS)
- 289. Nutritional information for identified obese patients (US IHS 5157)

#### Mental health

- 290. Mental health care: treatment for depression (US CF)
- 291. Follow up hospitalisation for mental illness (US HEDIS)
- 292. Mental health in primary care (UK NHS)
  - 292.1. Volume of benzodiazepines
- 293. Ratio of antidepressant to benzodiazepine use (>2 weeks (GP)

#### Eye

- 294. Number of OR proportion of persons screened for eye disease (PHCAP 32)
- 295. Trachoma surveillance (Eye)
- 296. % population screened for visual acuity and need for glasses (Eye)
- 297. % target population treated Trachoma (Eye)

#### Diabetes

- 298. % pregnant women screened for gestational diabetes (NHPA)
- 299. Measures of effective management of chronic disease and risk factors e.g. follow-up checks required for diabetics (NHPC 3.11, PHCAP 10,12,14,27, NPI19, OECD, RoGS—glycaemia control diabetics etc.), e.g. case management and effective follow-up (Eye)
- 300. NT Indicators: Proportion of resident clients with diabetes who have had a HbAl c test in the last 12 months
- 301. Diabetes (NHPA, RoGS, GP, NZ DIA 02 DIA 04, OECD, US HCFA, US IHS, USCF, US HEDIS)
  - 301.1. Biennial retinal exam by an eye professional (also Eye) (US IHS 5090)
  - 301.2. 6 monthly/annual HbAlc testing (US IHS 5122)
  - 301.3. Biennial lipid profile
  - 301.4. Prevention kidney complications (US IHS 5101)

- 301.5. Weight management (US IHS 5096)
- 301.6. Diabetic dental (US IHS 5089)
- 301.7. Nutrition (US IHS 5085)
- 302. QA of adherence to camera-based screening protocols Diabetic Retinopathy (Eye), e.g. % VA is recorded, % pictures that are gradable
- 303. Chronic care management (UK NHS)
  - 303.1. Diabetes

#### Asthma

- 304. Chronic care management (UK NHS)
  - 304.1. Asthma
- 305. Asthma management (US CF)
- 306. % people with asthma who have a recently written asthma plan (NHPA Asthma 3.16, GP)
- 307. The ratio of prescriptions for reliever to preventer medication among asthma patients (NHPA Asthma 3.20)

#### Cardiovascular

- 308. % adult patients screened for hypertension (GP)
- 309. Preventative care/early intervention, e.g. screening for diabetes, hypertension, coronary heart disease, cholesterol, well persons checks (PHCAP 10 and 11, SAR)
- 310. Acute Myocardial Infarction (US HCFA)
  - 310.1. Early administration of aspirin
  - 310.2. Early administration of beta-blocker
  - 310.3. Timely reperfusion
  - 310.4. Aspirin at discharge
  - 310.5. Beta-blocker at discharge
  - 310.6. ACEI at discharge for low left ventricular ejection fraction
  - 310.7. Smoking cessation counselling during hospitalisation
- 311. Cardio—Time from presentation at emergency departments to clinical and ECG assessment and administration of appropriate reperfusion therapy (NHPA)
- 312. Heart failure (US HCFA)
  - 312.1. Appropriate use/non-use ACEI at discharge
- 313. Beta-blocker treatment of heart attack (US HEDIS)
- 314. Medication to prevent recurrent heart attack (US CF)
- 315. Speed to treatment with clot-dissolving drugs following a heart attack (US CF)

- 316. Stroke (US HCFA)
  - 316.1. Discharged on antithrombotic
  - 316.2. Discharged on warfarin
  - 316.3. Avoidance of sublingual nifedipine
- 317. Stroke prevention for patients with atrial fibrillation (US CF)
- 318. % adults with a previously documented cholesterol test within the last 5 years (GP)
- 319. The % of patients with newly diagnosed angina who are referred for exercise testing and/or specialist assessment
- 320. The % of patients with coronary heart disease who smoke, whose notes record smoking cessation advice
- 321. The % of patients with coronary heart disease, whose notes record that aspirin (or other anti-platelet or anti-coagulant therapy) is being taken
- 322. The % of patients with coronary heart disease, who are currently being treated with beta-blocker (unless contraindication)
- 323. % patients with a history of myocardial infarction who are currently treated with an ACE inhibitor
- 324. Patient communication, e.g. practice supports patients stopping smoking—literature and appropriate therapy

#### Prescribing management

- 325. Proportion of consultations in which antibiotics are prescribed (GP)
- 326. Antibiotic treatment for sore throat (US CF)
- 327. Antibiotic treatment for pneumonia (US CF)
- 328. Medicines management: A medication review is recorded in the notes for all patients being prescribed four or more repeat medicines (excluding OTC and topical medications) (UK Quality)

#### Performance measures: Efficient

- 329. Relative expenditure on primary health care versus acute care (Expenditure Report)
- 330. Local/provincial costs of particular services (Canada)

#### Hospital

- 331. Recurrent cost per case-mix adjusted separation (RoGS)
- 332. Recurrent costs per non-admitted occasion of service (RoGS)
- 333. Hospital stays for patients who may not have needed admission (Canada 1 Oa 1 Oc)
- 334. Unit cost of maternity (adjusted for casemix and market forces) (UK NHS)
- 335. Unit cost of caring for patients in receipt of specialist mental health services (adjusted for casemix, quality and market forces) (UK NHS)

#### General practice

336. Cost to government of general practice per person (RoGS)

#### Example performance measures: Responsive

- 337. Rates of satisfaction/complaints Indigenous clients (compared with non-Indigenous), e.g. Indigenous Consumer Perspectives Survey (PHCAP 125,127,133, 137, Complaints hospitals NPI14, RoGS, NZ, CMWF, UK Quality, US HEDIS) (e.g. practice has an agreed procedure for handling complaints)
- 338. % complaints resolved (NZ)
- 339. Trust in GPs (NHPC)
- 340. Patient satisfaction with treatment for cervical cancer, breast cancer, prostrate cancer (NHPA)
- 341. % of perceived medication needs met among patients with depressive disorders (NHPA)
- 342. Periodic polls of providers and public about overall satisfaction with the health system (Canada 9)
- 343. Patients with operations cancelled for non-medical reasons on the day or after admission (UK NHS)
- 344. Patient satisfaction or acceptability (WHO):1
  - 344.1. Patient-rated dignity of treatment
  - 344.2. Patient-rated autonomy and confidentiality
  - 344.3. Patient-rated promptness of attention
  - 344.4. Patient-rated quality of basic amenities
  - 344.5. Patient-rated access to support networks during care
  - 344.6. Patient-rated choice of care provider
- 345. US/Commonwealth fund:
  - 345.1. Perceptions of health care quality
  - 345.2. Public perceptions of the health care system
  - 345.3. Consumer assessments of health plans
  - 345.4. Patient reports of problems with hospital care
  - 345.5. Satisfaction with nursing home care

J. Hurst & M. Jee-Hughes 2001, Labour Market and Social Policy, Occasional Papers No. 47: Performance Measurement and Performance Management in OECD Health Systems, OECD, Paris.

#### Shortened forms used in Attachment 2

AHMAC Australian Health Ministers Advisory Council

AHP Aboriginal Health Professional AHW Aboriginal Health Worker

AIATSIS Australian Institute of Aboriginal and Torres Strait Islander Studies

AIHW Australian Institute of Health and Welfare—Rural, Regional and Remote

Health Information Framework and Indicators

AMS Aboriginal Medical Service

CDS Canadian Aboriginal Diabetes Strategy, February 2002

CFN Canada First Nations

CIHI Canadian Institute for Health Information

CMWF Commonwealth Fund

CRC (NT) Cooperative Research Centre, Northern Territory

DoHA Department of Health and Ageing

EFW Estimated Foetal Weights

Eye Review of OATSIH Eye Health program—recommended indicators for

the future monitoring of the program

GP General Practice—Evidence—based indicators for improving the quality

of health care provision in General Practice

HAHU Heads of Aboriginal Health Units IDR Indigenous Disadvantage Reports<sup>2</sup>

IHS Indigenous Health Survey (conducted by the ABS every six years)

NHPA National Health Priority Area indicators reported through Australia's

Health (as at October 2001)

NHPA Asthma Technical Review and Proposed Documentation of proposed NHPA

asthma indicators and data sources

NHPC National Health Performance Committee

NPI National Performance Indicators for Aboriginal and Torres Strait

Islander Health

NSFATSIH National Strategic Framework Aboriginal and Torres Strait Islander Health

NT NT Performance Reporting System for Health Zones Project conducted

by the CRC (NT)

NZ Ministry of Health Indicators for District Health Boards

<sup>2</sup> Steering Committee for the Review of Government Service Provision 2003, Overcoming Indigenous Disadvantage: Key Indicators 2003, Commonwealth of Australia, Melbourne.

OECD Organisation for Economic Cooperation and Development

OH&S Occupational Health and Safety

PH Primary Health

PHCAP Primary Health Care Access Program
RHIF Rural Health Information Framework

RoGS Report on Government Services<sup>3</sup>

SAR Service Activity Reporting (annual data collection with Commonwealth

funded Aboriginal primary health care services)

SIMC Statistical Information Management Committee

UK NHS United Kingdom National Health Service
UK Quality United Kingdom NHS Quality Indicators
US CF United States Commonwealth Fund<sup>4</sup>

US HCFA United States Health Care For All<sup>5</sup>

US HEDIS Health Plan Employer Data and Information Set US National

Committee Quality Assurance's HEDIS Measures

US IHS US Indian Health Service Indian Health Performance Evaluation

System

WHO World Health Organization

<sup>3</sup> Productivity Commission 2004, Report on Government Services, Australian Government, Canberra.

<sup>4</sup> S. Leatherman & D. McCarthy 2002, Quality of Health Care in the United States: A Chartbook, The Commonwealth Fund, New York.

<sup>5</sup> Quality Indicators for Medicare's Health Care Quality Improvement Program.

# Attachment 3: Indicators Selected for the Aboriginal and Torres Strait Islander Health Performance Framework

Health Status and Outcomes (Tier 1)				
Health Conditions	Human Function	Life Expectancy and Wellbeing	Deaths	
Low birth weight infants     Top reasons for hospitalisation by principle diagnosis     Hospitalisation ratios for injury and poisoning by age group     Hospitalisation for pneumonia     Circulatory disease     Acute rheumatic fever and rheumatic heart disease Rheumatic heart disease Rheumatic heart disease     Prevalence of blood pressure     Prevalence of diabetes     End-stage renal disease     Decayed/missing/filled teeth DMFT (adult) & DMFT (children)     HIV/AIDS, hepatitis C and sexually transmissible infection notification rates     Children's hearing loss	<ul> <li>Prevalence of severe or profound core activity restriction by age and sex</li> <li>Number of children with special needs (aged 0–4 and 5–18)</li> <li>A measure (to be developed) of community functioning</li> </ul>	<ul> <li>Life expectancy for total population at birth by sex</li> <li>Perceived health status o health ≥ good, female, all ages o health ≥ good, male, all ages</li> <li>Median age of death</li> <li>Social and emotional wellbeing</li> </ul>	Infant mortality rate     Perinatal mortality     Rates of SIDS     All-causes age-standardised deaths rates     Standardised mortality ratios for leading causes     Standardised mortality ratios for circulatory diseases     Standardised mortality ratios for injury and poisoning, including suicide     Standardised mortality ratios from respiratory diseases and lung cancer     Standardised mortality ratios from diabetes     Standardised mortality ratios from diabetes     Standardised mortality ratios from cervical cancer     Standardised mortality ratios from cervical cancer	
	l	L	Tracernal moreanty	

Determinants of Heal	th (Tier 2)			
Environmental Factors	Socio-economic Factors	Community Capacity	Health Behaviours	Person-related Factors
Access to functional housing with utilities—     This measure includes proportion of dwellings with access to electricity or gas, clean water and functional sewerage     Overcrowding in housing     Appropriate storage of food and healthy standards     Environmental tobacco smoke: children under 15 years who live in a household with a smoker	Education  • Educational status of the adult population  • Years 10 and 12 retention and attainment  • Post secondary education – participation and attainment  • Year 3, 5 and 7 literacy and numeracy  • Educational status of women and mothers  Employment  • Employment status (full-time/ part-time) by sector (public/ private), industry and occupation  • CDEP participation  Income  • Sources of income  • Household and individual income  • Home ownership by tenure type  • Income poverty  Disparity index which would cover the elements of this domain  • A combined index of disadvantage, economic resources and of education and occupation	Demographic information  Dependency ratio—including identification of the age distributions within the ratio  Single-parent families by age group  Safety and Crime  Community safety  People in prison custody  Substantiated notifications of child abuse o Children on long-term care and protection orders  Rates of kinship care  Other capacity measures  Transport  Proportion of Indigenous people with access to their traditional lands	Tobacco, alcohol and other drug use  Tobacco use by age/sex  Tobacco—age at commencement.  Tobacco use during pregnancy  Harmful and hazardous alcohol consumption  Drug and other substance use including inhalants  Physical activity  Level of physical activity and inactivity and inactivity  Nutrition  Dietary behaviour including levels of intake of sweetened beverages, fruit and vegetable and also fat intake  Breastfeeding practices  Other health behaviours  Self reported unsafe sexual practices	Prevalence of overweight and obesity

Health System Performance (Tier 3)		
Effective	Appropriate	Efficient
Measures of chronic disease management. This would include measures that are relevant to     o Diabetes     o Cardiovascular     o Renal     o Respiratory     o Cancers     o Chronic mental illness management	Due to the similarity of definition between Effective and Appropriate it was decided the measures selected would be relevant to both domains. The measures are therefore only listed once under Effective.	Avoidable and preventable admission     Avoidable and preventable deaths
Antenatal care		
Ambulatory sensitive/preventable hospital admissions     Key procedures—differentials		
(could be surgery rates, e.g. cataract surgery)		
Interventions     o Immunisation (child and adult)     o Cancer screening (in particular cervical)		
Access to brief interventions and broader health promotion (particularly for tobacco and alcohol)		
Responsive	Accessible	Safe
Consumer satisfaction     A measure of people 'voting with their feet', such as discharge against medical advice o Access to mental health services     Governance     A measure of competent governance systems will be a priority for data development	<ul> <li>Access to services by types of service compared to need (e.g. primary care, hospital, dental and allied health and post acute care and palliative care)</li> <li>Affordability of health services including, but not limited to, access to bulk billing</li> <li>Availability of pharmaceuticals o not filling prescriptions due to cost</li> <li>Pharmaceutical Benefits Scheme expenditure per capita by region</li> <li>Access to after-hours primary health care</li> <li>A proxy measure could be the use of Emergency Departments for triage category 4 &amp; 5 (i.e. problems that could be dealt with within a primary health care setting)</li> </ul>	No performance measures are included for this domain: The measures that fit within this domain are not considered a high priority for the HPF as they are not likely to be issues that significantly and specifically affect Aboriginal and Torres Strait Islander peoples. It is considered more appropriate that the NHPC report against such measures and include disaggregations by Indigenous status in keeping with its approach to determine 'is it the same for everyone'.

Continuous	Capable	Sustainable
Care Planning—a measure of the proportion of clients with preventable chronic diseases managed on care plans will need to be developed as there is currently no mechanism to enable it to be measured  Rates and usage of Enhanced Primary Care items on MBS  Use of cancer treatment protocols for Indigenous vs non-Indigenous Australians  Extent to which individuals have a regular GP or health service	<ul> <li>Accreditation across service types         o This will be measured in         areas where a high proportion         of the population is Indigenous         because if it was measured         across Australia it becomes a         mainstream measure</li> <li>Aboriginal and Torres Strait         Islander people in Tertiary         Education for health-related         disciplines (e.g. nurses,         doctors and other allied health         professions)</li> <li>Proportion of Aboriginal and         Torres Strait Islander people in         health workforce</li> </ul>	Expenditure on Aboriginal and Torres Strait Islander health compared to need o This will draw on information in the Report on Health Expenditures for Aboriginal and Torres Strait Islander people and o Will be reported as a proportion of total expenditure on health (i.e. Indigenous and non-Indigenous) and over time     Relative per capita expenditure across population health, primary health care and acute care
		Recruitment and retention of clinical and management staff (including GPs)

#### Shortened forms used in Attachment 3

CDEP Community Development Employment Projects

GP General Practitioner

HPF Health Performance Framework

MBS Medical Benefits Schedule

NHPC National Health Performance Committee

SIDS Sudden Infant Death Syndrome