National Report on Health Sector Performance Indicators 2003

A report to the Australian Health Ministers' Conference

National Health Performance Committee

November 2004

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Executive summary

This 2003 *National Report on Health Sector Performance Indicators* is the second report prepared by the National Health Performance Committee (NHPC) based on the National Health Performance Framework. The first report based on this framework, the 2001 National Report, was published in April 2002.

This chapter selects a limited number of indicators to provide an overview of the performance of the Australian health system.

The outcomes discussed here can be affected by a whole range of changes in determinants and health system interventions. 'Determinants of health' is the term used for those factors that have either a positive or negative influence on health at the individual or population level. They can be classified into proximal causes (those, such as tobacco smoking, that act almost directly to cause disease,), and distal causes (those, such as socioeconomic status that are further back in the causal chain and act via a number of intermediary causes). Individuals have a degree of control over some determinants (such as physical inactivity) but other determinants (such as fluoridation of drinking water) act primarily or entirely at a population level.

Health outcomes also reflect the end result of efforts both within and outside the traditional areas of health service provision.

Such performance information helps policy makers and others identify trends and patterns, informs decision making and supports evaluations of progress towards addressing health challenges. Performance information can also be used to highlight areas for possible intersectoral action.

Health status and outcomes

Living longer

Australia has performed well over the last few decades, particularly in relation to life expectancy and mortality rates. In 1970 Australia's life expectancy was sixteenth among OECD countries. Now in 2001 it is third. The mortality rate has fallen 50% in the period 1970 to 1999, which is faster than for every other high income OECD country apart from Japan where the mortality rate fell 52%. This is a remarkable performance. However, as outlined below, Aboriginal and Torres Strait Islander peoples have not shared in this improvement and have a life expectancy 20 years lower than non-Indigenous Australians.

Overall, this rapid reduction in mortality rates is not slowing. The decline in mortality rates in the five years to 2001 was the greatest five-year decline since 1923. Much of the improvement in mortality has been due to a fall in heart disease mortality. This fall in mortality has reflected both a fall in the incidence of heart attacks (Indicator 1.01), and better survival after heart attacks (Indicator 3.08). In the period 1993–94 to 2000–01 the incidence of heart attacks for people aged 40 to 90 years fell 23%, and heart disease mortality fell 34%.

Overall death rates from heart disease, stroke and cancer, which contribute to 59% of all deaths for males and 58% for females, have decreased 46% from 1980 to 2001.

Mortality can be subdivided into those causes where premature deaths (deaths below 75 years) are potentially avoidable—whether it be by prevention or treatment—and those causes where premature death is mostly unavoidable. In Australia potentially avoidable mortality has been declining at a steady pace. It fell 55% for males in the period 1980 to 2001 and 48% for females. In contrast mostly unavoidable mortality rates fell 22% for males and 17% for females (Indicator 1.06).

Potentially avoidable mortality is subdivided into primary (which can be addressed by prevention), secondary (early intervention) and tertiary (medical treatment). The potentially avoidable mortality amenable to primary interventions fell 42%, that amenable to secondary interventions fell 53% and that amenable to tertiary interventions fell 57%. Thus the decline in mortality in Australia is due both to preventive and to treatment interventions.

Living healthier?

People are living longer—but are they healthier? As already outlined, there is a significantly lower occurrence of heart disease, stroke and injury as compared to a decade ago (Indicator 1.01 and AIHW: de Looper & Bhatia (2001)). Overall, cancer incidence rates rose from 1983 to 1994, but there has been a decline from 1994 to 1999 (Indicator 1.02). The incidence of cancer for males increased from 1983 to 1994, and then decreased, whereas the incidence for females has slowly increased from 1983 to 1999 (Indicator 1.02).

But diabetes, mental illness, psychological distress (Indicator 1.05) and childhood asthma[1] are more common. And musculoskeletal disorders continue to impose a significant burden on many people.

Between 1993 and 1998 there were changes in survey methods so it is unclear if the prevalence of severe and profound activity limitation that requires assistance increased or decreased (Indicator 1.03).

Determinants of health

This report considers determinants of health that are protective as well as hazardous—it presents information about the protective factors of water fluoridation, fruit and vegetable intake and physical activity. It highlights important unfavorable trends in levels of overweight and obesity, insufficient physical activity, and risky patterns of alcohol consumption.

- In 2001, 58% of adult males and 42% of adult females were overweight or obese (Indicator 2.09), and this was much higher than in 1995.
- In 2000, 54% of Australians were insufficiently active to achieve a health benefit (Indicator 2.08) and this was worse than in 1997.
- In 2001, 13% of males and 9% of females reported risky levels of drinking (Indicator 2.06).

These disturbing trends are accompanied by some more positive ones.

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1. Childhood asthma increased during the 1980s and into the early 1990s but since then the trend is unclear (Australian Centre for Asthma Monitoring 2003:16)

- The prevalence of high blood pressure has continued to drop. Over the period 1980 to 1999–2000, the prevalence of high blood pressure halved to 21% among adult males and to 16% among adult females (Indicator 2.11).
- Tobacco use continues to decline. Daily smoking dropped from 33% of males 14 years and over in 1985 to 21% in 2001, and female daily smoking dropped from 26% in 1985 to 18% in 2001. However, smoking is still responsible for more deaths and disability than any other health behaviour, and smoking rates vary dramatically according to socioeconomic status and between Aboriginal and Torres Strait Islander people and other Australians (Indicator 2.05).
- Around 780,000 Australian children aged 0–14 years are still exposed to environmental tobacco smoke at home, though the proportion of households with dependent children where someone smoked inside dropped from 31% in 1995 to 20% in 2001 (Indicator 2.01).

By presenting discrete information on individual indicators, the report provides only a limited picture of how determinants of health may act jointly to cause disease. For example, in worldwide terms 50% of cardiovascular disease among people aged 30 years and over can be attributed to high blood pressure, 31% to high blood cholesterol and 14% to tobacco, but the joint effect of these three risks amounts to about 65% of cardiovascular diseases (World Health Organization 2002b).

Although the determinants of health are increasingly well characterised and well reported, comparatively few resources are currently directed towards addressing them (AIHW 2002g). Expenditure on preventive and health promotional services, as a proportion of total health expenditure, has remained static over the last 30 years (Deeble 1999). The World Health Organization's *World Health Report 2002* focuses on the health gains—and reductions in health inequalities—that can be achieved by tackling the determinants of health.

Health system performance

Effectiveness

A number of the measures presented suggest improvements in the effectiveness of the health system over time:

- The proportion of injecting drug users who reported sharing a needle or syringe has decreased from a peak of 22% of injecting drug users in 1999 to 14% in 2001 (Indicator 3.01).
- Participation in breast cancer screening has increased from 52% of women aged 50 to 69 years in 1996-97 to 56% in 1999–2000 (Indicator 3.04).
- Childhood immunisation rates continue to improve steadily. 75% of children were fully immunised at 12 months in March 1997, and in September 2002 it was 92% (Indicator 3.05).
- Coronary heart disease case-fatality rates have declined from 36% in 1993–94 to 30% in 2000–01 (Indicator 3.08).
- Five year relative survival rates for several types of cancer have improved. For all cancers, the five year relative survival rate for males increased from 44% in 1982–1986 to 57% in 1992–1997. For females the increase was from 55% to 63% (Indicator 3.09).

- A further improvement in effectiveness is shown by significant decreases in the proportion of young smokers who reported that they had personally purchased their most recent cigarette. From 1987 to 2001, the proportion of current teenage smokers personally purchasing their cigarettes has fallen by 60% for current smokers aged 12–15 years and by 25% for those aged 16–17 years (Indicator 3.02). However, while this indicator provides useful and encouraging data on legal compliance by retailers, it needs to be complemented by other indicators of smoking behaviour.

The rate of potentially preventable hospitalisations as measured by Ambulatory Care sensitive conditions (ACSC) provides a useful measure of the effectiveness of the primary care system in dealing with conditions that can be treated on ambulatory rather than an admitted patient basis. The increase in these rates with remoteness would suggest that this is an area where improvement should be possible (Indicator 3.07).

Appropriateness

The measures of appropriateness present a more mixed picture:

- The decreased prescribing rate for those oral antibiotics most commonly used to treat upper respiratory tract infections suggests that these infections are being managed more appropriately and efficiently by primary care providers (Indicator 3.10).
- On the other hand, the continuing increase in caesarean section rates is a matter of concern, as are the above average hysterectomy rates in regional Australia (Indicators 3.12 and 3.13). Of perhaps even greater concern is the continuing inability to specify desirable benchmarks for such indicators.

Accessibility and responsiveness

Some trends in measures of accessibility and responsiveness of health care services also present a mixed picture. These include the recent decrease in the percentage of non-referred (GP) services which are bulk billed (Indicator 3.17) and, over a five-year period, the marginal decrease in the number of full time equivalent primary care practitioners per 100,000 population (Indicator 3.18). The availability of primary care practitioners in rural and remote areas has improved, but there remain substantial differences between urban and rural areas.

Data on waiting times in emergency departments (Indicator 3.16) and on access to elective surgery (Indicator 3.19) are available, but it is hard to relate this data to need for, and accessibility to, hospital services.

Safety, continuity and capability

For 4% of hospital separations in 2001–02, adverse events were reported (Indicator 3.21). Some of these adverse events were due to hospital procedures and some due to services delivered elsewhere in the health system. Data are not yet adequate to indicate whether adverse events are decreasing or increasing.

The increase in the rate of practices using electronic prescribing software or data connectivity suggests an improvement in access to safe practice protocols (Indicator 3.20).

More GPs were adopting a multidisciplinary approach to health care by using the enhanced primary care (EPC) items. In the last quarter of 2000 23% of GPs used these items, increasing to 44% in the last two quarters of 2002 (Indicator 3.22).

Also GPs were starting to provide annual voluntary health assessments to eligible older people and Aboriginal and Torres Strait Islander people (Indicator 3.23).

Sustainability

The health workforce is getting older and, for doctors and nurses, graduates as a percentage of the total workforce has declined from 1993 to 2000. This raises concerns about the sustainability of the medical and nursing workforce (Indicator 3.25).

Health inequalities

There are still substantial health inequalities in Australia. For potentially avoidable mortality, for example, those living in the most disadvantaged areas have avoidable mortality rates 54% higher those living in the least disadvantaged areas (Indicator 1.06).

The starkest health inequalities in Australia are those between Aboriginal and Torres Strait Islander persons and other Australians. Aboriginal and Torres Strait Islander persons face life expectancies about 20 years lower than other Australians (Indicator 1.04). Infant mortality is more than twice as high (Indicator 1.07). For diseases such as circulatory system disease the chance of dying is twice as high. For Aboriginal and Torres Strait Islander males and females aged between 35 and 64 the rate of death from diabetes was 20 times and 33 times as high, respectively. For external causes such as accidents, suicide and assault, the risk of dying for Aboriginal and Torres Strait Islander people was about 3 times higher than other Australians (AIHW & ABS 2003).

There are mortality inequalities between those in rural and remote areas and those in cities. Much of this inequality is due to the Aboriginal and Torres Strait Islander health disadvantage, but other factors are at play as well (AIHW 2003e).

Summary

The overview that emerges is one of health status that is improving substantially. Mortality especially is reducing and the levels of certain illnesses and diseases have reduced.

Much of the improvement has been driven by the preventive and treatment activities of the health system, but health improvements are due to the combined impact of many different influences in our society, and it is not possible to exactly attribute the contribution of the health system alone.

Although this report demonstrates important improvements in performance, there remains considerable scope for further improvement. Australia has world class outcomes in many areas, but there are areas where we have not achieved world best practice.

- The Japanese live on average 1.4 years longer than Australians, suggesting that mortality can be reduced further.
- Through reduction in determinants of disease and injury such as obesity, smoking and unsafe roads (Tier 2) much disease and illness could be prevented (AIHW: Mathers et al. 1999).
- There is much scope for earlier and better interventions for many chronic conditions.

- Better treatment of cancer, heart disease, mental illness and other diseases could improve survival and reduce dependency.

All data in this report for Aboriginal and Torres Strait Islander persons is subject to considerable uncertainty mostly because of under identification of Indigenous people in a number of datasets. Notwithstanding this uncertainty, there are significant disparities in health status between Aboriginal and Torres Strait Islander peoples and other Australians, and between high and low socioeconomic groups. This reflects the impact that the broader determinants of health have on health outcomes. Joint strategies addressing the range of determinants of health are more likely to be successful in achieving health gains than are single strategies such as health system or environmental health interventions alone. In this context, effective health systems are an essential but not sufficient condition for achieving health outcomes (Bunker 1995; Lerer et al. 1998).

Role of the NHPC

Further work is needed on improving and developing performance measures, and on enhancing our understanding of the extent to which these measures indicate the potential for improvement.

During 2002–03, the NHPC directed resources to indicator development (primarily for the purposes of NHPC reporting) and benchmarking.

Selection of indicators for this 2003 report involved the identification of a set of indicators for inclusion in national reporting and for subsequent NHPC reports. The process commenced with an initial screen and review of evidence concerning possible indicators. The National Public Health Partnership Group provided formal input after completion of its consultation process. The NHPC contacted jurisdictions and relevant organisations regarding their views to ensure that scope/level of national reporting was appropriate for the groups, particularly in terms of which group/s has responsibility for taking action (whether this be by jurisdiction, peer group, international comparison etc).

With respect to its future direction, the Committee remains focused on developing initiatives for:

- national reporting
- indicator development for primary health and community care and access to services
- reporting on the evidence base for benchmarking practices
- receiving, compiling and discussing comments on the framework and incorporating any relevant changes into a review.

In light of the small changes that occur between annual reports and the resource constraints on the project, the NHPC will only produce National Reports every two years after production of this 2003 report. This will release resources for reports on topics of special interest in 2004. The next National Report is therefore due to be released in 2005 and will possibly be based on a revised version of the framework incorporating any changes agreed during the 2004 review.

National Health Sector Performance Indicators 2003

No.	Indicator	Description
Tier 1 Health status and outcomes		
1.01	Incidence of heart attacks	Incidence of acute coronary heart disease events (‘heart attacks’)
1.02	Incidence of cancer	Incidence rates for cancer
1.03	Severe or profound core activity limitation	Severe or profound core activity limitation by age and sex
1.04	Life expectancy	Life expectancy at birth
1.05	Psychological distress	Level of psychological distress as measured by the Kessler 10
1.06	Potentially avoidable deaths	Number of potentially avoidable deaths
1.07	Infant mortality	Infant mortality rates
1.08	Mortality for National Health Priority Area diseases and conditions	Death rates for National Health Priority Area diseases and conditions
Tier 2 Determinants of health		
2.01	Children exposed to tobacco smoke in the home	The proportion of households with dependent children (0–14 years) where adults report smoking inside
2.02	Availability of fluoridated water	Proportion of the population served by a reticulated water supply that provides satisfactory fluoride levels whether artificially fluoridated or naturally occurring
2.03	Income inequality	Ratio of equivalised weekly incomes at the 80th percentile to the 20th percentile income
2.04	Informal care	Number engaged in informal care
2.05	Adult smoking	Proportion of adults who are daily smokers
2.06	Risky alcohol consumption	Proportion of the population aged 18 years and over at risk of long term harm from alcohol
2.07	Fruit and vegetable intake	Proportion of people eating sufficient daily serves of fruit or vegetables
2.08	Physical inactivity	Proportion of adults insufficiently physically active to obtain a health benefit
2.09	Overweight and obesity	Proportion of persons overweight or obese
2.10	Low birthweight babies	Proportion of babies who are low birthweight.
2.11	High blood pressure	Proportion of persons with high blood pressure
Tier 3 Health system performance		
3.01	Unsafe sharing of needles	Percentage of injecting drug users, participating in surveys carried out at needle and syringe programs, who report recent sharing of needles and syringes
3.02	Teenage purchase of cigarettes	Percentage of teenagers smokers who personally purchased their most recent cigarette
3.03	Cervical screening	Cervical screening rates for women within national target groups
3.04	Breast cancer screening	Breast cancer screening rates for women within the national target groups
3.05	Childhood immunisation	Number of children fully immunised at 12 months and at 24 months of age
3.06	Influenza vaccination	Percentage of adults over 64 years who received an influenza vaccination for the previous winter
3.07	Potentially preventable hospitalisations	Admissions to hospital that could have been prevented through the provision of appropriate non-hospital health services

continued

National Health Sector Performance Indicators 2003 (continued)

No.	Indicator	Description
Tier 3 Health system performance (continued)		
3.08	Survival following acute coronary heart disease event	Deaths occurring after acute coronary heart disease events ('heart attacks')
3.09	Cancer survival	Five-year relative survival proportions for persons diagnosed with cancer
3.10	Appropriate use of antibiotics	Number of prescriptions for oral antibiotics ordered by general practitioners (GPs) for the treatment of upper respiratory tract infections
3.11	Management of diabetes	Proportion of persons with diabetes mellitus who have received an annual cycle of care within general practice
3.12	Delivery by caesarean section	Caesarean sections as a proportion of all confinements by hospital status
3.13	Hysterectomy rate	Separation rates for hysterectomies
3.14	Hospital costs	Average cost per casemix-adjusted separation for public acute care hospitals
3.15	Length of stay in hospital	Relative stay index (RSI) by medical surgical and other DRGs
3.16	Waiting times in emergency departments	Percentage of patients who are treated within national benchmarks for waiting in public hospital emergency departments for each triage category
3.17	Bulk billing for non-referred (GP) attendances	Proportion of non-referred (GP) attendances that are bulk-billed (or direct billed) under the Medicare program
3.18	Availability of GP services	Availability of GP services on Full-time Workload Equivalent (FWE) basis
3.19	Access to elective surgery	Median waiting time for access to elective surgery –- from the date they were added to the waiting list to the date they were admitted
3.20	Electronic prescribing and clinical data in general practice	Percentage of general practices in the Practice Incentives Program (PIP) who transfer clinical data electronically or use electronic prescribing software
3.21	Adverse events treated in hospitals	Proportion of hospital separations where an adverse event was treated and/or occurred
3.22	Enhanced Primary Care services	Percentage of General Practitioners using Enhanced Primary Care (EPC) items
3.23	Health assessments by GPs	Percentage of eligible older people who have received an Enhanced Primary Care annual voluntary health assessment
3.24	Accreditation in general practice	Number of accredited practices participating in the Practice Incentives Program (PIP) and the proportion of general practice services provided by these practices
3.25	Health workforce	Graduates in pharmacy, medicine and nursing as a percentage of the total pharmacy, medical and nursing workforce; Percentage of health practitioners aged 55 years and over