1 Introduction

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Monitoring trends over time is central to health surveillance. Observations at different times provide useful insights into the evolution of disease patterns and the health of a population. Analysis of time trends can reveal changes in disease or injury incidence and prevalence and in their determinants.

Both long- and short-term trends need to be followed, in order to assess and project needs for social, economic and health service interventions. Long-term trends offer an opportunity to draw parallels between the various, sometimes disparate, aspects of health-related changes because of the persistence of some common underlying influences over long periods. Besides, it is important to interpret short-term changes in the context of long-term trends as the former may be no more than mere adjustments to or extensions of the latter processes (Gourieroux & Monfort 1997).

Health trend monitoring is, however, complex because concepts and measures of health vary depending on the frame of reference used by consumers, health professionals, health planners and others. Many different factors contribute to health status, several of which cannot be clearly identified or reliably measured. No clear framework within which this should occur has been developed, although the structure of this report is shaped by the conceptual framework of health described in *Australia's Health 1998* (AIHW 1998).

A monitoring and surveillance framework should cover two major aspects of health—ongoing coverage of priority health issues and a warning system for health problems that need to be attended to immediately. The ability to predict future problems and issues on the basis of established knowledge or generate suitable information using emerging technologies for immediate response are two major requirements of this type of framework. Timeliness of information is its cornerstone.

Australian Health Trends 2001 documents the dominant trends in the health of Australians just before the start of the twenty-first century. Using sets of indicators, designed as summary measures, rates, ratios or even simple counts, information is provided along various dimensions of health. These dimensions include population structure, risk levels and health determinants, illness, disability, health service use and mortality. Information on health interventions including prevention, treatment, management, expenditure and labour force is also provided, although no link is made between interventions and health outcomes. A national perspective has been adopted, excluding State/Territory or regional analyses.

Time frames of up to 15 years have been used to document trends in the health of Australians in this report. The selection of short time frames for this report is not deliberate. It has often been necessitated by the lack of national, good-quality, long-term information on many aspects of health (Cumpston 1989; Davis & George 1997). Nevertheless, the information is presented in the hope that short-term trends reflect, and often result from, the continuing process of longer term changes in health determinants and outcomes. However, a broad overview of trends in the health of Australians last century has been included in the report to provide background information.

Defining and measuring health

Health is conceptually difficult to define. For the individual, it is often thought of in positive terms such as a feeling of wellbeing, an ability to cope with the demands of life, physical and mental fitness, and freedom from disease and disability.

These aspects of health are best captured by the World Health Organization's 1947 definition of health as 'a state of complete physical, mental and social wellbeing, and not merely the absence of disease or injury'.

However, although ideal health is often perceived in positive terms, measurement of these positive aspects has proven difficult. Wellbeing, health and fitness are all subjective concepts that can be interpreted in various ways by different people. Further, since sick people come in contact with health care services more often than do healthy people, health is often measured in an indirect manner. Much of this measurement has focused on the negative aspects of health—illness, disease, disability and death.

Mortality data are routinely collected and readily available, and are therefore the most often used instrument for monitoring health. Causes of death are also widely used for international comparisons of health and disease.

The prevalence of disease in the population is another indirect measure of health. However, compared with mortality data, the collection and availability of morbidity data are incomplete and pose significant measurement and interpretation problems. In addition to routinely collected data such as notifications for communicable diseases and hospital morbidity collections, information on morbidity is also available from specific surveys of the population.

An important benefit from these surveys is that they allow for the measurement of positive health at the population level. Progress is being made in the development of multidimensional models of health which involve both positive and negative health concepts, such as:

- mental health (psychological wellbeing/psychological distress)
- wellbeing (energy/fatigue)
- general perception of overall health (excellent/good/fair/poor).

Population surveys are a direct source of this information, although social and cultural biases can influence the outcomes from these surveys.

Since health monitoring requires a multidimensional approach, the approach taken in this report is to generate a profile of national trends in the health of the Australian people using a wide range of indicators. No attempt is made to summarise trends as a whole, although summary statistics such as life expectancy and total death rate have been used as indices of health. Critical examination of trend information across a broad range of indicators in turn provides a base for making informed decisions regarding the health of the population.

Structure of the report

The report has been standardised to provide discrete stand-alone information on a range of indicators. However, where possible, links between various indicators have been mentioned. Additionally, chapter 2 provides a broad overview of the health of Australians in the twentieth century.

Several measures have been used to describe health trends. These include:

- summary statistics (e.g. life expectancy, potential years of life lost)
- disease incidence and prevalence (e.g. rates, ratios)
- sociodemographic factors (e.g. population growth, fertility)
- health risk levels (e.g. smoking, physical inactivity)
- type of disease (e.g. cardiovascular disease, diabetes)
- type of intervention (e.g. prevention, treatment, hospitalisation)
- type of outcome (e.g. disability, death)
- infrastructure (e.g. health expenditure, health labour force)
- subpopulations (e.g. Indigenous people, mothers and babies)
- socioeconomic factors (e.g. private health insurance).

The sets of indicators included in the report have been grouped under the following chapters:

- The health of Australians
- The health of subpopulations
- National Health Priority Areas
- Health determinants and risk factors
- Health service delivery, costs and performance
- Health service utilisation and access.

These indicator classifications not only reflect the various dimensions of health that need to be monitored but also build in indicator hierarchies. While summary statistics reflect trends in high level outcomes, several process indicators reflect immediate outcomes of an intervention.

Each indicator appears on a separate page and consists of:

- a plot to show trends
- time series of 10 to 15 years of data in a tabular form
- interpretation of the trend in a dot-point format
- one or more references that contain detailed background information.