

# **Australian health trends 1995**

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AUSTRALIAN INSTITUTE OF HEALTH AND WELFARE

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### Background

The Australian Institute of Health and Welfare has a responsibility to monitor and report on the health of Australians, especially in areas of public health significance. As part of this role, the Institute recognised the need for regular national reporting of health trends.

Towards the end of 1993, the Institute was asked by the Commonwealth Department of Health, Housing, Local Government and Community Services (now the Commonwealth Department of Human Services and Health) to investigate ways of preparing and disseminating information on a wide range of health indicators.

Before undertaking this work, the Institute sought and obtained the endorsement of the Australia's Health Ministers' Advisory Council (AHMAC). To assist it in producing a set of widely acceptable and useful indicators, the Institute established a steering committee with broad expertise in population health and health data. Members of this committee included representatives from Commonwealth and State Health authorities, the Australian Bureau of Statistics and non-Government organisations. The members of the committee were:

- Dr Bruce Armstrong (Australian Institute of Health and Welfare, Chair)
- Dr Michael Frommer (New South Wales Department of Health)
- Dr Indra Gajanayake (Commonwealth Department of Human Services and Health)
- Mr John Glover (South Australian Health Commission)
- Dr Colin Mathers (Australian Institute of Health and Welfare)
- Ms Sue Pickering (Commonwealth Department of Human Services and Health)
- Dr Aileen Plant (National Centre for Epidemiology and Population Health)
- Dr George Preston (Prometheus Information Pty Ltd)
- Dr Eddy Price (E.D. Price and Associates)
- Mr Geoff Sims (Australian Bureau of Statistics)

The Institute identified and developed a set of indicators to monitor national health trends over time and to identify potential areas of concern. The committee provided advice on the validity and usefulness of the proposed indicators. All divisions and external units of the Institute participated in the production of this report.

An objective of the project was to produce a report of health trends in a format that informs and commands the attention of the community. Consequently, much thought was given to ensure the production of a report that could be understood not only by health professionals but also by the wider community.

This work was partly funded by a grant under the National Health Advancement Program of the Commonwealth Department of Human Services and Health, which also provided funding for the collection of some health-related data items through the ABS Population Survey Monitor.

The report is the first in a continuing series which will be produced every two years. The Institute also produces a companion publication, *Australian health indicators*, three times a year.

### The need for health indicators

Health indicators are useful in informing the general public, health professionals and policy makers about changes in the health and well-being of Australians and in identifying important differences within and between the various groups making up Australian society. The monitoring of indicators over time will allow for changes to be identified and quantified, and for possible causes of these changes to be examined.

For most of the 20th century, epidemics of chronic disease, especially coronary heart disease and cancers, and epidemics of injury, have been the major foci of public health activity in Australia. Since the early 1980s, other conditions and diseases have added to this burden, in particular, HIV and AIDS, domestic violence, suicide and substance abuse. There is also increasing concern about the need to deal effectively with the physical disabilities and social handicaps that often result from these conditions and prevent individuals from enjoying their life to the fullest.

The recent increase in the elderly population is unprecedented. At the beginning of the 20th century, life expectancy at birth in Australia was 55 years for men and 59 years for women. In 1993, life expectancy at birth had reached 75 years for men and 81 years for women. Yet, while life expectancy has increased, recent studies indicate that much of the increased longevity is spent in a state of ill-health and disability. Consequently, there is now an increasing need to develop appropriate policies and services to accommodate the needs of increasing numbers of elderly people.

The multicultural nature of present-day Australia also poses challenges to many of today's health workers. The provision of services must be geared to the special needs of these groups. There is little doubt that the group most in need is the Aboriginal and Torres Strait Islander peoples whose health status remains markedly worse than that of other Australians.

These demographic shifts are themselves taking place in a changing and evolving society. The fast rate of technological innovations has largely altered the productive and social structure of Australia.

The health problems that accompany both these demographic and structural shifts and changes in lifestyle require public health information systems to remain dynamic and adaptive. The information presented in this report is a first attempt to bring together summary information for a wide range of indicators that affect and reflect changes in the health of the nation.

### 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 well-being, 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 Organisation's 1947 definition of health as 'a state of complete physical, mental and social well-being, 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. Well-being, 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 focussed on illness, disease, disability and death.

Mortality data are routinely collected, 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 run by organisations such as the Australian Bureau of Statistics, the National Heart Foundation, the anti-Cancer Councils and other agencies.

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

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

Population surveys provide a direct source of this information, although social and cultural biases can influence interpretation of results from these surveys.

Given that health includes several quite different concepts and that most of these can only be assessed indirectly, the approach taken in this report has been to construct a wide range of health indicators that relate to various dimensions of health.

The set of health indicators which were developed and presented in this report encompass the following broad categories:

- health status

- health determinants and risk factors
- health resources
- health service use

### *Health status*

Health status indicators measure both mortality and morbidity patterns. Indicators included here relate to prevalence and incidence (new cases of a disease or condition) as well as disease-specific death rates. Indicators derived from mortality information, such as life expectancy, are also presented.

### *Health determinants and risk factors*

Risk factor indicators measure population and fertility trends, economic and other determinants of health status, and behavioural patterns identified as risk factors for various diseases. Each of these measures can affect future population health status and future demands for health resources and services.

### *Health resources*

Health resource indicators measure the resources available across the spectrum of health management. These range from resources for the promotion of health and prevention to those available for the treatment of illness and injury. They provide an indication of the policy of government towards primary care (health prevention and health promotion activities at the population level), secondary care (provision of screening-type services for individuals) and tertiary care (the provision of services to manage episodes of illness among individuals).

### *Health service use*

Health service use indicators provide an indication of the demand for services in the community as well as the knowledge and attitudes of the community towards accessing these services.

### *Aboriginal health*

Several indicators for Aboriginal and Torres Strait Islander peoples have been included in a single section in order to highlight the disparities in their health status when compared with the general population. Indicators in this section cover population and mortality trends.

### **Structure of the report**

Each indicator appears on a separate page and consists of:

- a decade of national data for males, females and total persons (where possible), dating back from the latest available number
- a graph of the data
- several paragraphs of commentary identifying what aspect of health or health care the indicator measures and a brief discussion of trends in the data
- a list of one or more references to more detailed publications.

### **Limitations of the report**

The present report is not comprehensive as the set of indicators presented here is constrained by national health information available to the Institute. There are many areas of health that have not been covered adequately. Some of the gaps will be addressed in future issues subject to the availability of sufficient resources. Issues associated with the social and physical environment and their impact on the health of the population are of increasing concern. A comprehensive set of environmental indicators has not been included in this report although it has been identified as an important topic for future editions.

## Health status

### Mortality and survival

- *Life expectancy at birth (years)*
- *Expected age at death having reached age 65 years*
- *Total death rate per 1,000 population*
- *Potential years of life lost before age 75 per 1,000 population*

### Disability and handicap

- *Prevalence of disability (%)*
- *Prevalence of handicap and severe handicap (%)*
- *Expectation of years of life with/without disability and handicap at birth*
- *Expectation of years of life with/without disability and handicap at age 65*

### Perinatal and infant health

- *Stillbirth and neonatal mortality rate per 1,000 births*
- *Infant mortality rate: number of infant deaths per 1,000 live births*
- *Proportion of infants weighing less than 2,500 grams at birth*
- *Major birth defect (congenital malformation) rate per 1,000 total births*
- *Sudden infant death syndrome mortality rate per 100,000 live births*

### Child health

- *Death rate for accidental drowning per 100,000 children aged 1–4 years*
- *Proportion of 0–6 year olds fully immunised for vaccine preventable diseases (%)*
- *Mean DMFT score and decay free rate in 12-year-old children*

### Injury

- *Death rate for all causes of injury per 100,000 population*
- *Death rate for road vehicle accidents per 100,000 population*
- *Hospital separation rate for road vehicle accidents per 1,000 population*
- *Death rate for falls among people aged 65 years and over per 100,000 population*
- *Death rate for accidents due to fire, burns and scalds among people aged 55 years and over per 100,000 population*

### Interpersonal violence

- *Death rate for homicide and injury purposely inflicted by other persons per 100,000 population*

### Chronic diseases

- *Death rate for coronary heart disease per 100,000 population*
- *Hospital separation rate for coronary heart disease per 1,000 population*
- *Death rate for stroke per 100,000 population*
- *Incidence and death rate for all cancers per 100,000 population*
- *Incidence and death rate for cancer of the trachea, bronchus and lung per 100,000 population*
- *Incidence and death rate for melanoma per 100,000 population*
- *Incidence and death rate for non-melanocytic skin cancers per 100,000 population*
- *Incidence and death rate for breast cancer per 100,000 females*
- *Incidence and death rate for prostate cancer per 100,000 males*

**Chronic diseases (continued)**

- *Incidence and death rate for colorectal cancer per 100,000 population*
- *Death rate for asthma per 100,000 population*
- *Death rate for diabetes per 100,000 population*

**Communicable diseases**

- *Incidence rate for HIV per million population*
- *Incidence and death rate for AIDS per million population*
- *Incidence rate for sexually transmitted diseases per million population*
- *Rate of new and reactivated cases of tuberculosis per million population*

**Mental health**

- *Mental health status of Australian adults (aged 18 years and over) in 1994*
- *Death rate for suicide and self-inflicted injury per 100,000 population*

**Dental health**

- *Proportion of adults experiencing edentulism*

**Aboriginal health**

**Mortality and survival**

- *Death rate for all causes of death per 1,000 Aboriginal population*

**Perinatal and infant health**

- *Infant mortality rate: number of Aboriginal infant deaths per 1,000 live births*

**Chronic diseases**

- *Death rate for cardiovascular disease per 100,000 Aboriginal population*

**Population trends**

- *Size of the Aboriginal and Torres Strait Islander population*

**Health determinants and risk factors**

**Population trends**

- *Annual rate of increase in the Australian population*
- *Crude birth rate per 1,000 population*
- *Proportion of the population aged 65 years and over and 75 years and over (%)*
- *Dependency ratio*
- *Net immigration rate per 1,000 population*

**Fertility**

- *Total fertility rate per woman and median age of mother at confinement*
- *Number of live births to women less than 18 years of age (adolescents)*

### **Economic environment**

- *Unemployment rate*

### **Anthropometric measures**

- *Proportion of 25–64 year olds considered overweight (%)*

### **Physiological measures**

- *Proportion of 25–64 year olds with high blood pressure (%)*
- *Proportion of 25–64 year olds with high total blood cholesterol (%)*

### **Food and nutrition**

- *Apparent consumption of energy and fat*
- *Apparent consumption of fruit and vegetables*
- *Apparent consumption of sugars*
- *Adequacy of the calcium supply*

### **Physical activity**

- *Proportion of 25–64 year olds undertaking any physical exercise for sport or recreation (%)*
- *Proportion of 25–64 year olds walking for recreation or exercise (%)*

### **Drug use**

- *Proportion of 25–64 year olds who drink alcohol at a level hazardous to their health (%)*
- *Proportion of 25–64 year olds who smoke cigarettes (%)*

### **Health resources**

#### **Health expenditure**

- *Health expenditure as a proportion of GDP at constant 1989–90 prices*
- *Health expenditure per person at constant 1989–90 prices*
- *Medical service fees per person at constant 1989–90 prices*
- *Acute care hospital expenditure per person at constant 1989–90 prices*
- *Proportion of the population with private health insurance*

#### **Health labour force**

- *Proportion of the labour force employed in the health industry*

#### **Hospitals**

- *Number of acute care hospital beds per 1,000 population*

#### **Health service use**

#### **Medical services**

- *Number of medical consultations per person*

**Dental services**

- *Proportion of adults attending a dentist within the previous 12 months*

**Hospital use**

- *Acute care hospital separation rate per 1,000 population*
- *Number of acute care hospital bed-days per 1,000 population (days)*
- *Average length of stay in acute care hospitals (days)*

**Secondary prevention**

- *Proportion of women aged 40 years and over who have participated in the national breast cancer screening program (%)*
- *Pap smear rate for the early detection of cervical cancer per 100 women aged 15 to 69 years*

**Aged care**

- *Nursing home and hostel beds per 1,000 population aged 70 years and over*
- *Home and community care expenditure per person aged 65 years and over at constant 1989–90 prices*