



Australian Government

Australian Institute of Health and Welfare

# Australia's health 2014



*in brief*

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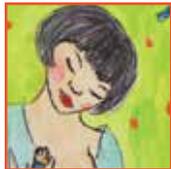
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## More paths to information online

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*Australia's health 2014—in brief* is a companion report to *Australia's health 2014*. The *Australia's health 2014* main report has an expanded online presence (at [www.aihw.gov.au](http://www.aihw.gov.au)), including live links where possible to referenced publications and web pages. Key AIHW publications featured in *Australia's health 2014* have been converted to HTML format, offering improved accessibility and enhanced search capabilities for readers.

*Australia's health 2014* itself is available in HTML format and as an ePub, in addition to the traditional PDF format. Individual PDFs are available online for individual articles and snapshots, for easy downloading and printing.



*Australia's health 2014*





# *Section 1*

## *The good news*

**Australia has much to be proud of in many areas of health—  
including longer life expectancy, lower death rates for cancer  
and many other diseases than in the past, and a health  
system that people are mostly happy with.  
Here are some of the highlights.**

## Living longer

Australians have one of the highest life expectancies in the world and can expect to live about 25 years longer, on average, than a century ago.

In 1910, a baby boy lived, on average, to 55.2 years and a baby girl to 58.8 years. Today, this has risen to 79.9 and 84.3 years, respectively.

Over the last 2 decades, Australia has consistently ranked in the top 10 of OECD countries for life expectancy at birth—in 2011, we ranked sixth for males and seventh for females.

### Life expectancy (years) at birth, by sex, top 10 OECD countries, 2011

Rank	Country	Males	Country	Females
1	Iceland	80.7	Japan	85.9
2	Switzerland	80.5	France	85.7
3	Italy	80.1	Spain	85.4
4	Sweden	79.9	Italy	85.3
5	Israel	79.9	Switzerland	85.0
6	<b>Australia</b>	<b>79.7</b>	Korea	84.5
7	Japan	79.4	<b>Australia</b>	<b>84.2</b>
8	Spain	79.4	Iceland	84.1
9	Netherlands	79.4	Portugal	84.0
10	New Zealand	79.4	Austria	83.9



Source: OECD 2013.

Men reaching the age of 65 in 2012 could expect to live, on average, another 19.1 years (to 84.1). Women reaching the age of 65 in 2012 could expect to live an extra 22.0 years (to 87.0). This is because by the time you reach 65 you have avoided fatal accidents and other causes of premature death.



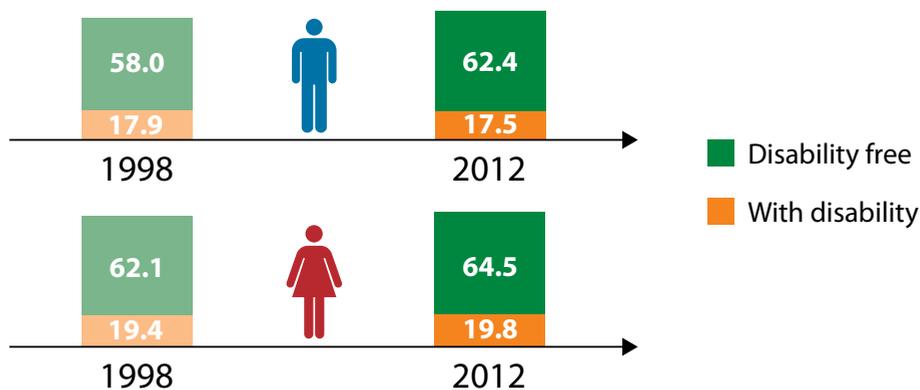
**Life expectancy** of men and women reaching the age of 65 in 2012

### More disability-free years

Importantly, we are not just living longer, but have more years living free of disability.

A boy born in 2012 could expect to live 62.4 years free of disability and 17.5 years with some form of disability, compared with 58.0 and 17.9 years, respectively, in 1998.

A girl born in 2012 could expect to live 64.5 years free of disability and 19.8 years with some form of disability, compared with 62.1 and 19.4 years, respectively, in 1998.



**More disability-free years** for boys and girls born in 2012

## Feelin' all right

In 2011–12, more than half (55%) of all Australians aged 15 and over considered themselves to be in 'excellent' or 'very good' health. Another 30% said they were in 'good' health. Just over 1 in 10 (11%) rated their health as 'fair', and 4% as 'poor'.



These ratings are slightly better than in 1995 when 54% rated their health as 'excellent' or 'very good', 28% as 'good', 13% as 'fair' and 4% as 'poor'.

Despite the increasing prevalence of many conditions with age, most older people consider themselves to be in good health. Of older people living in households in 2011–12, 76% of those aged 65–74 and 67% of those aged 75 and over rated their health as 'excellent', 'very good', or 'good'.



## Smoking rates still falling, fewer people drinking

Daily smoking rates among adults are low by international standards and are still falling, continuing a long-term downward trend over the past 50 years.

In 1964, 43% of Australian adults smoked, and by 2010 this rate had dropped to 16%.



In 2011–12, males were more likely to smoke than females (18% compared with 14%).

Fewer young people are now taking up smoking. In 2001, about one-quarter of 18 to 24 year olds smoked daily—by 2010, this had fallen to 16%.

Successfully quitting smoking can result in an increase in life expectancy of up to 10 years, if it occurs early enough.

The National Drug Strategy Household Survey showed that between 2007 and 2010 the proportion of people having never used alcohol rose from 10.1% to 12.1%.

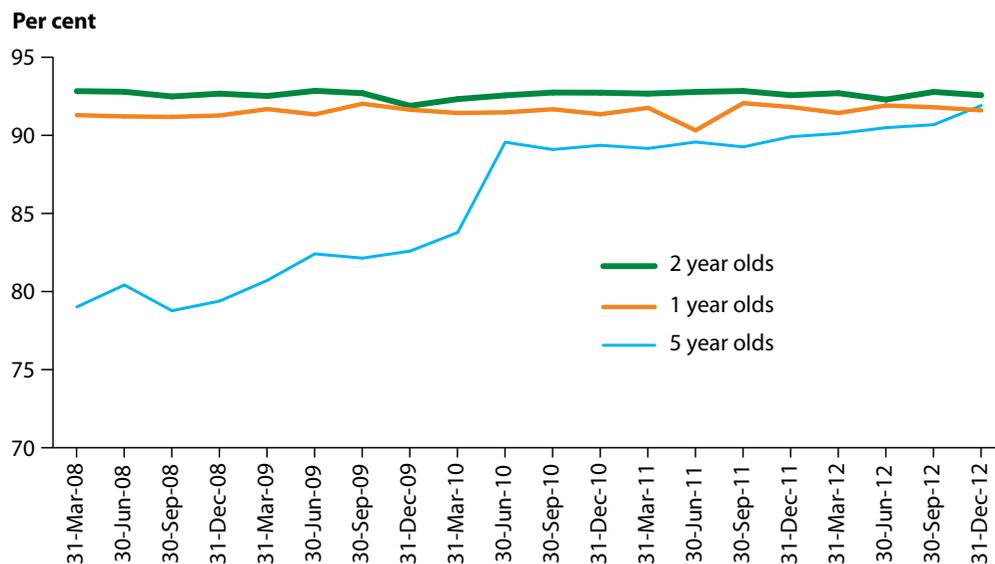


## Vaccination rates getting better

Vaccination is one of the most successful and cost-effective health interventions. Vaccines are provided free in Australia to people in particular age or risk groups for 16 diseases.

For children aged 5 there was a significant increase in vaccination coverage, from 79% in March 2008 to around 92% in 2012. This followed a change in eligibility rules for incentive payments.

In 2012, 82% of females aged 14–15 had received at least 1 dose of the human papillomavirus vaccination (which reduces the likelihood of cervical cancer), and 71% had received all 3 doses.



### Immunisation rates for vaccines in the national schedule 2008–2012

## Cancer death rates falling, survival improving

Although the number of new cancer cases each year is rising, largely due to population ageing, the number of new cases per 100,000 population is steady and cancer death rates are continuing to fall.

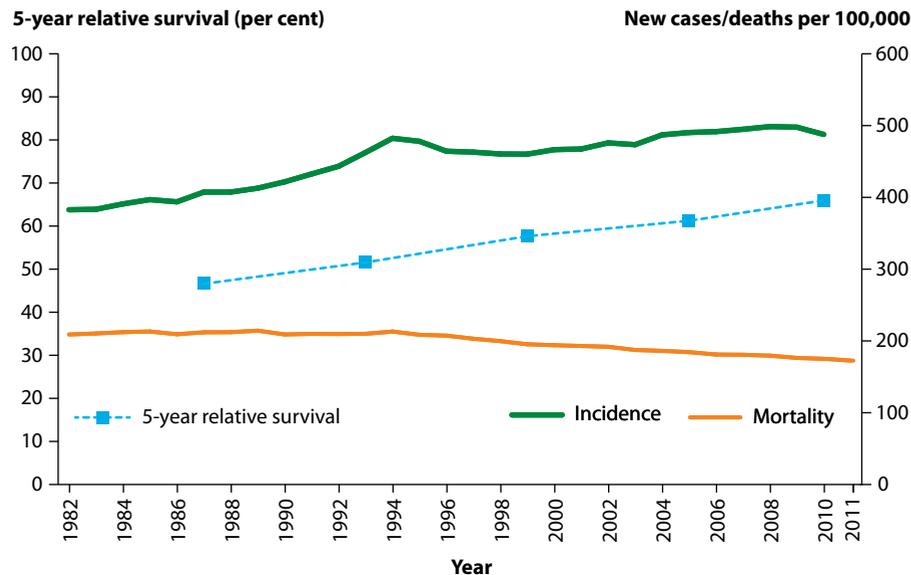
The reasons cancer death rates are falling include changes in exposure to cancer risks (such as not smoking), improved primary prevention (such as better sun protection), advances in cancer treatment and, for some cancers, earlier detection through screening programs (bowel, breast and cervical) and other testing (prostate).

Between 1991 and 2011, the mortality rate for all cancers combined fell by 17% from 210 deaths per 100,000 people to 172 deaths per 100,000 people.

This reduction was mostly the result of falls in lung, prostate and bowel cancer death rates among males, and falls in breast and bowel cancer death rates among females.

Five-year survival from all cancers has increased over time, from 47% in 1982–1987 to 66% in 2006–2010.

In 2006–2010, among people who had already survived 5 years, the chance of surviving for at least another 5 years was 91%.

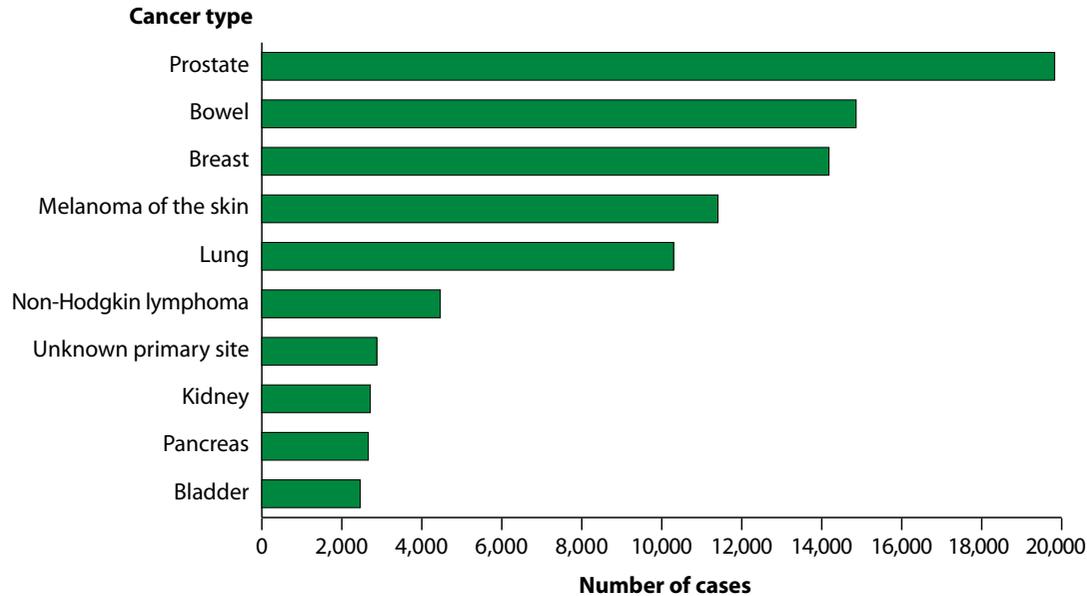


**Incidence, mortality and 5-year relative survival of all cancers combined, Australia**

The cancers with the largest survival gains were prostate cancer, kidney cancer and non-Hodgkin lymphoma.

The cancers with a decline or no improvement in survival were bladder, larynx, lip and brain cancers, and chronic lymphocytic leukaemia.

Because cancer incidence rates are expected to remain steady while death rates should continue to fall, it is expected that the cancer survivorship population will continue to rise.



### Incidence of the 10 most commonly diagnosed cancers, 2010

## Fewer heart attacks and strokes

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There has been a 20% fall in heart attack rates in recent years, from 534 per 100,000 people in 2007 to 427 per 100,000 in 2011.

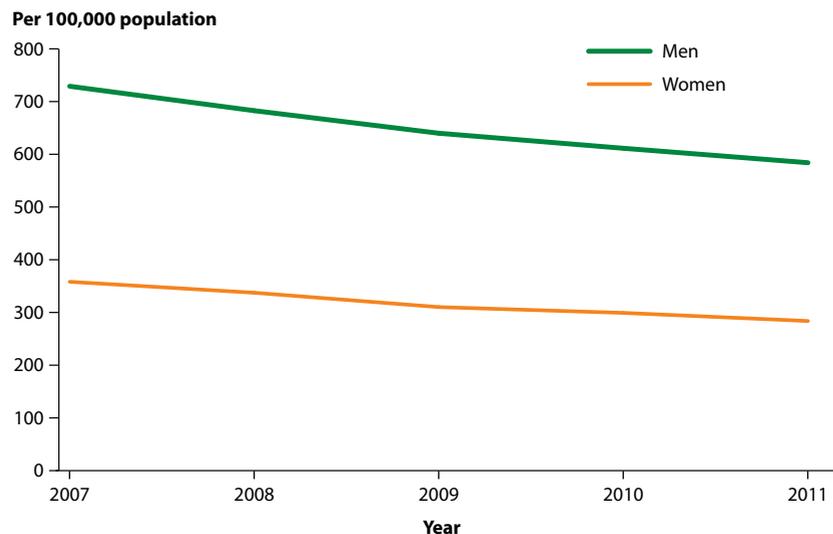
In 2011, an estimated 69,900 people aged 25 and over had a heart attack.

Death rates from coronary heart disease (heart attack and angina) have fallen by 73% over the last 3 decades; however, the rate of decline has varied over time and across age groups. For some age groups, death rates continue to fall at accelerated rates (such as for those aged 70 and over), while for others, such as the 55–69 age group, there has been a levelling-off or plateauing over the last 5 years.

The rate of stroke events has fallen by 25% in recent times (from 186 to 140 per 100,000 people between 1997 and 2009).

The total number of Australians experiencing a stroke rose by 6% over the same period, associated with the ageing of the population.

Over the last 3 decades, stroke death rates have fallen by almost 70% (from 103 to 33 deaths per 100,000 people between 1979 and 2011).



**Trends in rates of heart attacks**, people aged 25 and over, Australia, 2007–2011

## Asthma and COPD death rates improving

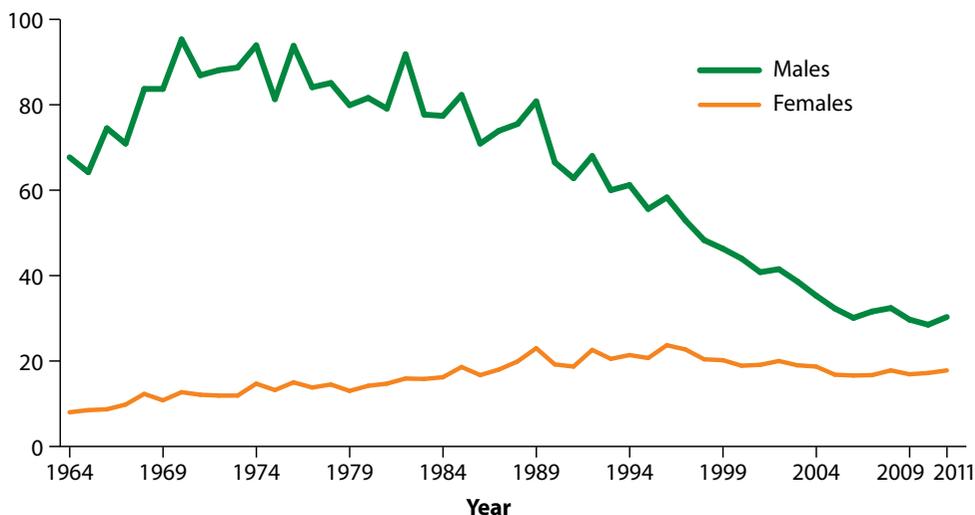
Death rates from asthma fell from a peak of 6.6 per 100,000 people in 1989 to 1.5 per 100,000 in 2011.

Death rates from chronic obstructive pulmonary disease (COPD) for males have also dropped markedly over the past 40 years, with the rate in 2011 being less than one-third of that in 1970 (95 and 30 deaths per 100,000 males respectively). In contrast, there was a small rise in rates for females over this period (from 13 to 18 per 100,000 females). This may be because, historically, reductions in smoking in Australia occurred earlier and to a greater extent for males than females.

The hospitalisation rate for asthma fell by 38% between 1998–99 and 2011–12.

The hospitalisation rate for COPD for males fell by 18% over the same period while the rate for females was stable.

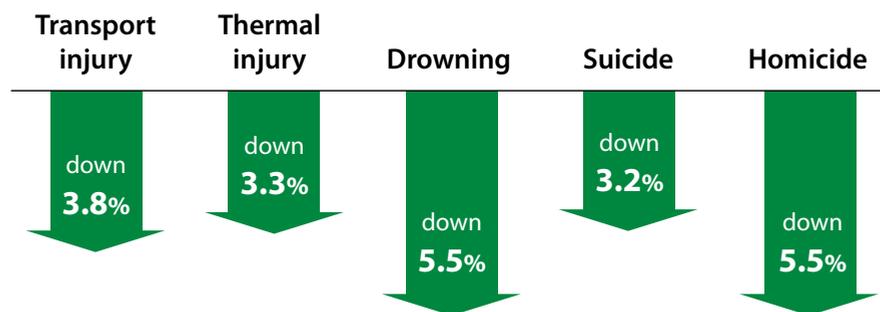
**Deaths per 100,000 population**



Death rates for **chronic obstructive pulmonary disease (COPD)**, 1964–2011

## Injury deaths down

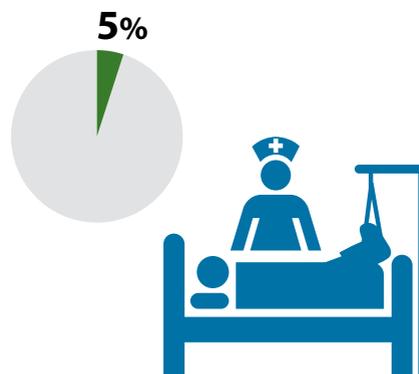
For most external causes, rates of injury deaths tended to fall from 1999–00 to 2007–08—by 3.8% per year for transport injury, 3.3% for thermal injury (exposure to smoke, fire, heat and hot substances), 5.5% for drowning, 3.2% for suicide and 5.5% for homicide.



In 2010–11, there were 472,000 hospitalisations due to injury, or 5% of all hospitalisations. Given that some injuries result in more than 1 stay in hospital, it is estimated that these stays involved just over 438,000 people.

The age group with the highest number of injury-related hospitalisations was people aged 85 and older, at 10,945 hospitalisations per 100,000 population.

Males were more likely than females to be hospitalised for most types of injury.





## *Section 2*

# *Could do better*

**Although we have had plenty of health successes in Australia, we have health worries as well, such as the rise of chronic and lifestyle diseases, and areas of increasing concern such as mental health issues and dementia. Here are some of the key issues in health that governments, clinicians and the community are grappling with today.**

## Chronic problems for the future

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Australians are living longer but are also increasingly living with lifestyle-related ongoing or 'chronic' diseases—and associated health conditions, health risks and disability.

Here's the picture in a nutshell:

- Chronic diseases are generally associated with risk factors that we can largely do something about, such as smoking, physical inactivity, poor nutrition and the harmful use of alcohol.



- These risk factors contribute to overweight and obesity, high blood pressure and high cholesterol levels, which in turn lead to chronic diseases and conditions such as cardiovascular disease, diabetes, cancer and mental health issues.
- An increase in chronic diseases is also to be expected because of an ageing population.

Chronic diseases are the leading cause of illness, disability and death in Australia, accounting for 90% of all deaths in 2011.

Seventy per cent of all cardiovascular disease mortality in Australia has been attributed to the combined effects of high blood pressure, high cholesterol and physical inactivity.

Many people have more than 1 chronic disease, and these increase with age.

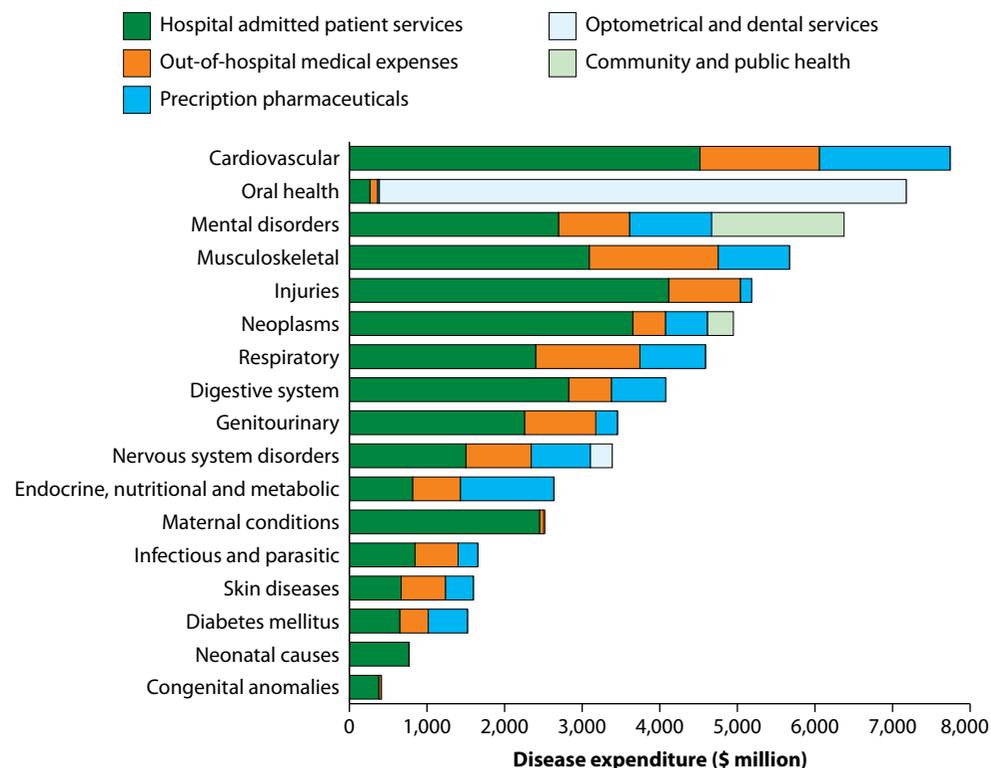
*could do better*

Chronic diseases affect some populations more than others. Indigenous people, for example, report diabetes at more than 3 times the rate of other Australians.

Rates of coronary heart disease are 40% higher among people living in areas of lowest socioeconomic status than among those living in the highest socioeconomic status areas.

Chronic diseases are also expensive to treat. The 4 most costly disease groups (cardiovascular disease, oral health, mental disorders and musculoskeletal) had direct health-care costs of \$27 billion in 2008–09, equivalent to 36% of total allocated health-care expenditure.

There is potential for improvements in the way we approach and treat chronic diseases—see Section 6 ‘What lies ahead’.



**Allocated health expenditure in Australia, by disease group and area of expenditure, 2008–09**

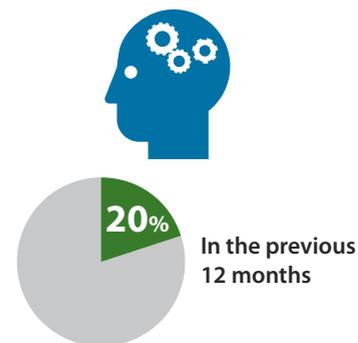
## Mental disorders

An estimated 20% of adults (or 3.2 million people) have experienced a mental disorder in the previous 12 months.

Around 45% of Australian adults (or 7.3 million people) will experience a mental disorder sometime in their lifetime.

There is a growing focus on providing coordinated mental health care services to help people to stay well, rather than just providing support when there is a crisis. There is also an emphasis on providing help in the community rather than in institutions.

More than \$7.2 billion, or \$322 per person, was spent on mental health-related services in Australia during 2011–12.



'Mental disorders' is a general term that refers to a group of specific disorders that includes:		
Most common	<b>'Clinical depression'</b>	a group of illnesses characterised by excessive depressed mood which affects the person's life. Clinical depression is more intense than the unhappiness experienced in daily life.
	<b>'Anxiety disorders'</b>	a group of illnesses characterised by feelings of high anxiety. Includes panic disorder, post-traumatic stress disorder, obsessive compulsive disorder, agoraphobia and other phobias, social anxiety, generalised anxiety disorder and other conditions.
	<b>'Substance use disorders'</b>	characterised by dependence on, or harmful use of, alcohol or other substances.
Less common, more severe	<b>'Schizophrenia'</b>	a psychotic disorder typically characterised by hallucinations, disorganised thinking and impairment in functioning.
	<b>'Schizoaffective disorder'</b>	a mental illness where the person has symptoms of a mood disorder (either mood swings, or depression) along with other symptoms similar to those found in schizophrenia.
	<b>'Bipolar disorder'</b>	a psychotic disorder that involves extreme mood swings, from depression and sadness to elation and excitement.

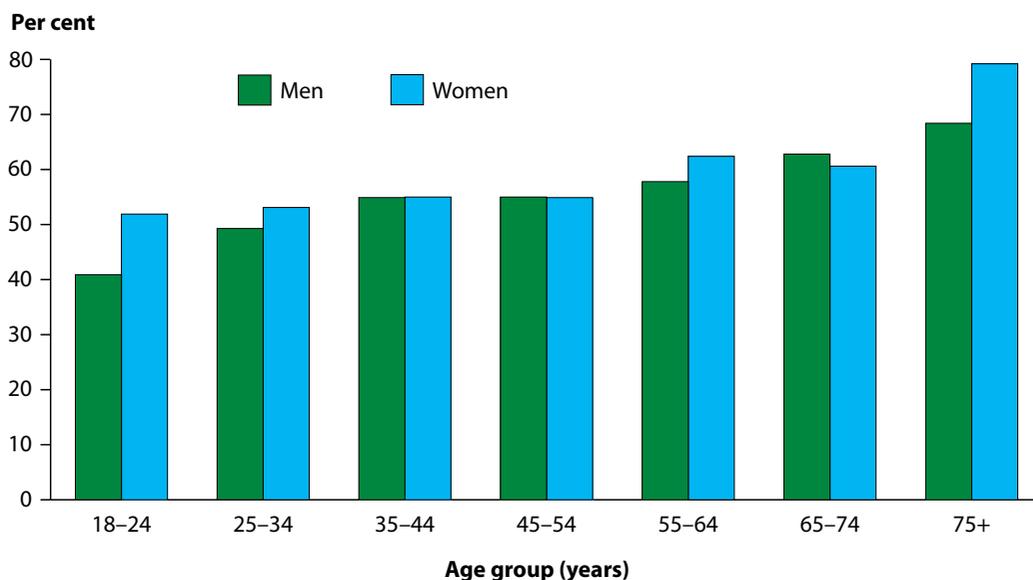
## Too much weight, not enough exercise

Australia does not fare so well in the proportion of people who are obese and overweight.

In 2011–12, 63% of Australian adults were overweight or obese (70% of men and 56% of women). This has increased from 57% in 1995.

Insufficient exercise is a risk factor for chronic health conditions such as heart disease, stroke and high blood pressure.

Nearly 3 in 5 Australian adults (57%) do not exercise enough to meet the recommended guidelines.



**Insufficient physical activity**, by age group and sex, 2011–12

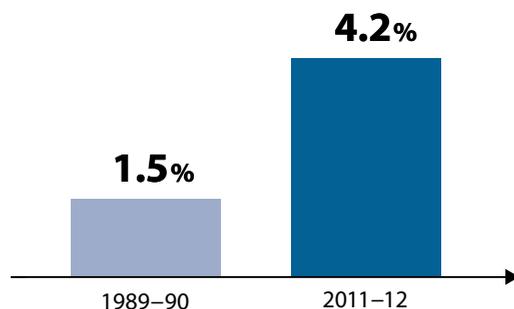
## Diabetes on the rise

The main types of diabetes are:

Type 1 diabetes	Type 2 diabetes	Gestational diabetes
a lifelong autoimmune disease that usually has onset in childhood but can be diagnosed at any age	usually associated with lifestyle factors and largely preventable	when higher-than-normal blood glucose is diagnosed in pregnancy
		

There are an estimated 1 million people aged 2 and over with diagnosed diabetes in Australia. However, this is likely to be an underestimate—for every 4 adults with diagnosed diabetes, there is estimated to be 1 with undiagnosed diabetes.

The rate of self-reported diabetes has more than doubled, from 1.5% to 4.2% of all Australians between 1989–90 and 2011–12.



**Self-reported diabetes of all Australians**

And unlike the other mortality indicators, the rate of deaths due to diabetes in Australia rose from 19 to 21 deaths per 100,000 people between 1990 and 2009.

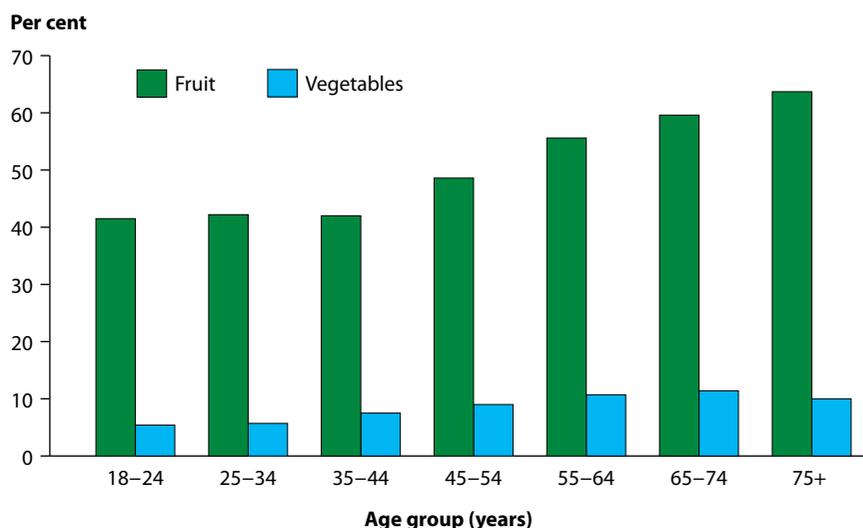
## Eating well?

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Food is fundamental to our health and wellbeing. Good nutrition can contribute to quality of life, help to maintain healthy body weight, protect against infections, and reduce the risk of chronic diseases and early death.

Fruit and vegetables are an important source of nutrition and dietary fibre. Inadequate consumption of fruit and vegetables is a risk factor for stomach cancer, colorectal cancer and cardiovascular disease.

In 2011–12, 92% of Australian adults did not eat the recommended 5 serves of vegetables a day, and 52% did not eat the recommended 2 serves of fruit.



The percentage of people aged 18 and over who ate the recommended **daily intake of fruit and vegetables**, by age group, 2011–12

On average, 'treat' foods such as soft drinks, cakes and biscuits, which are generally high in energy and low in nutrients, contributed to 36% of energy intake for adults.

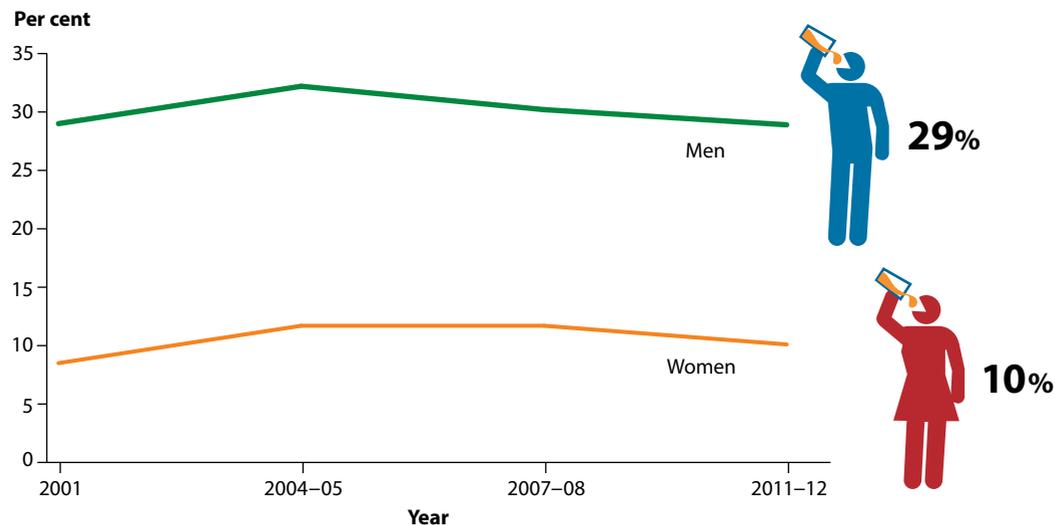
However, not every Australian has the same access to basic nutritious foods. Factors such as where you live and how much you earn can influence food choices and behaviours.

## Some problems with alcohol and drugs

In 2011–12, nearly 1 in 5 adults (19.5%) consumed more than the recommended maximum of 2 standard drinks per day (for lifetime risk of harm).

Males were almost 3 times as likely as females to consume alcohol at risky levels (29% and 10% respectively).

Between 2007 and 2010, there was an increase in the proportion of people who reported being victims of physical abuse (4.5% to 8.1%) and put in fear (13.1% to 14.3%) by those under the influence of alcohol.



### People aged 18 and over who exceeded lifetime risk alcohol guidelines, 2001 to 2011–12

Most of us (60%) have never used an illicit drug (such as amphetamines, ice, cannabis and heroin). But between 2007 and 2010, illicit drug use (in the last 12 months) rose from 13.4% of the population to 14.7%.

Use of pharmaceuticals for non-medical purposes also increased, from 3.7% to 4.1%. This was the first rise since 2001.

## Dementia numbers rising

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Dementia is a term describing a group of symptoms associated with more than 100 different diseases. The main characteristics are impairment of brain functions, including language, memory, perception, social awareness, reasoning and cognition.

There are an estimated 332,000 people with dementia in Australia in 2014.



**3 in 5 people with dementia in Australia in 2014 are women**

Almost 1 in 10 Australians (9%) aged 65 and over have dementia, and 3 in 10 (30%) of those aged 85 and over.

The number of people with dementia is anticipated to reach almost 400,000 by 2020, and around 900,000 by 2050. This could change if there are changes in dementia risks and in the prevention, management and treatment of the condition.

There is currently no known cure for dementia, so treatments aim to manage the symptoms rather than the underlying causes, which are largely unknown.



## *Section 3*

# *Life stages*

**As we move through the various life stages, different health factors become more prominent while others, once prominent, become less of a concern.**

**In this section we take a quick look at how the Australian population profile is changing before looking at typical health concerns at all of the major life stages.**

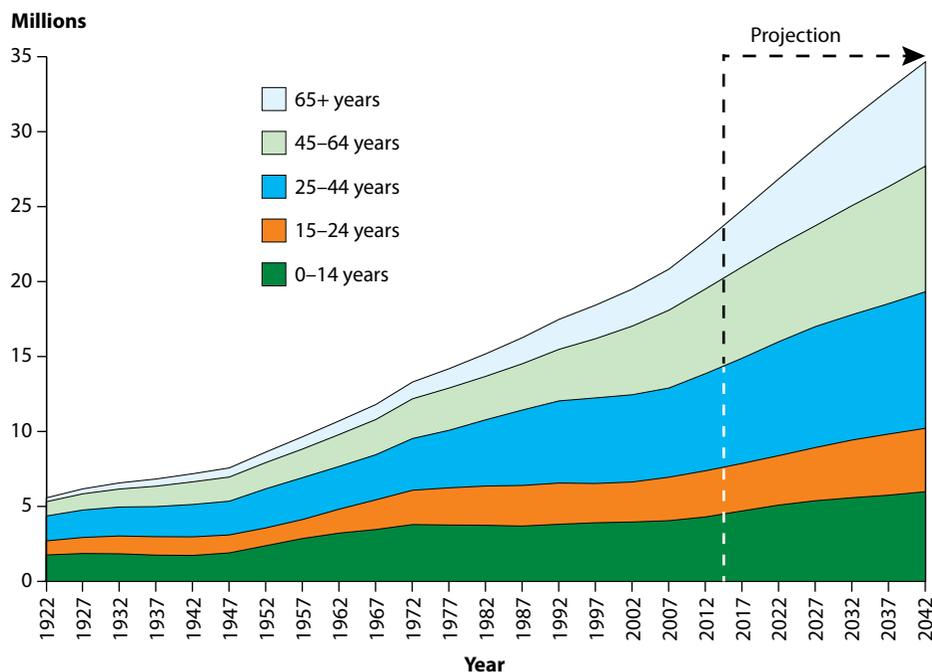
## Our population is growing and ageing

Australia is a vast country with a relatively small population of around 23 million people at June 2013.

Our population continues to grow and age. This is mainly because of natural increase (more births than deaths) and migration.

Although the population is increasing, the growth has not been consistent across all age groups, and has been stronger among older age groups in recent decades.

Between 1973 and 2013, the number of people aged 65 and over tripled, from 1.1 million to 3.3 million. There was a sixfold increase in the number of people aged 85 and over, from 73,100 to 439,600. Over the same period, the number of children and young people (aged under 25) rose by just 22% from 6.1 million to 7.5 million people.



Historical and projected **Australian population**, by age, 1922 to 2042

*Life stages*

## Mothers and babies

The number of babies born each year continues to increase. In 2011, there were 301,810 births to 297,126 mothers.

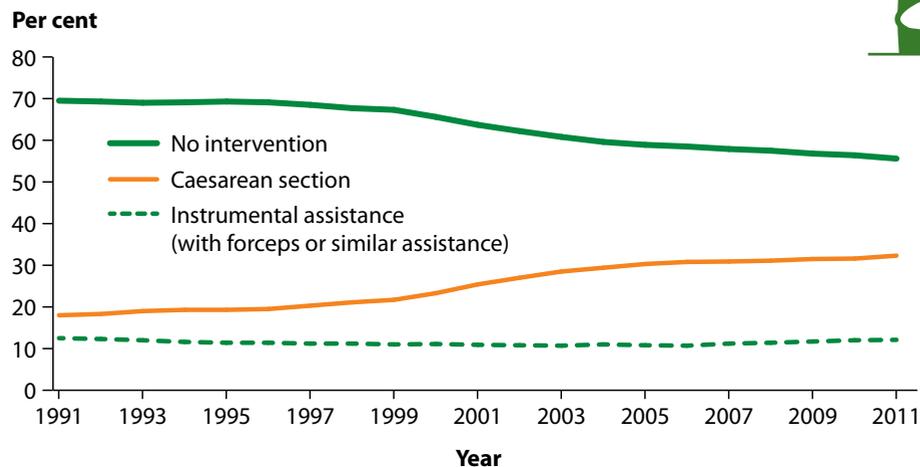
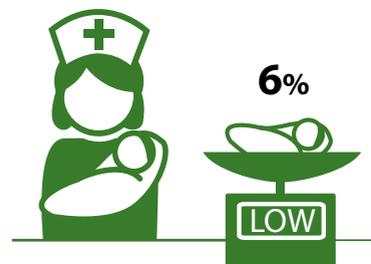
In 2011, the average age of mothers who gave birth to a child was 30; about 4% were teenagers and 4% were 40 or older. The average maternal age has remained stable since 2009 but is an increase from 28.3 in 1994.

About 1 in 5 Australian women who gave birth were obese. Just over 13% of women smoked during their pregnancy compared with 17% in 2004, and, in 2010, about half consumed at least some alcohol. All these factors can pose risks to health of the mother and her baby.

The maternal death rate of 6.8 deaths per 100,000 women who gave birth between 2006 and 2010 is lower than in 2000–2002 (11.1 per 100,000).

Rates of caesarean section in Australia have risen from 18% in 1991 to 32% in 2011.

Pre-term birth (before 37 weeks) and low birthweight (less than 2,500 grams) are associated with a higher risk of adverse outcomes for the baby. In 2011, most babies (91%) were born between 37 and 41 weeks. About 6% of all babies born were of low birthweight. This rate has remained relatively stable since 2006.



**Method of birth, all mothers, Australia, 1991–2011**

## Childhood (5–14 years)

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### Common conditions

In 2011–12, the most common long-term conditions affecting children were allergic rhinitis ('hay fever'), asthma and long- and short-sightedness.

Although cancer is rare in childhood, it is a leading cause of death, accounting for about 19% of deaths among 1–14 year olds in 2009–11.

The proportion of 0–14 year olds who survived cancer 5 years after diagnosis improved from 68% in 1983–1989 to 81% in 2004–2010.

Poor childhood oral health is a strong predictor of poor adult oral health. After falling steadily since the 1970s, rates of tooth decay in children slowly rose from the late 1990s onwards.

In 2010:

- more than half of children aged 6 had experienced decay in their baby teeth
- almost half of children aged 12 had experienced decay in their permanent teeth
- on average, every child aged 15 had at least 1 filled permanent tooth, and at least 1 other with untreated decay.

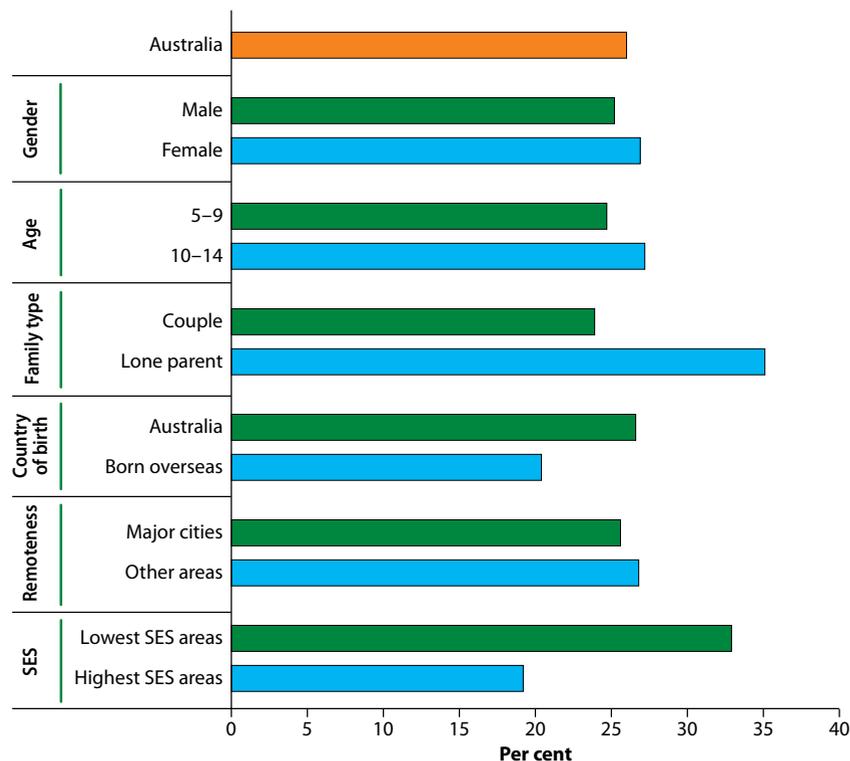


### Weight, exercise, diet

While over two-thirds (69%) of children aged 5–14 were a healthy weight in 2011–12, an estimated 26% were overweight or obese and the remainder were underweight.

Although the proportion of overweight children has not risen in recent years, the high rate is a cause for concern.





SES = Socioeconomic status

### Overweight and obese children aged 5–14, by population groups, 2011–12

National guidelines state that for good health children should do at least 60 minutes of moderate to vigorous physical activity every day, and spend a maximum of 2 hours on screen-based activities for entertainment.

In 2011–12, only about 10% of Australian children aged 5–14 met the physical and screen-based guidelines on all 7 days in a week, and 16% never met the guidelines on any day.

Fewer than 1 in 3 children (30%) ate the recommended daily serves of fruit and vegetables.

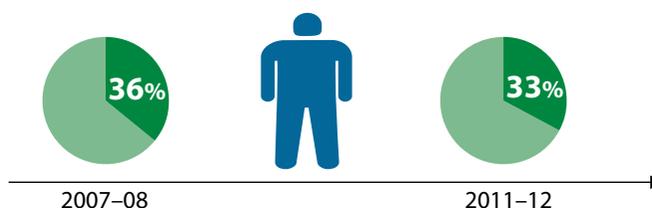


## Young people (15–24 years)

In 2011–12, 91% of young adults rated their own health as 'excellent', 'very good' or good'.

However, adolescence and young adulthood is a critical period when many important modifiable health risk factors for later life either emerge or accelerate, and when young people may engage in risky behaviours.

In 2011–12, around 33% of Australians aged 15–24 were overweight or obese; similar to 2007–08 (36%).

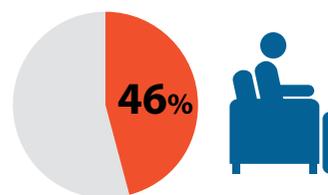


Australians aged 15–24 who were identified as **overweight or obese**

Almost half (46%) were either sedentary (9%) or reported low levels of exercise (37%). And only 4% met the recommended daily intake levels of fruit and vegetables.

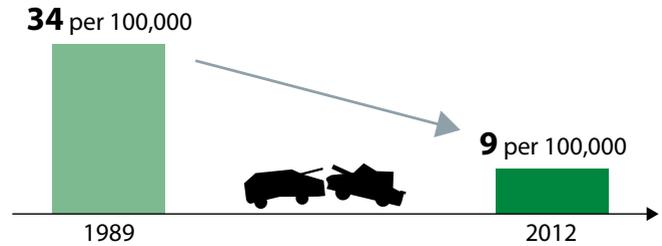
While the number of young people beginning smoking halved between 1998 and 2010, 24% reported that they were involved in drinking sessions that risked alcohol-related injury at least once a week. This proportion has not changed significantly since 2001 (27%).

Cannabis use (ever used) increased slightly among younger Australians (15–19 years), from 15% in 2007 to 18% in 2010, though this was still less than in 2001 (27%). Ecstasy use among this age group halved between 2007 and 2010 (from 6% to 3%).



More than 1 in 5 young people (23%) reported that they had used a non-pharmaceutical illicit drug at some point in their lives.

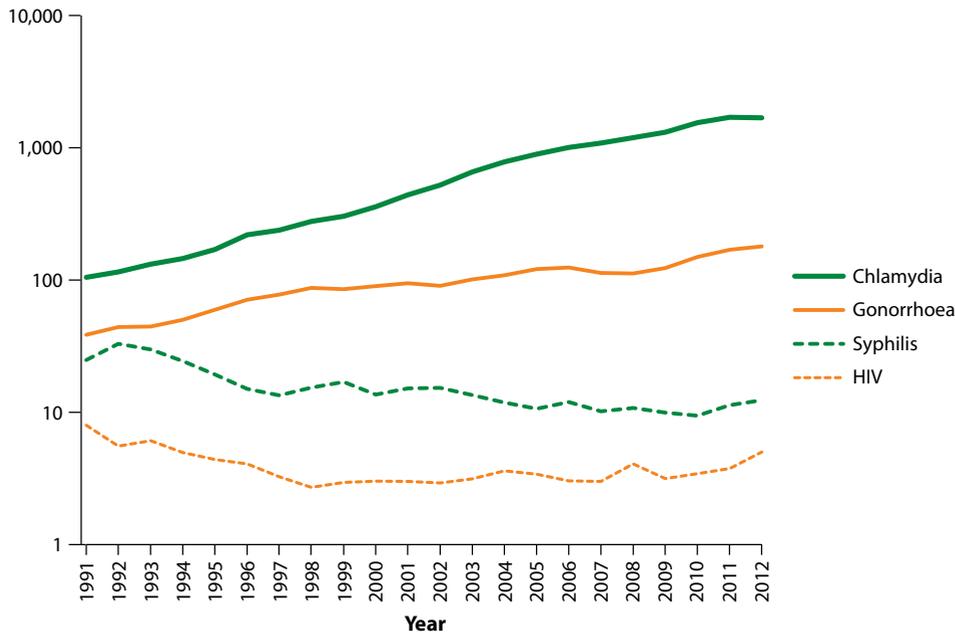
The death rate from road transport accidents has fallen for the 15–24 year age group, from 34 per 100,000 in 1989 to 9 per 100,000 in 2012. In 2012, young males accounted for three-quarters of road deaths involving young people, and 15% of all road deaths.



**Death rate** from road transport accidents has fallen for the 15–24 year age group

More than half (around 57%) of all sexually transmissible infections notified in Australia are among 15–24 year olds, with chlamydia accounting for about 90% of these notifications.

**Notifications per 100,000 people aged 15–24 (log scale)**

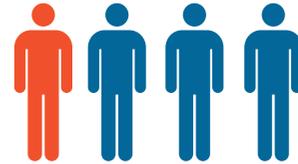


Notification rates of selected **sexually transmissible infections** in people aged 15–24, Australia, 1991–2012

From 1991 to 2012, chlamydia notification rates increased more than tenfold from 104 to 1,663 per 100,000 young people. This could be, in part, due to increased testing. Gonorrhoea notification rates also increased.

Youth is a time when mental disorders may arise, particularly anxiety and depression, and concerns about body image.

The 2007 National Survey of Mental Health and Wellbeing found that an estimated 671,100 or 26% of young people aged 16–24 were suffering from a mental disorder. Of the 3 categories of disorders investigated in this survey, 15% of young people had anxiety disorders, 13% had substance use disorders and 6% had affective disorders (such as mania or depression).

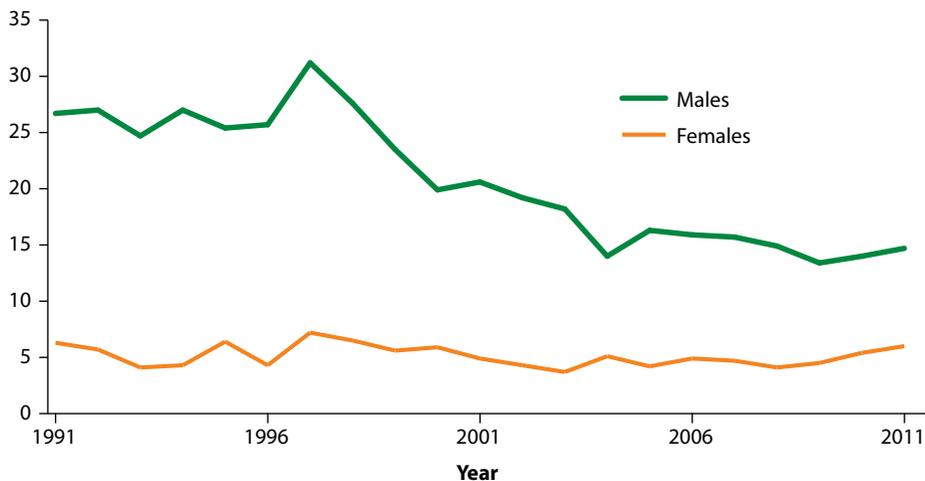


**26%** of young people aged 16–24 were suffering from a **mental disorder**

In 2011, suicide was the most common cause of death among young people aged 15–24—there were 321 deaths in that year (26% of deaths in this age group), at a rate of 11 per 100,000 population. Young men committed suicide 2.5 times as often as young women.

Suicide rates rose from 1991 to 1997 (from 16.7 to 19.4 per 100,000), then fell to 2004 (9.6 per 100,000) and have remained relatively stable since.

**Deaths per 100,000 young people**



**Suicides of young people, aged 15–24, by sex, 1991 to 2011**

## Working age (25–64 years)

Around 53% of Australia's population (12.1 million people) are aged 25–64 and mostly working.

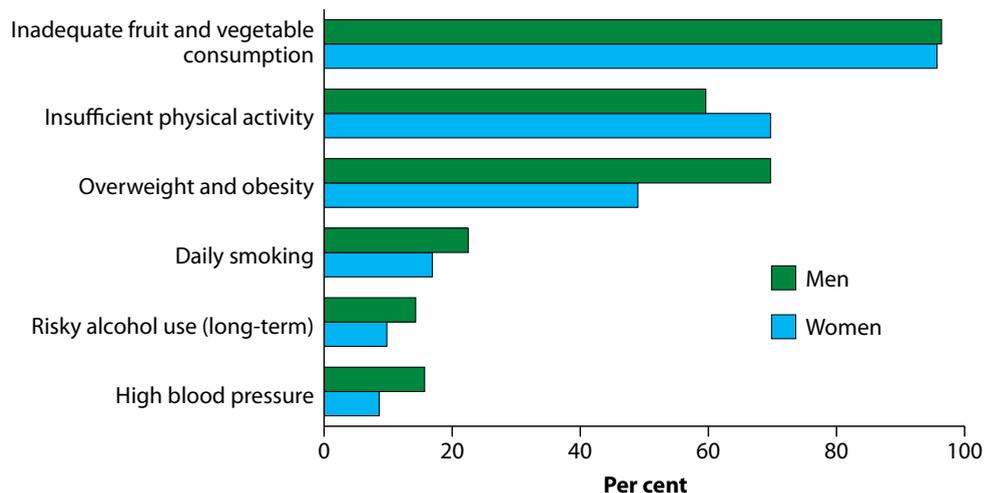
While adult Australians aged 25–44 are generally healthy, unhealthy behaviours such as not exercising or not eating enough fruit and vegetables place them at risk of developing long-term conditions in the future.

The impact of unhealthy behaviours becomes evident as people of working age get older. Australians aged 45–64 are more likely than younger age groups to have long-term health conditions such as high blood pressure and osteoarthritis.

Rates of overweight and obesity rose for men aged 25–44, from 66% in 2007–08 to 70% in 2011–12, while the rates for women were stable (50% and 49%, respectively).

Rates of smoking for those aged 25–44 fell from 24% in 2007–08 to 20% in 2011–12.

For Australians aged 45–64, levels of overweight and obesity rose from 70% to 73% between 2007–08 and 2011–12. However, the proportion of daily smokers fell from 19% to 17% over the same period.



**Prevalence of selected health risk factors** in people aged 25–44, by sex, 2011–12

For the 25–44 age group, the leading causes of death for women have remained similar since 2006 (suicide, breast cancer, accidental poisoning, diseases of the liver, and car accidents).

For men aged 25–44, there was a significant increase in the proportion of deaths caused by accidental poisoning between 2006 and 2011 (up 69%), and significant falls in the proportion of deaths caused by car accidents (down 30%) and coronary heart disease (down 16%).

In 2011, the top 5 causes of death for men aged 25–44 were suicide, accidental poisoning, coronary heart disease, car accidents, and other forms of heart disease.

Rank	Men	No.	%
1	Suicide	672	19.9
2	Accidental poisoning	406	12.0
3	Coronary heart disease	243	7.2
4	Car accident	138	4.1
5	Other forms of heart disease	118	3.5

Rank	Women	No.	%
1	Suicide	199	11.0
2	Breast cancer	173	9.6
3	Accidental poisoning	103	5.7
4	Diseases of the liver	63	3.5
5	Car accident	54	3.0

### Leading causes of death in people aged 25–44, by sex, 2011

For the 45–64 age group, again the leading causes of death were largely unchanged between 2006 and 2011 for women (breast cancer, lung cancer, coronary heart disease, bowel cancer, and chronic lower respiratory diseases).

For men aged 45–64, however, there was a 19% fall in the proportion of deaths caused by bowel cancer, a 10% fall in deaths caused by coronary heart disease and a 6% rise in deaths caused by diseases of the liver.

In 2011, the top 5 causes of death for men aged 45–64 were coronary heart disease, lung cancer, suicide, diseases of the liver, and bowel cancer.

## Ageing

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The prevalence of many health conditions is higher in older age groups. Among older Australians living in households, the most common long-term health conditions (excluding short- and long-sightedness) are:

- arthritis (affecting 49% of those aged 65 and over)
- high blood pressure (38%)
- hearing losses (35%).

Just over 1 in 5 older people (22%) reported having heart disease, stroke and vascular diseases, 15% had diabetes and 7% had cancer.



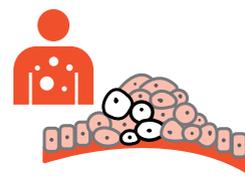
**22%**

Heart disease, stroke and  
vascular diseases



**15%**

Diabetes



**7%**

Cancer

Age-related vision problems that are likely to be disabling include cataracts (affecting 10% of those aged 65 and over), glaucoma (3%), macular degeneration (5%) and blindness (2%).

Dementia is a significant health problem among older Australians—of the estimated 332,000 Australians who had dementia in 2014, 93% were aged 65 and over.

Just over one-half (53%) of Australians aged 65 and over in 2012 had disability compared with 16% of those aged 25–64.

## How are we dying?

In 2011, the top 5 causes of death in Australia were:

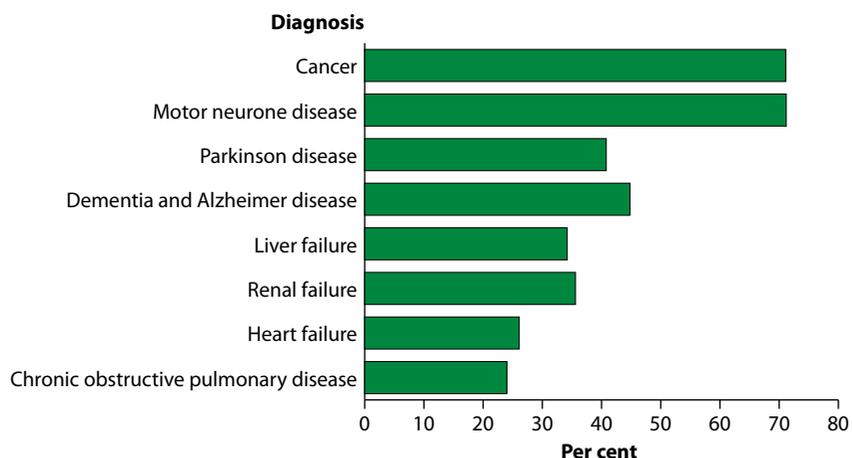
### For males

- coronary heart diseases
- lung cancer
- cerebrovascular diseases (including stroke)
- prostate cancer
- chronic obstructive pulmonary disease.



### For females

- coronary heart diseases
- cerebrovascular diseases (including stroke)
- dementia and Alzheimer disease
- lung cancer
- breast cancer.



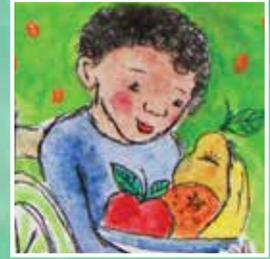
### Palliative care

With the growth and ageing of Australia's population, and an increase in chronic diseases, the types of patient groups needing palliative care have widened.

In 2010–11, there were 54,466 palliative care hospitalisations—a rise of 49% from 2001–02.

About half (51%) of palliative care hospitalisations in 2010–11 ended with the patient's death.

**People who died in hospital:** proportion who were palliative care patients, selected diagnoses, all hospitals, 2010–11



## *Section 4*

# *Not faring so well*

**While the health of Australians is generally very good by global standards, some of us are not doing so well. Indigenous Australians, people living in rural and remote areas and in areas of lower socioeconomic status, and Australians living with disability, in general, have higher rates of illness, health risk factors and death than other Australians.**

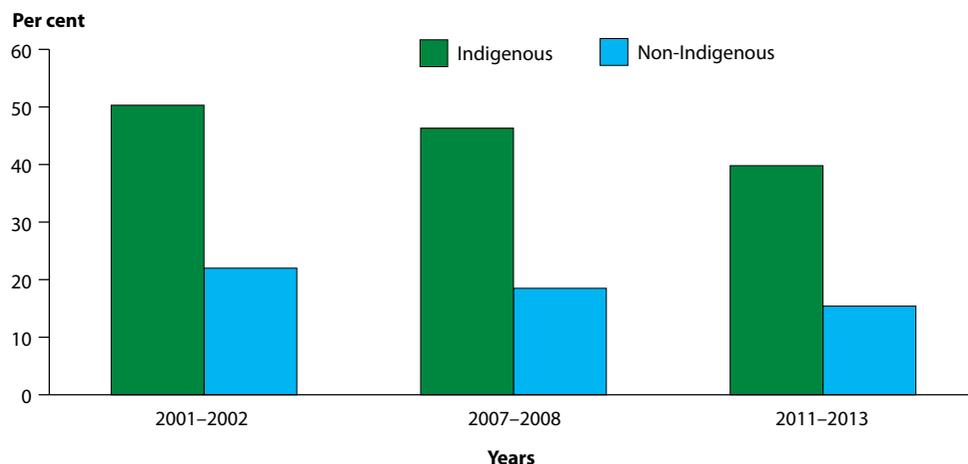
## Promising signs, but room for improvement in Indigenous health

In recent years, there have been improvements in Indigenous health, including lower rates of death from circulatory and respiratory diseases, declining infant mortality rates and reductions in smoking rates. The proportion of Indigenous Australians aged 15 and over who smoked daily decreased from 51% in 2002 to 41% in 2012–13 (for non-Indigenous adults, it fell from 22% to 15% in 2011–12).

Despite this, Indigenous Australians still have poorer health and worse health outcomes than non-Indigenous Australians. They are more likely to die at younger ages, experience disability and report their health as fair or poor.

An Indigenous boy born between 2010 and 2012 can expect to live more than 10 years less than a non-Indigenous boy (69.1 years compared with 79.7 years) and an Indigenous girl about 9 years less (73.7 compared with 83.1).

Across all age groups, Indigenous Australians have higher death rates than non-Indigenous Australians—in the 35–44 age group, the rate is 5 times that of non-Indigenous Australians—and Indigenous children aged 0–4 died at more than twice the rate of non-Indigenous children in 2012.



Percentage of current daily smokers in Australia by Indigenous status, people aged 15 and over, 2001–2002 to 2011–2013

## How large is the Indigenous health gap?

On average, Indigenous Australians fare worse than non-Indigenous Australians on several measures of health (this difference is referred to as the 'health gap'). For example, after adjusting for differences in age structure, Indigenous Australians:

- had incidence rates of end-stage kidney disease 7 times that of non-Indigenous Australians in 2007–2010
- had 3.3 times the rate of diabetes/high sugar levels of non-Indigenous Australians
- had 3 times the hospitalisations for respiratory conditions and more than twice as many hospitalisations for mental and behavioural disorders as non-Indigenous Australians
- had an obesity rate 1.5 times that of non-Indigenous Australians
- were 1.5 times as likely to die from cancer in 2007–2011 as non-Indigenous Australians
- had higher youth suicide rates than non-Indigenous Australians. Between 2001 and 2010, the rates for Indigenous females aged 15–19 were 5.9 times those of non-Indigenous females, while for males it was 4.4 times the non-Indigenous rate.



End-stage kidney disease

x 7



Diabetes

x 3.3



Hospitalisations for respiratory conditions

x 3



Obesity

x 1.5



Cancer deaths rate

x 1.5



Youth suicide—female

x 5.9



Youth suicide—male

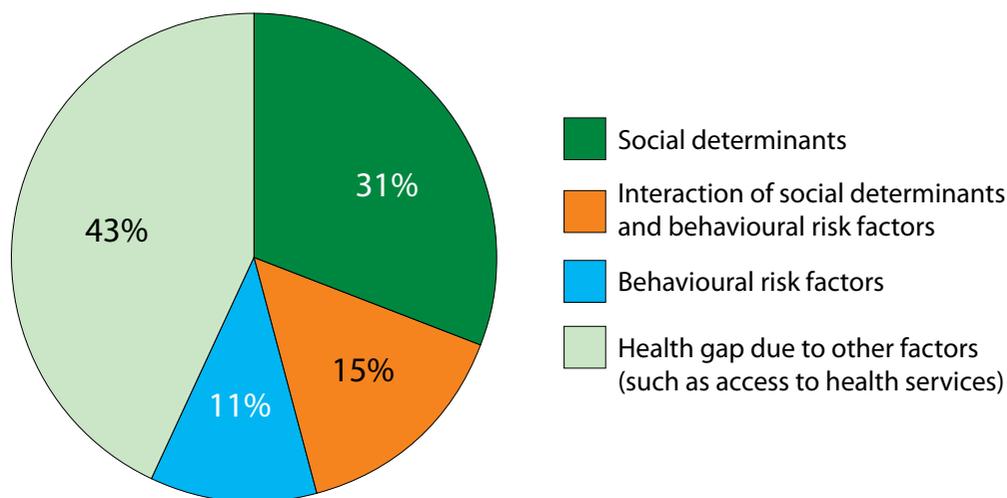
x 4.4

## What are the causes of the health gap?

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Both social determinants (such as unemployment and lack of education) and increased behavioural risk factors (such as smoking and physical inactivity) contribute to this health gap. There are also complex interactions between social determinants and risk factors.

Of the social determinants, household income, highest level of school completed, and employment status have the largest estimated impact on the gap. Smoking status, body mass index, and binge drinking are the behavioural risk factors with the biggest impact. Other factors such as worse access to health services also contribute to the gap.



Proportion of the **health gap** explained

## Rural and remote areas

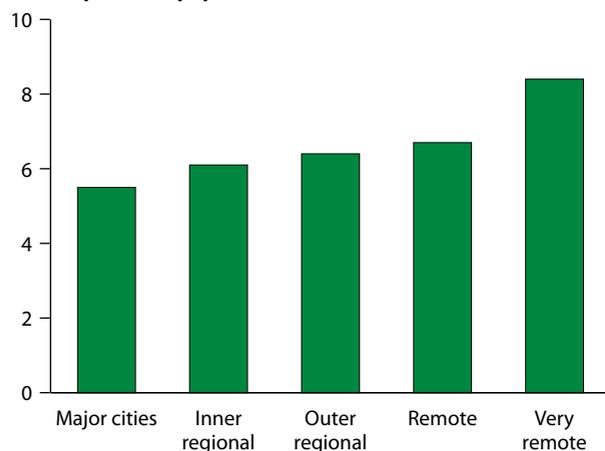
People living in rural and remote areas have less access to health services, travel greater distances to seek medical attention, and generally have higher rates of ill health and mortality than people living in larger cities.



People living in rural and remote areas **travel greater distances to seek medical attention**

Overall, death rates rise with increasing remoteness—in 2012, the death rate in *Very remote* areas was 8.4 per 1,000 population compared with 5.5 in *Major cities*.

Deaths per 1,000 population



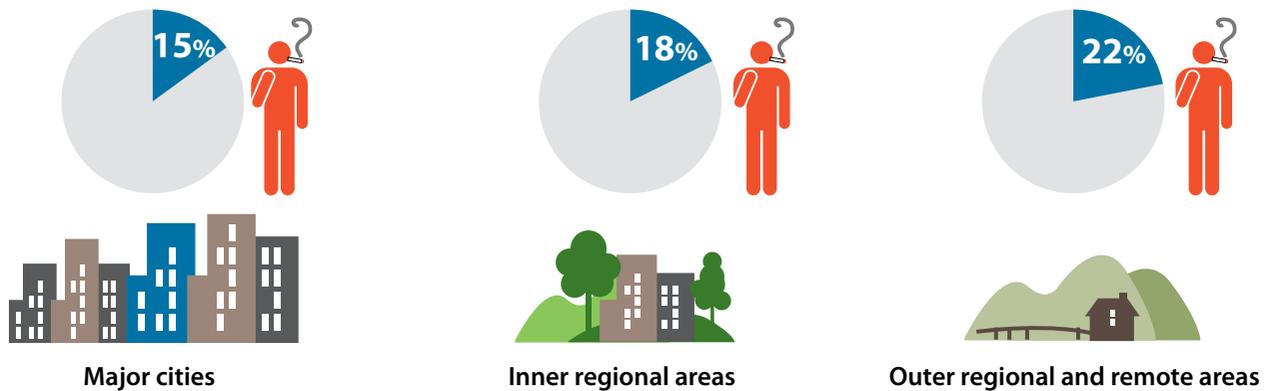
Death rates, by remoteness area, 2012

	Outer regional and remote	Inner regional and remote	Major cities
Daily smoker	22%	18%	15%
Overweight or obese	70%	69%	60%
Insufficiently active	60%	63%	54%
Risky alcohol drinking (lifetime)	24%	21%	19%
High blood cholesterol	37%	38%	31%

Risk factors, by remoteness area, 2011–12

People in regional and remote areas are more likely than their city counterparts to:

- be a daily smoker (*Outer regional and remote* 22% and *Inner regional* 18% compared with 15% in *Major cities*)
- be overweight or obese (70% and 69% compared with 60%)
- be insufficiently active (60% and 63% compared with 54%)
- drink alcohol at levels that place them at risk of harm over their lifetime (24% and 21% compared with 19%)
- have high blood cholesterol (37% and 38% compared with 31%).



On the positive side, Australians living in rural areas generally have higher levels of social cohesiveness—for example, higher rates of participation in volunteer work and feelings of safety in their community.

Poorer health in regional and remote areas may also reflect social and other factors such as educational disadvantage, lower employment and income, and more occupational and physical risks.

There are also higher proportions of Indigenous Australians in *Remote* and *Very remote* areas, and they generally have poorer health than non-Indigenous Australians. However, this does not fully account for the generally poorer health of people living in remote areas.

## Socioeconomic disadvantage

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In general, the higher people's incomes and education, the healthier they are—a phenomenon often called the 'social gradient of health'.

Daily smoking is a clear example of the social gradient of health. The higher the socioeconomic status (SES) group, the less likely a person is to smoke. In 2011–12, the daily smoking rate was 23% in the lowest SES group and 10% in the highest.

People living in areas of lowest SES are also more likely to place themselves at risk of lifetime harm from drinking alcohol (22%) than those in high SES areas (17%).

Another example is physical inactivity, with people who live in lower SES groups less likely to be physically active. The proportion of people who undertook sufficient physical activity was 34% in the lowest SES group compared with 52% in the highest.

Women and children living in areas of lower SES are more likely to be overweight or obese than those in areas of high SES (64% and 48% respectively for women and 33% and 19% for children). However, the same pattern is not evident among men.

In 2006–2010, people living in areas of lower SES had higher mortality from all cancers combined and lower 5-year relative survival than people living in areas of higher SES.

Other health measures and risk factors with known social gradients include life expectancy, self-assessed health status, oral health, and end-stage kidney disease.



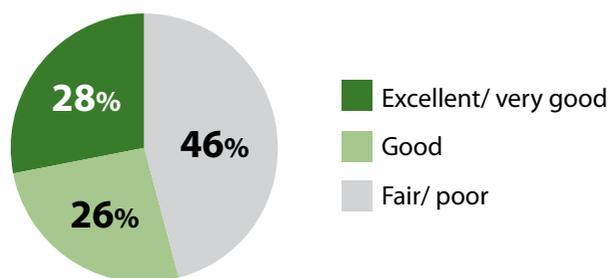
## Health of people with disability

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Just under 1 in 5 Australians (4.2 million people) reported having a disability in 2012.

Of these, 1.4 million people needed help with basic daily activities of self-care, mobility and communication.

Due to a range of factors—only some of which may be directly related to a person's disability—as a group, people with disability experience significantly poorer health than those without disability. Almost half (46%) of people aged 15–64 with severe or profound disability report poor or fair health compared with 5% for those without disability.



**Self-reported health** of people with severe or profound disability

Similarly, for people aged 15–64 with a specific long-term health condition or injury, a higher proportion of those with severe or profound disability than those without disability had:

- young onset of arthritis before age 25 (14% compared with 6%)
- osteoporosis before age 45 (43% compared with 31%)
- young onset of diabetes before age 25 (23% and 7% respectively).

Higher proportions of people with disability compared with those without were also overweight, smokers, or had suicidal thoughts.

Australians aged 15–64 with severe or profound disability are extensive users of professional health services, with higher rates of consultations with general practitioners, specialists and other health professionals than people without disability.



# *Section 5*

## *Behind the scenes*

**While for many of us our first contact with the health system involves a visit to a GP or pharmacist, these services are part of a much broader and complex network.**

**The major components of this 'behind the scenes' web of health services and providers are profiled here.**

## Primary health care and prevention

Primary health care is at the front line of Australia's health care system and has been increasingly in the spotlight due to its role in improving population health (prevention, promotion and protection rather than treatment).

Primary health care is typically the first health service visited by patients with a health concern. It includes most health services not provided by hospitals and includes services provided by general practitioners (GPs), dentists, nurses, Aboriginal health workers, local pharmacists and other allied health professionals.

In 2011–12, there were 123 million non-referred encounters with GPs reimbursed through Medicare, which was a 13% increase from the 109 million encounters in 2007–08.

We have a limited idea of what happens in primary health care settings—and this is highlighted at the end of Section 6 'What lies ahead'.



### Cancer screening

Australia has 3 national population-based cancer screening programs, targeting breast, cervical and bowel cancers.

In 2011–12, more than 1.4 million women aged 50–69 had a screening mammogram through BreastScreen Australia—a participation rate of 55%.

In 2011–12, more than 3.7 million women aged 20–69 had a screening Pap test through the National Cervical Screening Program—a participation rate of 57%.

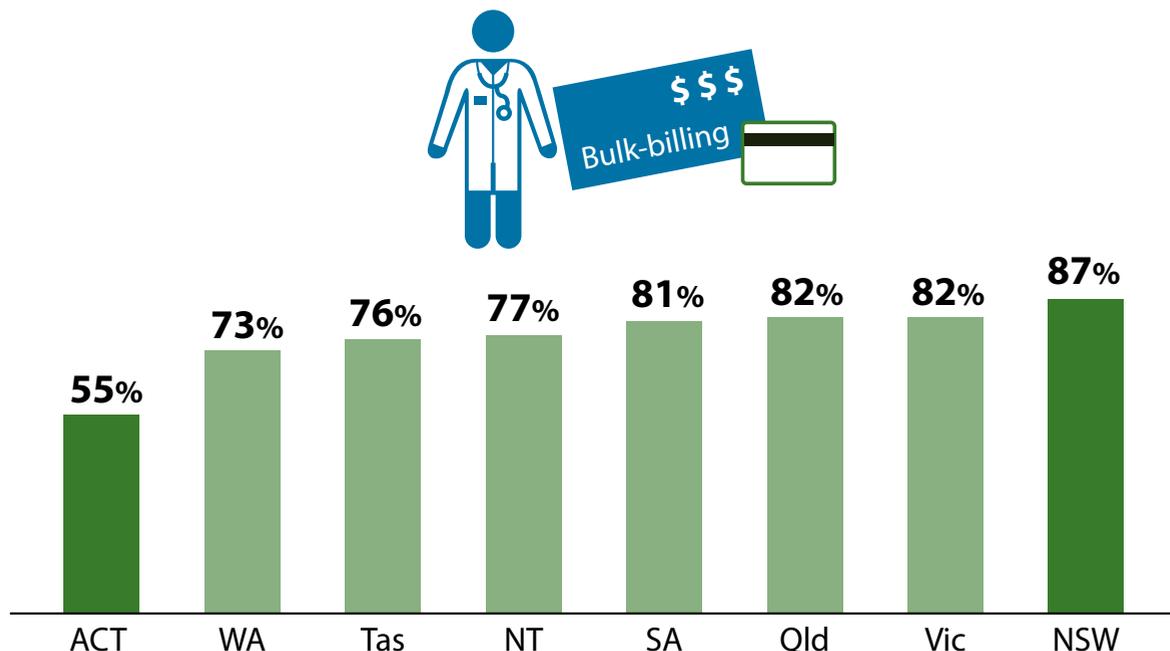
The participation rate for both screening programs has remained relatively stable in recent years, although the number of women participating has increased.

The National Bowel Cancer Screening Program currently targets men and women turning 50, 55, 60 or 65 for a free faecal occult blood test. Of those people invited to take part in the program in 2011–12, 35% returned a completed screening kit for analysis. This program is to be expanded.

## Bulk-billing, medical practitioners and insurance

Bulk-billing occurs when a medical practitioner, psychologist or optometrist sends the bill for services direct to Medicare so that all taxpayers, rather than the patient, foot the bill.

Bulk-billing rates vary across states and territories, from a low of 55% in the Australian Capital Territory to 87% in New South Wales. In the remaining states the rates are: Victoria 82%, Queensland 82%, South Australia 81%, Western Australia 73%, Tasmania 76% and the Northern Territory 77%.



In 2012–13, most of the population (80%) believed that waiting times to see a general practitioner (GP) were appropriate and most (more than 94%) did not report cost as a barrier to accessing GP services.

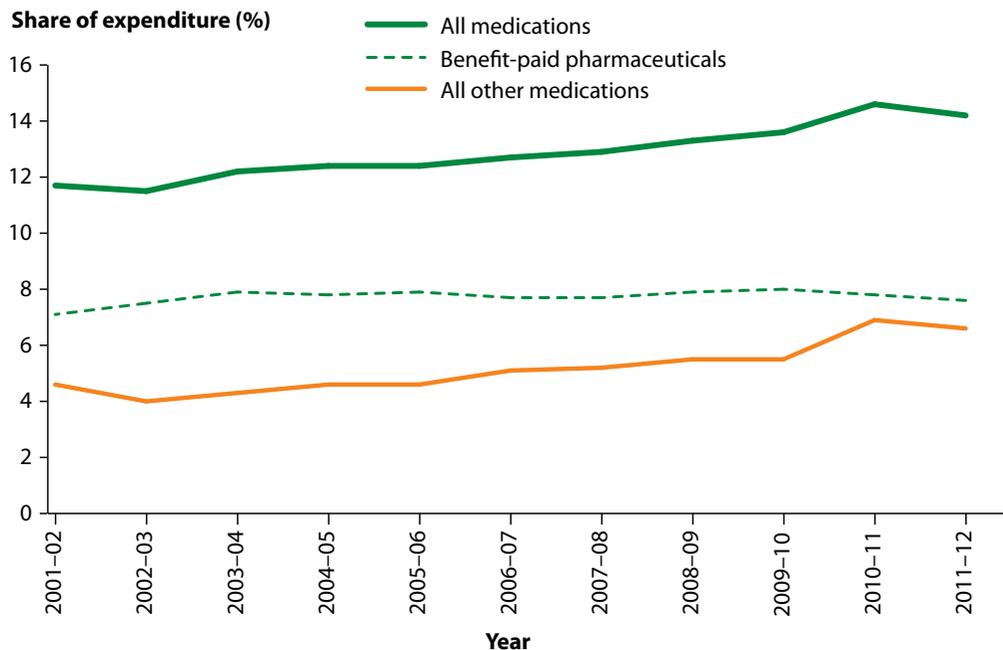
At June 2013, 10.8 million Australians (47% of the population) had private health insurance providing some form of private hospital cover and 12.7 million (55%) had some form of general treatment cover.

## Medications

In 2011–12, 208 million prescriptions were subsidised by the Pharmaceutical Benefits Scheme (PBS) and Repatriation Pharmaceutical Benefits Scheme, which was a 12% increase on the 184 million prescriptions subsidised in 2007–08.



In 2011–12 and 2012–13, the PBS drugs most frequently dispensed were cholesterol-lowering drugs, medications used in treatment of gastric reflux, pain management medications, blood-pressure lowering drugs and drugs associated with the treatment of diabetes.



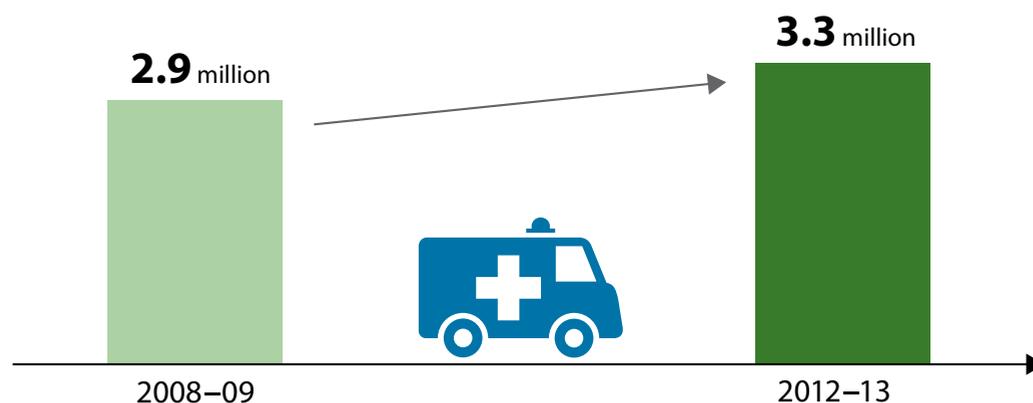
Proportion of **total recurrent health expenditure spent on medications**, constant prices, 2001–02 to 2011–12

## Call an ambulance

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There were 3.3 million incidents that resulted in a response by ambulance services in 2012–13—up from 2.9 million in 2008–09.

In 2011–12, the time taken for ambulance services to respond to 90% of emergency incidents ranged from 14.8 minutes for the Australian Capital Territory to 22.5 minutes for New South Wales and the Northern Territory.



About 1 in 4 (24%) of all emergency department patients (or 1.6 million patients) arrived at the emergency department by ambulance, air ambulance or helicopter in 2012–13.

There were 44 fixed wing and 35 rotary wing ambulance aircraft available in Australia in 2012–13.

# Hospitals

In 2011–12, there were 753 public and 592 private hospitals in Australia.

Of the 9.3 million hospitalisations in 2012–13, 60% were in public hospitals (5.5 million) and 40% in private hospitals (3.7 million).

There were more than 6.7 million emergency department presentations reported in Australian public hospitals in 2012–13, equivalent to just over 18,000 presentations each day.

In 2012–13, a higher number of emergency department presentations occurred at weekends and on Mondays than on other days. On average, more than two-thirds (69%) of patients arrived between 8 am and 8 pm.

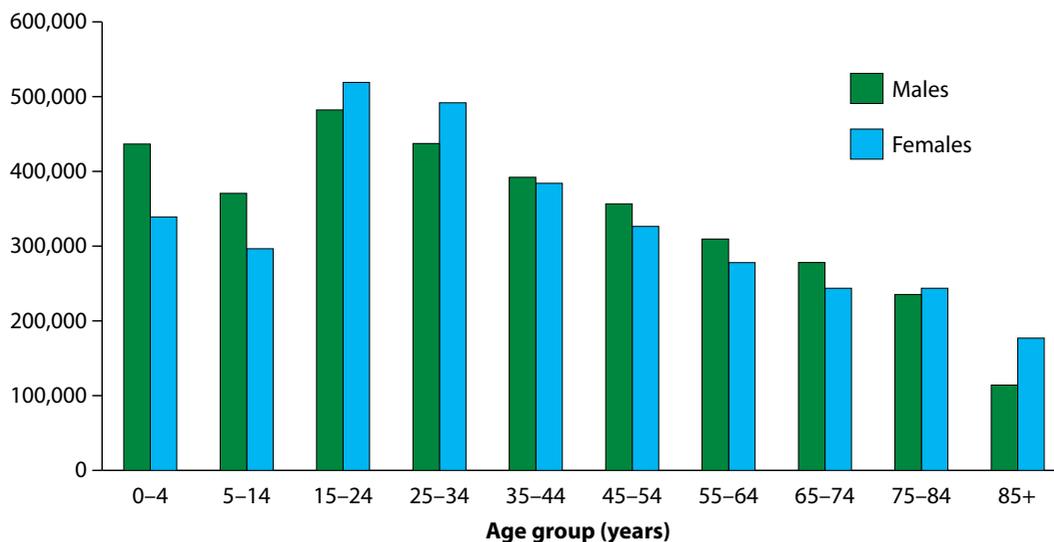


**753** public hospitals



**592** private hospitals

## Number of presentations



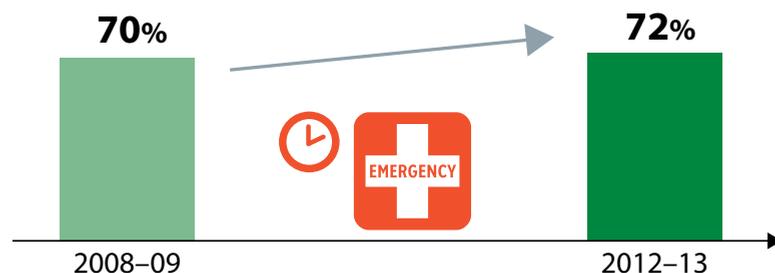
## Public hospital emergency department presentations, by age and sex, 2012–13

## More people treated on time in emergency departments

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Emergency departments are a critical component of the health system because they provide care for patients who have life-threatening or other conditions that require urgent medical care.

From 2008–09 to 2012–13, the overall proportion of emergency patients ‘seen on time’ increased from 70% to 72%.



The overall proportion of **emergency patients 'seen on time'** increased

During 2012–13, 67% of emergency department presentations were completed in 4 hours or less. This was a small improvement from 2011–12 (64%).

## Waiting for elective surgery

Although private hospitals perform about two-thirds of elective surgery in Australia (1.3 million admissions for private hospitals compared with 673,000 for public hospitals in 2012–13), national waiting time information is only reported for public hospitals.

In 2012–13, 50% of patients (the median) were admitted within 36 days of being placed on the elective surgery waiting list, 90% were admitted within 265 days and 2.7% waited more than 1 year.



During the 5 years from 2008–09 to 2012–13, median waiting times increased from 33 to 36 days and the number of days within which 90% of patients were admitted rose from 219 to 265.

The shortest median waiting time was in Queensland (27 days) and the longest was in the Australian Capital Territory (51).

Since 2008–09, ear, nose and throat surgery, and orthopaedic surgery, have been the 2 surgical specialties with the highest proportion of patients who waited more than 365 days to be admitted. Cardio-thoracic surgery has been the specialty with the lowest proportion.



**Median waiting time for elective surgery**



## *Section 6*

# *What lies ahead?*

**Good health is integral to a good quality of life, and in this book we have documented several of the current major issues and trends in health and health services in Australia.**

**In considering what lies ahead, we cover the two 'big-ticket' items likely to dominate the health landscape in the immediate future: increasing health costs, and 'Australia's biggest health challenge'—the rise of chronic diseases.**

**We also nominate some areas where new or better data could provide much-needed additional insights into the health of Australians and the efficiency of our health services.**

# The increasing costs of the health system

## Health is expensive

In 2011–12, health expenditure in Australia was estimated at \$140 billion, or 9.5% of gross domestic product, compared with \$133 billion in 2010–11 and \$83 billion in 2001–02.

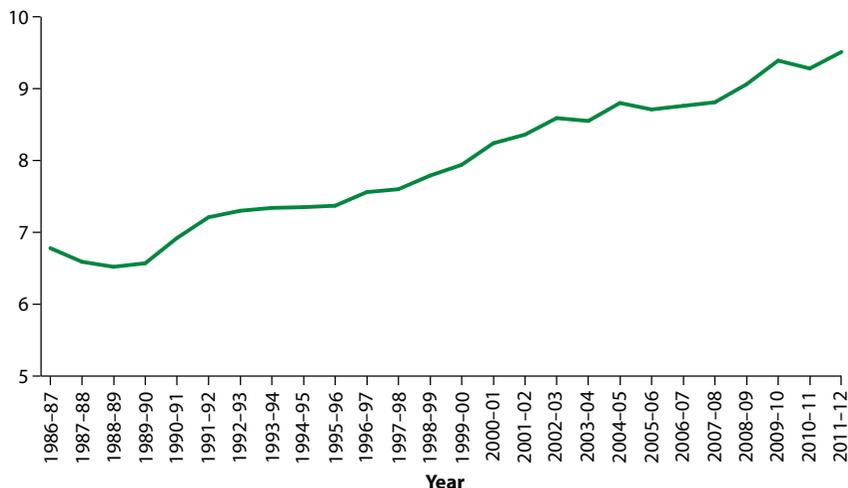
Health spending tends to be relatively even between hospitals (\$53.5 billion) and primary health care (\$50.6 billion).

Almost 70% of total health expenditure during 2011–12 was funded by governments (42% by the Australian Government and 27% by state and territory governments). Patients paid 17%, private health insurers 8% and accident compensation schemes 5%.

Health expenditure has grown faster than inflation and the economy as a whole for many years:

- The ratio of health expenditure to gross domestic product (GDP) increased from 6.8% in 1986–87 to 9.5% in 2011–12.
- After taking inflation into account, total health expenditure grew at an average rate of 5.4% a year in the decade to 2011–12 while GDP grew at a slower 3.1% a year.

Health expenditure to GDP ratio (per cent)



Total health expenditure to GDP ratio, 1986–87 to 2011–12

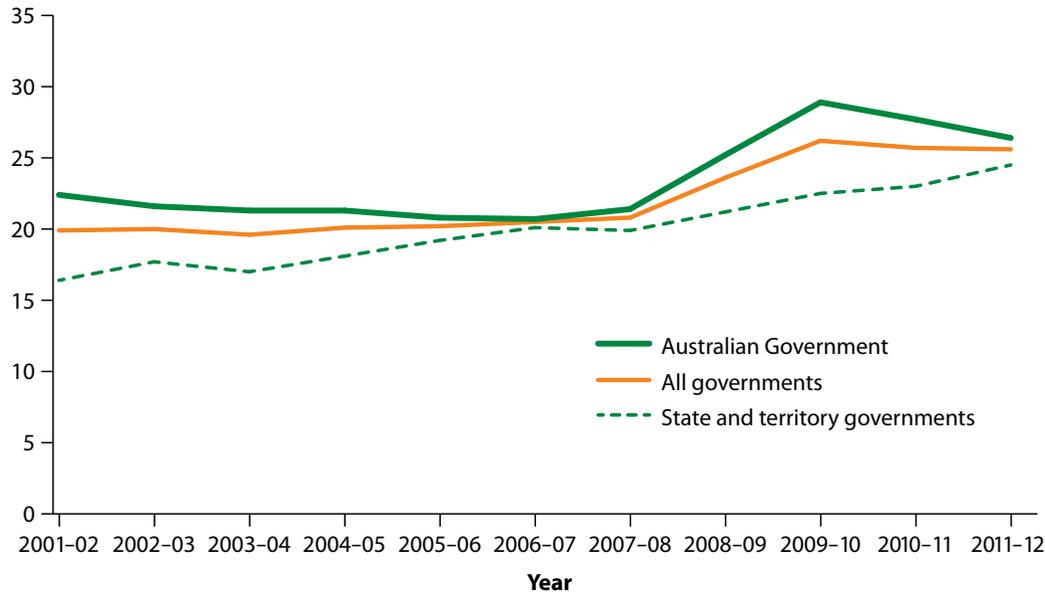
*What lies ahead?*

## Health costs outstripping revenue recently

For many years health expenditure has grown faster than the broader economy—but governments were not necessarily spending a higher proportion of their incomes from taxation and other sources on health. That has now changed:

- Until the global financial crisis (GFC), which began in 2007–08, the ratio of government health expenditure to taxation revenue was quite stable at around 20%.
- The GFC slowed government revenues without having an immediate impact on health expenditure. This increased the health-to-revenue ratio.
- The ratio has fallen slightly since 2009–10, as growth in government tax revenues picked up, but in 2011–12 the ratio was around 26%, or 6 percentage points higher than before the GFC.

**Expenditure to revenue ratio (per cent)**



**The ratio of health expenditure to tax revenue across all governments, current prices, 2001–02 to 2011–12 (per cent)**

## What is driving rising health costs?

### Population growth

Australia's population is growing by about 1.6% per year (2012), and this factor alone can be expected to place upwards pressure on health costs.

### New technologies and treatments

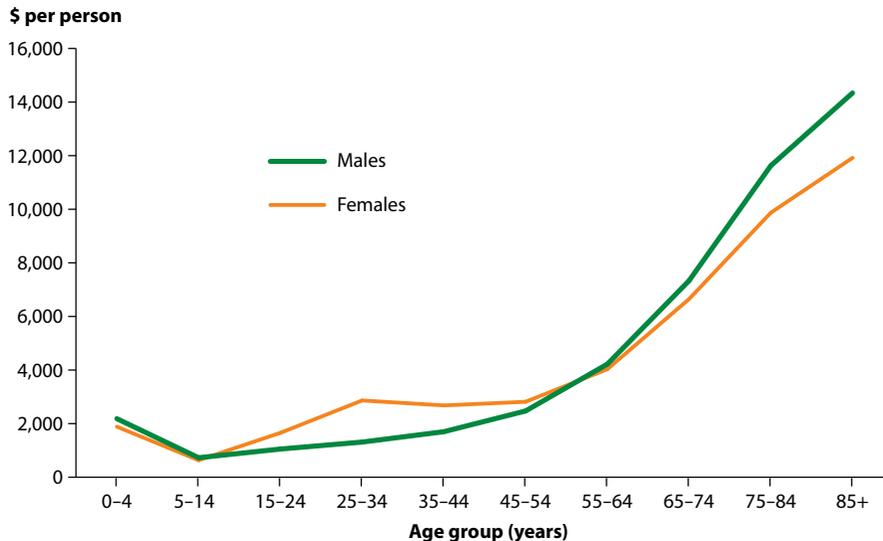
Much of the growth in health expenditure can be attributed to new technologies, pharmaceuticals, and diagnostic and treatment techniques—these enable a wider range of health conditions to be managed more effectively.

Correspondingly, community expectations of the health system have risen, along with expectations of access to such technologies and services, which further drives up health expenditure.

### Population ageing

Population ageing has attracted particular attention because health-care expenditure is generally higher in the older age groups.

In 2008–09, expenditure in Australia on adults aged 85 and over was almost 20 times higher per person than expenditure on children aged 5 to 14.



### Allocated health expenditure per person, by age and sex, 2008–09

On the surface, this suggests that as a population ages, the number of people in the age groups where the most expenditure occurs will increase and, therefore, demand for health expenditure will increase.

However, estimating how much population ageing itself might add to health costs is not straightforward:

- Over the past 25 years, health expenditure in Australia has risen at a faster rate than either population growth or population ageing.
- As people live longer healthier lives, their end-of-life health costs are postponed.

Also, patterns of costs associated with ageing may differ in the future compared with the situation now. In the near future our ageing population can be expected to have higher levels of chronic disease (see next section). Extra new technologies and services may become available to identify and treat these conditions, and/or prolong life. These may add to, reduce, or delay health costs.



### Efficiency

The efficiency of the health system has a large bearing on health expenditure. The Organisation for Economic Co-operation and Development (OECD) claimed in 2010 that life expectancy across OECD countries (mainly developed nations) could be increased by 2 years if all countries had health systems as efficient as the best in the OECD.

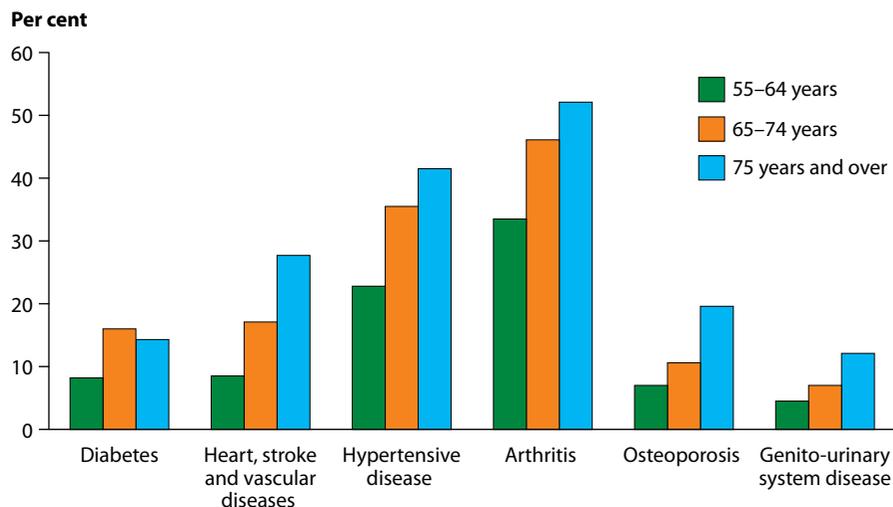
Australia was identified as having room for efficiency and life expectancy improvements, from an overall relatively strong starting point compared to many other OECD countries.

# 'Australia's greatest health challenge'—chronic diseases

## Problem and potential

Chronic diseases are part of an interlinking web of diseases, conditions and risks, and responsible for 90% of all deaths in Australia.

With an ageing population we can expect a higher number of people with chronic diseases. For example, as we saw in Section 3, people aged 65 and over have much higher levels of arthritis, high blood pressure, heart disease, stroke and vascular diseases, diabetes and cancer than younger people.



## Prevalence of selected self-reported health conditions, people aged 55 and over, by age group, 2011–12

However, across all ages, changes in health behaviours can reduce the incidence and impact of chronic diseases—the World Health Organization estimates that up to 80% of heart disease, stroke and type 2 diabetes, and more than one-third of cancers worldwide, could be prevented by eliminating smoking, unhealthy diet, physical inactivity and the harmful use of alcohol.

## Health behaviour changes possible

### Smoking

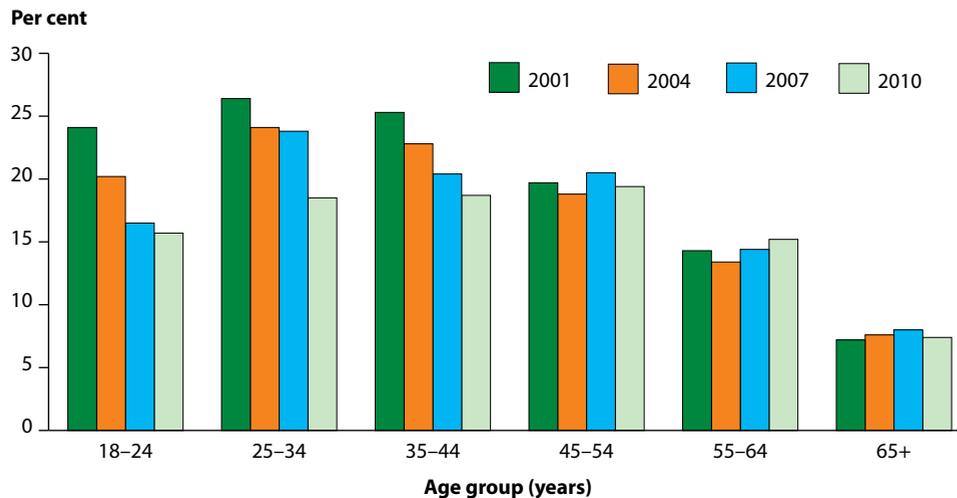
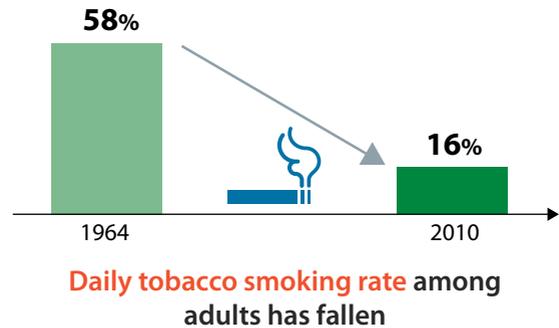
One area of great health behaviour change success in Australia, and where the successes look like continuing, is the reduction in daily smoking rates.

Tobacco smoking is responsible for about 90% of lung cancers in males and 65% in females. It is also known to contribute to mouth cancers, throat cancer, cardiovascular diseases, lung disease, respiratory problems and stroke.

Daily tobacco smoking among adults fell from 58% in 1964 to 16% in 2010—one of the lowest rates in the world.

However, for people living in areas of least disadvantage in Australia, the rate is 10%. This means that further reductions in smoking across the whole population *must* be possible.

What's happening with our young population gives us hope. Over the 10 years to 2011, the proportion of students aged 12–15 who had smoked in the past 4 weeks fell from 20% to 6%. And the proportion of students who had never smoked rose from 53% to 77%.



**Adult daily smoking rates by age group, 2001 to 2010**

## Health behaviour challenges

### Diet and exercise

Poor diet and limited exercise are major contributors to chronic disease, yet:

- In 2011–12 only 8% of adults were eating enough vegetables and only 49% were eating enough fruit for optimum nutrition.
- Fewer than 1 in 3 children were eating enough fruit and vegetables. Younger children aged 5–9 were more likely to do this than older children aged 10–14 (44% compared with 15%).
- High-energy low-nutrition ‘treat’ foods contributed to 36% of energy intake for adults and 41% for children, which is more than the recommended 0–3 serves per day (depending on age and sex).



Proportion of energy intake from 'treat' foods

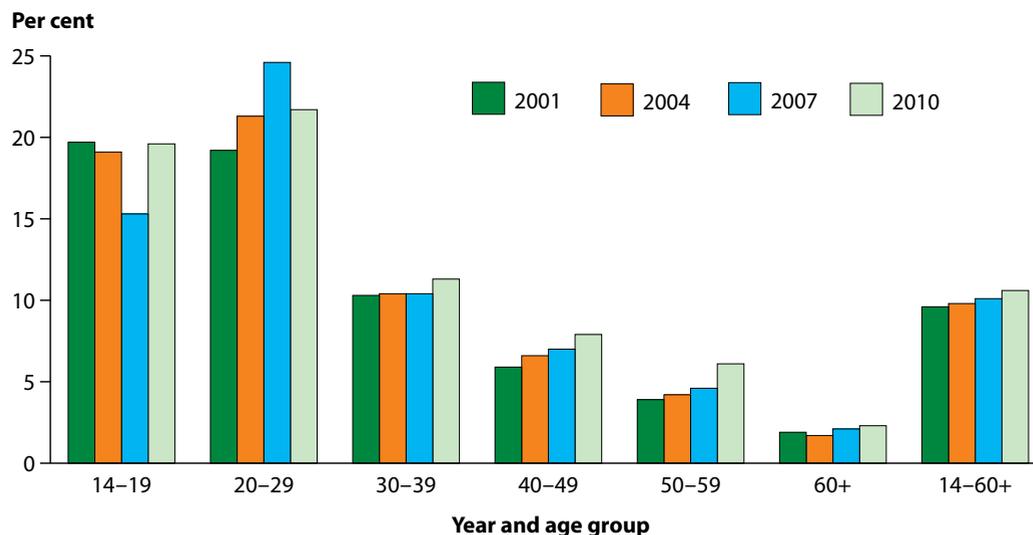
- Just over 2 in 5 adults (43%) were sufficiently active in 2011–12 to meet recommended minimum levels for good health.
- Sufficient physical activity was more common in areas with the highest socioeconomic status (52%) than areas with the lowest (34%).
- As we get older we exercise increasingly less, from 53% of people 18–24 being sufficiently active to 25% of people aged 75 and over.
- Only 30% of children aged 2–17 met national physical activity recommendations (180 minutes or more per day for children aged 2–4, 60 minutes or more per day for children aged 5–17).

## Alcohol use

Excessive alcohol consumption is a major cause of road and other accidents, domestic and public violence, crime, liver disease and brain damage. It also contributes to family breakdown and other social problems.

Australian guidelines suggest that drinking no more than 2 standard drinks on any day reduces the lifetime risk of harm from alcohol-related disease or injury, and drinking no more than 4 standard drinks on a single occasion reduces the risk of alcohol-related injury arising from that occasion. Yet:

- Between 2007 and 2010, there was little change in the proportion of people drinking alcohol at levels that put them at risk of harm over their lifetime (at about 1 in 5), or from a single drinking occasion at least once a month (at about 1 in 4).
- People in their late teens and 20s were the most likely to drink at risky levels (for harm over their lifetime and from a single drinking occasion). Almost 1 in 2 were at risk of harm from a single drinking occasion (at least monthly)—a pattern little changed between 2007 and 2010.
- The proportion of recent drinkers drinking large volumes of alcohol (11 or more drinks on a single occasion) at least once a month increased slightly between 2001 and 2010.



Proportion of **recent drinkers who have consumed 11 or more drinks on a single occasion** at least monthly, 2001 to 2010

## Information needs for the future

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Better information in many areas of health in Australia will enable us to better understand health behaviours, actions and outcomes, and possible avenues for improvement. This could lead to improved health for Australians and a more efficient health system.

One of the AIHW's roles is to indicate where there is potential to improve health data, and draw attention to current data gaps.

### Chronic disease

Enhanced information on the number of new cases, existing cases and treatment of chronic diseases and associated risk factors could help in meeting 'Australia's greatest health challenge'. For example:

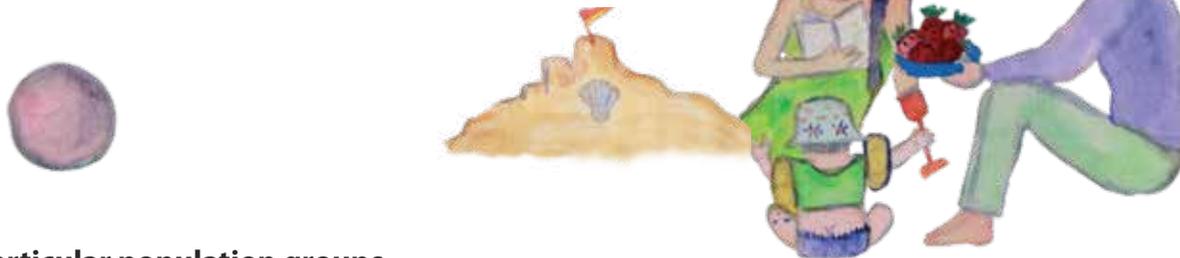
- **Heart attack and stroke**—national data are needed on the number of new cases of heart attack and stroke each year. We currently have to estimate these numbers.
- **Type 2 diabetes**—there is currently no national data collection for new cases of diagnosed type 2 diabetes each year.
- **Dementia**—we lack national data on the number of people with dementia, so we use international data and modelling to produce estimates. There is also limited information on the different types of dementia that people have.
- **Dental statistics**—there is a lack of routinely collected data on dental service use in Australia. Some data are collected from public dental services, but governments fund less than 30% of total dental services expenditure.
- **Mental health**—information from past national mental health surveys is now outdated. We also need information on mental health service outcomes, such as changes in symptoms, and experiences of care, in order to improve mental health services.



## Life expectancy and life events

Current national information on life expectancy and life events (such as education, relationship formation, employment, unemployment, retirement) would be enhanced if we could build stronger links between these data and health, and the social determinants of health. For example:

- **Life expectancy**—there are currently no national data to describe the relationship between life expectancy and long-term health conditions or lifestyle behaviours—such as life expectancy of smokers compared with non-smokers. Similarly, no data are available on life expectancy by socioeconomic factors, country of birth, employment, or level of education.
- **Life events**—information on the effects of life events and transitions on Australians' health is limited because not all health-related data sets collect information on aspects such as marital, education and employment status.



## Particular population groups

There are some population groups for which there is a lack of data on specific aspects of health or health services that are significant to the health of those groups. Two examples are:

- **Aboriginal and Torres Strait Islander health**—there are continuing problems with the under-identification of Indigenous Australians in health services data. A related issue is that lack of access to health services could explain part of the health gap between Indigenous and non-Indigenous Australians. But we need better data to quantify this, including information on unmet need for both populations (individuals who felt they needed to visit a health professional but didn't).
- **Children and young people**—there is limited data to support understanding of the two-way relationship between health and the changing shape of adolescence and early adulthood in Australia. The lack of up-to-date data on mental health particularly applies to young people on issues such as suicide, intentional self-harm, risky behaviours, eating disorders, and substance use disorders. There are also limited data available on issues such as diabetes in young people.

## Health services and expenditure

Given the importance of health in people's lives as well as to the national budget, it is essential that we have a good understanding of where money is spent, what services are delivered, and how effective the services are. Some of the current data gaps in health services and expenditure information are:

- **Health services outcomes, safety and quality, efficiency**—there is a lack of information generally on the outcomes of health care in Australia, and limited information is collected on safety and quality, efficiency and cost-effectiveness.
- **Primary health care**—we do not currently have good information about why people visited a GP, what care they received, and the outcome. Similarly, there is little information available on the activities of other primary health care providers such as physiotherapists.
- **Medicines**—in most cases where a medicine is prescribed, there is a little information available at a national level on the purpose for which it was prescribed, whether the medicine was taken, and the outcome that occurred from use of the medicine.
- **Private hospital data**—more data are needed on private hospitals that would help in comparing the relative performance of public and private hospitals.
- **Expenditure on diseases**—a particularly important gap is estimates of how much money is spent on particular diseases, with the most recent estimates being from 2008–09. Not all health expenditure, however, can be readily allocated to disease or injury groups.

## Data linkage and pathways through the health system

Throughout *Australia's health 2014* we point to the benefits of linking data sets (while preserving privacy) to understand people's 'pathways' through the health system (and other types of care, including aged care), and the relationships between health conditions, health service use and health outcomes. The AIHW is one of the few organisations accredited to do this kind of work using information from all governments on a consistent national basis and ensuring the privacy of sensitive information.





*Australia's health 2014—in brief* presents highlights from the Australian Institute of Health and Welfare's 14th biennial report on the nation's health.

