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Our health risks – how does Australia compare?

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Our health risks - how does Australia compare?

Australia's health generally compares well internationally.[1] Our life expectancy is among the highest in the world, and our infant mortality rate is among the lowest.[2]

Internal and external conditions influence our health. While Australia's external health risk factors (such as access to clean water and sanitation) are low, Australians' internal health risk factors (such as body weight or tobacco smoking) could be modified to further improve our health.

The World Health Organisation (WHO) reports that heart disease, stroke, cancer and other noncommunicable diseases pose a looming health burden.[3] These somewhat preventable diseases are indeed increasing amongst the Australian population, and Australia's population is ageing.

This article focuses on a number of different adult health risk factors for noncommunicable diseases, and analyses the health risks of Australians in the international context.

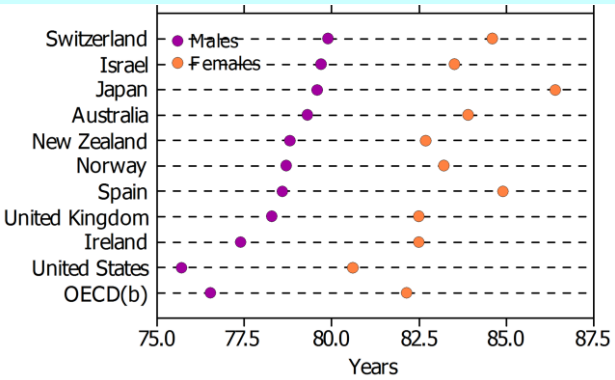
Australia's health - how do we compare?

For the most part, Australians have similar or better health than other Organisation for Economic Cooperation and Development (OECD) countries.[4]

...life expectancy

In 2009, Australia was ranked equal fourth, with Israel, in the OECD for life expectancy, after Japan, Switzerland and Spain.[2] Life expectancy for males in Australia was 79.5 years and 84.0 years for females.[5]

Life expectancy(a) of OECD countries — 2009



(a) Life expectancy at birth.

(b) Data are the average of the OECD countries with data available.

Source: OECD Health Data 2011: Frequently Requested Data <www.oecd.org>

Data sources and definitions

The data in this article are from a variety of sources including the:

- ABS National Health Survey
- World Health Organisation (WHO)
- Organisation for Economic Cooperation and Development (OECD). Available data were used wherever possible, with the OECD averages based on all available data.[6]

In this article an ***adult*** is defined as a person aged 18 years and over, unless otherwise specified.

Health risk factors are specific lifestyle and related factors impacting on health, including: tobacco smoking, alcohol consumption, exercise, body mass, and dietary behaviours - fruit, vegetable and whole milk consumption.

Life expectancy is the average number of additional years a person of a given age and sex might expect to live if the age-specific death rates of the given period continued throughout his/her lifetime.

Life expectancy in Australia has increased 5.1 years between 1989 and 2009. This was slightly more than the increase in average years of life expectancy for all OECD countries over that time (4.9 years).[2]

Australia was ranked equal fourth in the OECD for life expectancy in 2009.

Risk factors for health

A small number of risk factors account for much of the morbidity and mortality attributed to noncommunicable disease. These include: tobacco use, excessive alcohol consumption, being overweight or obese, insufficient physical activity, high blood pressure, high concentrations of cholesterol in the blood and inadequate intake of fruit and vegetables.[7] Many noncommunicable diseases can be prevented through the reduction of risk factors and other underlying metabolic and physiological causes.

The World Health Organisation has developed a number of strategies to guide policy-makers around the world to create effective strategies to address the public health problems caused by these health risk factors.

Further definitions

Age standardisation is a method that enables comparisons of populations by adjusting for the different age structures of the populations.

Body Mass Index is a measure of overweight and obesity calculated from height and weight information, using the formula weight (kg) divided by the square of height (m^2). For adults:
- a BMI score between 25kg/m^2 and 29.9kg/m^2 is classed as overweight; and
- a BMI score of 30kg/m^2 or greater is classed as obese.

Insufficient physical activity is participation in less than 150 minutes of moderate-intensity physical activity each week.

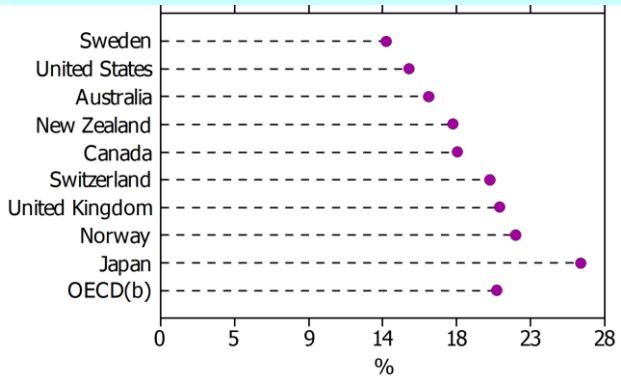
Tobacco smoking

The World Health Organisation estimates that almost six million people die every year from smoking-related causes, both from direct tobacco use and second-hand smoke.[8] Tobacco use not only reduces life expectancy but also quality of life, with many smoking-related conditions resulting in years living with disabling health problems.

The WHO has reported that daily tobacco smoking rates are highest in the European and Western Pacific Regions.[8, 9]

The WHO projects that, without action, by 2030 the number of smoking-related deaths will rise to eight million that year.[8] In response to this, the WHO created the *Framework Convention on Tobacco Control (FCTC)*, with the intention of significantly improving health and reducing the social costs caused by, and the inequality exacerbated by, tobacco in all its forms.[10] Currently, 174 parties (including Australia) have adopted the treaty and, under international law, must perform all obligations contained in the Convention.

Tobacco smoking prevalence(a) — 2007



(a) Proportion of people aged 15 years and over, who were daily smokers.
(b) Data are the average of the OECD countries with data available.

Source: OECD Health Data 2011: Frequently Requested Data <www.oecd.org>

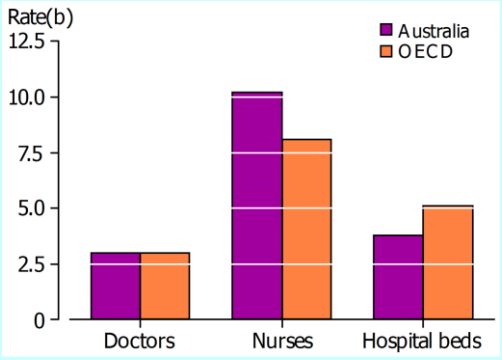
Health care

Health care constitutes a significant proportion of government spending, averaging 8.8% of GDP of OECD countries in 2008. Australia spent 8.7% of GDP on health in 2008, ranking eighteenth highest among the 34 OECD countries.[2, 3]

Health care is complex, with many service providers operating in Australia.[1] Several indicators can tell us how Australia's health system is placed internationally, such as practising doctor and nurse numbers, and the number of hospital beds. These indicators reflect the availability of health services.

While Australia had the same number of doctors as the OECD countries' average in 2008 (3 per 1,000 population), there were more nurses per 1,000 population (10.2 compared with 8.1 nurses). Australia had a lower number of hospital beds per 1,000 population (3.8 beds) than the average of the OECD countries (5.1 beds per 1,000 population).

Health care in Australia and the OECD(a) — 2008



(a) Average of the OECD countries.
(b) Rate per 1,000 population.

Source: OECD Health Data 2011: Frequently Requested Data <www.oecd.org>

The obligations range from ensuring access to public awareness programs outlining the health risks of consumption and exposure to tobacco, to incorporating bans on smoking in work and public places.[10]

...in Australia

Tobacco smoking in Australia has been declining over recent decades. In 2007-08, nearly one in five (19%) Australian adults aged 18 years and over were current daily smokers, down 12% since 2004–05 (after accounting for changes in the age structure).

Australia was below the OECD average (21%) in 2007 with 17% of people aged 15 years and over being daily smokers.[2] Other countries with daily smoking rates lower than the OECD average include the United States (15%) and Sweden (14%).[2]

Alcohol consumption

The harmful use of alcohol contributes significantly to the global burden of death, disease and injury.[11] Approximately 2.3 million people worldwide died in 2004 from the use of alcohol.[8] More than half of these deaths occurred as the result of noncommunicable disease, including cancers, cardiovascular disease and liver cirrhosis.[8] Alcohol is the causal factor in more than 60 major types of diseases and injuries.[11]

In addition to the detrimental impacts to the consumer through the misuse of alcohol (long-term risks), there are also short-term risks.[12] Short-term risks include the impact on others through the dangerous actions of intoxicated people, such as drink driving and violence.[13] The harmful use of alcohol is a particular threat to men. Globally in 2004, 6.2% of all male deaths were attributable to alcohol, compared with 1.1% of female deaths.[11]

According to the World Health Organisation, the world's highest alcohol consumption levels in 2008 were found in Europe and the Americas.[8, 9]

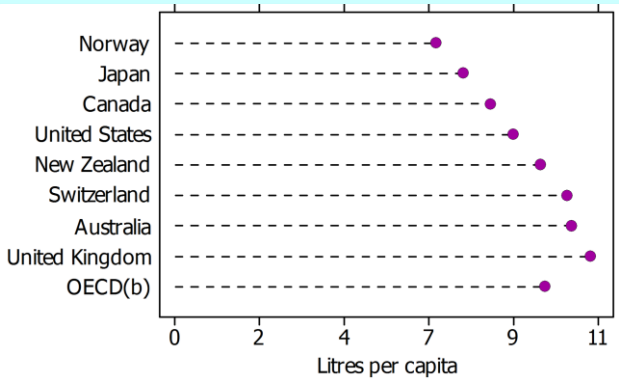
While the use of alcohol has been stable in most countries of the world since the turn of the century[11], the World Health Organisation aims to limit dangerous drinking through the *Global Strategy to reduce harmful use of alcohol*.[13] The Strategy suggests policies, interventions and measures. Australia is one of several member countries participating.[13]

...in Australia

Apparent alcohol consumption in Australia has been estimated for 2008 at 10.3 litres of pure alcohol per person (aged 15 years and over) per year.[2] Australians consumed more alcohol than the OECD average of 9.6 litres of pure alcohol per person in 2008.[2] As a standard drink consists of 12.5mls of pure alcohol, for Australia, this equates to an average of 2.2 standard drinks per day per person aged 15 years and over.[14]

The National Health Survey shows that the proportion of people aged 15 years and over at risk, over the long term, from alcohol consumption was 13% in 2007–08. This rate had been stable since 2004–05 (after accounting for changes in the age structure).

Alcohol consumption(a) — 2008



(a) Litres of pure alcohol per capita of people aged 15 years and over.
(b) Data are the average of the OECD countries with data available.

Source: OECD Health Data 2011: Frequently Requested Data <www.oecd.org>

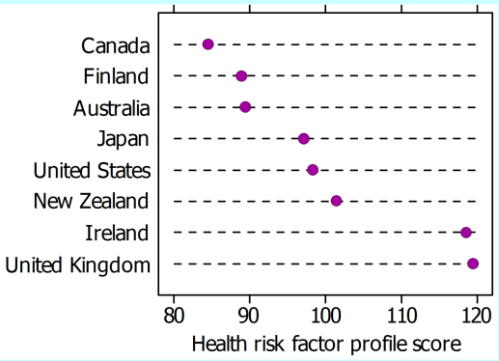
Best and worst health risks

Using the prevalence of four risk factors for noncommunicable disease (tobacco smoking, alcohol consumption, obesity and insufficient exercise) a health risk factor profile can be built.

For OECD countries with data available in all four health risk areas for 2007, Canada fares the best, with Australia not far behind. The United Kingdom had the worst profile, partly due to having the worst alcohol consumption and physical inactivity rates. Ireland is close behind the United Kingdom.

While Australia fares relatively well for this health risk profile, the burden of preventable disease remains.[1] Australians still suffer from noncommunicable diseases such as heart attack, stroke and cancer. Thus, Australia has room to improve on its health risk factor profile.

Health risk factor profile(a) of selected countries — 2007(b)



(a) Only countries with full data available were included. The health risk factor profile score with lower scores indicating less risk of ill health. The health risk factor profile is the sum of the proportion of people (out of 100) for each health risk factor (daily tobacco smoking, obesity and physical inactivity) and the alcohol consumption in Litres.
(b) Data for physical inactivity were for 2008.

Source: OECD Health Data 2011: Frequently Requested Data, <www.oecd.org>, and WHO Global Health Observatory Data Repository, <www.who.int>.

NHMRC Guidelines

In this article, risk over the long-term from alcohol consumption has been measured using the 2001 National Health and Medical Research Council (NHMRC) Guidelines. New Guidelines were introduced in 2009.

For more information see 'Australian guidelines to reduce health risks from drinking alcohol'.

Being overweight or obese

Approximately 2.8 million people die each year worldwide as a result of being overweight or obese.[8] Risks of developing heart disease, stroke, type 2 diabetes and certain cancers, including breast and colon, increase steadily with increasing body mass index (BMI).[8] Being overweight or obese also has adverse metabolic effects on blood pressure, cholesterol and insulin resistance.[8]

In 2008 worldwide, over one-third (35% or 1.5 billion) of adults aged 20 years and over were overweight,[8, 15] while an additional one-tenth (11% or half a billion) were obese.[8, 15] The rates for obesity have nearly doubled since 1980, when 5% of men and 8% of women were obese, compared with 10% of men and 14% of women in 2008.[8]

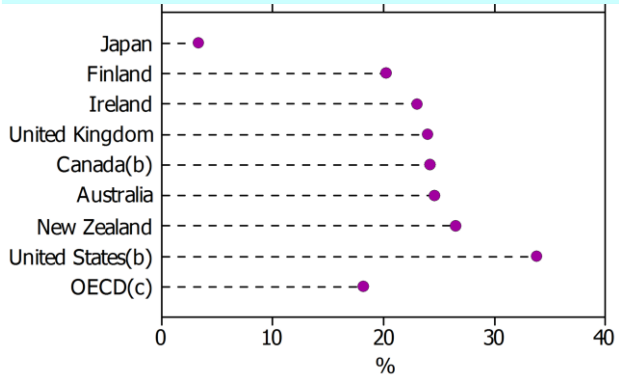
The WHO has reported that the Americas and European Regions had the highest rates of obesity in 2008.[8, 9]

To respond to the increasing burden of noncommunicable diseases the WHO developed the *Global Strategy on diet, physical activity and health*.[16] The Strategy recognises obesity as an important risk factor for noncommunicable diseases. The Strategy aims to provide guidance for governments and communities to take action to promote and protect health through enabling environments and actions.[16]

...in Australia

In Australia in 2007–08, a quarter (25%) of all adults were obese (based on measured height and weight), an increase of 27% since 1995 (age-standardised). After adjusting for differences in age structures, Australia was placed well above the OECD countries' average of 18% of the adult population being obese in 2007.[2]

Obesity prevalence(a) — 2007



(a) Proportion of the total adult population who are obese. Body Mass Index (BMI) based on measured height and weight.

(b) Data are for 2008.

(c) Data are the average of the OECD countries with data available.

Source: OECD Health Data 2011: Frequently Requested Data <www.oecd.org>

Physical inactivity

The WHO estimates that worldwide 3.2 million deaths annually are attributable to not being physically active enough.[8] Insufficient physical activity increases the risk of cardiovascular disease, diabetes and certain cancers. Participation in sufficient regular physical activity is estimated to decrease the risk of heart disease by approximately 30%, reduce the risk of diabetes by 27% and the risk of breast and colon cancer by 21-25%. Physical activity also reduces the risk of stroke, hypertension and depression.[8]

In 2008, worldwide, over one-third (31%) of people aged 15 years and over were insufficiently active.[8] The WHO has reported that the regions with the highest rates of insufficient physical activity in 2008 were the Americas and the Eastern Mediterranean Regions.[8, 9]

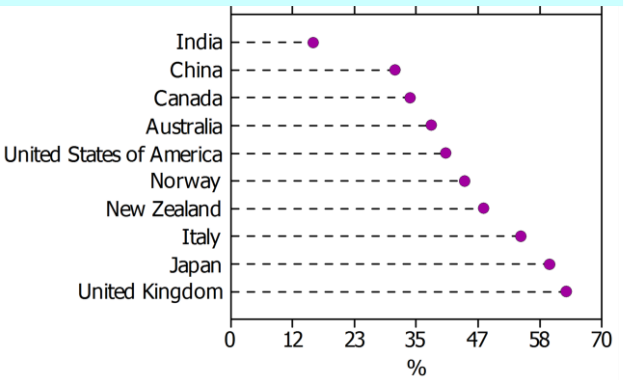
The WHO *Global Strategy on diet, physical activity and health*, which was adopted in 2004, aims to address the growing prevalence of people doing insufficient physical activity.[16]

...in Australia

Nearly two-fifths (38%) of Australians aged 15 years and over were insufficiently physically active in 2008. After adjusting for different age structures across various countries, this was higher than the global average of more than one-third (36%) of people who were insufficiently physically active in that year.[17]

According to the ABS National Health Survey, the proportion of Australian adults reporting insufficient physical activity, here defined as a sedentary level of activity, increased slightly in recent years. In 2007–08, over one-third (35%) of Australians aged 15 years and over had a sedentary level of exercise in the two weeks prior to interview, a 5% increase since 2004–05 (after accounting for changes in the age structure).

Physical inactivity prevalence(a) — 2008



a) Age-standardised estimate of the proportion of the total population (15 years and over) who were insufficiently physically active.

Source: WHO Global Health Observatory Data Repository, <www.who.int>

Noncommunicable diseases

Unhealthy lifestyle choices lead an individual to be at increased risk of noncommunicable diseases. These chronic diseases are the leading causes of death in the world. In 2008, noncommunicable diseases were responsible for almost two thirds (63%) of the 57 million deaths that occurred worldwide.[8] The majority of these 36 million deaths were attributed mainly to cardiovascular diseases, diabetes, cancers and chronic respiratory diseases.[8] The picture in Australia is similar.[18]

The burden of noncommunicable diseases has risen, and is projected to increase as populations age because these diseases are more common at older ages.[8] In Australia, for example, the prevalence of diabetes is projected to rise, based on the increasing number of people who are obese.[1]

Looking ahead

International comparisons of Australia's health show us in a favourable light compared with other OECD countries.[2] Despite this, projections of the future health of Australians suggest increasing levels of the noncommunicable and somewhat preventable diseases.[1] The Productivity Commission has estimated that, as a proportion of GDP, health spending will increase by 78% between 2009–10 and 2049–50, partly due to the expected rise in preventable conditions.[19] While Australia's smoking rates are comparatively low, our rates of drinking alcohol, being obese and sedentary are relatively high. Improving on all these risk factors is an important step towards the prevention of potential unnecessary disease and death.

To address this looming health burden, the Australian Government is working with other nations who have similar concerns to endorse international strategies for health promotion and protection. As a result, numerous strategies exist to target health risk factors for noncommunicable diseases. Campaigns such as *Quit Now*[20] and the *Swap It, Don't Stop It*[21] have national coverage through mass media and online education portals. Action is happening at the individual, community and national levels to promote healthy lifestyle habits.

Mortality rates from noncommunicable diseases — Australia and the OECD(a)

Noncommunicable disease	*Australia*		*OECD*	
	Males	Females	Males	Females
Ischaemic heart disease(b)	99	52	117	60
Stroke	36	34	54	42
All cancers	184	115	208	124

(a) Data are the average of the 34 OECD countries. Mortality rates are age-standardised death rates per 100,000 population, attributed to the disease.

(b) Includes angina, heart attack and other heart conditions.

Source: OECD Health at a Glance 2011: OECD Indicators, <www.oecd.org>

Endnotes

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3 World Health Organisation, 2005, Preventing chronic disease: a vital investment: WHO global report, <www.who.int>.

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6 The 34 countries for whom the OECD reported data include: Australia, Austria, Belgium, Canada, Chile, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Japan, Korea, Luxembourg, Mexico, Netherlands, New Zealand, Norway, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, Turkey, United Kingdom and United States.

7 Australian Institute of Health and Welfare, 2012, Risk factors contributing to chronic disease, cat. no. PHE 157, <www.aihw.gov.au>.

8 World Health Organisation, 2011, Global Status Report on noncommunicable diseases 2010, accessed 9 February 2012, <www.who.int>.

9 World Health Organisation geographical regions include: the African Region, the Region of the Americas, the South-East Asia Region, the European Region, the Eastern Mediterranean Region, and the Western Pacific Region.[8]

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21 Australian Government, 2012, Swap It, Don't Stop It website, accessed 9 February 2012, <www.swapit.gov.au>.

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