Australian Government
Australian Institute of Health and Welfare

Leading cause of premature mortality in Australia fact sheet:
COPD

COPD

What is COPD?

Chronic obstructive pulmonary disease (COPD) is a serious, progressive and disabling condition that limits airflow in the lungs. It includes emphysema and chronic bronchitis and becomes increasingly common with age. People with COPD are often short of breath on exertion and they may have a persistent cough with phlegm.

There is little awareness of COPD within the Australian community (Dunt & Doyle 2012). COPD may be hard to distinguish from asthma, due to similar symptoms, and some people may have both COPD and asthma (National Asthma Council Australia 2015).

The main cause of COPD is smoking, which accounts for about 70% of COPD for males and 60% for females in Western countries (AIHW 2015a). Other causes include smoke from burning fuels of plant or animal origin; outdoor air pollution; fumes and dust in the workplace; childhood respiratory infections; and long-standing asthma.

Premature mortality refers to deaths that occur at a younger age than a selected cut-off. For this analysis, deaths among people under the age of 75 are considered premature.

Who dies prematurely from COPD?

In 2012, there were 1,742 premature deaths recorded as being due to COPD in Australia. More than half (56%) of these deaths were among males (969 deaths compared with 773 deaths among females).

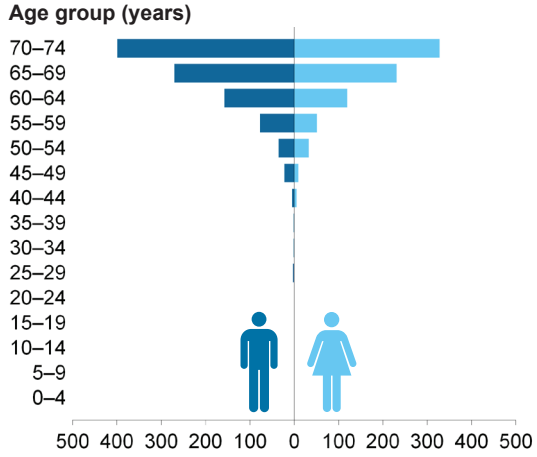

Figure 1: Premature deaths due to COPD, by sex and age group, 2012

Quick facts

COPD was the **7th** leading cause of premature death in Australia in 2010–2012.

Males accounted for **over half** (56%) of the premature deaths due to COPD in 2012.

The premature death rate due to COPD decreased by **63%** over the 3 decades from 1982 to 2012.

Premature deaths from COPD increase with age. Among both males and females, about 4 out of 5 premature deaths from COPD occur over the age of 60 (85% of males; 87% of females) (Figure 1).

What population-level approaches target premature deaths due to COPD?

COPD is a chronic and progressive disease, making prevention critical. Tobacco smoke is by far the strongest risk factor for COPD—which makes smoking cessation crucial. Smoking cessation is also important in managing COPD once it has developed.

Societal attitudes, legislation and public health measures influence tobacco use. Strategies that help people to quit smoking include the provision of information to the public from health professionals; taxation; advertising restrictions; and individual/group counselling.

The *National Tobacco Strategy 2012–18* is an Australian Government policy framework which aims to reduce tobacco-related harm in Australia. Priorities include reducing tobacco affordability; protecting public health policy from tobacco industry interference; and strengthening campaigns (Intergovernmental Committee on Drugs 2012).

Perhaps the best-known public health influences have been the introduction of tobacco control laws, including the requirement of businesses to provide smoke-free environments; advertising restrictions; warning labels on packaging; and point-of-sale controls (Magnusson & Colagiuri 2008).

There are also taxes in Australia which act as a disincentive for people to start or continue unhealthy habits that affect risk factors. As part of wider tobacco control laws, tax increases have been shown to lead to a decrease in tobacco use (WHO 2014).

Public health measures such as nicotine replacement—including nicotine gum, transdermal patches, nasal spray, inhalers, sublingual tablets and lozenges—are also effective approaches to reduce tobacco use (NHMRC 2004).

Measuring lung function is essential for an accurate diagnosis of COPD and allows for early intervention with smoking cessation strategies (Zwar et al. 2011).

There is no treatment that can reverse the destruction of lung tissue that underlies COPD, although some medications may reduce the frequency and severity of COPD exacerbations. Once a person has developed COPD, management is therefore focused on minimising symptoms to maintain quality of life and on slowing disease progression (Abramson et al. 2014).

Premature deaths due to COPD are classified as 'potentially avoidable in the context of the present health system' according to nationally agreed definitions (AIHW 2015b). The definition includes deaths from conditions that are potentially preventable through individualised care and/or treatable through existing primary or hospital care.

How have premature death rates due to COPD changed over time?

In 1964 there were 8.5 times as many premature deaths from COPD among males as among females. Between 1964 and 2012, trends for males and females showed different patterns (Figure 2). From the early 1970s there was a decrease among males, while the rate for females increased gradually until the mid-1990s and then declined.

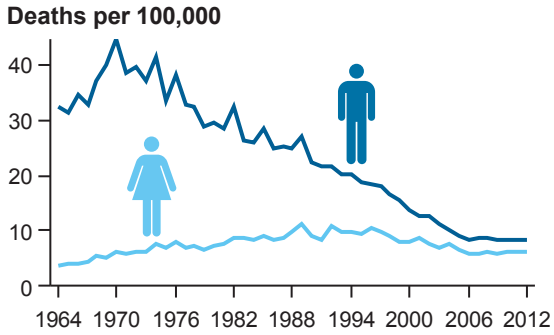

Figure 2: Age-standardised rate of premature deaths due to COPD, by sex, 1964–2012

The age-standardised premature mortality rate from COPD peaked for males in 1970 at 45 deaths per 100,000 population. The peak for females was in 1989 at 11 premature deaths per 100,000. In 2012, the rates for males and females were the closest they have been in history (8.2 deaths per 100,000 population and 6.3 per 100,000, respectively). For details on mortality trends across all ages, see AIHW et al. 2014.

What has influenced trends in premature deaths due to COPD?

COPD mortality trends in Australia are greatly affected by smoking trends. A range of interventions have influenced smoking rates in Australia and thereby premature death due to COPD. For example, tobacco consumption began falling in the 1960s as awareness of the health risks of smoking became better known.

In 1973 health warnings on cigarette packets were introduced in Australia. Tobacco smoking advertising on radio and television was banned in 1976, and in 1985 anti-smoking commercials began to air on television. Nicotine replacement therapy became available in 1993.

Smoking was banned in all pubs and clubs across Australia by 2010—the same year excise and customs duty increased by 25% (ABC News 2014).

Mandatory graphic images warning of the health effects on packaging of tobacco products were introduced in 2004, followed by mandatory plain packaging of tobacco products in 2012. Recently, smoking rates among adults have decreased, from 15.9% in 2010 to 13.3% in 2013 (AIHW 2014).

There is a time lag of around 15 years between changes in smoking rates and COPD mortality rates for males, and around 20 years for females (Adair et al. 2012).

Where can I find out more?

Premature mortality in Australia (including references):
<http://www.aihw.gov.au/deaths/premature-mortality/>.

AIHW GRIM books:
<http://www.aihw.gov.au/deaths/grim-books/>.

AIHW web pages and publications:
<http://www.aihw.gov.au/copd/>.

Australian Centre for Airways disease Monitoring website:
<http://www.asthmamonitoring.org/>.

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