

# **Facts on COPD and Smoking**

### What is COPD?

Chronic Obstructive Pulmonary Disease (COPD) is commonly known as chronic bronchitis and emphysema, both long-term lung diseases that cause shortness of breath. Each condition can occur alone, but many people struggle with a combination of both.<sup>1</sup>

- Nearly 80% of deaths from COPD are attributable to smoking with the majority of COPD sufferers having a long history of tobacco use.<sup>2</sup> Smokers' risk of COPD increases with each cigarette smoked with almost all smokers of 20 cigarettes per day showing some degree of emphysema.<sup>3</sup>
- Other known causes of COPD include exposure to industrial pollutants, usually in the workplace. A small proportion of cases of emphysema are also caused by an inherited problem called alpha-1-antitrypsin deficiency.<sup>1</sup>
- People with COPD, particularly current or past tobacco smokers, often suffer from other related diseases, and recurrent infections or allergies, which can complicate the symptoms and treatment of the disease.<sup>3</sup>
- COPD can interfere with an individual's daily activity, particularly with the ability to exercise or do manual work. The ability to perform productive work decreases markedly, and often completely, within the first 7 to 8 years from initial diagnosis.<sup>4</sup>
- It is common for COPD sufferers to experience depression and anxiety caused by the distressing symptoms of the disease, its prognosis and the limitations it imposes.<sup>3</sup>

#### **COPD** in Australia

COPD is among the top 10 leading causes of death in Australian men and women.4

- From the 2004-05 National Health Survey, it is estimated 590,000 Australians had COPD (3% of the population).<sup>4</sup> Self-reports of COPD increased with age rising from about 2.8% of people aged 45 to 54 years to 8.8% of those aged 75 years and over.<sup>4</sup>
- COPD is a major reason for hospitalisation in Australia. In 2003-04, there were 54,281 hospitalisations for COPD with an average length of stay of 7.5 days.<sup>4</sup>
- Hospitalisation for COPD occurs mainly among the elderly with those over 65 years accounting for 78% of all COPD admissions.<sup>4</sup> Males are more likely to be hospitalised than females (337 per 100,000 vs. 210 per 100,000).<sup>4</sup>
- In 2005, COPD caused 4,900 deaths. More males than females died of COPD (31 deaths per 100,000 vs. 16 per 100,000).<sup>5</sup>
- The death rate for COPD has declined over the last three decades, particularly among males. The death rate among females however increased between 1970 and 1990 and remained steady thereafter,<sup>4</sup> although recent data has indicated a slight fall in the rates.<sup>6</sup> The differences in death rates for COPD among males and females reflect changes in patterns of tobacco use over the decades.<sup>4</sup>









## **Burden of COPD in Australia**

• COPD was estimated to account for 3.6% of the disease burden in Australia in 2004, 3.7% of years of life lost due to premature mortality and 3.5% of years of 'healthy' life lost due to poor health or disability.<sup>7</sup>

#### **COPD** in Western Australia

COPD is among the top 10 leading causes of death in Western Australian men and women.8

- In 2000, COPD caused 390 deaths (over 3% of all deaths). More males than females died of COPD (228 males; 162 females). About 77% of all COPD deaths in 2000 were attributable to tobacco smoking (176 males; 124 females).9
- For the period 1998 to 2002, smoking-caused COPD resulted in 1,465 deaths, the loss of 3,615 person years of life, 14,975 hospital admissions, 126,211 hospital bed-days and hospitalisation costs of over \$55 million.<sup>9</sup>
- The death rate for COPD in Western Australia has declined among males, but there have been no significant changes among females. From 1997 to 2005, death rates among males have decreased by 5.9% per year on average, from 45.6 to 27.8 deaths per 100,000 persons.<sup>6</sup>

# **COPD** and Indigenous Australians

• Half (50%) of Indigenous Australians smoke placing them at increased risk of COPD.<sup>10</sup> In 2005-06, hospitalisations of Indigenous people for COPD were around 6 to 8 times higher than the rate for other Australians.<sup>11</sup> COPD is a leading cause of death among Indigenous Australians.<sup>12</sup>

## **Costs of COPD**

- The AIHW estimates the total health system costs of COPD in 2000-01 to be \$433 million. The major costs were hospital services (\$273 million or 63% of total costs), followed by pharmaceuticals (\$85 million, or 20%) and medical costs (\$40 million, or 9%).<sup>13</sup>
- COPD has other costs, such as absenteeism, and disability leading to early retirement from the workforce, as well as depression and the burden on carers.<sup>13</sup>

**For more information on COPD visit:** The Australian Lung Foundation's Australia and New Zealand COPD Reference Site at: <a href="https://www.copdx.org.au">www.copdx.org.au</a>

<sup>&</sup>lt;sup>13</sup> AlHW. Email; 1 February 2005.







<sup>&</sup>lt;sup>1</sup> The Australian Lung Foundation. COPD - emphysema and chronic bronchitis (fact sheet). Lutwyche, Queensland: ALF; 2002.

<sup>&</sup>lt;sup>2</sup> Australian Institute of Health and Welfare (AIHW). Chronic diseases and associated risk factors in Australia, 2001. Canberra: AIHW; 2002.

<sup>&</sup>lt;sup>3</sup> US Department of Health and Human Services. The health consequences of smoking: chronic obstructive lung disease: a report of the Surgeon General. DHHS Publication No. PHS 84-50204. Rockville, Maryland: US Department of Health and Human Services, Public Health Service, Office on Smoking and Health; 1984. <sup>4</sup> AIHW. Australian's health 2006. Canberra: AIHW; 2006.

<sup>&</sup>lt;sup>5</sup> AIHW. Indicators for chronic diseases and their determinants, 2008. Canberra: AIHW; 2008.

<sup>&</sup>lt;sup>6</sup> Epidemiology Branch, Department of Heath WA. COPD (unpublished data, April 2008). Perth: Department of Heath WA; 2008.

<sup>&</sup>lt;sup>7</sup> Begg S, Vos T, Barker B, Stevenson C, Stanley L, Lopez AD. The burden of disease and injury in Australia, 2003. Canberra: AIHW; 2007.

<sup>&</sup>lt;sup>8</sup> Katzenellenbogen JM, Somerford P, Serafino S. Western Australian burden of disease study: mortality 2000. Perth: Department of Health WA; 2003.

<sup>&</sup>lt;sup>9</sup> Holman CDJ, Codde JP, Unwin E. Smoking-caused deaths and hospitalisations 1998-2002, by Western Australian State Electoral Districts for the Upper and Lower Houses, with projections for the period 2005-2008. Perth: Cancer Council Western Australia; 2004.

<sup>&</sup>lt;sup>10</sup> Australian Bureau of Statistics (ABS). Tobacco smoking - Aboriginal and Torres Strait Islander people: a snapshot, 2004-05. Canberra: ABS; 2007.

<sup>&</sup>lt;sup>11</sup> ABS. The health and welfare of Australia's Aboriginal and Torres Strait Islander peoples, 2008. Canberra: ABS; 2008.

<sup>&</sup>lt;sup>12</sup> The Australian Lung Foundation. Case statement: Chronic Obstructive Pulmonary Disease (COPD). Lutwyche, Queensland: ALF; 2004.