

Chronic respiratory diseases in Australia

Their prevalence, consequences and prevention

Australian Institute of Health and Welfare

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Abbreviations

AAT	α -1-antitrypsin (enzyme)
AIHW	Australian Institute of Health and Welfare
BEACH	Bettering the Evaluation and Care of Health (survey)
COPD	chronic obstructive pulmonary disease
COPDX	guidelines for managing chronic obstructive pulmonary disease
ERP	estimated resident population
ETS	environmental tobacco smoke
GER	gastroesophageal reflux
GOLD	Global Initiative for Chronic Obstructive Lung Disease
ICD-9	International Classification of Diseases, ninth revision (WHO)
ICD-10	International Classification of Diseases, tenth revision (WHO)
ICD-10-AM	International Statistical Classification of Diseases and Related Health Problems, tenth revision, Australian modification
ICF	International Classification of Functioning (WHO)
ICPC	International Classification of Primary Care
IgE	immunoglobulin E
MDI	metered dose inhaler
MSG	monosodium glutamate
NO ₂	nitrogen dioxide
NRT	nicotine replacement therapy
NSAID	nonsteroidal anti-inflammatory drug
O ₃	ozone
SO ₂	sulphur dioxide
VOC	volatile organic compound

Executive summary

Chronic respiratory diseases are a diverse group of conditions affecting the lungs or respiratory tract for a prolonged period. They are often incurable, but are largely manageable and preventable. Chronic respiratory diseases are very prevalent in Australia – an estimated 5.8 million Australians had at least one long-term respiratory condition in 2001. Each year, chronic respiratory diseases disrupt the daily life and productivity of many individuals and contribute to thousands of deaths. Two major chronic respiratory diseases in Australia are chronic obstructive pulmonary disease (COPD) and asthma.

With about 5,400 deaths attributed to it in 2003, COPD is a major cause of death in Australia. The death rate, however, is declining, especially among males. COPD is associated with severe or profound disability in about 12% of sufferers. In 2000–01, health system expenditure on COPD was about \$433 million, more than 60% of which was associated with hospital use.

The prevalence of asthma in Australia is among the highest in the world: between 14% and 16% of children and between 10% and 12% of adults have asthma. Although it is not a major cause of death, asthma is one of the most common problems managed by doctors and is a frequent reason for the hospitalisation of children, especially boys. In 2000–01, health system expenditure on asthma was about \$693 million, more than 50% of which was on pharmaceuticals.

Other chronic respiratory diseases, such as hay fever and chronic sinusitis, are noteworthy for being highly prevalent. For example, in 2001 about 2 million Australians were estimated to have chronic sinusitis. Other diseases, such as bronchiectasis and pneumoconiosis, have potentially serious consequences for the comparatively few people they afflict.

Their high prevalence and potentially severe consequences notwithstanding, chronic respiratory diseases are largely preventable. Much is known about their causes and risk factors, some of which can be addressed through public health interventions. Major goals of chronic respiratory disease prevention and control include avoiding commencement of smoking, early detection of disease in at-risk groups, improving rates of smoking cessation, management of stable disease and prevention of exacerbations.

By far the most important cause of COPD is tobacco smoking. It has been estimated that smoking accounts for over 70% of COPD deaths. Smoking also worsens the symptoms and control of asthma and other chronic respiratory diseases. Recent surveys show that over the past decade the proportion of current smokers in Australia has decreased, while the proportion of those who have never smoked has risen.

Although the cause of asthma remains unknown, much is known about the factors that increase the likelihood of its development in susceptible individuals or trigger

symptoms in existing sufferers. Evidence for the effectiveness of interventions designed to minimise exposure to asthma triggers is mixed. Nevertheless, actions by individuals, such as regular vaccination against influenza, and public health initiatives, such as air quality protection measures, can benefit those with asthma and other chronic respiratory diseases.

The chronic respiratory disease story is a mix of good news and caution. The good news emanating from improved disease prevention and management is balanced by the caution that, as the population ages and the role and nature of environmental factors change over time, chronic respiratory diseases are likely to have significant consequences for the health of many Australians for years to come.