CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

What is this?

COPD is a serious and irreversible respiratory condition that includes emphysema and chronic bronchitis. Emphysema is a condition in which lung tissue is destroyed, leading to enlarged spaces in the lungs which affect gas exchange. Bronchitis is a condition in which there is extra mucus produced in the airways causing cough and phlegm. Most people with COPD have both of these conditions. COPD presents as slowly progressive breathlessness associated with cough and sputum production. [1]

Why is it important?

COPD has a substantial impact on the health of New Zealanders and is estimated to affect 15% of the adult population over the age of 45 years. More than 85% of COPD arises from tobacco smoking; other causes include cannabis smoking, and occupational exposure to dust. As COPD progresses, lifestyle and quality of life are affected adversely and eventually the lack of oxygen leads to heart problems. Quality of life is affected by poor mobility and social isolation, and this can result in anxiety or depression. [2]

Data

Based on results from the New Zealand Health Survey 2006/7, in the Canterbury DHB region about four percent of males and more than eight percent of females aged 45 years and over reported that they had been told by a doctor that they had chronic obstructive pulmonary disease. Self-reported chronic obstructive pulmonary disease prevalence was higher in females in Canterbury than for the rest of New Zealand[3] (see Table 1, below).

Table 1 Age-standardised prevalence of self-reported chronic obstructive pulmonary disease, 45+ years NZHS 2006/7.[4]

Canterbury District Health Board	Female	8.5%
	Male	3.9%
	Total	6.4%
New Zealand	Female	7.4%
	Male	5.6%
	Total	6.5%

[1] Town, I., Taylor, R., Garrett, J., Patterson, J. 2003. The burden of COPD in New Zealand. Wellington: Asthma and Respiratory Foundation of New Zealand & Thoracic Society of Australia and New Zealand. http://www.asthmanz.co.nz/files/PDF-files/burdenCOPD.pdf Accessed 25.5.11.
[2] Ibid.
[3] Health and Disability Intelligence Unit, Ministry of Health. 2008. Canterbury DHB Health Needs Assessment. Wellington: Ministry of Health, p.52.
[4] Ibid.

The prevalence of self-reported COPD appeared also to be much higher for Māori in Canterbury than for 'European/Others' and higher than for Māori nationally, but the differences were not statistically significant.[5]

The rate of chronic obstructive pulmonary disease hospitalisations in Canterbury DHB was significantly lower than the national rate, although Māori had a significantly higher rate than all other ethnic groups, both locally and nationally (see Table 2, below).

Table 2 COPD hospitalisation, 45+ years, age-standardised rates (per 100,000), 2005–2007[6]

		Māori	Pacific	Asian	European /Other	Total
Canterbury District Health Board	Female	1,585.3	269.2	n/a	452.9	467.2
	Male	1,027.4	3,222.7	179.6	520.3	527.9
	Total	*1313.3*	*698.9*	*95.4*	*476.7*	*487.8*
New Zealand	Female	1,823.9	848.3	115.8	427.8	515.3
	Male	1,449.1	1,799.9	321.7	511.6	588.7
	Total	*1647.2*	*1246.6*	*208.4*	*460.1*	*542.5*

Impact on inequalities

COPD is permanent and the main risk factor is tobacco smoking, therefore those groups who are more likely to smoke are also more likely to be affected by COPD. The prevalence of COPD for Māori is more than twice that for non-Māori[7].

Solutions

COPD is irreversible, but treatments and lifestyle changes can manage the disease and improve the quality of life of people who have it. Intervention in primary care to stop smoking, and the availability of smoking cessation services to all New Zealanders, are the most important approaches to managing the disease. Avoiding other lung irritants, exercise and education programmes for self-management have also been shown to lead to sustained improvements and better quality of life[8].

Data limitations

The data indicated in Table 1 has been collated through self-reporting of COPD, therefore the data relies on the accuracy of individual reports. The data in Table 2 indicates the occurrence of COPD in people aged 45 and over, as the condition rarely develops before the age of 50. As a result, data has not been captured or presented for any rare occurrences in those under 50 years.

Connections with other issues

Smoking, Cancer, Access to Primary Healthcare, Air Quality, Housing, Fuel Poverty, Education, Employment.

Impact of the earthquakes

There is a risk that there will be an increase in the number of people smoking after the earthquakes due to factors such as stress. Individuals who had quit smoking before the

[5] Reid, M. 2010. Hauora Waitaha 1 –Health Profile for Māori in Canterbury. Christchurch: Canterbury District Health Board, p.103.
[6] Health and Disability Intelligence Unit, Ministry of Health, op. cit.
[7] Town et al., op.cit., p.4.
[8] Town et al., op.cit., p.8.

earthquake may be prone to taking up smoking again. This in turn could increase the risk of COPD, particularly for vulnerable groups such as Māori who have a higher prevalence of smoking and COPD.