Chronic obstructive pulmonary disease

Introduction

Chronic obstructive pulmonary disease (COPD) refers to a number of chronic lung disorders that are characterised by non-reversible air-flow restriction into and out of the lungs (compared to asthma, which is reversible). Emphysema and chronic bronchitis are the most common forms of COPD. Chronic bronchitis occurs when the airways to the lungs become narrow and partly clogged with mucus. Emphysema occurs when some of the air sacs deep in the lungs have been damaged. Common features are cough with phlegm and breathlessness when exercising or walking. COPD is permanent, and the main risk factor is tobacco smoking (Reilly et al 2005).

What were the survey questions?

In the 2006/07 New Zealand Health Survey adult participants aged 45 years and over were asked if they had ever been told by a doctor that they had chronic bronchitis or emphysema (COPD). If so, they were then asked the age they were diagnosed and if they currently had any treatment for COPD.

Due to its relationship to smoking and the time it takes to develop, COPD is rare in adults under 50 years old. The figures presented in this report are only for the adult population aged 45 years and over.

Prevalence of COPD for adults

One in 15 adults aged over 45 years (6.6%, 5.9–7.3) had been told by a doctor they have COPD (emphysema or chronic bronchitis). This equates to 96,100 adults. Women aged 45 years and over (7.4%, 6.5–8.4) were more likely than men (5.6%, 4.4–6.7) to have been diagnosed with COPD (p-value < 0.05).

Prevalence of COPD, by age group

The prevalence of COPD appeared to increase as age increased; however, there were no statistically significant differences by age group and gender (due to the large sample error created by the small number of people with COPD in the survey sample).

Prevalence of COPD, by ethnic group

Table 3.14 gives an indication of the burden of COPD in New Zealand's main ethnic population groups.

Table 3.14: COPD for adults aged 45 years or over, by ethnic group (unadjusted)

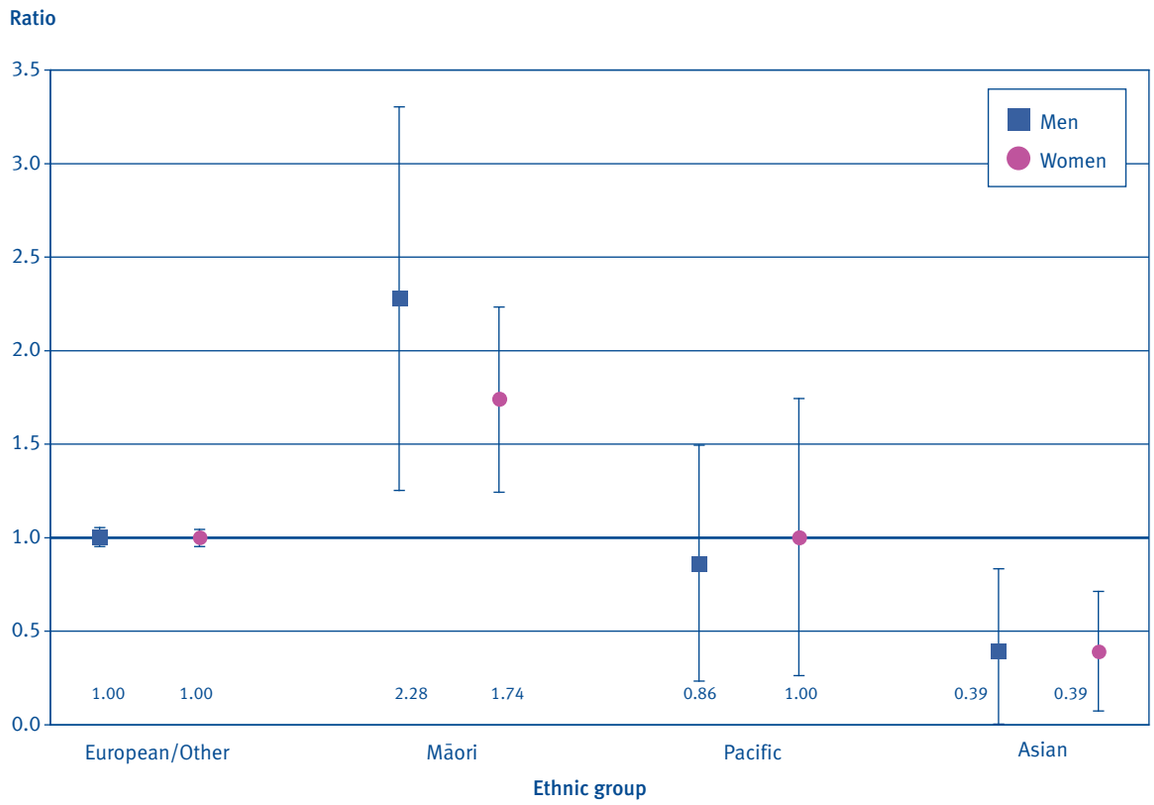
Ethnic group	Prevalence (95% CI)	Number of adults
European/ Other	6.7 (5.9–7.5)	84800
Māori	12.9 (9.4–16.4)	14200
Pacific	5.7 (3.3–9.1)	2700
Asian	2.4 (1.2–4.1)	2000

Source: 2006/07 New Zealand Health Survey

Note: Total response standard output for ethnic groups has been used.

After adjusting for age, Māori men aged 45 years or over had twice the prevalence of COPD than all men aged 45 years and over. Māori women aged 45 years and over also had an increased prevalence of COPD. Asian men and women aged 45 years and over were less likely to be diagnosed with COPD than men and women in the total population (Table 3.20).

Figure 3.20: COPD for adults aged 45 years or over, by ethnic group and gender (age standardised rate ratio)



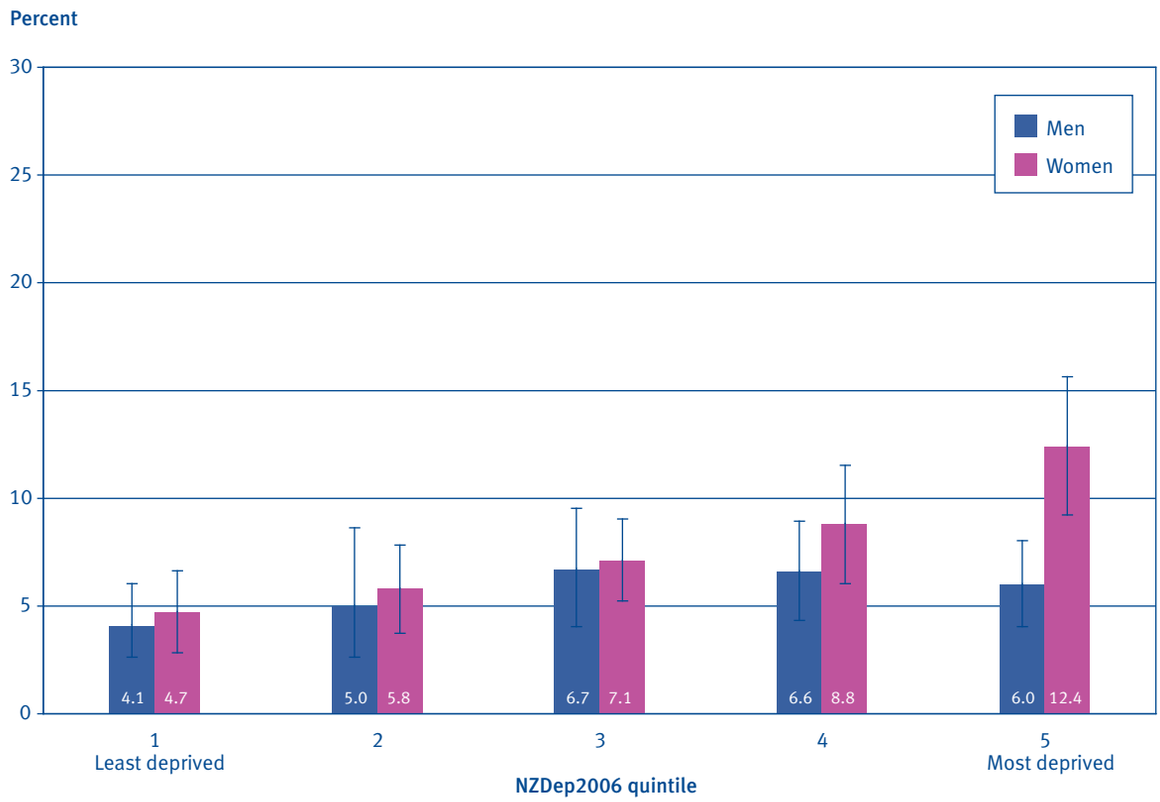
Source: 2006/07 New Zealand Health Survey

Notes: Age standardised to the WHO world population. Reference group, with a rate ratio of 1.00 (indicated by the bold line), is the total male or female population aged 45 years and over. Total response standard output for ethnic groups has been used.

Prevalence of COPD, by neighbourhood deprivation

The prevalence of COPD for women aged 45 years and over who live in areas of high deprivation (NZDep2006 quintile 5) was nearly three times higher than for women aged 45 years and over who live in the least deprived areas (NZDep2006 quintile 1) (Figure 3.21). This association was not present in men aged 45 years or over.

Figure 3.21: COPD for adults aged 45 years or over, by NZDep2006 quintile and gender (age standardised prevalence)



Source: 2006/07 New Zealand Health Survey

Treatment for COPD

Two out of every five adults with COPD (39.4%, 34.1–44.7) were prescribed inhalers, medicines or tablets for their COPD. A small number of adults with COPD (less than 2%) used oxygen. Oxygen treatment increases the amount of oxygen that flows into the lungs and into the bloodstream, improves shortness of breath, and may prolong life in very serious cases of COPD.

Most adults with COPD (59.6%, 54.4–64.9) did not use any treatment.