Asthma

Introduction

Asthma is an inflammatory disorder of the airways that causes reversible restriction of air flow into and out of the lungs. Asthma is characterised by periodic attacks of wheezing, breathlessness and coughing. Most asthma attacks are short-lived, lasting minutes to hours, with complete recovery after the attack. The cause of asthma is unknown, but symptoms can be triggered by allergens, respiratory infections, exercise, cold air, tobacco smoke and other pollutants (McFadden 2005).

What were the survey questions?

In the 2006/07 New Zealand Health Survey, the parents of child participants were asked if their child has ever been diagnosed by a doctor with asthma, and if they were currently using any treatment for this condition. The parents of all children aged 5–14 years were also asked if their child had wheezing or whistling in the chest in the previous 12 months, how many times this occurred, how often their child's sleep had been disturbed due to wheezing, and if the wheezing had ever been severe enough to limit the child's speech to only one or two words at a time between breaths, in the previous 12 months.

Adult participants in the 2006/07 New Zealand Health Survey were asked if a doctor had ever told them they had asthma. If so, they were asked if they had had an asthma attack in the previous 12 months, and what treatment they were currently taking for asthma.

About half of people with asthma develop it before age 10, and most develop it before age 40 years. Asthma is rarely diagnosed in children under 12 months of age. The asthma data presented in this report are for the population aged two years and over.

Only children and adults currently taking medication for asthma have been included in this section, in order to exclude people who may have been diagnosed with asthma in the past but no longer experience symptoms. Medication, such as inhalers, aerosols or tablets, may be taken every day or only when required for the relief of symptoms.

Prevalence of medicated asthma in children and adults

One in seven children aged 2–14 years (14.8%, 13.5–16.2) and one in nine adults (11.2%, 10.4–11.9) had been diagnosed with asthma and were taking medication for this condition. This equates to 109,900 children and 348,400 adults taking medication for asthma.

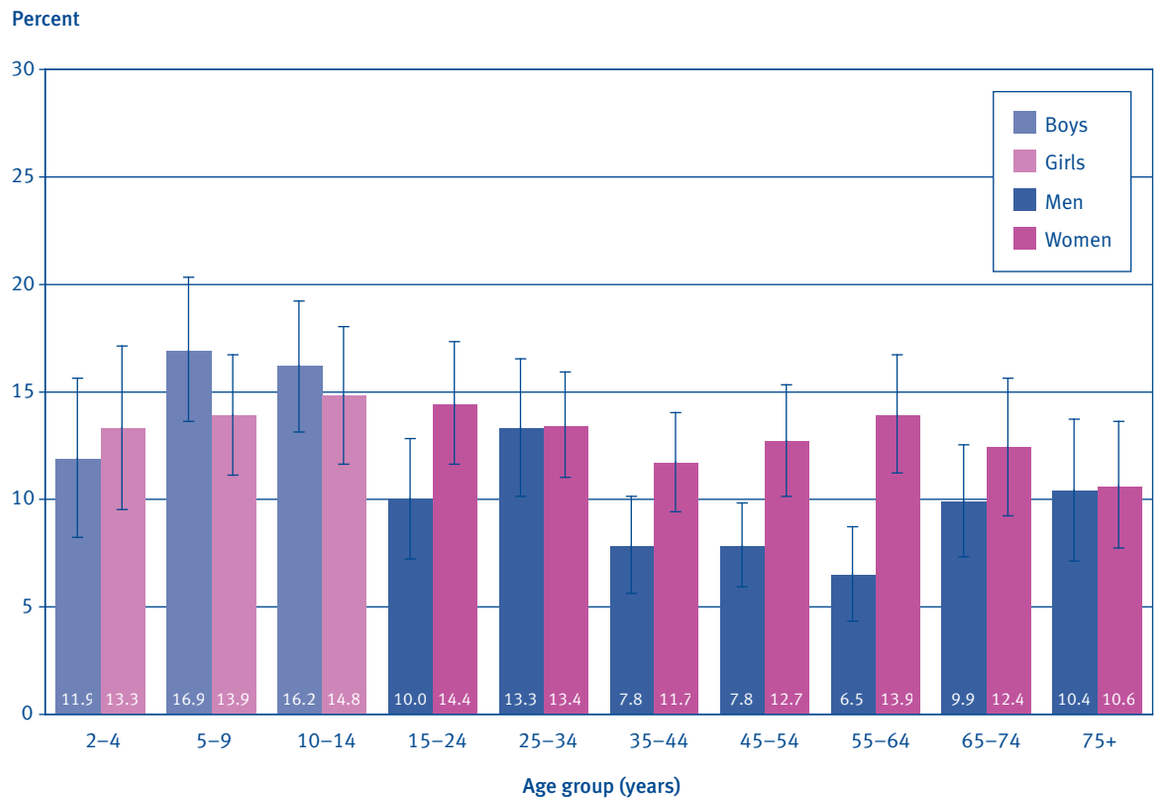
When adjusted for age, women (13.1%, 11.9–14.2) were more likely to be taking medication for asthma than men (9.6%, 8.6–10.6); in children there was no statistically significant difference by gender.

Two out of every three 5–14-year-olds taking medication for asthma (67.8%, 62.9–72.7) had wheezing or whistling in the chest in the previous 12 months. Two out of every five adults taking medication for asthma (40.9%, 37.7–44.0) had an asthma attack in the previous 12 months. This equates to 60,300 children and 142,400 adults taking medication for asthma who had an asthma attack in the previous 12 months.

Prevalence of medicated asthma, by age group

The proportion of females taking medication for asthma was relatively stable across all age groups (Figure 3.15). Men in all age groups, except 25–34 and 75 years or more, were less likely than women of the same age to be taking medication for asthma (p-values ‹ 0.05).

Figure 3.15: Medicated asthma for children aged 2–14 years and adults, by age group and gender (unadjusted prevalence)



Source: 2006/07 New Zealand Health Survey

Prevalence of medicated asthma, by ethnic group

Table 3.11 gives an indication of the burden of asthma for children in New Zealand's main ethnic population groups.

Table 3.11: Medicated asthma for children aged 2–14 years, by ethnic group (unadjusted)

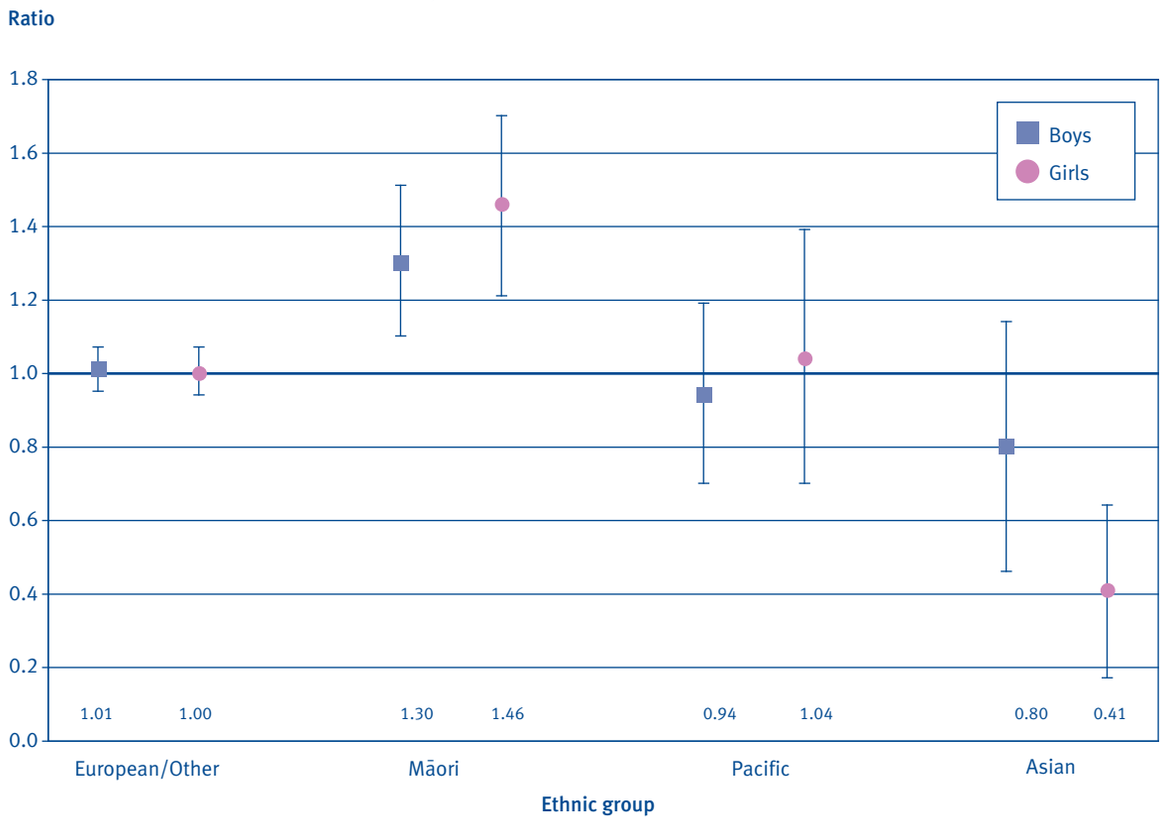
Ethnic group	Prevalence (95% CI)	Number of adults
European/ Other	14.9 (13.3–16.5)	84000
Māori	20.3 (17.7–23.0)	34100
Pacific	14.8 (11.6–17.9)	12500
Asian	9.2 (6.1–12.3)	6000

Source: 2006/07 New Zealand Health Survey

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

Adjusted for age, Māori boys and girls had a significantly higher rate of taking medication for asthma than boys and girls in the total population (Figure 3.16). Asian girls had significantly lower rates of medicated asthma.

Figure 3.16: Medicated asthma for children aged 2–14 years, 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 from 2-14 years. Total response standard output for ethnic groups has been used.

Table 3.12 gives an indication of the burden of asthma for adults in New Zealand's main ethnic population groups.

Table 3.12: Medicated asthma for adults, by ethnic group (unadjusted)

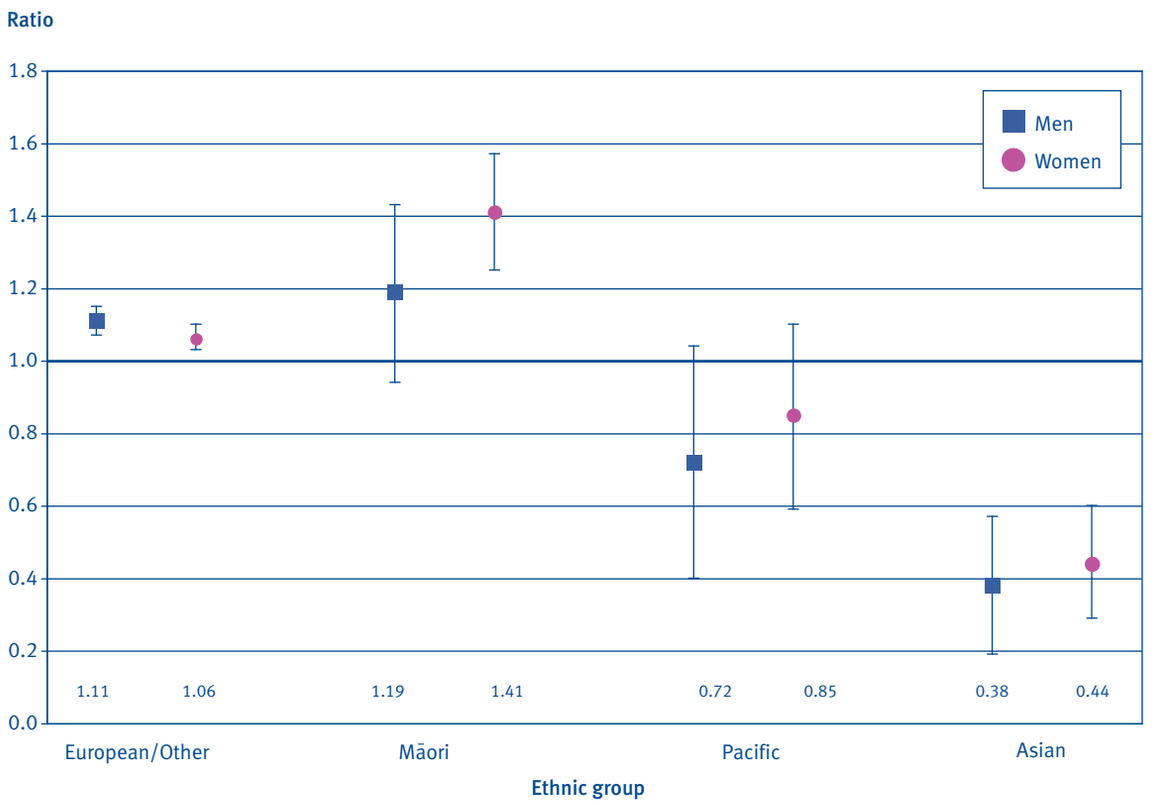
Ethnic group	Prevalence (95% CI)	Number of adults
European/ Other	11.8 (11.0–12.7)	301400
Māori	15.5 (13.8–17.1)	54900
Pacific	8.9 (6.7–11.0)	14600
Asian	4.4 (3.2–5.6)	12300

Source: 2006/07 New Zealand Health Survey

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

After adjusting for age, Māori women were 40% more likely to be taking medication for asthma than women in the total population (Figure 3.17). European/Other men and women had a slightly increased prevalence of medicated asthma. Asian men and women were much less likely to be taking medication for asthma than men and women in the total population (Figure 3.17).

Figure 3.17: Medicated asthma for adults, by ethnic group and gender (age standardised rate ratio)



Source: 2006/07 New Zealand Health Survey

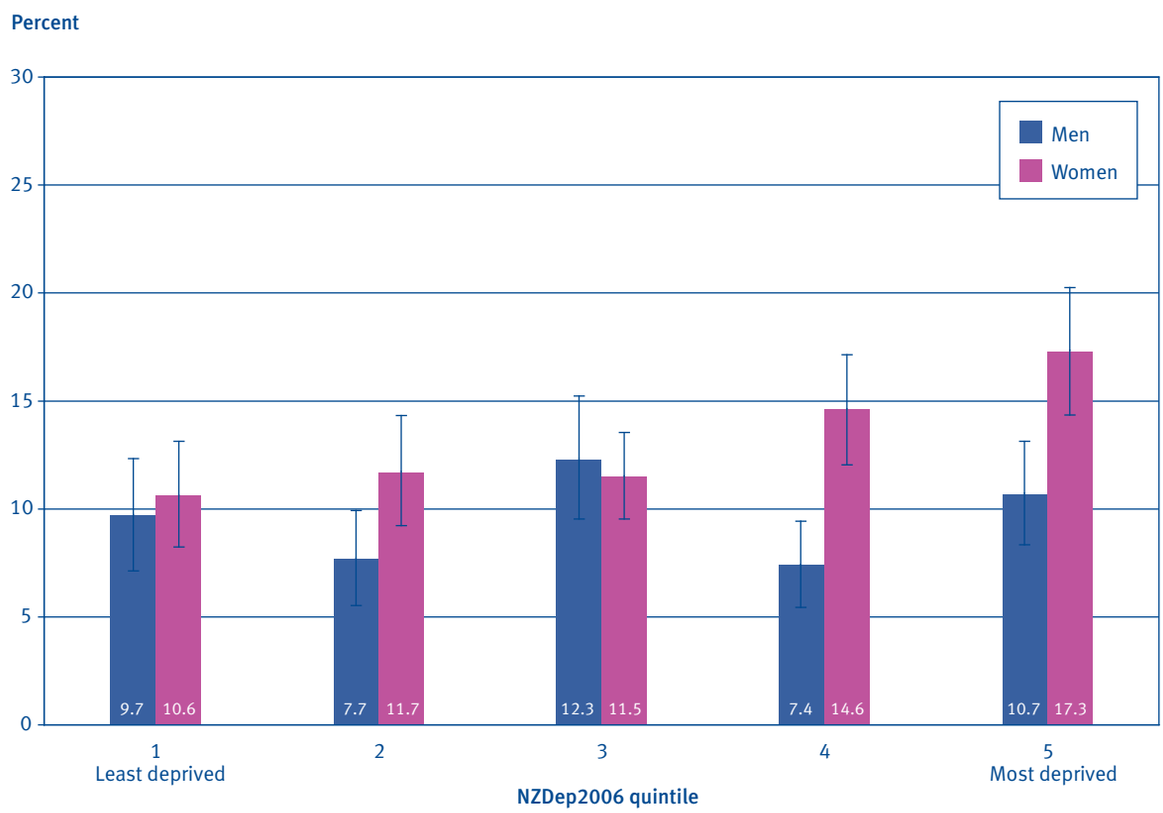
Notes: Age standardised to the WHO world population. Reference group, with a rate ratio of 1.00 (indicated by the bold line), is the total male or female population aged 15 years and over. Total response standard output for ethnic groups has been used.

Prevalence of medicated asthma, by neighbourhood deprivation

There were no significant differences by NZDep2006 quintile in the prevalence of medicated asthma for children.

Women living in neighbourhoods of high deprivation (NZDep2006 quintile 5) were significantly more likely to be taking medication for asthma than women living in neighbourhoods of low deprivation (NZDep2006 quintiles 1 and 2). There was no pattern by neighbourhood deprivation for men (Figure 3.18).

Figure 3.18: Medicated asthma for adults, by NZDep2006 quintile and gender (age standardised prevalence)



Source: 2006/07 New Zealand Health Survey

Prevalence of medicated asthma, by DHB area

There were no differences by DHB area in the prevalence of medicated asthma in children. The Wairarapa / Hutt Valley / Capital and Coast DHB area had a significantly higher rate of adults taking medication for asthma, and Auckland had a significantly lower rate than the national rate (Table 3.13).

Table 3.13: Medicated asthma for children and adults, by DHB area (unadjusted)

DHB area	Prevalence in children (95% CI)	Number of children	Prevalence in adults (95% CI)	Number of adults
Northland / Tairawhiti / Hawke's Bay / Lakes / Whanganui	15.9 (12.7–19.1)	15800	11.8 (9.8–13.7)	44200
Waitemata	13.9 (9.3–18.5)	12500	9.7 (7.5–11.9)	36700
Auckland	13.3 (8.5–18.0)	8600	7.7 (5.5–9.9) –	24800
Counties Manukau	13.2 (10.2–16.2)	12500	12.4 (10.0–14.8)	40100
Waikato	15.8 (11.3–20.2)	10400	10.8 (9.0–12.7)	28200
Bay of Plenty / Taranaki / MidCentral	14.6 (10.5–18.6)	12600	11.8 (10.0–13.6)	41500
Wairarapa / Hutt Valley / Capital and Coast	16.8 (12.6–20.9)	12700	14.3 (11.9–16.6)+	49400
Canterbury	12.8 (8.0–17.5)	10200	11.4 (9.3–13.5)	42300
Nelson Marlborough / West Coast / South Canterbury / Otago / Southland	17.2 (11.7–22.6)	14500	10.4 (7.9–13.0)	41000
New Zealand total	14.8 (13.5–16.2)	109900	11.2 (10.4–11.9)	348400

Source: 2006/07 New Zealand Health Survey

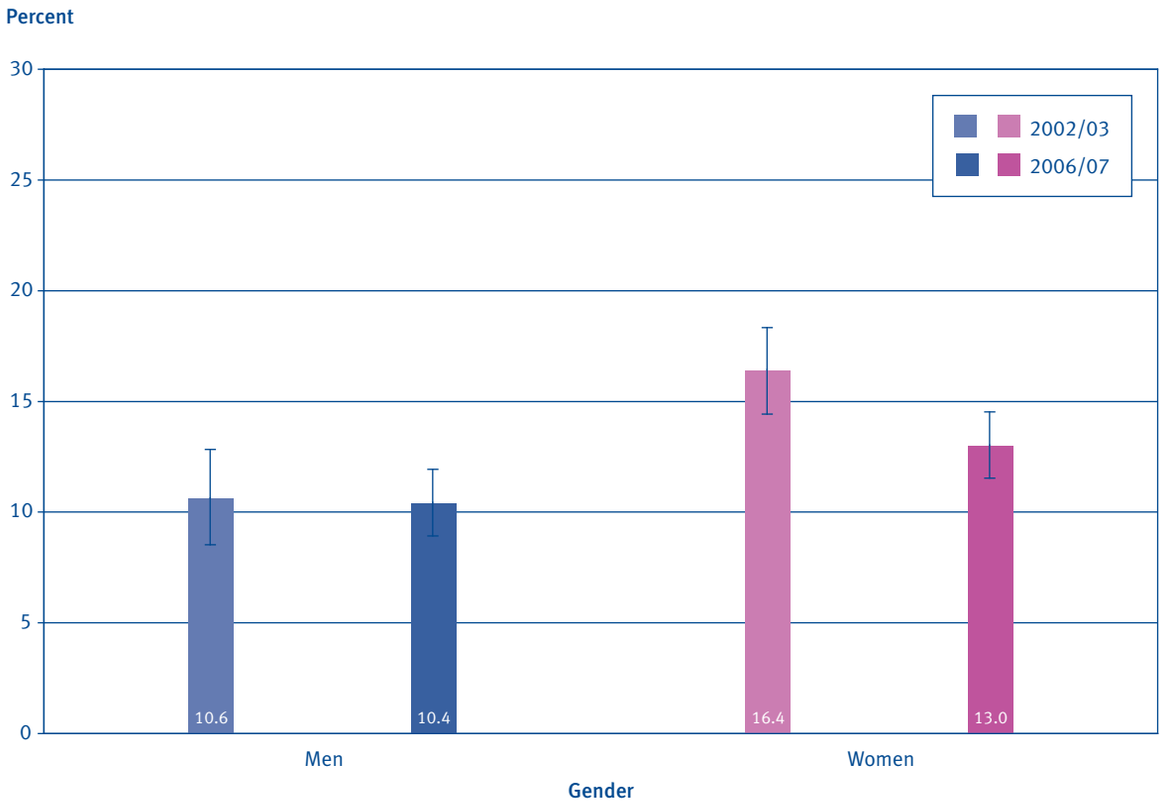
Notes: Estimates indicated with a + are significantly higher than the national rate, and estimates indicated with a – are significantly lower than the national rate. Data are based on direct survey estimates and could be confounded by different population characteristics in each DHB. Due to small sample size, some DHB areas have been combined. Survey population is the estimated resident population living in permanent private dwellings at 31 June 2007.

Time trends in the prevalence of medicated asthma for adults aged under 45 years

Data were not collected on asthma in adults aged 45 years or over in the 2002/03 New Zealand Health Survey, and so the time trends presented here are only for adults aged under 45 years who were currently taking medication for asthma at the time of the survey.

Between 2002/03 and 2006/07 there was a decline in the proportion of women aged under 45 years taking medication for asthma after adjusting for age (Figure 3.19). There have been no changes in the prevalence of Māori taking medication for asthma (graph not shown).

Figure 3.19: Medicated asthma for adults aged 15–44 years, by gender, 2002/03 and 2006/07 (age standardised prevalence)



Source: 2002/03 and 2006/07 New Zealand Health Surveys

Note: Data from previous years have been reanalysed to allow for comparability.