

Second-hand smoke exposure

Introduction

Second-hand smoke comes from two places: smoke breathed out by the person who smokes, and smoke from the end of a burning cigarette. Although both smokers and non-smokers can inhale second-hand smoke, in this section we focus on the inhalation of second-hand smoke by non-smokers.

Second-hand smoke causes premature death and disease in both children and adults. There is evidence that children who are exposed to second-hand smoke are at an increased risk for sudden infant death syndrome (SIDS, or cot death), chest infections, ear problems, and more severe asthma (US Department of Health and Human Services 2006). In non-smoking adults, second-hand smoke has been linked to the development of lung cancer and ischaemic heart disease (US Department of Health and Human Services 2006).

What were the survey questions?

The 2006/07 New Zealand Health Survey asked about exposure to second-hand smoke in the home and car for both adults and children. The analyses presented in this report are for children of all ages and adults who are not currently smoking tobacco (including ex-smokers), exposed to second-hand smoke in their home.

Data on child and adult exposure to second-hand smoke in the car will be presented in *Tobacco Trends 2008*. No comparable time trend data are available for exposure to second-hand smoke in the home or car.

Exposure to second-hand smoke in the home for children and non-smoking adults

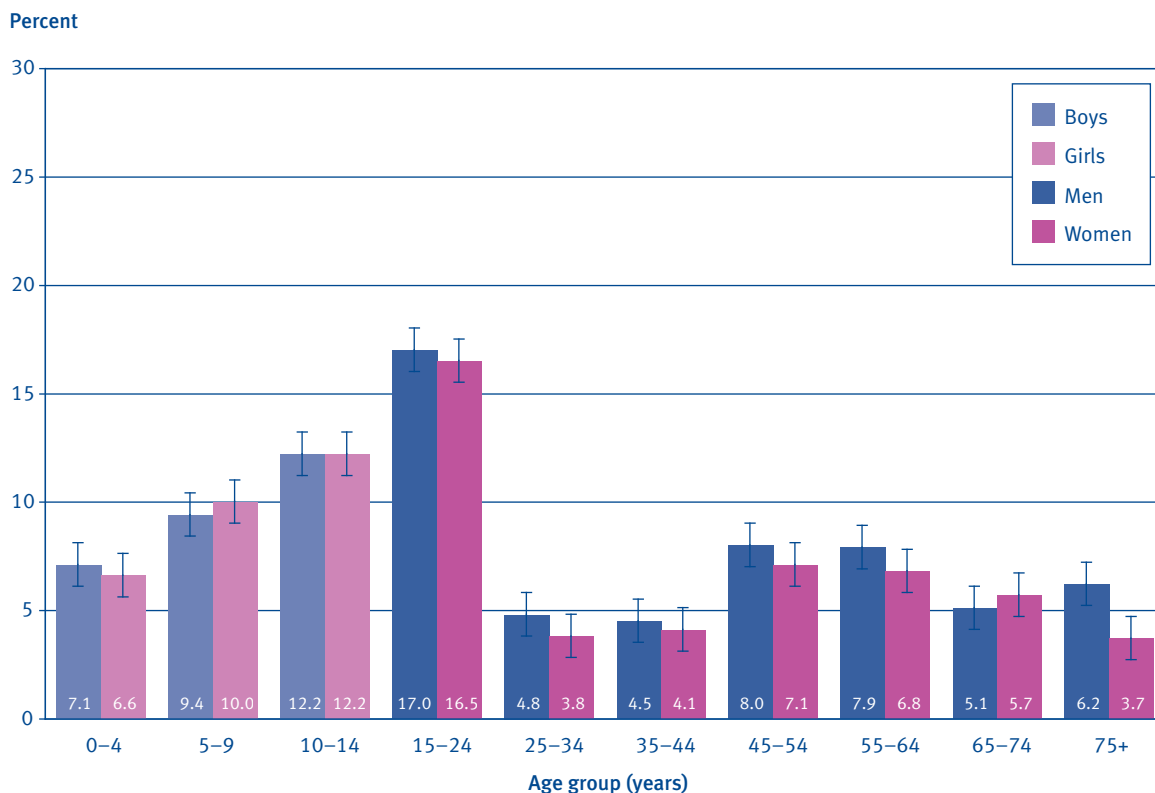
One in ten children (9.6%, 8.6–10.6) and one in 13 adult non-smokers (7.5%, 6.9–8.2) were exposed to second-hand smoke in their home. This equates to 82,100 children and 186,300 adults.

Adjusted for age, there was no significant difference by gender in the proportion of children or adult non-smokers who were exposed to second-hand smoke inside their home.

Exposure to second-hand smoke in the home, by age group

Young people aged 15–24 years were the most likely age group to be exposed to second-hand smoke in the home (Figure 2.20).

Figure 2.20: Exposure to second-hand smoke in the home for children and non-smoking adults, by age group and gender (unadjusted prevalence)



Source: 2006/07 New Zealand Health Survey

One in 21 children aged under two years old were exposed to second-hand smoke in their home (4.8%, 2.7–6.9).

Exposure to second-hand smoke, by ethnic group

Table 2.9 gives an indication of the proportion and number of children aged from birth to 14 years exposed to second-hand smoke in their home in New Zealand’s main ethnic population groups.

Table 2.9: Second-hand smoke exposure for children in their home, by ethnic group (unadjusted)

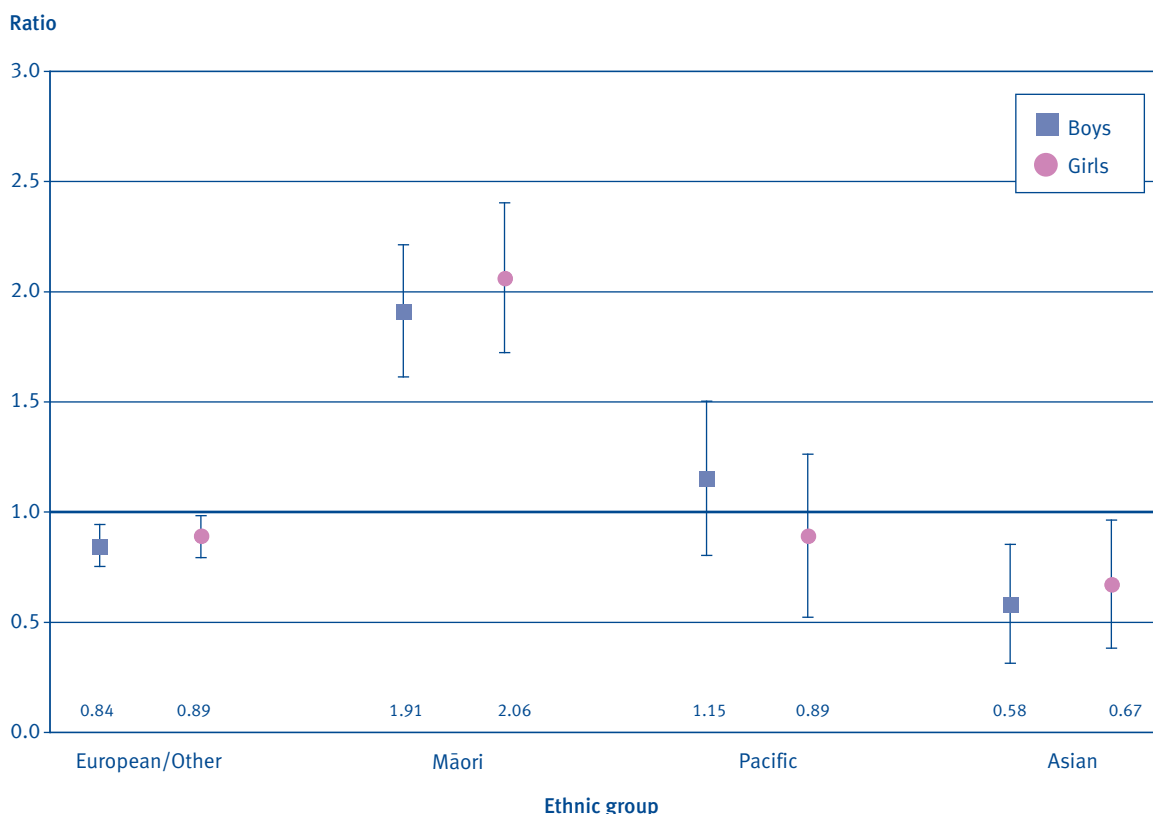
Ethnic group	Prevalence (95% CI)	Number of children
European/ Other	8.4 (7.1–9.6)	54000
Māori	18.9 (16.4–21.4)	37000
Pacific	9.6 (7.3–11.9)	9500
Asian	6.1 (4.2–7.9)	4600

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 twice the risk of exposure to second-hand smoke in their home compared to boys and girls in the total population (Figure 2.21).

Figure 2.21: Second-hand smoke exposure for children in their home, 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 1.0 (indicated by the bold line), is the total male or female population aged from birth to 14 years. Total response standard output for ethnic groups has been used.

Table 2.10 gives an indication of the proportion and number of adults exposed to second-hand smoke in their home in New Zealand’s main ethnic population groups.

Table 2.10: Second-hand smoke exposure for non-smoking adults in their home, by ethnic group (unadjusted)

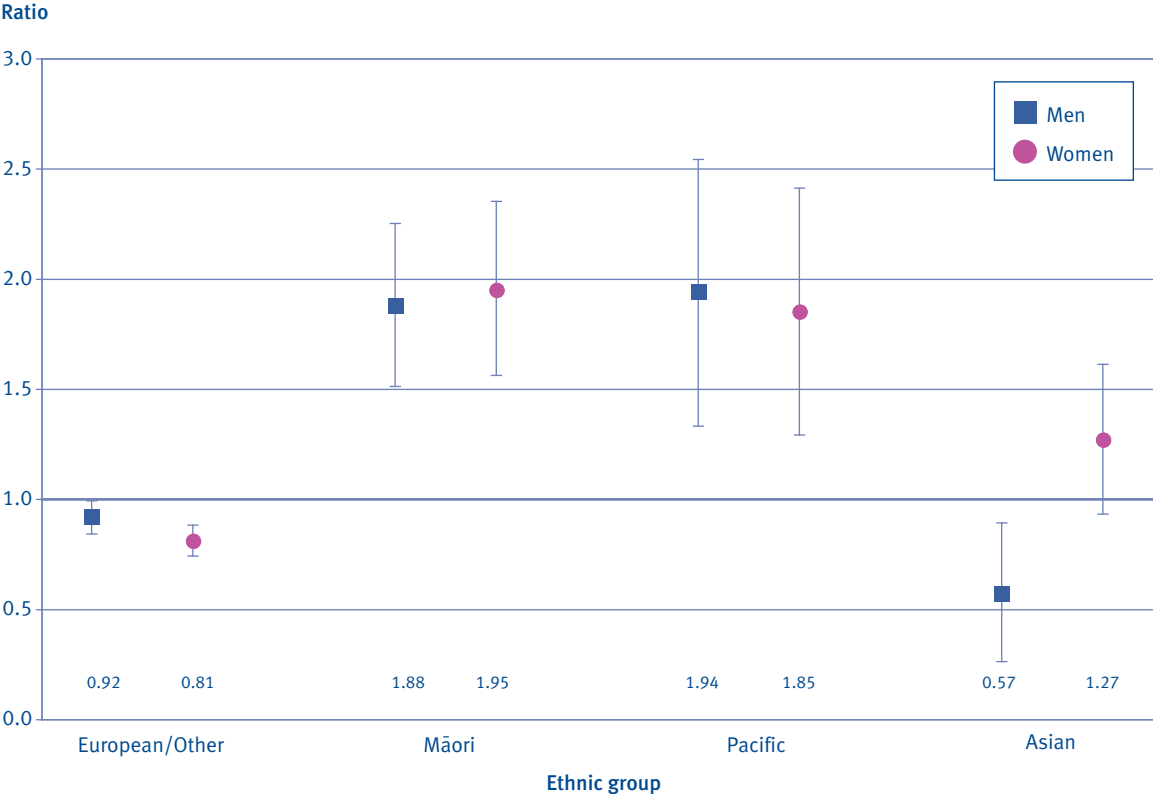
Ethnic group	Prevalence (95% CI)	Number of adults
European/ Other	6.5 (5.8–7.2)	132900
Māori	16.1 (13.8–18.4)	32300
Pacific	16.4 (13.1–19.7)	19600
Asian	8.5 (6.0–11.0)	21000

Source: 2006/07 New Zealand Health Survey

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

Adjusted for age, Māori and Pacific men and women who do not smoke were almost twice as likely to be exposed to second-hand smoke in their home compared to all non-smoking men and women in the population (Figure 2.22). Asian men and European women were less likely to be exposed to second-hand smoke in their home (Figure 2.22).

Figure 2.22: Second-hand smoke exposure for adult non-smokers in their home, by ethnic group and gender (age standardised rate ratio)



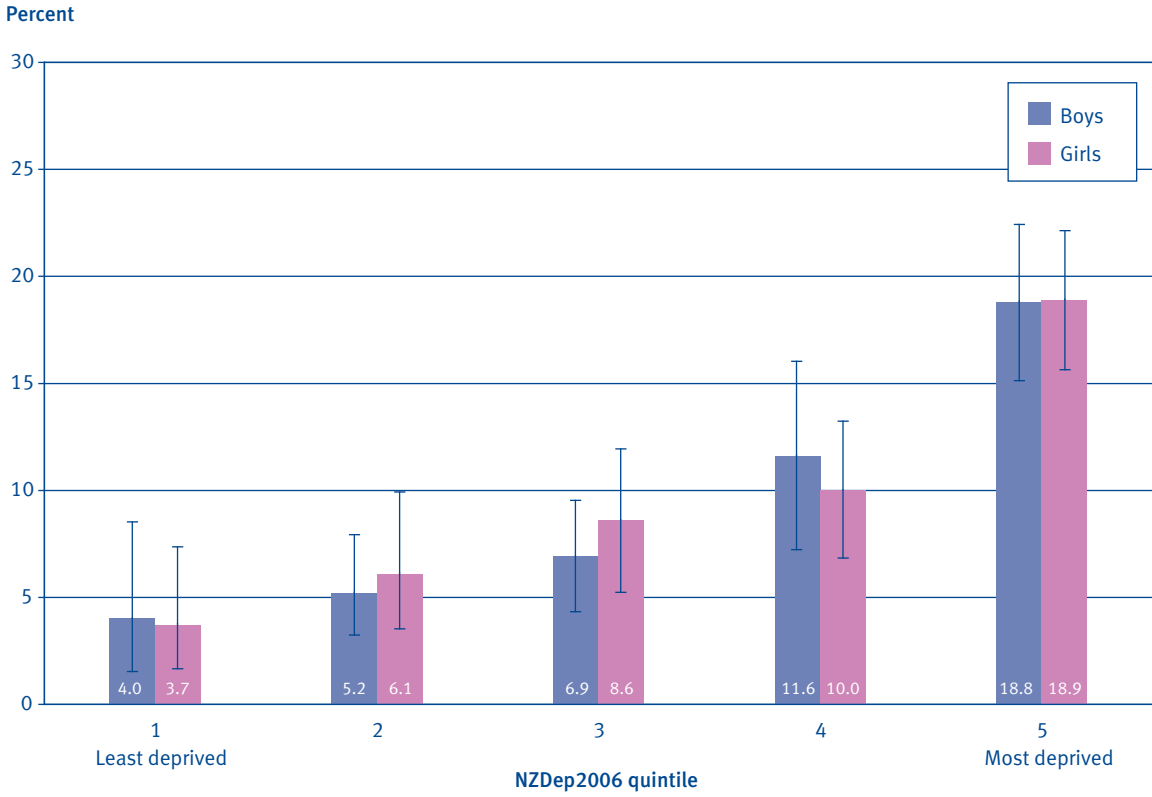
Source: 2006/07 New Zealand Health Survey

Notes: Age standardised to the WHO world population. Reference group, with a rate ratio of 1.0 (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.

Exposure to second-hand smoke, by neighbourhood deprivation

Children living in NZDep2006 quintile 5 areas (most deprived) were much more likely to be exposed to second-hand smoke in their home compared to children living in NZDep2006 quintile 1 areas (least deprived) when adjusted for age (Figure 2.23).

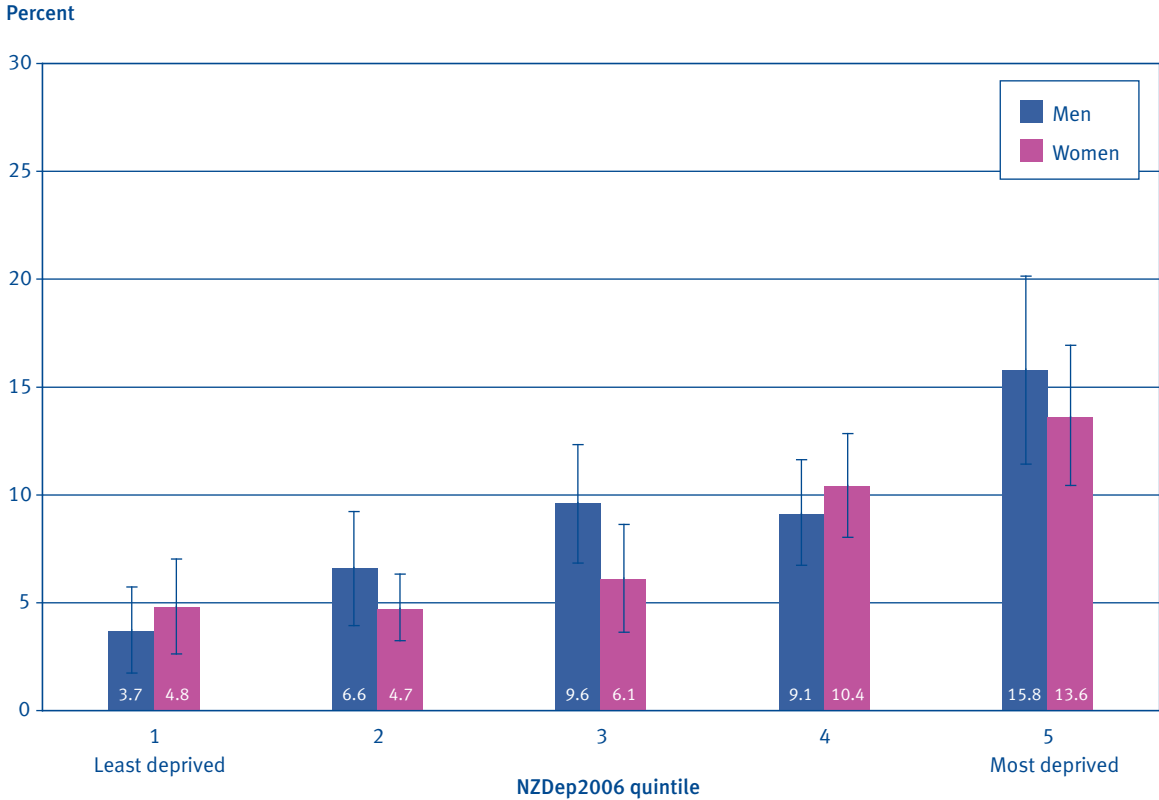
Figure 2.23: Exposure to second-hand smoke for children in their home, by NZDep2006 quintile and gender (age standardised prevalence)



Source: 2006/07 New Zealand Health Survey

Non-smoking adults in the most deprived neighbourhoods (NZDep2006 quintile 5) were more than three times as likely as non-smoking adults in the least deprived areas of NZDep2006 quintile 1 to be exposed to second-hand smoke in their home, adjusted for age (Figure 2.24).

Figure 2.24: Exposure to second-hand smoke for non-smoking adults in their home, by NZDep2006 quintile and gender (age standardised prevalence)



Source: 2006/07 New Zealand Health Survey

Exposure to second-hand smoke, by DHB area

Children's exposure to second-hand smoke in their home varied by DHB area. Children living in Waikato and Northland / Tairāwhiti / Hawke's Bay / Lakes / Whanganui DHB areas were exposed to second-hand smoke at home at a significantly higher rate than the total child rate (Table 2.11). Waitemata and Auckland DHB areas had significantly lower prevalences of second-hand smoke exposure for children.

Non-smoking adults living in Canterbury and Auckland DHB areas were significantly less likely to be exposed to second-hand smoke in their home compared to the national rate (Table 2.11).

Table 2.11: Exposure to second-hand smoke for children and non-smoking adults in their home, by DHB area (unadjusted)

DHB area	Prevalence in children (95% CI)	Number of children	Prevalence in adults (95% CI)	Number of adults
Northland / Tairāwhiti / Hawke's Bay / Lakes / Whanganui	13.1 (10.2–16.1) +	15200	8.1 (6.1–10.0)	22000
Waitemata	5.2 (3.0–7.4) –	5400	8.5 (6.4–10.7)	27200
Auckland	5.4 (3.0–8.9) –	4000	4.9 (3.1–6.7) –	12900
Counties Manukau	7.8 (5.2–10.3)	8700	9.3 (7.0–11.5)	23600
Waikato	14.8 (10.8–18.8) +	11300	9.0 (6.5–11.5)	17600
Bay of Plenty / Taranaki / MidCentral	11.8 (8.6–14.9)	11600	8.5 (6.3–10.7)	23300
Wairarapa / Hutt Valley / Capital and Coast	7.3 (4.5–10.2)	6600	7.3 (5.0–9.6)	21000
Canterbury	7.2 (4.3–11.4)	6600	4.8 (3.0–6.6) –	14300
Nelson Marlborough / West Coast / South Canterbury / Otago / Southland	13.6 (8.6–18.6)	12800	7.9 (5.2–10.6)	24300
New Zealand total	9.6 (8.6–10.6)	82100	7.5 (6.9–8.2)	186300

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.