



## Environmental Health Indicators for New Zealand

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### CHILDREN AND NON-SMOKING ADULTS EXPOSED TO SECOND-HAND SMOKE IN THE HOME

Indoor air quality is important as humans are estimated to spend approximately 80% of their time indoors (Public Health Advisory Committee 2002). A key source of indoor air pollution in New Zealand is exposure to second-hand tobacco smoke from either the air exhaled by the smoker, or from the smoke burning at the end of the cigarette.

Exposure to second-hand smoke causes health effects, such as chest infections, severe asthma, ear infections, sudden infant death syndrome (SIDS), and premature death in children (US Department of Health and Human Services 2006). Studies have also shown that non-smoking adults who are exposed to second-hand smoke have increased risk of lung cancer and ischaemic heart disease (US Department of Health and Human Services 2006).

**TABLE 1**

Exposure to second-hand smoke for children and non-smoking adults in their home, 2006–07, by District Health Board (DHB) area, unadjusted prevalence

District Health Board (DHB) area	Prevalence in children (0–14 years) (95% confidence interval)	Prevalence in non-smoking adults (15+ years) (95% confidence interval)
<b>Northland, Tairāwhiti, Hawke's Bay, Lakes, and Whanganui</b>	13.1 (10.2–16.1)	8.1 (6.1–10.0)
<b>Waitemata</b>	5.2 (3.0–7.4)	8.5 (6.4–10.7)
<b>Auckland</b>	5.4 (3.0–8.9)	4.9 (3.1–6.7)
<b>Counties Manukau</b>	7.8 (5.2–10.3)	9.3 (7.0–11.5)
<b>Waikato</b>	14.8 (10.8–18.8)	9.0 (6.5–11.5)
<b>Bay of Plenty, Taranaki, and MidCentral</b>	11.8 (8.6–14.9)	8.5 (6.3–10.7)
<b>Wairarapa, Hutt Valley, and Capital &amp; Coast</b>	7.3 (4.5–10.2)	7.3 (5.0–9.6)
<b>Canterbury</b>	7.2 (4.3–11.4)	4.8 (3.0–6.6)
<b>Nelson Marlborough, West Coast, South Canterbury, Otago and Southland</b>	13.6 (8.6–18.6)	7.9 (5.2–10.6)
<b>New Zealand</b>	9.6 (8.6–10.6)	7.5 (6.9–8.2)

Note: 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. Source: 2006/07 New Zealand Health Survey (Ministry of Health 2008).

Overall, one in 10 children (9.6%) aged 0–14 years were exposed to second-hand smoke in their home in New Zealand. Additionally, one in 15 non-smoking adults in New Zealand were exposed to second-hand smoke in their home. The District Health Board (DHB) areas with significantly higher exposure rates among children than the national average were: Waikato and the combined area of Northland, Tairāwhiti, Hawke's Bay, Lakes and Whanganui (Table 1). DHBs with significantly lower rates than the national average were: Waitemata (for children), Auckland (for children and non-smoking adults), and Canterbury (for non-smoking adults).

People living in areas of higher socioeconomic deprivation also had higher exposure to second-hand smoke than people in other areas. There were also significantly higher rates of second-hand smoke exposure among Māori compared to non-Māori. One in five Māori children were exposed to second-hand smoke in their home.

**References**

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