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ehinz
Environmental Health Intelligence New Zealand
Rapu Mātauranga Hauora mo te Taiao – Aotearoa

Related indicators

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Asthma prevalence

This factsheet presents updated statistics on the prevalence of medicated asthma among children aged 2–14 years in New Zealand from 2011 to 2020. The background information to this indicator can be found here.

Asthma prevalence in children aged 2–14 years in 2020/21 has declined from previous years.

The prevalence of asthma has declined in children 2–4 years (6.0%) in 2020/21, the lowest since 2011/12.

Māori and Pacific children were more likely to have medicated asthma than non- Māori children and non-Pacific children, respectively.

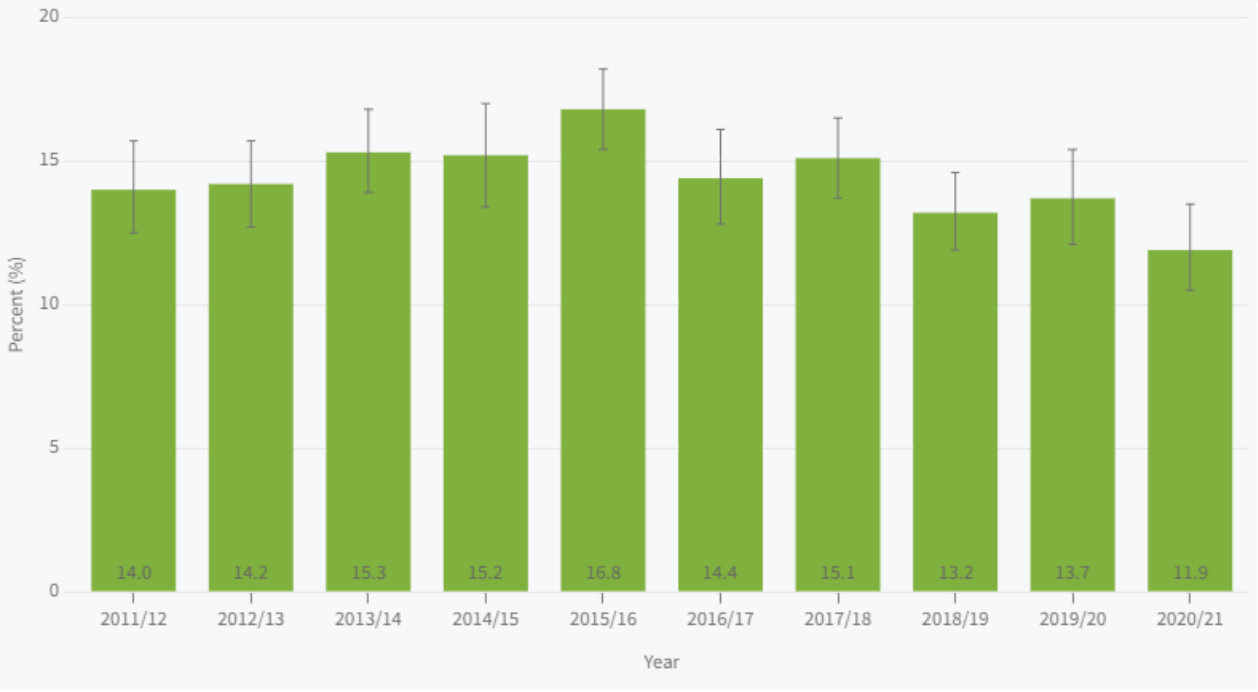
What is Medicated Asthma?

Child respondents aged 2–14 years were defined as having medicated asthma if a child's parent or caregivers had ever been told by the doctor that a child has asthma, and if the child now takes treatments for asthma (inhalers, medicine, tablets or pills).

The rate of asthma prevalence in children has declined from previous years

In 2020/21, 11.9% of children aged 2–14 years (about 101,000 children) were diagnosed with asthma and were currently being treated for it (95% confidence interval 10.5-13.5) (Figure 1). This the lowest rate since 2011/12.

Figure 1 Medicated asthma, children aged 2–14 years, 2011/12–2020/21 (unadjusted prevalence)



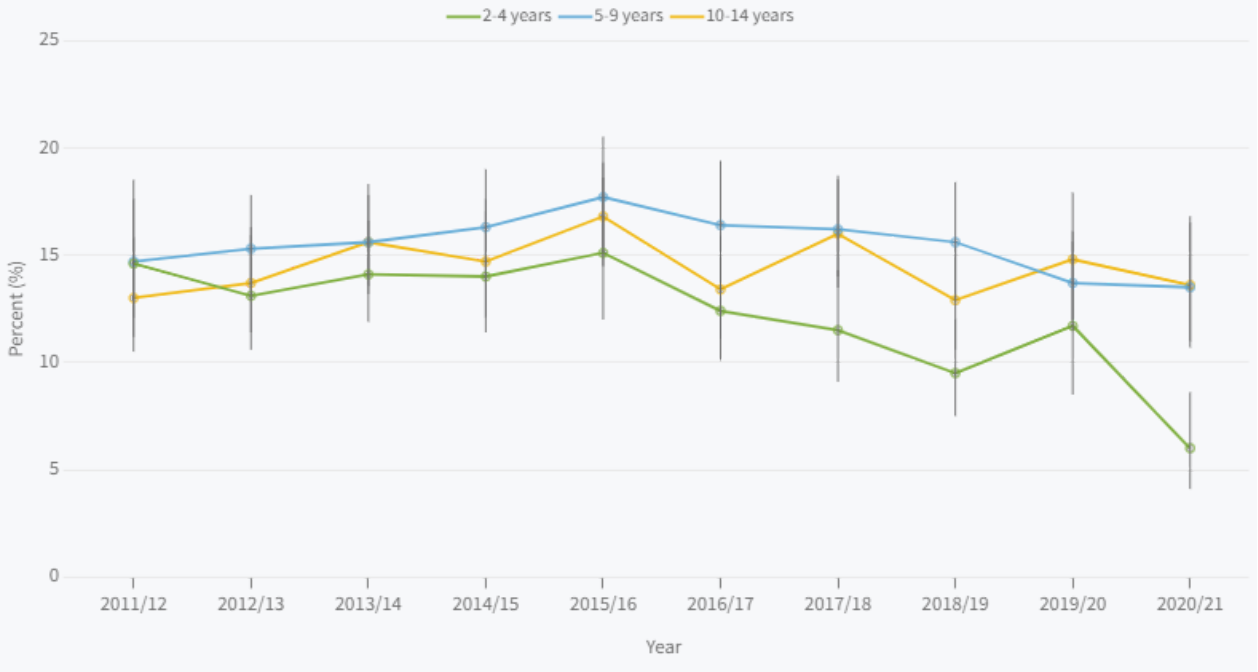
Note: 95% confidence intervals have been presented as error bars.

Source: New Zealand Health Survey (Ministry of Health 2021)

Marked decline in asthma prevalence in 2–4 year old children

The 2–4 year old age group experienced a large drop in asthma prevalence (6.0%) in 2020/21 – the lowest since 2011/12 (Figure 2). However, the rate of medicated asthma for children aged 5–9 years and 10–14 years remained stable over time.

Figure 2 Medicated asthma, children aged 2–14 years, by age group, 2011/12–2020/21 (unadjusted prevalence)



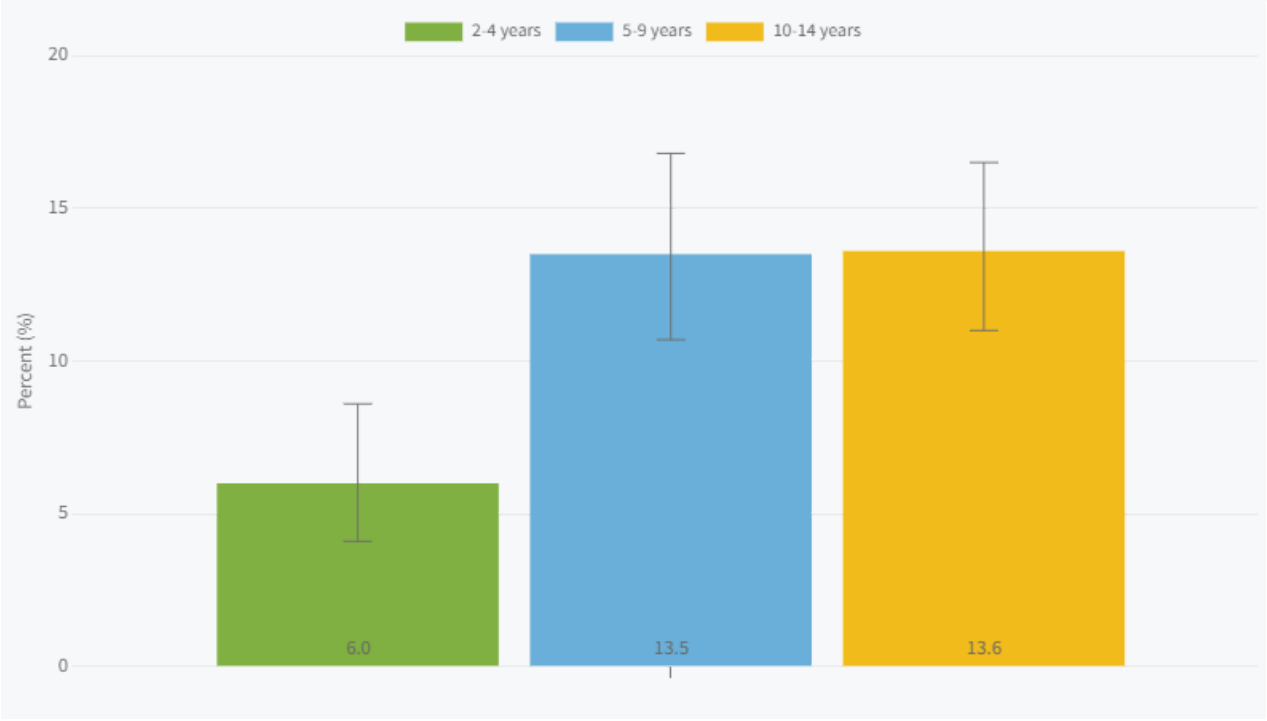
Note: 95% confidence intervals have been presented as error bars.

Source: New Zealand Health Survey (Ministry of Health 2021)

Children aged 2–4 years have lower asthma prevalence than their older counterparts

In 2020/21, children aged 2-4 years had a statistically significantly lower asthma prevalence than those aged 5–9 and 10–14 years (Figure 3).

Figure 3 Medicated asthma, children aged 2–14 years, by age group, 2020/21 (unadjusted prevalence)



Note: 95% confidence intervals have been presented as error bars.

Source: New Zealand Health Survey (Ministry of Health 2021)

High asthma prevalence in Māori and Pacific children

Māori (16.6%), and Pacific children (16.4%) had the highest prevalence of medicated asthma in 2020/21 (Table 1). Māori and Pacific children were 1.62 and 1.46 times as likely to have medicated asthma as non-Māori and non-Pacific children, respectively, after adjusting for age and sex. Asian children were less likely to have medicated asthma than non-Asian children (adjusted rate ratio 0.65, 0.43–0.99).

Table 1 Medicated asthma, children aged 2–14 years, by ethnic group (total response), 2020/21

Ethnic group (total response)	Unadjusted prevalence (%, 95% CI)	Estimated number of children	Comparison groups for adjusted rate ratio	Adjusted rate ratio (RR,95% CI)^
Total	11.9 (10.5–13.5)	101,000		
Māori	16.6 (13.4–20.3)	38,000	Maori vs non-Maori	1.62 (1.23–2.14)*
Pacific	16.4 (11.6–22.3)	18,000	Pacific vs non-Pacific	1.46 (1.04–2.04)*
Asian	8 (5.1–11.8)	11,000	Asian vs non-Asian	0.65 (0.43–0.99)*

Note: 95% confidence intervals (CI) are given in brackets. Estimated numbers will add to more than the total for ethnic groups due to total response ethnic groups being used (where everyone is included in every ethnic group they report).

^Rate ratios (RR) are used to compare results for different population subgroups. Adjusted rate ratios are for age and sex differences that could influence the comparison. An adjusted rate ratio above 1.0 shows that the indicator is more likely in the group of interest than in the reference group. An adjusted ratio below 1.0 shows the indicator is less likely in the group of interest than the reference group.

* Indicates a statistically significant result for an adjusted rate ratio greater or lower than 1.0.

Source: New Zealand Health Survey (Ministry of Health 2021)

Māori children showed fluctuating asthma prevalence rates over the period 2011/12–2020/21

Māori children showed fluctuating asthma prevalence rates from 2011/12–2020/21 (Figure 4). The unadjusted prevalence rate of medicated asthma remained relatively stable for the remaining ethnic groups.

Figure 4 Medicated asthma, children aged 2–14 years, by ethnic group (total response), 2011/12–2020/21 (unadjusted

Note: 95% confidence intervals have been presented as error bars.

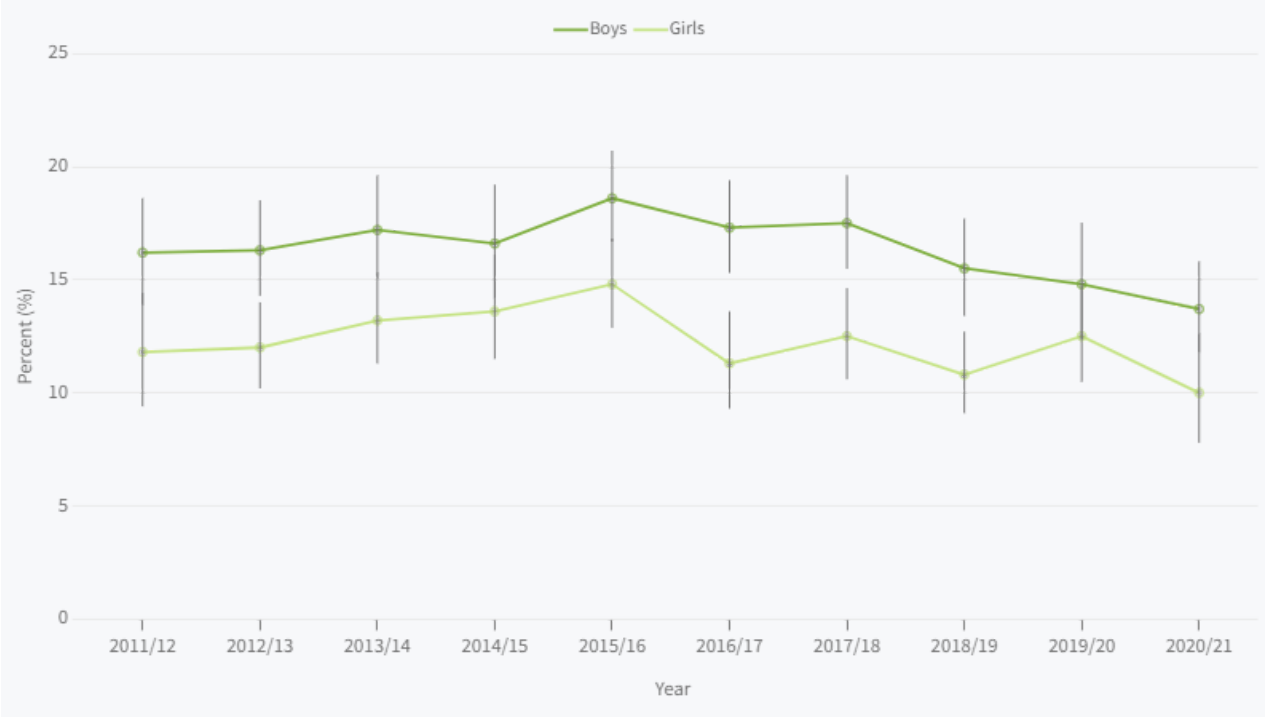
Source: New Zealand Health Survey (Ministry of Health 2021)

Boys were more likely to have medicated asthma than girls

In 2020/21, the medicated asthma prevalence rate was 13.7% for boys (11.8–15.8) and 10.0% for girls (7.8–12.6) (Figure 5). After adjusting for age, boys were 1.37 times as likely as girls to have medicated asthma (adjusted rate ratio 1.37, 1.05–1.80).

Boys continued to have high asthma prevalence rates from 2011/12–2020/21.

Figure 5 Medicated asthma, children aged 2–14 years, by sex, 2011/12–2020/21 (unadjusted prevalence)



Note: 95% confidence intervals have been presented as error bars.

Source: New Zealand Health Survey (Ministry of Health 2021)

No difference in asthma prevalence across neighbourhood deprivation quintiles

Children living in the most deprived areas (quintile 5) were 1.38 times as likely as those living in the least deprived areas (quintile 1) to have medicated asthma (adjusted rate ratio 1.38, 0.93–2.05) after adjusting for age, sex, and ethnicity. However, the difference was not statistically significant.

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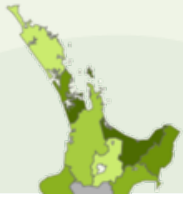
Interactive regional dashboard



Data for this indicator

This indicator contains the most recent data available from the Annual Update of Key Results 2020/21: New Zealand Health Survey published by the Ministry of Health in December 2021. It also contains the latest Regional Results 2017-2020: New Zealand Health Survey published by Ministry of Health in October 2021. All the results were calculated by the Ministry of Health.

In 2020 and 2021, interviewing for the New Zealand Health Survey was suspended when there was an elevated risk of COVID-19 in an area, to reduce any risks of transmitting COVID-19 between interviewers and respondents. The achieved sample size and response rate for the 2020/21 data collection are lower than usual due to these disruptions. The reduction in sample size is seen approximately evenly in all regions. No adjustments or imputations have been done to account for the impact this has had on the 2019/20 and 2020/21 data.

For additional information, see the metadata link below.

References

Ministry of Health. 2021. Annual Update of Key Results 2020/21: New Zealand Health Survey. Annual Data Explorer 2020/21. Wellington: Ministry of Health. URL: https://www.health.govt.nz/publication/annual-update-key-results-2020-21-new-zealand-health-survey (Accessed 07/12/2021).

Ministry of Health. 2021a. Regional Results 2017–20: New Zealand Health Survey. Wellington: Ministry of Health. URL: https://www.health.govt.nz/publication/regional-results-2017-2020-new-zealand-health-survey (accessed 31/10/2021)

Other related topics include:

Household crowding
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Meningococcal disease
Asthma hospitalisations
Maternal smoking at two weeks postnatal
Nitrogen dioxide concentrations

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Further information

For descriptive information about the data Metadata Sheet

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