

Child immunisation: Reports by parents and caregivers

Background

The Ministry of Health recommends and subsidises a number of vaccinations to immunise New Zealand children against communicable diseases such as tetanus, polio, and measles (Ministry of Health, 2012a). To monitor national child immunisation rates, the Ministry of Health keeps an official record of the number of New Zealand children who are fully immunised for their age (Ministry of Health, 2012b).

In the Health Promotion Agency's 2012 Health and Lifestyles Survey (HLS), we asked parents and caregivers about the immunisation of a child in their care. This fact sheet presents responses to these questions and compares parent/caregiver reports of child immunisation rates to those in the official Ministry of Health record. This information is important for us to understand the motivations and barriers associated with child immunisation and to develop effective health promotion strategies to maximise immunisation rates.

Methodology

Respondents in the 2012 HLS who were parents or caregivers of children aged 5 to 16 years were asked two questions relating to the immunisation of a child in their care¹. Responses to these questions were compared by parent/caregiver age, gender, ethnicity, neighbourhood deprivation status, educational background, and employment status; and by child age, gender, and ethnicity. Statistically significant differences ($p < .05$) are reported.

Child immunisation rates reported by parents/caregivers in the 2012 HLS were also compared to those in the Ministry of Health immunisation record from 2012 (Ministry of Health, 2012b).

Parent/caregiver reports of child's immunisation history

All parent/caregiver respondents were asked about the immunisation history of a child in their care. High rates of immunisation were reported, with over nine in 10 respondents (91%; 88-95%) saying that their child had received all recommended vaccines to date. Fewer than one in 10 (7%; 4-10%) said that their child had received some, but not all, recommended vaccines. A very small percentage (0.9%; 0.5-1.6%) said that their child had not received any recommended vaccines, and a further small percentage (1%; 0.2-1.8%) did not know their child's immunisation status.

When comparing the reported rates of complete immunisation (child has received all recommended vaccines for their age) by demographic group, there were effects of child age and neighbourhood deprivation status:

- Parents/caregivers whose child was aged between 13 and 16 years (83%; 74-93%) were less likely than parents/caregivers whose child was aged between 5 and 8 years (96%; 94-99%) or 9 and 12 years (92%; 87-97%) to say that their child had received all recommended vaccines.
- Parents/caregivers living in mid to high-deprivation neighbourhoods (94%; 91-97%) were more likely than parents/caregivers living in low-deprivation neighbourhoods (84%; 74-94%) to say that their child had received all recommended vaccines.

¹At the start of the survey interview, parents/caregivers were asked to select one child in their care to answer a series of questions about. There were no restrictions on which child they could choose, except that the child should be aged between 5 and 16 years.

Ministry of Health record of child immunisation history

The information in this section relates to five-year-olds only because that is the only age group that appears in both the HLS and the Ministry of Health immunisation record.

Parents/caregivers in the 2012 HLS appeared to over-report child immunisation rates, with a parent/caregiver-reported immunisation rate for five-year-olds of 96% (91-100%), compared to a recorded immunisation rate for five-year-olds of 81% in 2012 (Ministry of Health, 2012b).

Other differences between parent/caregiver reports of complete child immunisation in the 2012 HLS and the 2012 Ministry of Health record relate to child ethnicity and neighbourhood deprivation:

- While there was no effect in the 2012 HLS of child ethnicity on parent/caregiver-reported complete immunisation rates for five-year-olds, the 2012 Ministry of Health record shows that Māori, Pacific, and Asian five-year-olds tended to be less likely to be fully immunised for their age than New Zealand European five-year-olds.

- In the 2012 HLS, parents/caregivers residing in low-deprivation areas were *less* likely than mid or high-deprivation parents/caregivers to report that a five-year-old in their care was fully immunised. In the 2012 Ministry of Health record, there was an opposite effect where children residing in low-deprivation areas were *more* likely to be fully immunised than high-deprivation children.

Parent/caregiver concerns about vaccines

All parent/caregiver respondents were asked what concerns they might have about recommended vaccines. Respondents could give multiple open-ended answers, which were subsequently back-coded into appropriate categories.

Most respondents (77%; 72-82%) did not have any concerns about recommended vaccines and this did not change by demographic group. See Table 1 for the proportion of respondents reporting particular concerns about vaccines.

Table 1: Proportion of respondents who reported particular concerns about recommended vaccines

Concern About Recommended Vaccines	%	95% CI
None	77	[72, 82]
Vaccines are not tested enough for safety	10	[6, 14]
Other (unspecified concern)	8	[5, 11]
Vaccines may cause chronic disease (such as diabetes, asthma, or immune system problems)	7	[3, 10]
The ingredients in vaccines are unsafe	6	[3, 9]
Vaccines may cause learning disabilities (such as autism)	5	[2, 8]
Vaccines are given to children to prevent diseases they are not likely to get	4	[1, 6]
Vaccines cause fevers in my child	3	[<1, 5]
Children get too many vaccines during the first two years of life	3	[<1, 5]
Vaccines are given to children to prevent diseases that are not serious	2	[<1, 3]
Don't know/refused	2	[<1, 3]
My child will not be vaccinated on time because there are not enough of some vaccines	1	[<1, 2]
It is painful for children to receive so many shots during one doctor's visit	< 1	[<1, 2]
My child gets too many vaccines in one doctor's visit	< 1	[<1, <1]

Note: Responses do not add to 100% because participants could give multiple responses.

Note: 95% CI = 95% confidence interval

Note that these findings do not provide insight into the reasons why some parents do not immunise their children. This is because all parent/caregiver respondents in the 2012 HLS (ie, not just those who did not immunise their children) were asked this question.

Key points

- The majority of parents/caregivers in New Zealand said that a child (aged 5 to 16 years) in their care had received all recommended vaccines.
- There were few group differences in reported rates of complete immunisation, although parents/caregivers of younger children (5 to 8 and 9 to 12-year-olds) were more likely than parents/caregivers of adolescents (13 to 16-year-olds) to say that their child had received all recommended vaccines.
- Parents/caregivers living in mid to high-deprivation areas were also more likely than parents/caregivers living in low-deprivation areas to report that their child had received all recommended vaccines.
- Parent/caregiver-reported rates of complete child immunisation appear to be higher than those recorded by the Ministry of Health.
- In some cases (child ethnicity, neighbourhood deprivation), patterns in parent/caregiver-reported child immunisation rates did not align with those observed in the Ministry of Health immunisation record.
- The majority of parents/caregivers in New Zealand had no concerns about recommended vaccines and this pattern did not change by demographic group.
- Of those who did have some concerns about vaccines, the most frequently reported concerns were related to perceived safety (eg, vaccines not tested enough, ingredients not safe).

About the Health and Lifestyles Survey

- The HLS is a nationwide in-home face-to-face survey conducted every two years, starting in 2008.
- The 2012 HLS consisted of a sample of 2,672 New Zealanders aged 15 years and over, who provided information about their health behaviours and attitudes relating to tobacco, sun safety, healthy eating, gambling, alcohol, exercise, immunisation, mental health, breast feeding, and cancer screening. The response rate was 86.3%.
- There were 553 parents and caregivers in the 2012 HLS, including 235 people of European/Other ethnicity, 157 Māori, 134 Pacific people, and 27 Asian people (prioritised ethnicity).
- The data have been adjusted (weighted) to ensure they are representative of the New Zealand population.
- For this analysis, proportions and 95% confidence intervals were produced. The significance level used for statistical analyses was set to $\alpha=0.05$.
- Comparison groups for these analyses were as follows:
 - Age
Parent/caregiver: 25 to 34, 35 to 54, and 55+ years, compared with 15 to 24 years
Child: 5 to 8 and 9 to 12 years, compared with 13 to 16 years
 - Gender
Parent/caregiver: Males compared with females
Child: as above
 - Ethnicity
Parent/caregiver: Māori, Pacific, and Asian, compared with European/Other
Child: as above
 - Neighbourhood deprivation status
Parent/caregiver only: New Zealand Deprivation Index 4 to 10, compared with New Zealand Deprivation Index 1 to 3
 - Educational background
Parent/caregiver only: No formal qualifications, School Certificate/NCEA level 1, and UE/NCEA Levels 2 to 3, trade certificates, compared with university qualifications
 - Employment status
Parent/caregiver only: Part-time employed, home-maker, and unemployed, compared with full-time employed
- A full description of the 2012 HLS methodology and further HLS publications can be found online at www.hpa.org.nz/research-library/research-publications

Reference

1. Ministry of Health. (2012a). *New Zealand immunisation schedule*. Retrieved 17 July 2013 from <http://www.health.govt.nz/our-work/preventative-health-wellness/immunisation/new-zealand-immunisation-schedule>
2. Ministry of Health. (2012b). *Immunisation coverage data – 12 month reporting period*. Retrieved 17 July 2013 from <http://www.health.govt.nz/our-work/preventative-health-wellness/immunisation/immunisation-coverage/national-and-dhb-immunisation-data>

Citation

Guiney, H. (2013). *Child immunisation: Reports by parents and caregivers. [In Fact]*. Wellington: Health Promotion Agency Research and Evaluation Unit

About the Health Promotion Agency (HPA)

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August 2013

