

INTRODUCTION



Introduction

This report is one of a series of three reports on the health of children and young people in New Zealand produced for the district health boards and the Ministry of Health, and it fits into the current reporting cycle as follows:

Year 1: The Determinants of Health for Children and Young People (prepared during 2014)

Year 2: The Health Status of Children and Young People (prepared during 2015)

Year 3: Children and Young People with Chronic Conditions and Disabilities (to be prepared during 2016)

It aims to provide an overview of the health status of children and young people in New Zealand, and to assist those working to improve child and youth health to use all of the available evidence when they are developing programmes and interventions to address child and youth health needs.

Report sections and indicators

This report is based on an *Indicator Framework*¹ developed in 2007 in which the indicators for each of the three reports in the series were identified. The indicators in this year's report were developed from Craig et al's indicators for the individual and whānau health and wellbeing stream. They are presented in the following sections:

- Issues in infancy
- Issues for all ages 0–24 year olds
- Conditions of the respiratory system
- Common communicable diseases
- Unintentional injury
- Reproductive health
- Mental health

Within each section, where possible, data are broken down by demographic factors such as age, gender, ethnicity, NZ Index of Deprivation decile, and district health board (DHB). When making comparisons between DHBs, readers should be aware that difference in disease rates may be the result of differences in DHB demographic characteristics (such as the age structure, ethnicity, and deprivation level of the population) and not assume that differences in disease rates represent differences in DHBs' performance.

In-depth topics

In addition to providing an overview of a range of important health conditions affecting children and young people, this report also considers two issues as in-depth topics. These are:

1. Young people's sexual and reproductive health: This in-depth topic by Dr Judith Adams addresses the sexual and reproductive health needs of New Zealand's young people. It does not include information relevant to the care of pregnant teenagers or teenage parents because a previous in-depth topic (in the 2012 report in this series of reports) entitled *Services and Interventions for Women Experiencing Multiple Adversities in Pregnancy* included a substantial section on services for teenage parents. It begins by reviewing the available data on the sexual health and behaviour of New Zealand's young people. It then reviews sexuality education and the research relevant to determining the best ways to provide young people with the knowledge and understanding to take care of their sexual and reproductive health. Subsequent sections review the literature on sexual and reproductive health care services for young people and newer contraceptive options for young people, particularly long-acting reversible contraceptive methods. The final section summarises key points and offers some suggestions for improving young people's sexual and reproductive health.

2. Mental health issues in 15–24 year olds: This in-depth topic by Dr Michael Butchard explores mental health issues and services for youth and young adults aged 15–24 years. Its general focus is on the mental health service structure and primary level care. After providing a brief historical context, the current mental health services and access are summarised, and barriers to access, transitioning from child to adult care, workforce issues, the role of primary care, and school-based health services are discussed. Literature on primary level mental health, alcohol and other drug interventions, including e-interventions, is reviewed and summarised. The final section explores issues relevant to high-risk groups within the youth and young adult population especially Māori and Pacific young people.

Evidence for good practice

Most sections in this year's report conclude with a brief overview of government documents, guidelines and reviews of evidence for good practice relevant to the prevention and management of the issue. **Appendix 1** provides an overview of the methodology used to develop these reviews. The quality and depth of evidence available varies considerably from indicator to indicator. When developing new approaches in areas where there is currently no sound evidence base, an evaluation arm should be built into any proposed programmes from the beginning. The learnings gained from these evaluations are essential for ensuring interventions developed enhance the wellbeing of children and young people and make best use of available resources.

Data quality, statistical significance, and demographic data

Tests of statistical significance: To assist the reader to determine whether tests of statistical significance have been used in a particular section, **Appendix 2**, outlines how the significance of the associations presented has been signalled in the text with the words *significant*, or *not significant* in italics. If the words *significant* or *not significant* do not appear in the text, then the associations described do not imply statistical significance or non-significance.

Appendix 3 contains information on the data sources used to develop each indicator. It is advisable to read the contents of these appendices when interpreting any information in this report. To ensure anonymity, where numbers are less than five, these and their associated rates have been suppressed.

Appendix 4 describes the use of ethnicity data in this report and **Appendix 5** outlines the New Zealand Deprivation Index and how it is used.

Overview of the health status of children and young people in New Zealand

Figure 1–Figure 5 on the following page provides an overview of the indicators in this year's report, summarising the range of the DHB rates in relation to the New Zealand rates for each indicator.

Conclusions

This report provides an overview of the health status of children and young people in New Zealand, and an entry point to the policy and evidence-based review literature, to assist with addressing child and youth health needs in a systematic and evidence-based manner. It is suggested that the Ministry of Health, DHBs and others working in the health sector use the epidemiological data in this report as a complement to knowledge of existing services and key stakeholders' views. In addition, they should be mindful of existing Government policy, and that for any approaches developed to be effective, they need to be congruent with the evidence contained in the current literature. If there is no sound evidence base, planners should build an evaluation arm into their programmes to ensure the best use of available resources.

Figure 1. Summary of the indicators in the report Health Status of Children and Young People 2015, Nelson Marlborough compared to New Zealand

Indicator	Nelson Marlborough number	Nelson Marlborough rate	NZ rate	Lowest DHB rate	Indicator range	Highest DHB rate
1 Fetal deaths	49	5.85	7.53	5.50		9.33
2 Preterm births	532	6.72	7.50	6.34		8.40
3 Infant mortality	20	2.40	5.14	2.40		8.07
4 Sudden unexpected death in infancy	<5	s	1.01	0.43		2.47
5 Ambulatory sensitive hospitalisations in 0–4 year olds*	1,935	45.16	66.48	37.37		88.48
6 Acute upper respiratory tract infections in 0–14 year olds	690	5.14	6.49	4.27		10.71
7 Tonsillectomy ± adenoidectomy in 0–14 year olds	429	3.19	3.48	2.29		7.18
8 Otitis media in 0–14 year olds	40	0.30	0.58	0.22		0.99
9 Grommets in 0–14 year olds	722	5.38	5.08	2.41		8.56
10 Bronchiolitis in infants	337	42.56	84.58	37.88		130.83
11 Pneumonia in 0–24 year olds	240	1.14	2.32	1.00		3.35
12 Asthma in 0–24 year olds	555	2.65	4.68	1.94		6.19
13 Bronchiectasis in 0–24 year olds	25	11.92	25.50	7.39		56.87
14 Pertussis in under 1 year olds	18	2.27	2.40	0.90		7.36
15 Meningococcal disease in 0–24 year olds	<5	s	4.52	2.81		12.24
16 Tuberculosis in 0–24 year olds	8	3.82	2.97	1.92		7.92
17 Acute rheumatic fever in 0–24 year olds	<5	s	14.34	2.05		44.27
18 Rheumatic heart disease in 0–24 year olds	10	4.77	8.67	0.97		26.59
19 Any skin infections in 0–24 year olds	792	3.78	7.52	3.65		11.83
20 Gastroenteritis in 0–24 year olds	720	3.43	4.81	3.19		6.23
21 Unintentional injury hospitalisations of 0–24 year olds	2,442	1,164.76	1,180.40	977.70		1,582.58
22 Teenage births	416	20.31	24.40	13.50		46.51
23 Clients aged 0–24 year olds seen by mental health services	2,152	5,115.46	3,748.47	2,777.20		6,052.86
24 Mental health hospitalisations of 0–24 year olds	437	208.44	262.26	151.64		468.74
25 Suicide among 0–24 year olds	12	5.74	8.75	5.74		23.64
26 Intentional self-harm in 0–24 year olds	277	132.12	64.23	17.24		167.23

* ED cases included

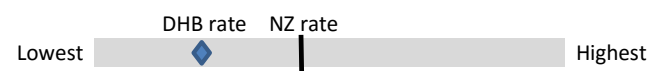


Figure 2. Summary of the indicators in the report Health Status of Children and Young People 2015, South Canterbury compared to New Zealand

Indicator	South Canterbury number	South Canterbury rate	NZ rate	Lowest DHB rate	Indicator range	Highest DHB rate
1 Fetal deaths	20	6.34	7.53	5.50		9.33
2 Preterm births	205	6.63	7.50	6.34		8.40
3 Infant mortality	19	6.06	5.14	2.40		8.07
4 Sudden unexpected death in infancy	<5	s	1.01	0.43		2.47
5 Ambulatory sensitive hospitalisations in 0–4 year olds*	635	37.37	66.48	37.37		88.48
6 Acute upper respiratory tract infections in 0–14 year olds	226	4.27	6.49	4.27		10.71
7 Tonsillectomy ± adenoidectomy in 0–14 year olds	380	7.18	3.48	2.29		7.18
8 Otitis media in 0–14 year olds	25	0.47	0.58	0.22		0.99
9 Grommets in 0–14 year olds	453	8.56	5.08	2.41		8.56
10 Bronchiolitis in infants	139	44.95	84.58	37.88		130.83
11 Pneumonia in 0–24 year olds	85	1.00	2.32	1.00		3.35
12 Asthma in 0–24 year olds	165	1.94	4.68	1.94		6.19
13 Bronchiectasis in 0–24 year olds	0	..	25.50	7.39		56.87
14 Pertussis in under 1 year olds	<5	s	2.40	0.90		7.36
15 Meningococcal disease in 0–24 year olds	<5	s	4.52	2.81		12.24
16 Tuberculosis in 0–24 year olds	0	..	2.97	1.92		7.92
17 Acute rheumatic fever in 0–24 year olds	0	..	14.34	2.05		44.27
18 Rheumatic heart disease in 0–24 year olds	<5	s	8.67	0.97		26.59
19 Any skin infections in 0–24 year olds	330	3.87	7.52	3.65		11.83
20 Gastroenteritis in 0–24 year olds	310	3.64	4.81	3.19		6.23
21 Unintentional injury hospitalisations of 0–24 year olds	1,153	1,353.29	1,180.40	977.70		1,582.58
22 Teenage births	183	21.31	24.40	13.50		46.51
23 Clients aged 0–24 year olds seen by mental health services	990	5,769.23	3,748.47	2,777.20		6,052.86
24 Mental health hospitalisations of 0–24 year olds	344	403.76	262.26	151.64		468.74
25 Suicide among 0–24 year olds	20	23.64	8.75	5.74		23.64
26 Intentional self-harm in 0–24 year olds	105	123.24	64.23	17.24		167.23

* ED cases included

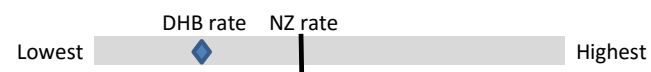


Figure 3. Summary of the indicators in the report Health Status of Children and Young People 2015, Canterbury compared to New Zealand

Indicator	Canterbury number	Canterbury rate	NZ rate	Lowest DHB rate	Indicator range	Highest DHB rate
1 Fetal deaths	237	7.35	7.53	5.50		9.33
2 Preterm births	2,437	7.92	7.50	6.34		8.40
3 Infant mortality	144	4.50	5.14	2.40		8.07
4 Sudden unexpected death in infancy	24	0.75	1.01	0.43		2.47
5 Ambulatory sensitive hospitalisations in 0–4 year olds*	635	37.37	66.48	37.37		88.48
6 Acute upper respiratory tract infections in 0–14 year olds	3,714	7.85	6.49	4.27		10.71
7 Tonsillectomy ± adenoidectomy in 0–14 year olds	1,597	3.37	3.48	2.29		7.18
8 Otitis media in 0–14 year olds	224	0.47	0.58	0.22		0.99
9 Grommets in 0–14 year olds	2,341	4.94	5.08	2.41		8.56
10 Bronchiolitis in infants	1,720	55.93	84.58	37.88		130.83
11 Pneumonia in 0–24 year olds	1,010	1.22	2.32	1.00		3.35
12 Asthma in 0–24 year olds	3,946	4.76	4.68	1.94		6.19
13 Bronchiectasis in 0–24 year olds	80	9.66	25.50	7.39		56.87
14 Pertussis in under 1 year olds	77	2.50	2.40	0.90		7.36
15 Meningococcal disease in 0–24 year olds	30	3.62	4.52	2.81		12.24
16 Tuberculosis in 0–24 year olds	<5	s	2.97	1.92		7.92
17 Acute rheumatic fever in 0–24 year olds	17	2.05	14.34	2.05		44.27
18 Rheumatic heart disease in 0–24 year olds	28	3.38	8.67	0.97		26.59
19 Any skin infections in 0–24 year olds	3,939	4.76	7.52	3.65		11.83
20 Gastroenteritis in 0–24 year olds	2,961	3.57	4.81	3.19		6.23
21 Unintentional injury hospitalisations of 0–24 year olds	9,710	1,172.27	1,180.40	977.70		1,582.58
22 Teenage births	1,374	16.86	24.40	13.50		46.51
23 Clients aged 0–24 year olds seen by mental health services	5,693	3,422.95	3,748.47	2,777.20		6,052.86
24 Mental health hospitalisations of 0–24 year olds	2,708	326.93	262.26	151.64		468.74
25 Suicide among 0–24 year olds	66	8.00	8.75	5.74		23.64
26 Intentional self-harm in 0–24 year olds	549	66.28	64.23	17.24		167.23

* ED cases included

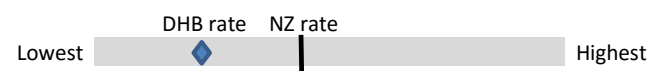


Figure 4. Summary of the indicators in the report Health Status of Children and Young People 2015, West Coast compared to New Zealand

Indicator	West Coast number	West Coast rate	NZ rate	Lowest DHB rate	Indicator range	Highest DHB rate
1 Fetal deaths	12	5.50	7.53	5.50		9.33
2 Preterm births	172	8.35	7.50	6.34		8.40
3 Infant mortality	10	4.61	5.14	2.40		8.07
4 Sudden unexpected death in infancy	<5	s	1.01	0.43		2.47
5 Ambulatory sensitive hospitalisations in 0–4 year olds*	495	45.95	66.48	37.37		88.48
6 Acute upper respiratory tract infections in 0–14 year olds	163	5.16	6.49	4.27		10.71
7 Tonsillectomy ± adenoidectomy in 0–14 year olds	163	5.16	3.48	2.29		7.18
8 Otitis media in 0–14 year olds	7	0.22	0.58	0.22		0.99
9 Grommets in 0–14 year olds	113	3.58	5.08	2.41		8.56
10 Bronchiolitis in infants	78	37.88	84.58	37.88		130.83
11 Pneumonia in 0–24 year olds	86	1.72	2.32	1.00		3.35
12 Asthma in 0–24 year olds	156	3.13	4.68	1.94		6.19
13 Bronchiectasis in 0–24 year olds	5	10.03	25.50	7.39		56.87
14 Pertussis in under 1 year olds	<5	s	2.40	0.90		7.36
15 Meningococcal disease in 0–24 year olds	<5	s	4.52	2.81		12.24
16 Tuberculosis in 0–24 year olds	0	..	2.97	1.92		7.92
17 Acute rheumatic fever in 0–24 year olds	<5	s	14.34	2.05		44.27
18 Rheumatic heart disease in 0–24 year olds	0	..	8.67	0.97		26.59
19 Any skin infections in 0–24 year olds	182	3.65	7.52	3.65		11.83
20 Gastroenteritis in 0–24 year olds	159	3.19	4.81	3.19		6.23
21 Unintentional injury hospitalisations of 0–24 year olds	777	1,558.01	1,180.40	977.70		1,582.58
22 Teenage births	157	33.20	24.40	13.50		46.51
23 Clients aged 0–24 year olds seen by mental health services	602	6,052.86	3,748.47	2,777.20		6,052.86
24 Mental health hospitalisations of 0–24 year olds	172	344.89	262.26	151.64		468.74
25 Suicide among 0–24 year olds	0	..	8.75	5.74		23.64
26 Intentional self-harm in 0–24 year olds	67	134.35	64.23	17.24		167.23

* ED cases included

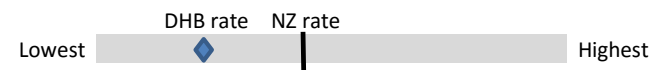


Figure 5. Summary of the indicators in the report Health Status of Children and Young People 2015, Southern DHB compared to New Zealand

Indicator	Southern DHB number	Southern DHB rate	NZ rate	Lowest DHB rate	Indicator range	Highest DHB rate
1 Fetal deaths	132	7.05	7.53	5.50		9.33
2 Preterm births	1,433	8.03	7.50	6.34		8.40
3 Infant mortality	72	3.87	5.14	2.40		8.07
4 Sudden unexpected death in infancy	11	0.59	1.01	0.43		2.47
5 Ambulatory sensitive hospitalisations in 0–4 year olds*	6,093	64.57	66.48	37.37		88.48
6 Acute upper respiratory tract infections in 0–14 year olds	2,016	7.20	6.49	4.27		10.71
7 Tonsillectomy ± adenoidectomy in 0–14 year olds	1,327	4.74	3.48	2.29		7.18
8 Otitis media in 0–14 year olds	204	0.73	0.58	0.22		0.99
9 Grommets in 0–14 year olds	2,063	7.36	5.08	2.41		8.56
10 Bronchiolitis in infants	1,176	65.89	84.58	37.88		130.83
11 Pneumonia in 0–24 year olds	673	1.30	2.32	1.00		3.35
12 Asthma in 0–24 year olds	1,859	3.60	4.68	1.94		6.19
13 Bronchiectasis in 0–24 year olds	44	8.52	25.50	7.39		56.87
14 Pertussis in under 1 year olds	40	2.24	2.40	0.90		7.36
15 Meningococcal disease in 0–24 year olds	21	4.07	4.52	2.81		12.24
16 Tuberculosis in 0–24 year olds	<5	s	2.97	1.92		7.92
17 Acute rheumatic fever in 0–24 year olds	<5	s	14.34	2.05		44.27
18 Rheumatic heart disease in 0–24 year olds	5	0.97	8.67	0.97		26.59
19 Any skin infections in 0–24 year olds	2,611	5.05	7.52	3.65		11.83
20 Gastroenteritis in 0–24 year olds	2,544	4.93	4.81	3.19		6.23
21 Unintentional injury hospitalisations of 0–24 year olds	5,367	1,039.04	1,180.40	977.70		1,582.58
22 Teenage births	872	15.08	24.40	13.50		46.51
23 Clients aged 0–24 year olds seen by mental health services	4,162	4,011.46	3,748.47	2,777.20		6,052.86
24 Mental health hospitalisations of 0–24 year olds	1,875	363.00	262.26	151.64		468.74
25 Suicide among 0–24 year olds	56	10.89	8.75	5.74		23.64
26 Intentional self-harm in 0–24 year olds	347	67.18	64.23	17.24		167.23

* ED cases included

