

REGIONAL BIRTHS

Introduction

While often not explicitly stated, much of the interest in monitoring health status in recent years has been around benchmarking and the desire to assess a DHB's performance based on a basket of key indicators. The ability to undertake such analyses in a robust manner, however, requires differences in the age structure, and ethnic, rural/urban and socioeconomic composition of the region's population to be taken into account.

Further, at the regional level what is often needed for planning purposes is not an adjusted analysis where the effects of each of these factors have been discounted, but rather an overview of a region's crude rates with consideration then being given to why these rates might differ from the national average. As a consequence, the report which follows uses unadjusted/crude rates to provide an overview of morbidity and mortality for children and young people in the region. In interpreting these crude rates, however, knowledge of regional demography is essential, as well as an understanding of the ways in which the underlying determinants of health (e.g. socioeconomic deprivation) influence health outcomes at the population level. It is thus suggested that when reading each of the sections in this report, the reader considers the answers to the following questions:

1. What are the characteristics of the region's child and youth population in terms of age structure, ethnicity, rural/urban profile and exposure to socioeconomic disadvantage?
2. For each health issue under review, how might this demographic profile influence the distribution of health outcomes at the population level? (*This information is provided by the rate ratio tables and graphs (ethnicity, gender, and NZDep Index decile) which appear in the national level analysis for most indicators*).
3. What are the region's actual rates for the health issue in question and do they differ in any way from those that might be predicted based on an understanding of the region's demographic profile? (*This information is provided in the DHB level analysis for each indicator*).

In assisting the reader with the first of these tasks, the following section provides an overview of births in the region by ethnicity, NZ Deprivation Index decile and maternal age using information from the Birth Registration Dataset. Due to the postponement of the 2011 Census, Census data for the region will not be provided this year, but will be updated as soon as they become available.

Data Sources and Methods

Indicator

1. Distribution of Live Births by Ethnicity, NZ Deprivation Index Decile and Maternal Age

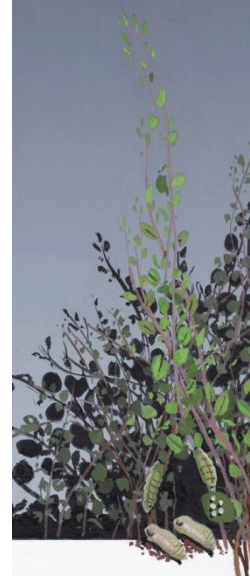
Numerator: Birth Registration Dataset

Notes on Interpretation

Note 1: In this analysis, NZDep2006 decile has been assigned on the basis of Domicile Code/Census Area Unit (CAU \approx 1,000–2,000 people). In regions where there are no births in e.g. decile 10 areas, there still may be babies born into e.g. decile 10 meshblocks (smaller areas of \approx 100 people). When these smaller meshblocks are aggregated into larger CAUs however, they may collectively fail to achieve an overall decile 10 ranking.

Note 2: The number of births presented here may vary slightly from previous years, as the Ministry of Health no longer provides information on stillbirths in the Birth Registration Dataset due to concerns about data quality. Thus the current analysis is restricted to live births (as compared to total births (including stillbirths) which were presented in previous years).

Note 3: Year is year of birth registration rather than year of birth.



New Zealand vs. South Island Distribution

Regional Trends

In the South Island during 2000–2010, the number of live births registered annually varied, with numbers increasing in Nelson Marlborough, Canterbury, the West Coast, and Southland, but remaining more static in South Canterbury and Otago (**Table 2–Table 3**).

Table 2. Distribution of Live Births by Ethnicity, Nelson Marlborough, South Canterbury, and Canterbury DHBs 2000–2010

Year	Asian/Indian	European	Māori	Other	Pacific	Not Stated	Total
Nelson Marlborough							
2000	32	1,188	289	7	27	<3	1,544
2001	41	1,157	269	6	13	<3	1,488
2002	44	1,118	251	6	22	<3	1,442
2003	40	1,145	298	7	27	6	1,523
2004	41	1,208	316	10	47	<3	1,623
2005	50	1,116	292	12	41	3	1,514
2006	43	1,188	287	11	38	<3	1,569
2007	74	1,247	334	8	53	<3	1,718
2008	63	1,276	357	17	40	3	1,756
2009	70	1,170	337	20	60	3	1,660
2010	100	1,208	345	24	48	0	1,725
South Canterbury							
2000	16	494	105	4	6	0	625
2001	16	497	68	3	7	0	591
2002	10	454	76	<3	5	<3	547
2003	13	492	72	5	9	<3	592
2004	18	453	86	4	8	0	569
2005	20	463	97	3	6	0	589
2006	12	477	105	<3	8	<3	606
2007	21	534	97	5	17	<3	675
2008	19	505	106	6	6	<3	643
2009	22	511	106	<3	13	0	654
2010	12	494	102	5	14	0	627
Canterbury							
2000	256	4,150	874	45	201	6	5,532
2001	244	4,330	820	63	182	4	5,643
2002	253	3,982	864	51	173	11	5,334
2003	343	4,167	856	65	214	4	5,649
2004	392	4,285	1,067	81	227	10	6,062
2005	364	4,400	937	87	245	8	6,041
2006	385	4,347	1,120	87	245	12	6,196
2007	508	4,785	1,256	81	258	5	6,893
2008	518	4,559	1,191	89	296	5	6,658
2009	525	4,485	1,128	116	267	7	6,528
2010	596	4,460	1,179	116	326	3	6,680

Source: Birth Registration Dataset; Note: Year is year of birth registration

Table 3. Distribution of Live Births by Ethnicity, West Coast, Otago and Southland DHBs 2000–2010

Year	Asian/Indian	European	Māori	Other	Pacific	Not Stated	Total
West Coast							
2000	<3	289	65	<3	4	0	361
2001	4	307	83	0	<3	<3	396
2002	5	266	56	0	3	0	330
2003	<3	272	57	<3	<3	0	334
2004	9	318	71	<3	0	0	399
2005	7	258	71	3	<3	<3	341
2006	7	314	69	<3	6	<3	398
2007	9	309	74	6	8	<3	408
2008	14	347	82	7	<3	<3	452
2009	10	327	87	<3	4	<3	432
2010	13	314	91	5	9	0	432
Otago							
2000	62	1,621	234	18	55	4	1,994
2001	47	1,505	263	10	63	5	1,893
2002	52	1,547	263	13	64	<3	1,941
2003	71	1,477	266	11	66	0	1,891
2004	61	1,565	313	15	64	3	2,021
2005	58	1,515	338	13	49	<3	1,974
2006	60	1,477	339	14	80	0	1,970
2007	76	1,576	382	16	64	<3	2,115
2008	91	1,575	357	20	72	5	2,120
2009	94	1,520	342	27	81	3	2,067
2010	106	1,505	348	27	83	<3	2,071
Southland							
2000	24	1,119	268	3	27	0	1,441
2001	27	1,012	306	<3	20	3	1,370
2002	27	986	296	6	27	<3	1,344
2003	31	1,019	322	5	22	0	1,399
2004	31	1,046	316	11	32	<3	1,437
2005	46	1,025	339	10	25	0	1,445
2006	28	1,045	345	17	35	<3	1,471
2007	57	1,140	373	16	39	<3	1,627
2008	53	1,117	390	26	37	3	1,626
2009	69	1,149	388	16	44	0	1,666
2010	73	1,172	383	22	50	<3	1,701

Source: Birth Registration Dataset; Note: Year is year of birth registration

Distribution by Ethnicity, NZDep Index Decile and Maternal Age

During 2010, the proportion of European babies born was higher than the New Zealand rate in all of the South Island DHBs, while the proportion of Māori, Pacific and Asian/Indian babies was lower. The proportion of babies born into the most deprived (NZDep decile 9-10) areas was much lower than the New Zealand rate in Nelson Marlborough, South Canterbury, Canterbury, Otago and Southland. In the West Coast, the proportion (while still lower) was closer to the New Zealand rate (**Table 4**).



Table 4. Distribution of Live Births by Ethnicity, Maternal Age and NZ Deprivation Index Decile, South Island DHBs 2010

Variable	Nelson Marlborough		South Canterbury		Canterbury		West Coast		Otago		Southland		New Zealand	
	Number of Births	% of Births	Number of Births	% of Births	Number of Births	% of Births	Number of Births	% of Births	Number of Births	% of Births	Number of Births	% of Births	Number of Births	% of Births
Ethnicity														
Asian/Indian	100	5.8	12	1.9	596	8.9	13	3.0	106	5.1	73	4.3	7,451	11.5
European	1,208	70.0	494	78.8	4,460	66.8	314	72.7	1,505	72.7	1,172	68.9	30,016	46.4
Māori	345	20.0	102	16.3	1,179	17.7	91	21.1	348	16.8	383	22.5	18,893	29.2
Other	24	1.4	5	0.8	116	1.7	5	1.2	27	1.3	22	1.3	1,045	1.6
Pacific	48	2.8	14	2.2	326	4.9	9	2.1	83	4.0	50	2.9	7,261	11.2
*Total	1,725	100.0	627	100.0	6,677	100.0	432	100.0	2,069	100.0	1,700	100.0	64,666	100.0
Maternal Age														
<20 Years	104	6.0	44	7.0	341	5.1	29	6.7	91	4.4	111	6.5	4,533	7.0
20–24 Years	295	17.1	121	19.3	1,076	16.1	87	20.1	322	15.5	326	19.2	11,994	18.5
25–29 Years	446	25.9	158	25.2	1,603	24.0	115	26.6	570	27.5	452	26.6	16,087	24.9
30–34 Years	488	28.3	178	28.4	1,999	29.9	121	28.0	630	30.4	493	29.0	17,898	27.7
35+ Years	392	22.7	126	20.1	1,661	24.9	80	18.5	458	22.1	319	18.8	14,187	21.9
*Total	1,725	100.0	627	100.0	6,680	100.0	432	100.0	2,071	100.0	1,701	100.0	64,699	100.0
NZ Deprivation Index Decile														
Decile 1	28	1.6	65	10.4	794	11.9	9	2.1	194	9.4	253	14.9	4,304	6.7
Decile 2	164	9.5	0	0.0	798	11.9	17	3.9	215	10.4	216	12.7	5,341	8.3
Decile 3	259	15.0	180	28.7	543	8.1	8	1.9	260	12.6	244	14.3	4,962	7.7
Decile 4	190	11.0	5	0.8	946	14.2	70	16.2	243	11.7	122	7.2	5,232	8.1
Decile 5	216	12.5	76	12.1	772	11.6	81	18.8	262	12.7	174	10.2	6,333	9.8
Decile 6	247	14.3	101	16.1	262	3.9	27	6.3	176	8.5	123	7.2	5,957	9.3
Decile 7	180	10.4	102	16.3	814	12.2	74	17.1	305	14.7	153	9.0	6,793	10.5
Decile 8	326	18.9	76	12.1	718	10.7	41	9.5	298	14.4	157	9.2	8,042	12.5
Decile 9	115	6.7	22	3.5	796	11.9	102	23.6	89	4.3	230	13.5	8,436	13.1
Decile 10	0	0.0	0	0.0	237	3.5	3	0.7	29	1.4	29	1.7	8,991	14.0
*Total	1,725	100.0	627	100.0	6,680	100.0	432	100.0	2,071	100.0	1,701	100.0	64,391	100.0

Source: Birth Registration Dataset. Note: *Total: Some totals may differ due to a small number of births with missing information; Decile is NZDep2006.

Summary

In the South Island during 2000–2010, the number of live births registered annually varied, with numbers increasing in Nelson Marlborough, Canterbury, the West Coast, and Southland, but remaining more static in South Canterbury and Otago. During 2010, the proportion of European babies born was higher than the New Zealand rate in all of the South Island DHBs, while the proportion of Māori, Pacific and Asian/Indian babies was lower. The proportion of babies born into the most deprived (NZDep decile 9-10) areas was much lower than the New Zealand rate in Nelson Marlborough, South Canterbury, Canterbury, Otago and Southland. In the West Coast, the proportion (while still lower) was closer to the New Zealand rate.

