

REGIONAL DEMOGRAPHY

Although it has not often been stated explicitly, much of the interest in monitoring health status in recent years has been around benchmarking, and the desire to compare DHBs' performance on key indicators.

Undertaking such monitoring in a robust manner that simultaneously takes into account regional differences in age, ethnic composition, geography, and socioeconomic deprivation, while not impossible, is technically difficult due to New Zealand having multiple national datasets and a lack of appropriate denominators in electronic format.

Although adjusted rates may allow for a "fairer" comparison of performance between DHBs, for funding and planning purposes at the DHB level, crude rates are often more useful. Where a DHB's rates differ markedly from the national average, the DHB can then consider whether there are demographic factors such as the age structure or deprivation of the local population that are the probable explanation or whether the difference may be a sign of a performance issue. The report which follows uses unadjusted / crude rates to provide an overview of morbidity and mortality for children and young people in the South Island. To interpret these crude rates it is essential to have knowledge of regional demography as well as an understanding of the ways in which the underlying determinants of health, such as socioeconomic deprivation, influence population health outcomes. It is therefore suggested that, when reading the sections which follow, the reader considers the following questions:

1. What are the characteristics of the region's child and youth population in terms of age structure, ethnicity, and exposure to socioeconomic disadvantage? (*This information is provided in the current section on Regional Demography*)
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 each indicator*)
3. Do the region's actual rates for the health issue in question 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 the demographic profile of the child and youth population at the time of the 2013 Census by age, ethnicity, and NZ Deprivation Index decile. Similar information is provided for births using information from the birth registration dataset.

The following section provides an overview of the demographic profile of the child and youth population at the time of the 2013 Census by age, ethnicity, and NZ Deprivation Index decile.

Data Source and Methods

Definition

Distribution of the child and youth population by age, ethnicity, and NZ Deprivation Index decile

Data Sources

Statistics New Zealand: 2013 Census

Notes on Interpretation of Data

Note 1: New Zealand's national health datasets have traditionally continued to use the previous Censuses' domicile codes for ≈ 2 years after any new Census, meaning that all of the information derived from the Birth Registration dataset is based on 2006 domicile codes and the NZDep2006 Index. In addition, NZDep is assigned on the basis of Domicile Code / Census Area Unit ($\approx 1-2,000$ people), so in regions where there appear to be no births in e.g. decile 10 areas, there still may be babies born into, for example, decile 10 meshblocks (smaller areas of ≈ 100 people). When these smaller meshblocks are aggregated into larger census area units, they collectively fail to achieve an overall decile 10 score.



Note 2: Prioritised ethnicity has been used throughout, with the ethnicity of those reporting multiple affiliations being prioritised in the following order: Māori, Pacific, Asian, Other, European (those identifying as “New Zealander’s” in the 2013 Census have been allocated to the European group).

Note 3: Tests of statistical significance have not been applied to the data in this section, so any associations described do not imply statistical significance or non-significance.

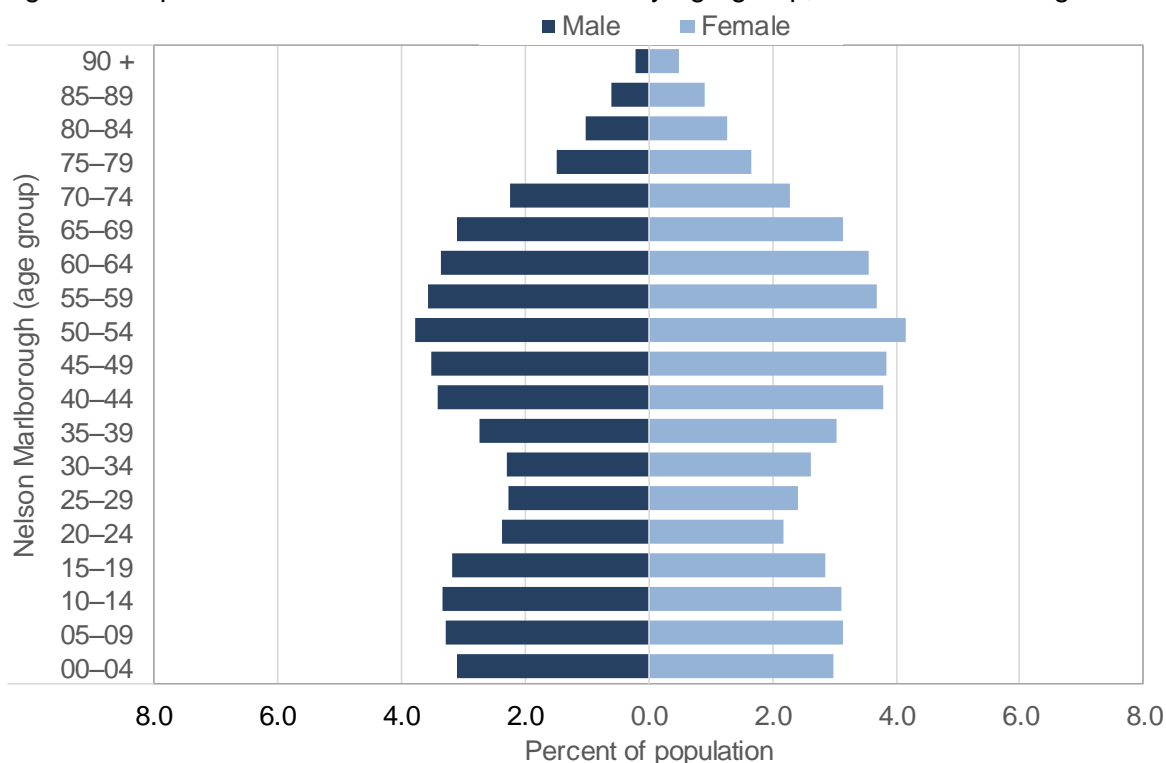
2013 Census Regional Population Profiles

Age Distribution

At the 2013 Census, children and young people comprised 29.6% of the Nelson Marlborough, 29.7% of the South Canterbury, 33.0% of the Canterbury, 30.3% of the West Coast and 33.8% of the Southern populations as compared to 34.6% for New Zealand as a whole.

The age profiles of the South Island DHBs varied from the New Zealand profile (**Figure 6**). The highest proportion of people in Nelson Marlborough and South Canterbury was 50–54 year olds, followed by 45–49 year olds (**Figure 1, Figure 2**). In Canterbury was the 40–44 year olds followed by the 20–24 year olds (**Figure 3**). On the West Coast the highest proportion was the 50–54 year olds followed by the 45–49 year olds (**Figure 4**), while in Southern DHB the highest proportion were in the 20–24 and 15–19 year age brackets (**Figure 5**).

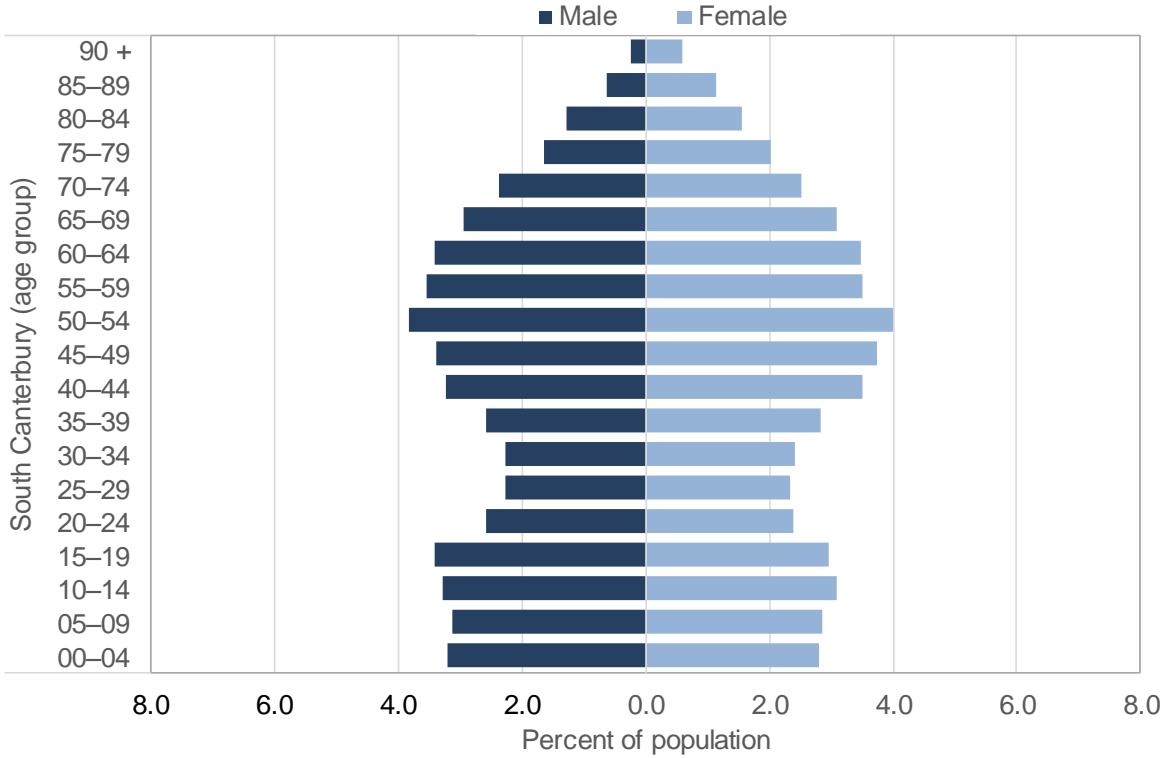
Figure 1. Population distribution at 2013 Census by age group, Nelson Marlborough DHB



Source: Statistics New Zealand

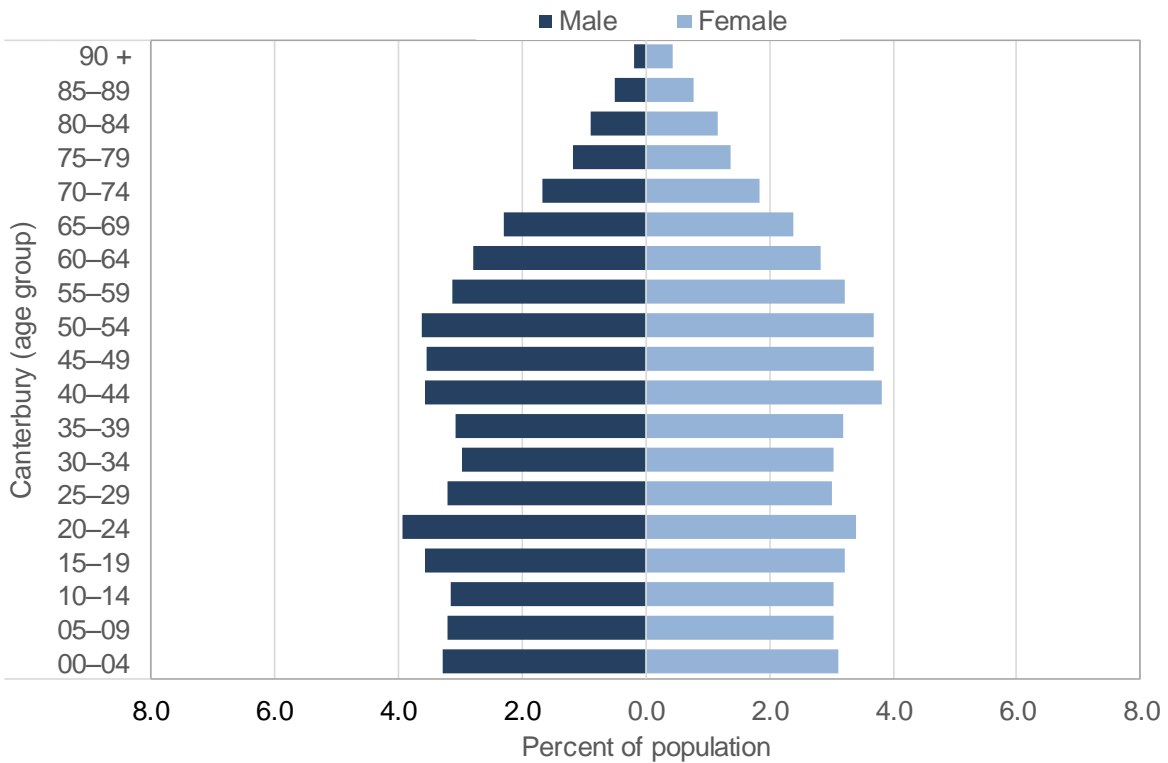


Figure 2. Population distribution at 2013 Census by age group, South Canterbury DHB



Source: Statistics New Zealand

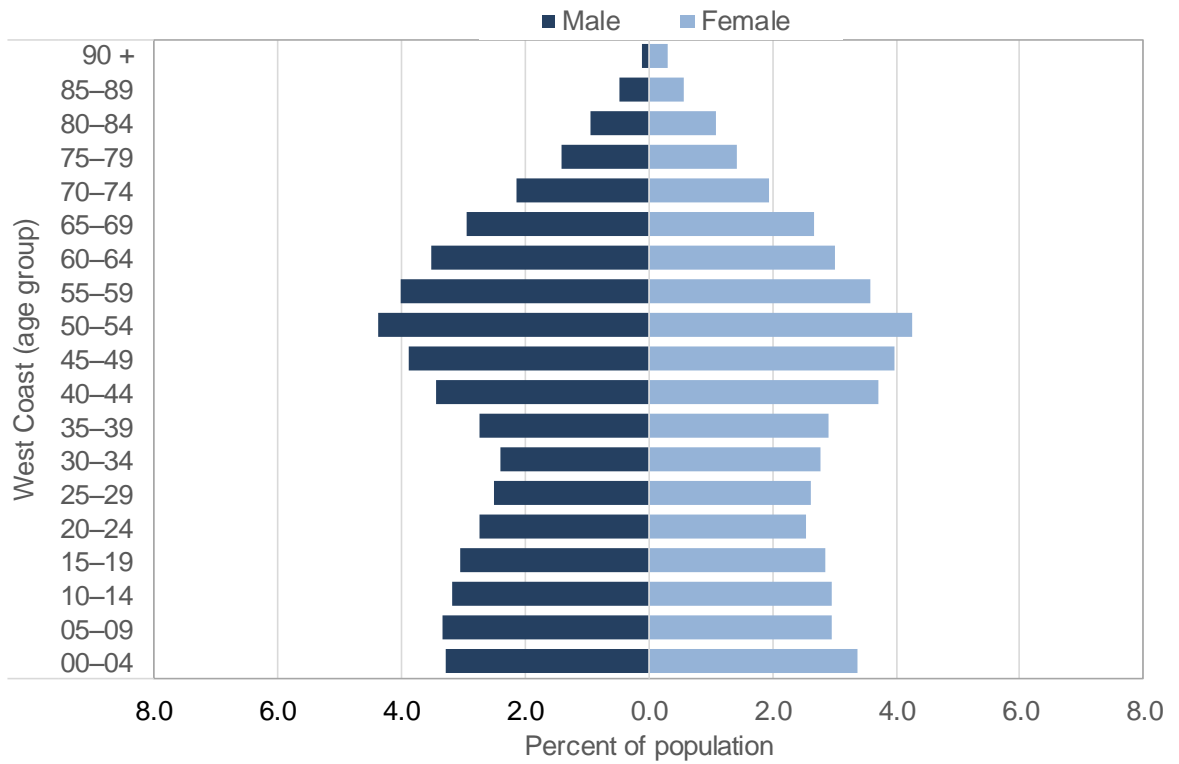
Figure 3. Population distribution at 2013 Census by age group, Canterbury DHB



Source: Statistics New Zealand

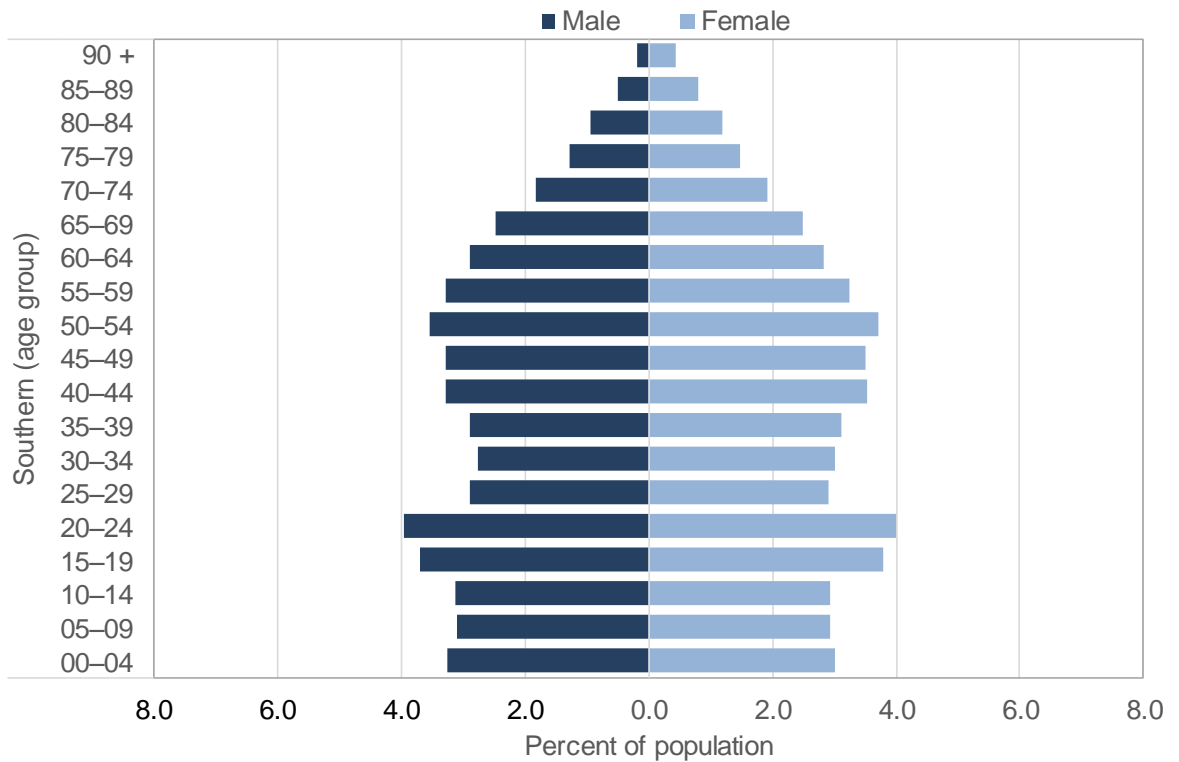


Figure 4. Population distribution at 2013 Census by age group, West Coast DHB



Source: Statistics New Zealand

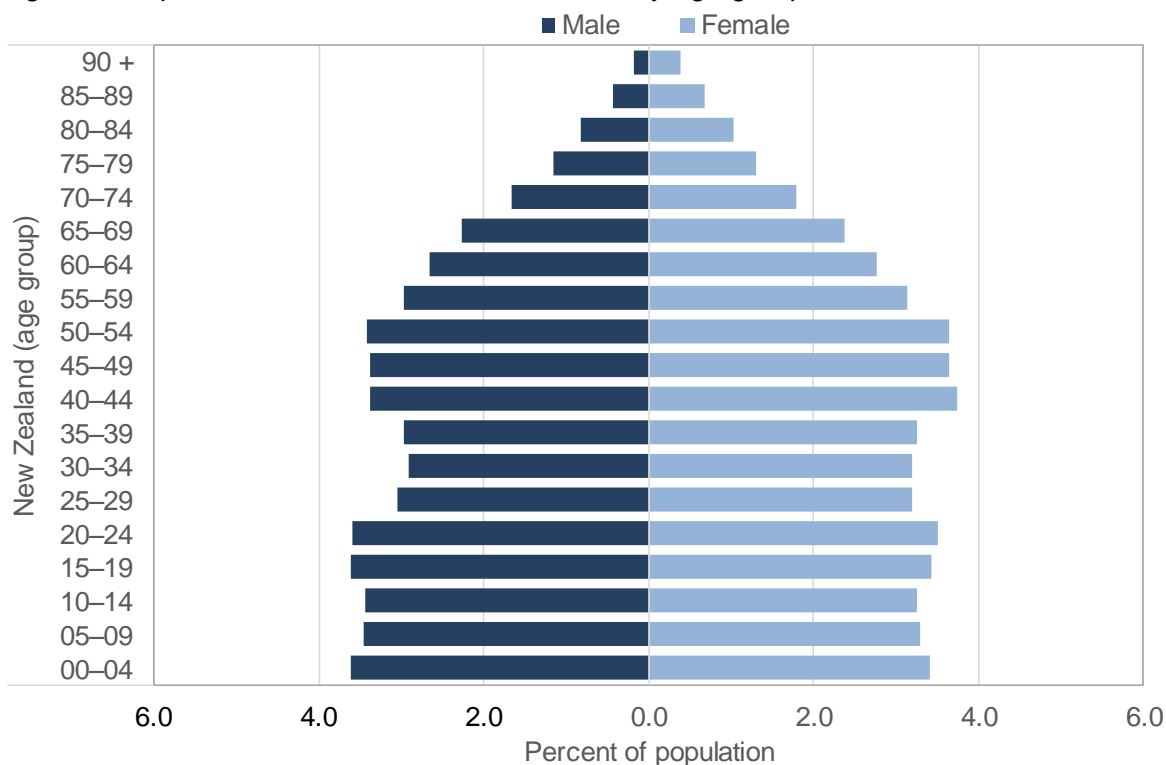
Figure 5. Population distribution at 2013 Census by age group, Southern DHB



Source: Statistics New Zealand



Figure 6. Population distribution at 2013 Census by age group, New Zealand



Source: Statistics New Zealand

Distribution by Prioritised Ethnicity and gender

In the South Island at the 2013 census, the West Coast had the highest proportion of Māori children (18.8%), while Canterbury had the highest proportion of Pacific (3.7%), Asian/Indian (7.9%), and MELAA (Middle Eastern/Latin American/African) (1.1%) children. South Canterbury had the highest proportion of European children (77.5%) (Table 1). Similar patterns were seen for young people aged 15–24 years.

Distribution by NZ Deprivation Index decile

During 2013, 25.8% of West Coast and 17.7% of Southern children and young people lived in the most deprived (NZDep deciles 9–10) areas, as compared to only 5.7% of Nelson Marlborough, 4.2% of South Canterbury, and 12.3% of Canterbury children (Figure 7).

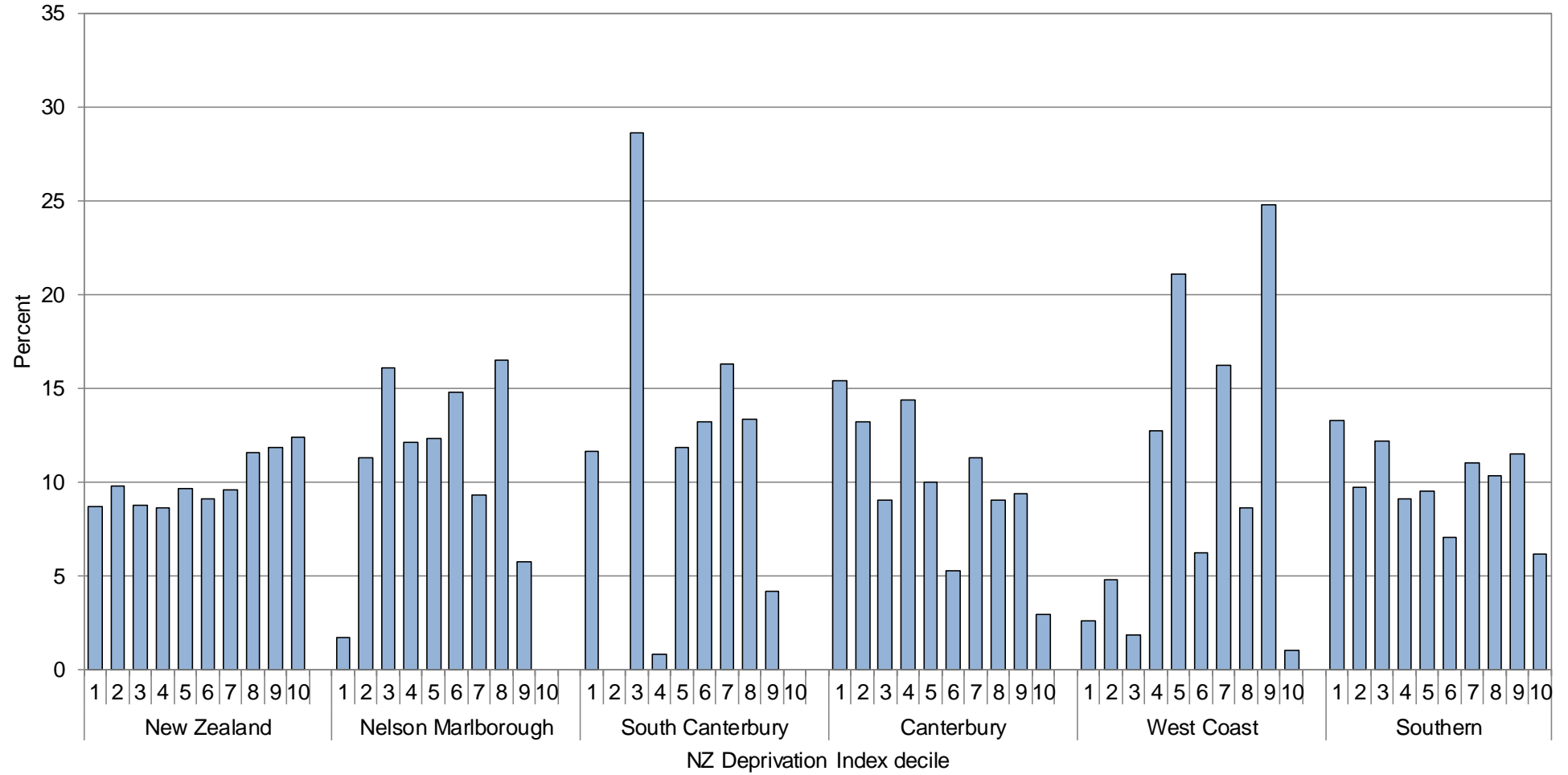


Table 1. Distribution of children and young people 0–24 years at 2013 Census by ethnicity and gender, South Island DHBs vs. New Zealand

Variable	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent	Number	Percent
	Nelson Marlborough		South Canterbury		Canterbury		West Coast		Southern		New Zealand	
Children aged 0–14 years												
Prioritised ethnic group												
Māori	4,790	17.8	1,590	15.0	14,410	15.2	1,180	18.8	9,870	17.5	233,000	25.6
Pacific	710	2.6	130	1.2	3,550	3.7	50	0.8	1,680	3.0	87,700	9.7
Asian/Indian	1,070	4.0	340	3.2	7,450	7.9	110	1.8	2,440	4.3	98,400	10.8
European	19,870	73.7	8,200	77.5	66,880	70.5	4,700	74.8	40,830	72.6	467,520	51.4
MELAA	160	0.6	40	0.4	1,040	1.1	0	0.0	410	0.7	11,470	1.3
Other	460	1.7	210	2.0	1,470	1.6	60	1.0	1,000	1.8	10,620	1.2
Gender												
Female	13,170	48.8	5,050	47.7	46,310	48.8	3,050	48.6	27,230	48.4	442,850	48.7
Male	13,800	51.2	5,530	52.3	48,520	51.2	3,230	51.4	29,030	51.6	465,920	51.3
Total	26,970	100.0	10,580	100.0	94,830	100	6,280	100.0	56,260	100.0	908,770	100
Young people aged 15–24 years												
Prioritised ethnic group												
Māori	2,480	16.5	790	12.1	8,600	12.1	620	16.8	5,980	12.7	127,750	20.4
Pacific	350	2.3	60	0.9	2,400	3.4	10	0.3	1,280	2.7	54,030	8.6
Asian/Indian	720	4.8	240	3.7	6,970	9.8	80	2.2	4,300	9.1	93,320	14.9
European	11,200	74.5	5,280	81.0	51,460	72.3	2,810	76.4	34,750	73.5	337,740	53.8
MELAA	30	0.2	0	0.0	750	1.1	10	0.3	480	1.0	8,700	1.4
Other	210	1.4	40	0.6	960	1.3	40	1.1	630	1.3	5,840	0.9
Gender												
Female	7,160	47.6	3,080	47.2	33,360	46.9	1,780	48.4	23,820	50.4	308,060	49.1
Male	7,870	52.4	3,440	52.8	37,800	53.1	1,900	51.6	23,450	49.6	319,350	50.9
Total	15,030	100.0	6,520	100.0	71,160	100	3,680	100.0	47,270	100.0	627,410	100
Children and young people aged 0–24 years												
Total	42,000		17,100		165,990		9,960		103,530		1,536,180	

Source: Statistics New Zealand; Note: Ethnicity is level 1 prioritised

Figure 7. Distribution of children and young people (0–24 years) at 2013 Census by NZ Deprivation Index decile, South Island DHBs vs. New Zealand



Source: Statistics New Zealand; Note: Deprivation Index decile is NZDep2013

