Deprivation in the Canterbury Region

Applying the New Zealand Indices of Multiple Deprivation
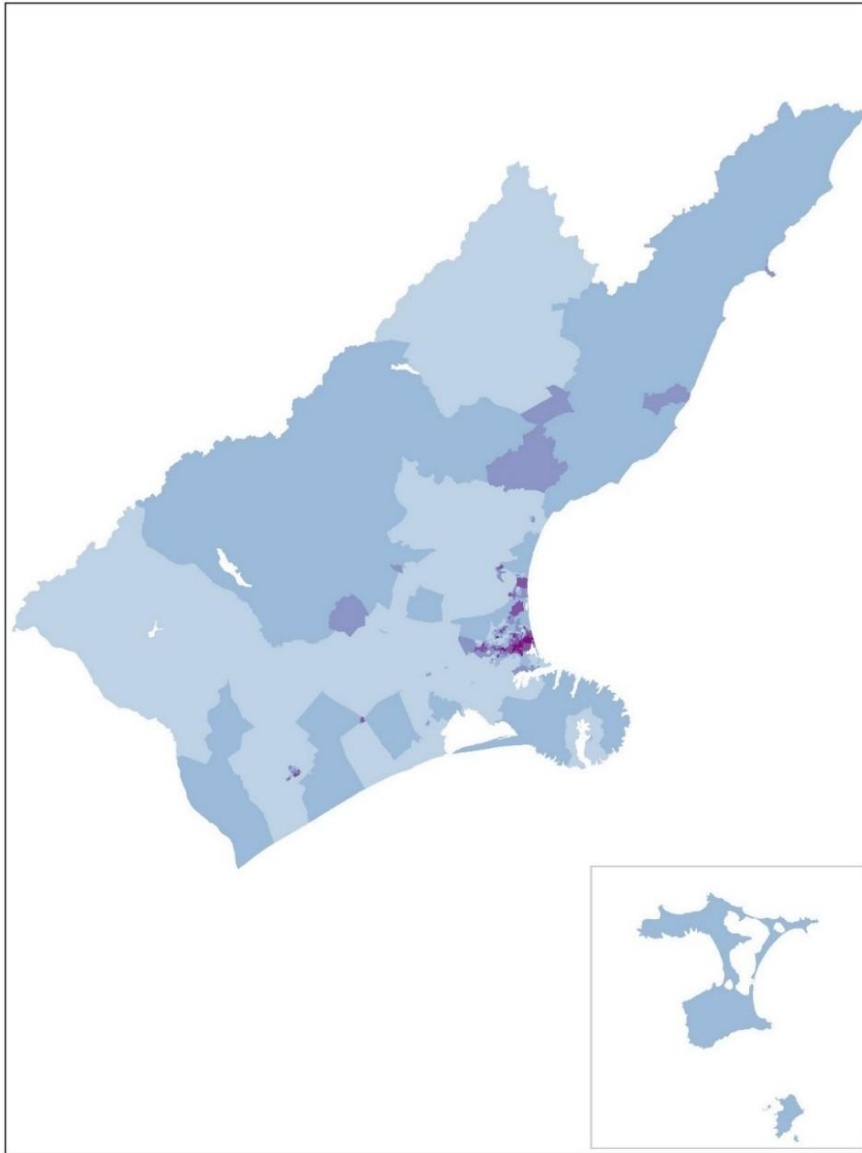

Figure 1 Map of the Canterbury Region showing overall IMD Deprivation. The most deprived areas shaded darkest.

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Annie Chiang and Associate Professor Daniel Exeter

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THE UNIVERSITY OF AUCKLAND
Te Whare Wānanga o Tāmaki Makaurau
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INTRODUCTION

The purpose of this report is to describe the deprivation and demographic profile within the Canterbury Region. Using the New Zealand Indices of Multiple Deprivation, we will make comparisons between the Canterbury Region and the rest of New Zealand. Comparisons will also be made between the Territorial Authorities within the region, highlighting any areas of concern.

What is deprivation?

"A state of observable and demonstrable disadvantage relative to the local community or the wider society or nation to which an individual, family or group belongs." – Townsend, 1987.[1]

Individuals can experience multiple forms of deprivation.[2] Material deprivation is a lack of access to goods and services and the physical conditions in which people live and work. Social deprivation refers to the societal structures, culture, community and interpersonal relationships. The New Zealand Indices of Multiple Deprivation captures these different dimensions of deprivation and allows one to understand disadvantage in overall terms, as well as in terms of Employment, Income, Crime, Housing, Health, Education and Access.
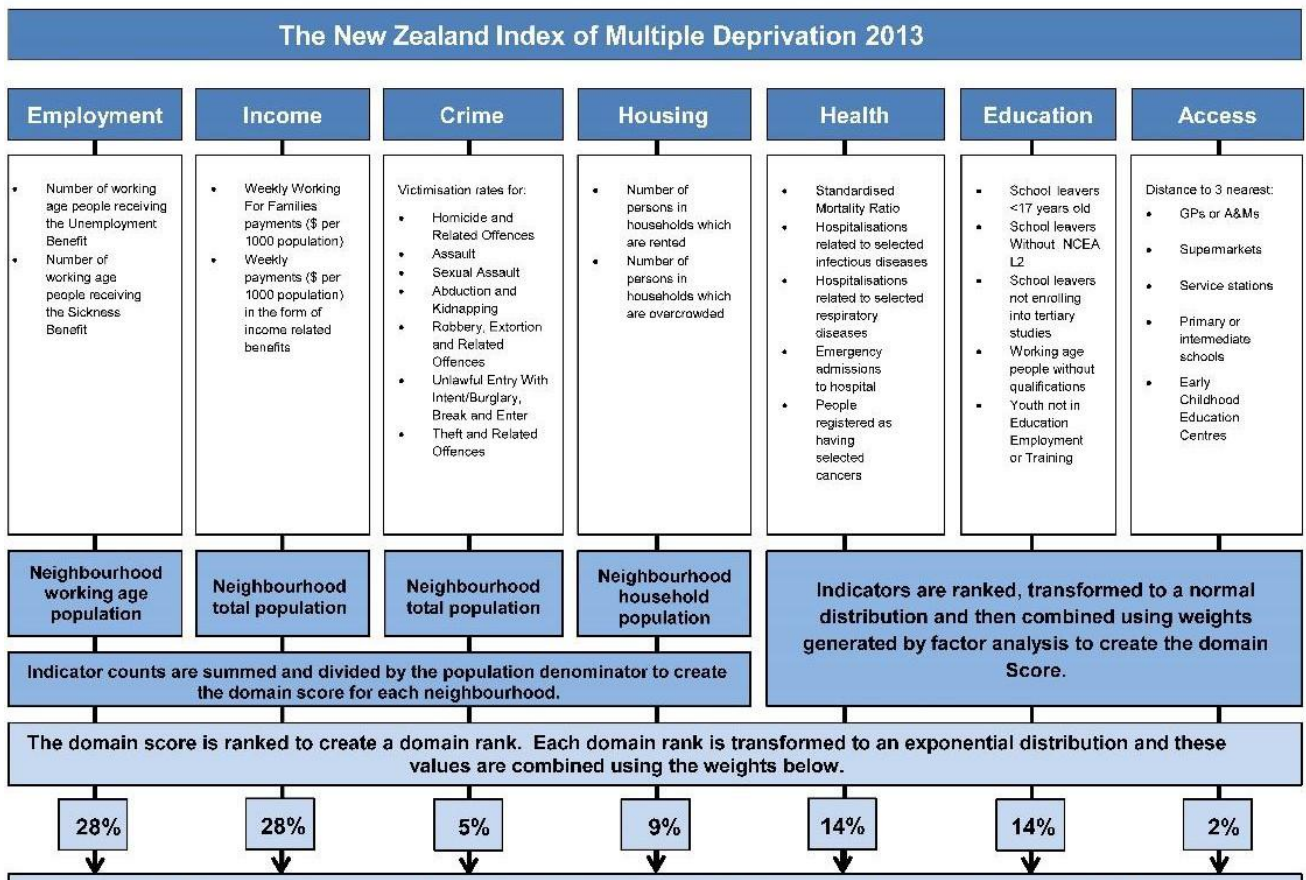
Figure 2 Flow diagram showing the IMD, its indicators, domains and weights. Adapted from Figure 4.2 SIMD 2012 Methodology, in Scottish Index of Multiple Deprivation 2012. Edinburgh: Scottish Government (Crown copyright 2012).

THE NEW ZEALAND INDEX OF MULTIPLE DEPRIVATION

The New Zealand Index of Multiple Deprivation (IMD) allows one to look at disadvantage in overall terms, as well as in terms of seven domains of deprivation: Employment, Income, Crime, Housing, Health, Education and Access. To construct the index, the seven areas of interest or domains are weighted to reflect the relative importance of each domain in representing the key determinants of socio-economic deprivation, the adequacy of their indicators and the robustness of the data that they use. Figure 2 shows the IMD's 28 indicators and weightings of the seven domains.

The IMD measures deprivation at the neighbourhood level using custom data zones that were specifically developed for social and health research. The New Zealand (NZ) land mass has 5,958 neighbourhood-level data zones, each containing an average of 712 people. In urban settings, data zones can be just a few streets long and wide. Data zones of this size are able to capture whole neighbourhoods but are small enough so that the level of deprivation experienced is relatively uniform within each data zone.

Data zones are ranked from the least to most deprived (1 to 5958). A lower rank score means that based on the indicators seen in Figure 2**Error! Reference source not found.**, a data zone would be less disadvantaged compared to data zones that have a higher score. The data zones are then split into quintiles, where Q1 (light shading) represents the least deprived 20% of data zones in the whole of NZ; while Q5 (dark shading) represents the most deprived 20%.

The data used to develop the IMD was sourced from national health, social development, taxation, education, police databases, geospatial data providers and the 2013 Census. The 2013 Census was used to construct the IMD as it was the most recent dataset available at the time of development. Future updates of the IMD will utilise the data from the 2018 Census, once this becomes available

A DEMOGRAPHIC PROFILE OF THE CANTERBURY REGION

The Canterbury Region has a population of 539,436, which accounts for 12.72% of the total New Zealand population. Christchurch City has the largest population in the region, at 341,469. Kaikoura District has the smallest population in the region with a population of 3,552. The median age of Cantabrians is 39.9 years, slightly higher than the national median of 38 years. A larger proportion of individuals are aged 65 years and over (15.5%), while smaller proportion are under 15 years of age (18.7%), compared to 14.3% and 20.4%, respectively, for all of New Zealand. **Error! Reference source not found.** Table 1 shows the distribution of ethnicities in the Canterbury region compared to all of New Zealand. The Canterbury Region has a larger proportion of Europeans and a smaller proportion of Maori, compared to New Zealand as a whole. Hurunui has the largest European population at 93.4%, whilst Maori are most underrepresented in Waimate, at 6.3%. Kaikoura is the only district in the Canterbury Region that demonstrates and overrepresentation of Maori at 17.8%.

Ethnicity	Canterbury		New Zealand	
	Population	Proportion	Population	Proportion
European	448,650	83.2%	2,969,391	70.0%
Maori	41,910	7.8%	598,602	14.1%
Pacific Peoples	12,723	2.4%	295,944	7.0%
Asian	35,847	6.7%	471,708	11.1%
MELAA	4,377	0.8%	46,953	1.1%
Other	10,236	1.9%	67,752	1.6%

A PROFILE OF THE CANTERBURY REGION

Figure 3 Stacked bar chart showing overall deprivation and seven domains in the Canterbury Region.

The Canterbury Region comprises data zones from 9 Territorial Authorities – Kaikoura (5/765), Hurunui (17/765), Waimakariri (77/765), Christchurch (482/765), Selwyn (60/765), Ashburton (46/765), Timaru (61/765), Mackenzie (6/765) and Waimate (11/765).

Deprivation Profile

The stacked bar chart in Figure 3 shows the proportion of data zones in the Canterbury Region that belong to each deprivation quintile for overall IMD deprivation and the seven domains in 2013. If the deprivation circumstances were the same for all of NZ, we would see 20% of the Canterbury Region's 765 data zones in each quintile.

In terms of the overall IMD, 33.1% of Canterbury data zone are amongst the 20% least deprived in New Zealand (Q1), with more data zones in Q1 than any other quintile. Only 7.5% of data zones in this region are amongst the 20% most deprived in New Zealand. Compared to other regions in New Zealand, Canterbury has the third largest proportion of Q1 data zones, that is, the least deprived data zones.

Regions	Q1	Q2	Q3	Q4	Q5
Canterbury	**33.1%**	**24.2%**	**17.4%**	**17.9%**	**7.5%**
Southland	45.8%	27.1%	10.2%	13.6%	3.4%
Otago	34.9%	23.5%	21.0%	16.0%	4.6%
Nelson Marlborough	23.5%	24.5%	28.6%	16.8%	6.6%
Wellington	20.9%	26.5%	29.6%	13.8%	9.2%
Auckland	16.7%	14.5%	18.1%	25.8%	24.9%
Hawke's Bay	16.0%	19.9%	28.2%	26.3%	9.6%
Taranaki	12.6%	18.9%	20.3%	23.9%	24.4%
Waikato	12.5%	27.1%	20.8%	29.2%	10.4%
West Coast	10.9%	18.1%	18.6%	26.2%	26.2%
Manuwatu	7.6%	14.4%	18.5%	27.4%	32.1%
Bay of Plenty	6.3%	14.1%	15.6%	18.8%	45.3%
Gisborne	2.2%	7.1%	19.0%	23.9%	47.8%
Northland	33.1%	24.2%	17.4%	17.9%	7.5%

Table 2 Proportion of data zones in each quintile for overall IMD.

The largest proportion of Cantabrian data zones are amongst the 20% least deprived in New Zealand in terms of the Employment, Income, Crime, Housing and Health Domains. As seen in Table 3, the largest proportion of data zones are ranked within Q4 (22.8%), followed by Q3 (20.8%) in terms of the Education Domain.

The Canterbury Region has the largest proportion of its data zones amongst the 20% most deprived (Q5) in New Zealand in terms of the Access Domain, at 20.3%.

Canterbury Region	Q1	Q2	Q3	Q4	Q5
Employment	39.4%	23.1%	19.0%	13.2%	5.4%
Income	28.1%	23.5%	21.7%	17.7%	9.0%
Crime	23.1%	22.0%	20.1%	18.2%	16.6%
Housing	30.5%	23.3%	20.7%	14.1%	11.5%
Health	34.9%	24.1%	20.8%	13.7%	6.5%
Education	20.0%	19.5%	20.8%	22.8%	17.0%
Access	22.2%	23.4%	15.3%	18.8%	20.3%

Table 3 Proportion of data zones in each quintile for each IMD Domain for the Canterbury Region

DEPRIVATION PROFILES OF TERRITORIAL AUTHORITIES WITHIN THE CANTERBURY REGION

Overall IMD

All Territorial Authorities in the Canterbury Region experience less deprivation than what would be expected if deprivation was evenly distributed across New Zealand. The overall IMD ranks most data zones in the region within the Q1 and Q2 (least deprived) quintiles.

Selwyn District has the largest proportion of Q1 (least deprived) data zones at 76.7% (46/60) in the Canterbury Region. This is followed by the Mackenzie District at 66.7% (4/6). Only two Districts in the Canterbury Region have data zones that are in the 20% most deprived (Q5) in New Zealand – these are Christchurch (56/482) and Timaru (1/61) at 11.6% and 1.6%, respectively.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaikoura District	0.0%	40.0%	40.0%	20.0%	0.0%	5
Christchurch City	26.6%	22.8%	17.8%	21.2%	11.6%	482
Waimakariri District	45.5%	24.7%	19.5%	10.4%	0.0%	77
Selwyn District	76.7%	18.3%	5.0%	0.0%	0.0%	60
Mackenzie District	66.7%	16.7%	16.7%	0.0%	0.0%	6
Hurunui District	23.5%	47.1%	29.4%	0.0%	0.0%	17
Ashburton District	37.0%	30.4%	13.0%	19.6%	0.0%	46
Waimate District	45.5%	9.1%	9.1%	36.4%	0.0%	11
Timaru District	23.0%	20.0%	20.0%	21.3%	1.6%	61
Total Data Zones	253	185	133	137	57	765
Total Data Zones (%)	33.1%	24.2%	17.4%	17.9%	7.5%	

Table 4 Proportion of data zones in each quintile for overall IMD.

Employment Domain

The Employment Domain as seen in Table 5, reflects the proportion of working age people who were receiving the Unemployment or Sickness Benefits in 2013. Having large proportions of data zones in Q5 (most deprived) and Q4 would suggest that unemployment is a key area of concern in the District.

Waimate and Christchurch Districts are the only two districts in the region that have data zones among the 20% most deprived in New Zealand, accounting for 9.1%(1/11) and 8.3% (40/482) of the district's data zones, respectively. The majority of data zones in the Canterbury region are amongst the Q1 (least deprived) and Q2 quintiles. This suggests that overall the Canterbury Region has low levels of employment deprivation.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaikoura District	20.0%	20.0%	40.0%	20.0%	0.0%	5
Christchurch City	28.0%	25.5%	21.2%	17.0%	8.3%	482
Waimakariri District	55.8%	23.4%	14.3%	6.5%	0.0%	77
Selwyn District	93.3%	6.7%	0.0%	0.0%	0.0%	60
Mackenzie District	66.7%	33.3%	0.0%	0.0%	0.0%	6
Hurunui District	52.9%	23.5%	23.5%	0.0%	0.0%	17
Ashburton District	58.7%	19.6%	15.2%	6.5%	0.0%	46
Waimate District	45.5%	9.1%	18.2%	18.2%	9.1%	11
Timaru District	34.4%	24.6%	27.9%	13.1%	0.0%	61
Total Data Zones	301	177	145	101	41	765
Total Data Zones (%)	39.4%	23.1%	19.0%	13.2%	5.4%	

Table 5 Proportion of data zones in each quintile for the Employment Domain.

Income Domain

The Income Domain measures the amount of money per person paid by the government in the form of Working for Families payments and income-tested benefits.

Christchurch City has the largest proportion of data zones in the Canterbury region among the 20% most deprived in New Zealand, with 13.9% (67/482) of data zones in the Q5 quintile. The only other district with Q5 data zones is a Timaru, at 3.3% (2/61). The majority of data zones in the Canterbury region are amongst the Q1 (least deprived) and Q2 quintiles. This suggests that the Canterbury Region has low levels of income deprivation overall, apart from the two districts mentioned above.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaikoura District	0.0%	60.0%	20.0%	20.0%	0.0%	5
Christchurch City	20.8%	21.8%	24.5%	19.1%	13.9%	482
Waimakariri District	33.8%	31.2%	19.5%	15.6%	0.0%	77
Selwyn District	78.3%	15.0%	6.7%	0.0%	0.0%	60
Mackenzie District	50.0%	33.3%	16.7%	0.0%	0.0%	6
Hurunui District	23.5%	47.1%	23.5%	5.9%	0.0%	17
Ashburton District	41.3%	23.9%	19.6%	15.2%	0.0%	46
Waimate District	27.3%	36.4%	0.0%	36.4%	0.0%	11
Timaru District	21.3%	23.0%	23.0%	29.5%	3.3%	61
Total Data Zones	215	180	166	135	69	765
Total Data Zones (%)	28.1%	23.5%	21.7%	17.7%	9.0%	

Table 6 Proportion of data zones in each quintile for the Income Domain.

Crime Domain

Rather than measuring offending rates, the Crime Domain measures victimisations per 1000 people and is largely driven by thefts (55%), burglaries (24%) and assaults (18%).

Kaikoura has the highest proportion of Q5 data zones at 40% (2/5), followed by Christchurch City at 24.3% (117/482). Waimakriri and Selwyn Districts have the highest proportion of Q1 data zones at 52.0% and 53.3%, respectively. The majority of Districts in the Canterbury Region have the largest proportion of their data zones within Q1 (least deprived) and Q2, suggesting that most districts in the region experience relatively low crime rates as seen in Table 7 below.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaikoura District	20.0%	0.0%	20.0%	20.0%	40.0%	5
Christchurch City	12.7%	18.7%	21.8%	22.6%	24.3%	482
Waimakariri District	52.0%	19.5%	14.3%	13.0%	1.3%	77
Selwyn District	53.3%	30.0%	11.7%	3.3%	1.7%	60
Mackenzie District	33.3%	50.0%	16.7%	0.0%	0.0%	6
Hurunui District	23.5%	41.2%	23.5%	11.8%	0.0%	17
Ashburton District	21.7%	39.1%	26.1%	8.7%	4.4%	46
Waimate District	45.5%	27.3%	18.2%	9.1%	0.0%	11
Timaru District	36.1%	23.0%	18.0%	16.4%	6.6%	61
Total Data Zones	177	168	154	139	127	765
Total Data Zones (%)	23.1%	22.0%	20.1%	18.2%	16.6%	

Table 7 Proportion of data zones in each quintile for the Crime Domain.

Housing Domain

The Housing Domain measures the proportion of people living in overcrowded households (60% of the weighting) and in rented dwellings (40%). The measure of overcrowding used in the IMD was the Canadian National Occupancy Standard (CNOS), which determines the number of rooms required based on factors such as age and sex of the occupants and the relationships between individuals living in the same dwelling.[5] High deprivation ranks for the Housing Domain suggests that more individuals are likely to be living in overcrowded and/or rented housing.

Three districts in the Canterbury Region have data zones among the 20% most deprived in New Zealand for the Housing Domain as shown in Table Eight below. Christchurch has the highest proportion of Q5 data zones at 17.4% (84/482), followed by Selwyn and Ashburton at 5.0% (3/60) and 2.2% (1/46), respectively. Over 50% of data zones in the Canterbury Region are ranked within Q1 and Q2 quintiles. This suggests that there are low levels of housing deprivation in the Canterbury Region, with the exception being Christchurch City.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaikoura District	20.0%	20.0%	40.0%	20.0%	0.0%	5
Christchurch City	20.5%	21.6%	21.8%	18.7%	17.4%	482
Waimakariri District	57.1%	23.4%	15.6%	3.9%	0.0%	77
Selwyn District	66.7%	23.3%	5.0%	0.0%	5.0%	60
Mackenzie District	16.7%	33.3%	50.0%	0.0%	0.0%	6
Hurunui District	35.3%	41.2%	23.5%	0.0%	0.0%	17
Ashburton District	17.4%	30.4%	28.3%	21.7%	2.2%	46
Waimate District	36.4%	54.6%	9.1%	0.0%	0.0%	11
Timaru District	49.2%	19.7%	24.6%	6.6%	0.0%	61
Total Data Zones	233	178	158	108	88	765
Total Data Zones (%)	30.5%	23.3%	20.7%	14.1%	11.5%	

Table 8 Proportion of data zones in each quintile for the Housing Domain.

Health Domain

The Health Domain consists of five indicators: standard mortality ratio, acute hospitalisations related to select infectious and respiratory diseases, emergency admissions to hospital, and people registered as having selected cancers.

The Canterbury regions has four districts with data zones among the 20% most deprived in New Zealand for the Health Domain, but the proportion are low. The highest proportion of Q5 data zones are in Christchurch City at 8.9% (43/482) followed by Timaru, Ashburton and Waimakariri Districts at 4.9% (3/61), 4.4% (2/46) and 2.6% (2/77), respectively. Over 50% of data zones in the Canterbury Region are ranked within Q1 and Q2 quintiles. This suggests that overall there are low levels of health deprivation in the Canterbury Region.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaikoura District	80.0%	20.0%	0.0%	0.0%	0.0%	5
Christchurch City	26.8%	23.9%	22.6%	17.8%	8.9%	482
Waimakariri District	49.4%	24.7%	15.6%	7.8%	2.6%	77
Selwyn District	70.0%	21.7%	5.0%	3.3%	0.0%	60
Mackenzie District	66.7%	16.7%	0.0%	16.7%	0.0%	6
Hurunui District	64.7%	29.4%	5.9%	0.0%	0.0%	17
Ashburton District	41.3%	28.3%	21.7%	4.4%	4.4%	46
Waimate District	54.6%	9.1%	36.4%	0.0%	0.0%	11
Timaru District	23.0%	26.2%	32.8%	13.1%	4.9%	61
Total Data Zones	267	184	159	105	50	765
Total Data Zones (%)	34.9%	24.1%	20.8%	13.7%	6.5%	

Table 9 Proportion of data zones in each quintile for the Health Domain.

Education Domain

The Education Domain measures the proportion of school leavers under the age of 17 years old, those that did not attain NCEA Level and not transitioning into tertiary study. This domain also measures the proportion of working age people 15-64 with no formal qualifications; and the proportion of youth aged 15-24 years not in education, employment or training (NEET).

Seven out of the 10 districts in the Canterbury Region contain data zones that are among the 20% most deprived in New Zealand in terms of the Education Domain. The largest proportion of Q5 data zones is in the Waimate District, at 36.4% (4/11). Ashburton follows with 26.1% (12/46) of its data zones in Q5. Timaru has the third largest proportion of Q5 data zones at 19.7% (12/61), followed by Christchurch City at 18.6% (90/482). The proportion of Q5 data zones were 11.8% (2/17), 10.4% (8/77) and 3.3% (2/60) in the Hurunui, Waimakariri and Selwyn Districts, respectively.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaikoura District	0.0%	0.0%	0.0%	100.0%	0.0%	5
Christchurch City	25.7%	17.6%	15.6%	22.4%	18.7%	482
Waimakariri District	7.8%	19.5%	33.8%	28.6%	10.4%	77
Selwyn District	23.3%	33.3%	28.3%	11.7%	3.3%	60
Mackenzie District	33.3%	33.3%	33.3%	0.0%	0.0%	6
Hurunui District	0.0%	23.5%	52.9%	11.8%	11.8%	17
Ashburton District	8.7%	17.4%	23.9%	23.9%	26.1%	46
Waimate District	0.0%	9.1%	36.4%	18.2%	36.4%	11
Timaru District	4.9%	23.0%	24.6%	27.9%	19.7%	61
Total Data Zones	153	149	159	174	130	765
Total Data Zones (%)	20.0%	19.5%	20.8%	22.8%	17.0%	

Table 10 Proportion of data zones in each quintile for the Education Domain.

Access Domain

The Access Domain measures the distance from the population weighted centre of each data zone to the nearest three GPs, supermarkets, service stations, schools and early childhood education centres. High deprivation ranks for the Access Domain suggest that people living in these data zones would need to travel further for these amenities.

With the exception of Christchurch City, the largest proportion of data zones fall within the Q5 (most deprived) quintile for all Districts in the Canterbury Region. All data zones in Mackenzie District are among the 20% most access deprived in New Zealand, due to its geographical isolation from main centres containing the amenities listed above. This suggests that access deprivation is a key area of concern for the Canterbury Region.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaikoura District	0.0%	0.0%	0.0%	20.0%	80.0%	5
Christchurch City	30.5%	29.9%	17.4%	18.5%	3.7%	482
Waimakariri District	11.7%	7.8%	20.8%	22.1%	37.7%	77
Selwyn District	0.0%	0.0%	0.0%	35.0%	65.0%	60
Mackenzie District	0.0%	0.0%	0.0%	0.0%	100.0%	6
Hurunui District	0.0%	0.0%	0.0%	11.8%	88.2%	17
Ashburton District	10.9%	23.9%	17.4%	8.7%	39.1%	46
Waimate District	0.0%	0.0%	0.0%	27.3%	72.7%	11
Timaru District	14.8%	29.5%	14.8%	11.5%	29.5%	61
Total Data Zones	170	179	117	144	155	765
Total Data Zones (%)	22.2%	23.4%	15.3%	18.8%	20.3%	

Table 11 Proportion of data zones in each quintile for the Access Domain.

CASE STUDY: ARANUI & CHRISTCHURCH CITY

Not all areas experience the same form of disadvantage and as the IMD ranks all data zones in order of deprivation for each of the seven domains, it is useful for showing the nuances of deprivation. For example, an area may score highly on one form of deprivation, but much lower on others. These differences point to the need to tailor responses differently in each area. This section will present case studies of selected data zones within the region to demonstrate the analytical power of the IMD to illustrate local area differences in the level of deprivation along each of the seven domains.
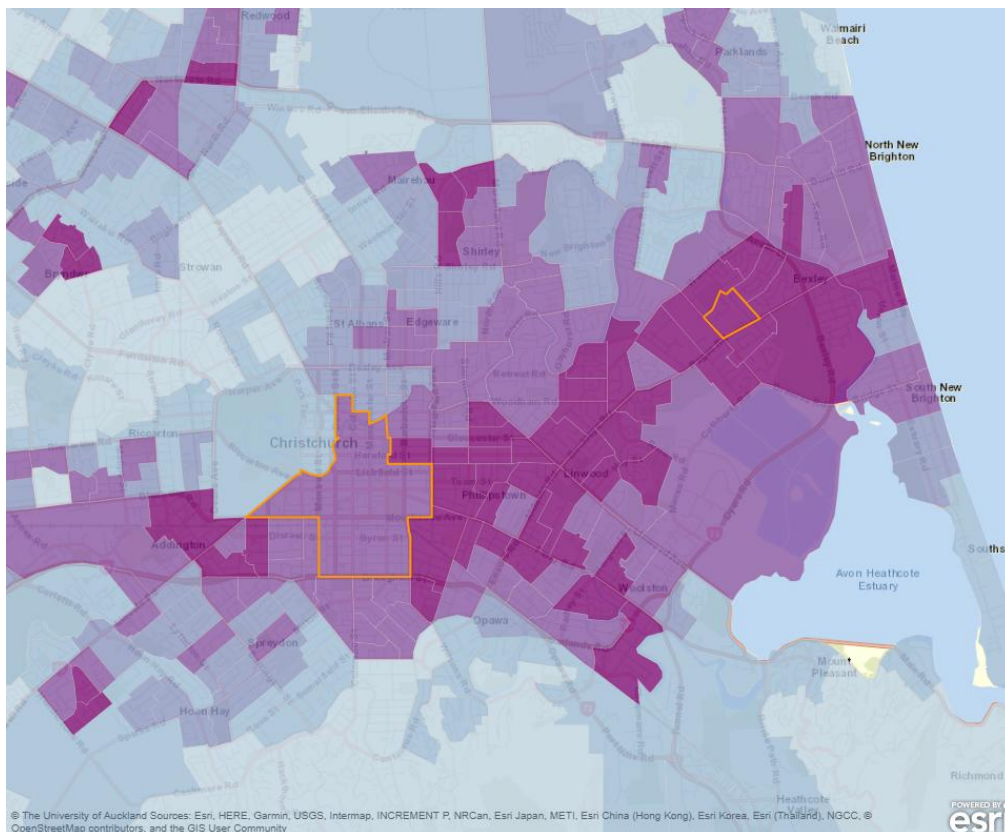
Two data zones have been chosen for this case study: data zones 6000426 and 6000279.

Figure 4 Map containing data the two case study data zones – outlined in orange. Image sourced from: **http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html.**[6]

Data zone 6000426 is located in Aranui, encompassed by Breezes Road, Pages Road, Rowan Avenue and Wainoni Park. This data zone contains a usually resident population of 807 individuals. This data zone falls within the Q5 quintile and is the most deprived data zone in the Canterbury region in terms of the overall IMD. As shown in Figure 5**Error! Reference source not found.**, this data zone is amongst the 20% most deprived data zones in New Zealand based on the overall IMD, Employment, Income, Crime, Housing, Health and Education Domains. However, this data zone is amongst the 20% least deprived in terms of the Access Domain. The Access Domain is determined by the distance between the data zone and the nearest amenities. As the corner of Breezes and Pages Roads feature a service station, medical centre and a cluster of shops, this lowers the access deprivation in this data zone considerably.
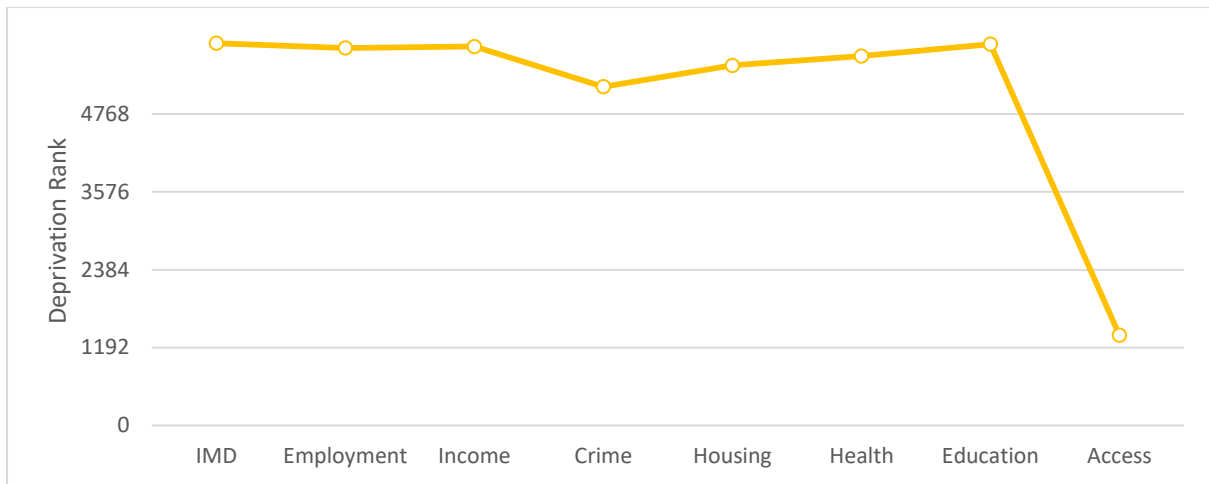
Figure 5 Deprivation ranking for data zone 6000426 by overall IMD and deprivation Domains. . Data for the graph above was obtained from http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html.

Close by is data zone is data zone 6000279. This data zone is located in Christchurch Central, bordered by Hagley Avenue, Brougham St, Fitzgerald Avenue and Salisbury Street. This data zone contains a usually resident population of 525 individuals. As seen in **Error! Reference source not found.** there are low levels of deprivation in terms of Access, moderate levels of deprivation in terms of Employment, Income and Education, and high levels of deprivation in terms of Crime, Housing and Health. Altogether, these contribute to this data zone being ranked in the Q4 quintile.
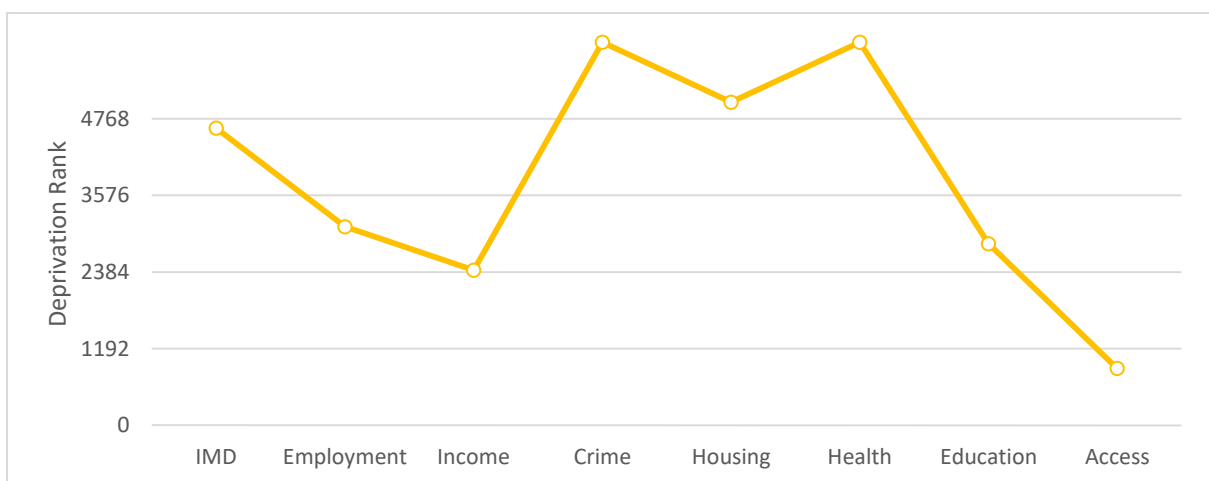

Figure 6 Deprivation ranking for data zone 6000279 by overall IMD and deprivation Domains. . Data for the graph above was obtained from http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html.

Comparing **Error! Reference source not found.** and **Error! Reference source not found.** shows that the types of deprivation experienced between these two data zones are different. This suggests that if one was aiming to address inequities in these areas, that different approaches or different key issues ought to be addressed. For example, initiatives addressing unemployment, low income and education may be of greater relevance or need in Aranui compared to Christchurch City, while crime, housing and health are issues that garner concern in both data zones.

Conclusion

The IMD is a useful tool for informing policy and decision-making. The key strengths of the IMD and its accompanying resources are its scalability, transparency and availability. The IMD allows one to examine the profile at the deprivation of small-areas, such a single data zone or on larger scales such as Territorial Authority, Region or District Health Board. As the indicators and relative weighting of the domains have been provided, this makes the IMD a powerful tool for understanding the variation in deprivation between areas. Potential applications could include identifying intervention priorities or areas that are in the greatest need. The IMD resources, including spreadsheets, interactive maps and reports are publically available online.

HOW TO USE THE IMD

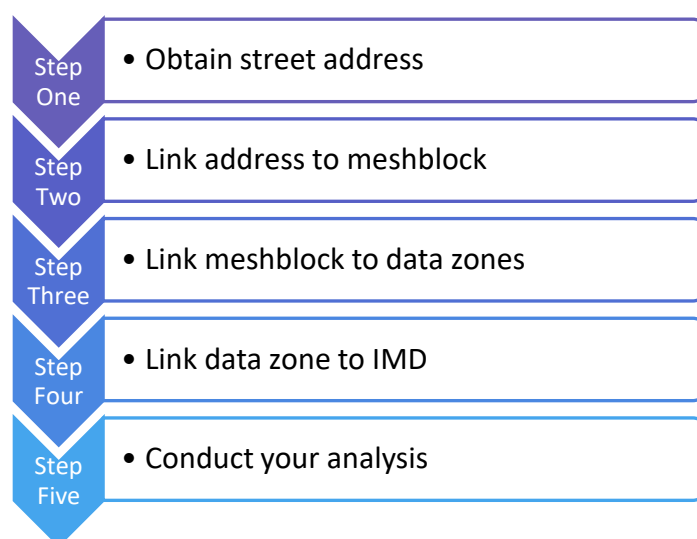| Step One | • Obtain street address |
Step Two	• Link address to meshblock
Step Three	• Link meshblock to data zones
Step Four	• Link data zone to IMD
Step Five	• Conduct your analysis

Figure 7 Steps in using the IMD in your own research.

The resources required to apply the IMD are publically available at www.fmhs.auckland.ac.nz/IMD.[6]

This website includes interactive online maps, Microsoft Excel spread sheets for linking meshblocks, datazones and IMD, DHB profiles and publications explaining the IMD.

For example, if you are interested in finding out if individuals living near a liquor stores are more likely to be in more deprived areas compared to those who do not, you could use the IMD resources to answer this question.

Firstly, the address should be collected for the individuals you are interested in. This address linked to a meshblock. To identify the meshblock the address belongs to, visit the Geography Boundary Viewer by Statistics New Zealand.[7] On the Layer List, select "Meshblock – 2013" or "Meshblock – 2018" from the Meshblock dropdown menu. Enter the address into the search box on the top right-hand corner. The meshblock identifier is a seven-digit number. This meshblock number can be linked with data zones using the Meshblocks spreadsheet, provided on the IMD website. Once the "Data zone ID" has been obtained, this can be linked with the IMD spreadsheet, which gives the overall IMD rank for each data zone, as well as each data zone's rank for the seven domains.

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FURTHER INFORMATION

For more information about the IMD, NZ data zones for this profile, please contact Dan Exeter at d.exeter@auckland.ac.nz. For downloadable spreadsheets of the IMD or NZ data zones, online interactive maps, publications and technical documentation, please go to the IMD website.