

Deprivation in the Northland Region

Applying the New Zealand Indices of Multiple Deprivation

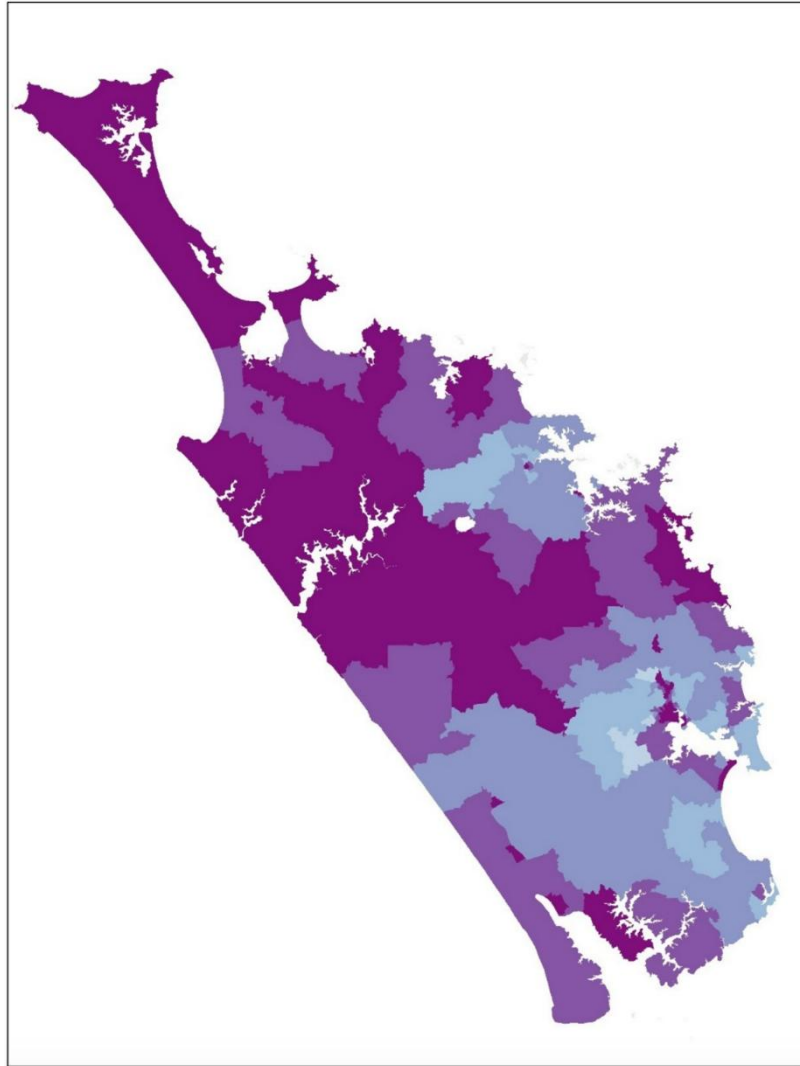


Figure 1 Map of the Northland Region showing overall IMD Deprivation. The most deprived areas shaded darkest.

Report prepared for Child Poverty Action Group

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STATISTICS NEW ZEALAND DISCLAIMER

The results in this report are not official statistics, they have been created for research purposes from the Integrated Data Infrastructure (IDI), managed by Statistics New Zealand. The opinions, findings, recommendations, and conclusions expressed in this paper are those of the author(s) not Statistics NZ or the University of Auckland.

Access to the anonymised data used in this study was provided by Statistics NZ in accordance with security and confidentiality provisions of the Statistics Act 1975. Only people authorised by the Statistics Act 1975 are allowed to see data about a particular person, household, business, or organisation and the results in this paper have been confidentialised to protect these groups from identification. Careful consideration has been given to the privacy, security, and confidentiality issues associated with using administrative and survey data in the IDI. Further detail can be found in the Privacy impact assessment for the Integrated Data Infrastructure available from www.stats.govt.nz.

The results are based in part on tax data supplied by Inland Revenue to Statistics NZ under the Tax Administration Act 1994. This tax data must be used only for statistical purposes, and no individual information may be published or disclosed in any other form, or provided to Inland Revenue for administrative or regulatory purposes. Any person who has had access to the unit-record data has certified that they have been shown, have read, and have understood section 81 of the Tax Administration Act 1994, which relates to secrecy. Any discussion of data limitations or weaknesses is in the context of using the IDI for statistical purposes, and is not related to the data's ability to support Inland Revenue's core operational requirements.

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INTRODUCTION

The purpose of this report is to describe the deprivation and demographic profile within the Northland Region. Using the New Zealand Indices of Multiple Deprivation, we will make comparisons between the Northland 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.

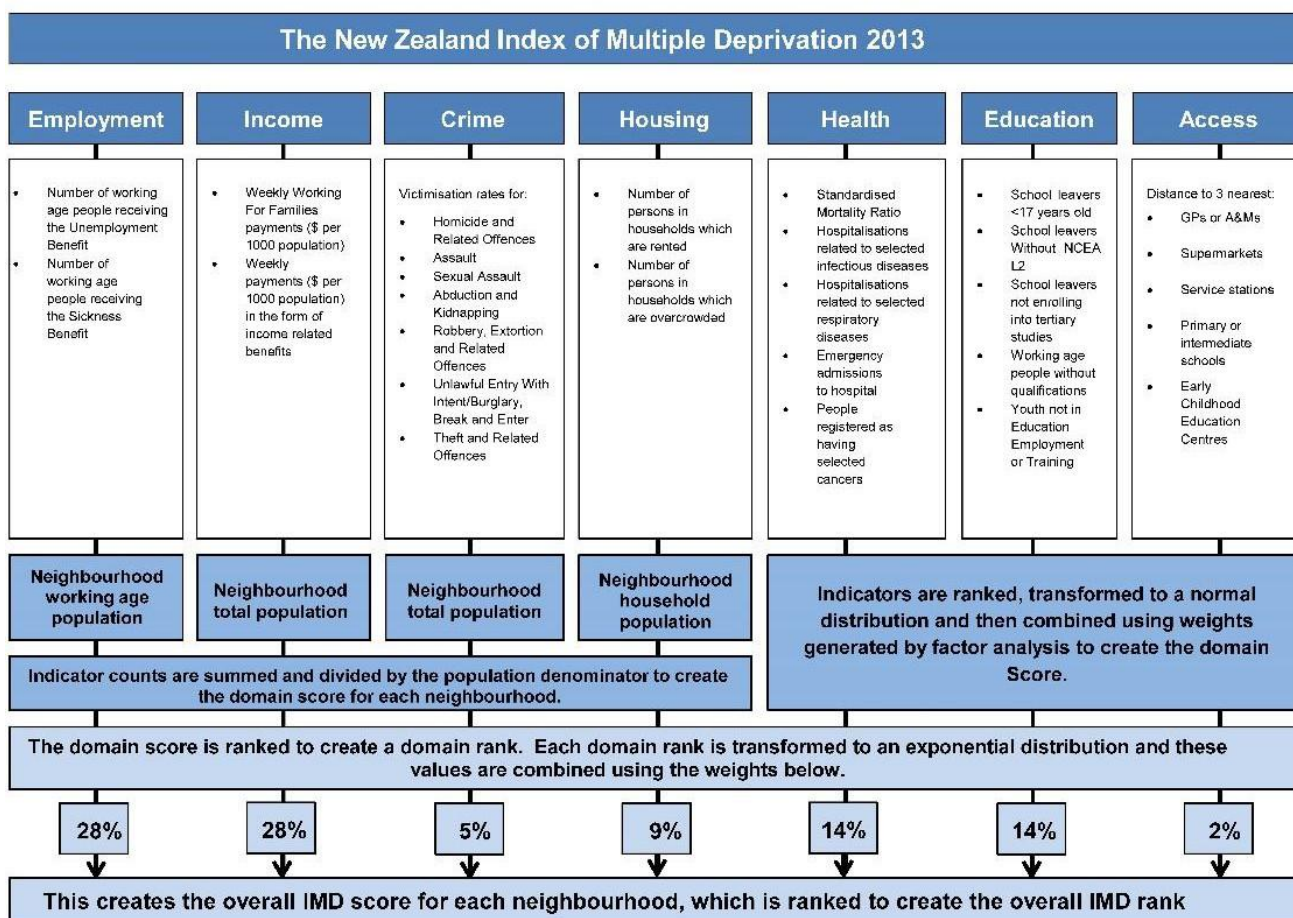


Figure 2 Flow diagram showing the IMD, its indicators, domains and weights. Adapted from Figure 4.2 SIMD 2012 Methodology, in Scottish Index of Multiple Deprivation 2012. Edinburgh: Scottish Government (Crown copyright 2012).

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. 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, 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 NORTHLAND REGION

The Northland Region has a population of 151,692, which accounts for 2.2% of the total New Zealand population. Whangarei has the largest population in the region, at 76,995. Kaipara District has the smallest population in the region with a population of 18,690. The median age in Northland is 42.7 years, much higher than the national median of 38 years. In Northland, 18.3% of individuals are aged 65 years and over and 21.6% are under 15 years of age, compared to 14.3% and 20.4%, respectively, for all of New Zealand. As shown in **Error! Reference source not found.**, the Northland Region has a larger proportion of Europeans and Maori, compared to New Zealand as a whole. Kaipara District has the largest European population at 84.2%, while European make up just 66.4% of the Far North District population. There is a larger proportion of Maori in the Northland region compared to New Zealand as a whole. The largest proportion of Maori is in the Far North District at 44.5%. The smallest proportion of Maori is in the Kaipara District at 23.1%.

Ethnicity	Northland		New Zealand	
	Population	Proportion	Population	Proportion
European	105,057	69.3%	2,969,391	70.00%
Maori	44,928	29.6%	598,602	14.1%
Pacific Peoples	4,461	2.9%	295,944	7.0%
Asian	3,927	2.6%	471,708	11.1%
MELAA	555	0.4%	46,953	1.1%
Other	2,562	1.7%	67,752	1.6%

Table 1 Distribution of ethnicity within Northland Region using Total Response Output. Data sourced from Statistics New Zealand Census 2013.³

A PROFILE OF THE NORTHLAND REGION

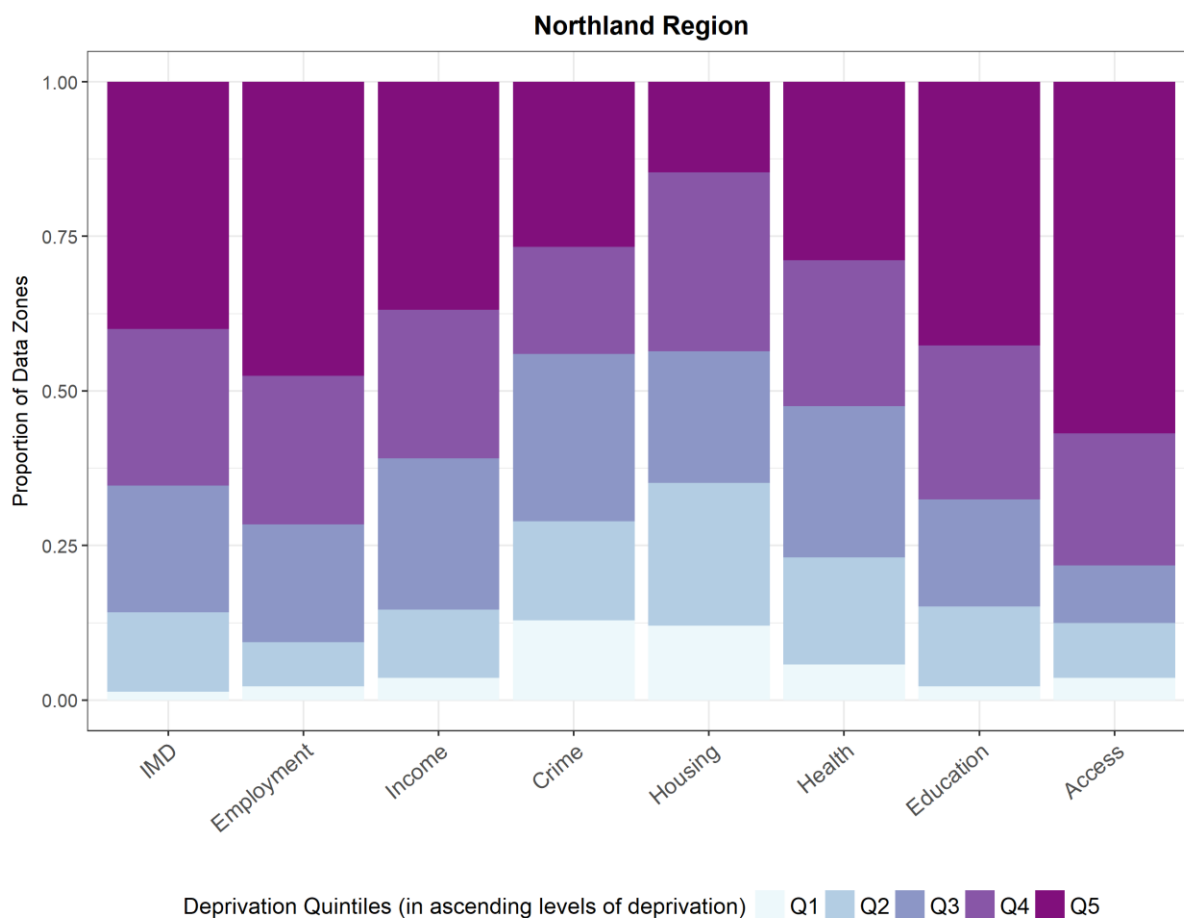


Figure 3 Stacked bar chart showing overall deprivation and seven domains in the Northland Region.

The Northland Region comprises data zones from 3 Territorial Authorities – Far North District, Whangarei District and Kaipara District. The Whangarei District has the largest number of data zones in the Northland Region (112/225), followed by the Far North District (85/225), then Kaipara (28/225).

Deprivation Profile

The stacked bar chart in Figure 3 shows the proportion of data zones in the Northland 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 Northland Region’s 225 data zones in each quintile.

In terms of the overall IMD, just 2.2% of Northland data zone are amongst the 20% least deprived in New Zealand (Q1), with less data zones in Q1 than any other quintile. In Northland, 47.8% of data zones are amongst the 20% most deprived, in New Zealand. Compared to other regions in New Zealand, Northland has the largest proportion of Q5 data zones, as demonstrated in Table 2 below.

Regions	Q1	Q2	Q3	Q4	Q5
Northland	2.2%	7.1%	19.0%	23.9%	47.8%
Southland	45.8%	27.1%	10.2%	13.6%	3.4%
Otago	34.9%	23.5%	21.0%	16.0%	4.6%
Canterbury	33.1%	24.2%	17.4%	17.9%	7.5%
Wellington	25.3%	21.9%	19.1%	18.8%	14.9%
Nelson Marlborough	20.9%	26.5%	29.6%	13.8%	9.2%
Auckland	19.6%	19.3%	20.4%	17.5%	23.2%
Hawke's Bay	16.7%	14.5%	18.1%	25.8%	24.9%
Taranaki	16.0%	19.9%	28.2%	26.3%	9.6%
Waikato	12.6%	18.9%	20.3%	23.9%	24.4%
West Coast	12.5%	27.1%	20.8%	29.2%	10.4%
Manuwatu	10.9%	18.1%	18.6%	26.2%	26.2%
Bay of Plenty	7.6%	14.4%	18.5%	27.4%	32.1%
Gisborne	6.3%	14.1%	15.6%	18.8%	45.3%

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

The largest proportion of Northland data zones are amongst the 20% most deprived (Q5) in New Zealand in terms of the Employment, Income, Health and Access Domains. There are similar proportions of data zones in the Q3 and Q5 quintiles for Crime, at 27.1% and 26.7%, respectively. As seen in Table 3, the largest proportion of data zones are ranked within Q4 (50.7%), followed by Q5 (28.0%) in terms of the Education Domain. In terms of the Housing Domain, the trend of data zones being amongst the most deprived is not as strong as seen in other Domains. The majority of data zones are ranked in Q4, followed by Q2 and Q3, with the difference between proportions in these quintiles being relatively small.

The Northland 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 56.9%.

Northland Region	Q1	Q2	Q3	Q4	Q5
Employment	2.4%	0.0%	20.5%	25.7%	51.4%
Income	3.6%	11.1%	24.4%	24.0%	36.9%
Crime	12.9%	16.0%	27.1%	17.3%	26.7%
Housing	12.0%	23.1%	21.3%	28.9%	14.7%
Health	5.8%	17.3%	24.4%	23.6%	28.9%
Education	1.5%	8.5%	11.4%	50.7%	28.0%
Access	3.6%	8.9%	9.3%	21.3%	56.9%

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

DEPRIVATION PROFILES OF TERRITORIAL AUTHORITIES WITHIN THE NORTHLAND REGION

Overall IMD

All Territorial Authorities in the Northland Region experience more 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 Q4 and Q5 (most deprived) quintiles.

The Far North District has the largest proportion and number of Q5 (most deprived) data zones at 54.1% (56/85) in the Northland Region, while the Kaipara District has the largest proportion of Q4 39.3% (11/28). The proportions of data zones in each quintile are shown for each Territorial Authority in Table 4. In all three Districts, less than 20% of data zones are amongst the Q1 (least deprived) and Q2 quintiles.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaipara District	0.0%	3.6%	35.7%	39.3%	21.4%	28
Whangarei District	2.7%	17.9%	21.4%	24.1%	33.3%	112
Far North District	0.0%	9.4%	14.1%	22.6%	54.1%	85
Total Data Zones	3	29	46	57	90	225
Total Data Zones (%)	1.3%	12.9%	20.4%	25.3%	40.0%	

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

Employment Domain

The Employment Domain as seen in Table 5 below, 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 Northland Region.

The Far North District has the largest proportion and number of data zones in the Q5 quintile, at 63.5% (54/85) for the Northland Region. Kaipara has large proportions of data zones in both Q4 and Q5 quintiles, both at 39.3%.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaipara District	0.00%	0.00%	21.4%	39.3%	39.3%	28
Whangarei District	2.65%	12.4%	23.0%	23.9%	38.1%	113
Far North District	2.35%	2.4%	12.9%	18.8%	63.5%	85
Total Data Zones	5	16	43	54	108	226
Total Data Zones (%)	2.2%	7.1%	19.0%	23.9%	47.8%	

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. Given the large proportions of data zones in Q5 (most deprived) and Q4 low income levels are a key area of concern in the Northland region.

The Far North District has the largest proportion of data zones among New Zealand's 20% most deprived, with 48.2% (41/85) in the Q5 (most deprived) quintile. This was closely followed by the Whangarei District, with 32.1% (36/112) of data zones in the Q5 quintile. Kaipara had the largest proportion of its data zones in the Q3 quintile at 42.9% (12/28), while the Q5 quintile representing the most income deprived accounted for 21.4% (6/28). As seen in Table 6, the majority of data zone are ranked within Q3, Q4 and Q5 which suggests that there is relatively high levels of income deprivation in Northland.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaipara District	0.0%	10.7%	42.9%	25.0%	21.4%	28
Whangarei District	7.1%	17.9%	22.3%	20.5%	32.1%	112
Far North District	0.0%	2.4%	21.2%	28.2%	48.2%	85
Total Data Zones	8	25	55	54	83	225
Total Data Zones (%)	3.6%	11.1%	24.4%	24.0%	36.9%	

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%).

In the Far North District, 34.1% (29/85) of data zones were among the 20% most deprived in New Zealand. While in Whangarei, 25.0% (28/112) of data zones were in the Q5 quintile. In Kaipara, 10.7% (3/28) of data zones were in the Q5 and Q4 quintiles

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaipara District	14.3%	28.6%	35.7%	10.7%	10.7%	28
Whangarei District	16.1%	14.3%	24.1%	20.5%	25.0%	112
Far North District	8.2%	14.1%	28.2%	15.3%	34.1%	85
Total Data Zones	29	36	61	39	60	225
Total Data Zones (%)	12.9%	16.0%	27.1%	17.3%	26.7%	

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

Housing Domain

The Housing Domain measured 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.⁴ High deprivation ranks for the Housing Domain suggests that more individuals are likely to be living in overcrowded and/or rented housing.

In the Far North District, the highest number of data zones (65/85) were in the Q4 quintile, and 20% (17/85) were ranked amongst the Q5 (most deprived) quintile. Similarly in Whangarei, with the most data zones in the Q4 quintile at 27.7% (31/112) and a smaller proportion of 13.4% (17/112) in the most deprived Q5 quintile. In Kaipara 42.9% (12/28) of data zones were in the Q2 quintile. There was also an equal distribution of data zone across quintiles Q1, Q3 and Q4, each accounting for 17.9% (5/28) of Kaipara District data zones. The smallest proportion of Q5 quintile data zones was seen in Kaipara at just 3.6% (1/28). These proportions suggest that these districts experience moderate levels of housing deprivation.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaipara District	17.9%	42.9%	17.9%	17.9%	3.6%	28
Whangarei District	17.9%	23.2%	17.9%	27.7%	13.4%	112
Far North District	2.4%	16.5%	27.1%	34.1%	20.0%	85
Total Data Zones	27	52	48	65	33	225
Total Data Zones (%)	12.0%	23.1%	21.3%	28.9%	14.7%	

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 largest proportion of Q5 quintile data zone was seen in Whangarei at 40.2% (45/112). The Far North District had 23.5% (20/85) of data zones among the 20% most health deprived in New Zealand, while the Kaipara District had no data zones in the Q5 quintile. In Kaipara, the largest proportion of data zones were in the Q2 quintile at 46.4% (13/28), followed by the Q3 quintile at 39.3% (11/28). In the Far North, 11.8% (10/85) data zones were among the 20% least deprived in New Zealand. While in Whangarei and Kaipara there were 0.9% (1/112) and 7.1% (2/28) in the least deprived Q1 quintile, respectively. These proportions suggest that Whangarei and Far North Districts are experience higher rates of the health issues stated above, compared to Kaipara District.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaipara District	7.1%	46.4%	39.3%	7.1%	0.0%	28
Whangarei District	0.9%	11.6%	23.2%	24.1%	40.2%	112
Far North District	11.8%	15.3%	21.2%	28.2%	23.5%	85
Total Data Zones	13	39	55	53	65	225
Total Data Zones (%)	5.8%	17.3%	24.4%	23.6%	28.9%	

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).

In the Far North, 57.7% (49/85) of data zones are among the 20% most deprived, while 1.2% (1/85) were among the 20% least deprived in New Zealand. In Whangarei, those in the Q5 quintile accounted for 31.3% (35/112) of data zones and 3.6% (4/112) were in the Q1 quintile. In Kaipara, 42.9% (12/28) were in each of the Q5 and Q4 quintiles and no data zones were among the least deprived Q1 quintile. This suggests that education deprivation is a key area of concern for all three districts.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaipara District	0.0%	10.7%	3.6%	42.9%	42.9%	28
Whangarei District	3.6%	17.0%	24.1%	24.1%	31.3%	112
Far North District	1.2%	8.2%	13.0%	20.0%	57.7%	85
Total Data Zones	5	29	39	56	96	225
Total Data Zones (%)	2.2%	12.9%	17.3%	24.9%	42.7%	

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.

The data in Table 11 below shows that Kaipara has the largest proportion of data zones among the 20% most deprived in New Zealand, with 89.3% (28/25) in the Q5 quintile. In the Far North District, 69.4% (59/85) of data zones are in the Q5 quintile, while 39.3% (44/112) of Whangarei data zones are in the Q5 quintile. In Whangarei, 7.1% (8/112) of data zones are among the 20% least deprived in New Zealand. No data zones in Kaipara or the Far North District are ranked in the Q1 quintile. Access deprivation is a key area of concern for all three districts in the Northland Region.

Territorial Authority	Q1	Q2	Q3	Q4	Q5	Total Data Zones
Kaipara District	0.0%	0.0%	0.0%	10.7%	89.3%	28
Whangarei District	7.1%	17.0%	15.2%	21.4%	39.3%	112
Far North District	0.0%	1.2%	4.7%	24.7%	69.4%	85
Total Data Zones	8	20	21	48	128	225
Total Data Zones (%)	3.6%	8.9%	9.3%	21.3%	56.9%	

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

CASE STUDY: MORNINGSIDE & MAUNU

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 200060 and 200017, as shown in Figure 4 below.⁵

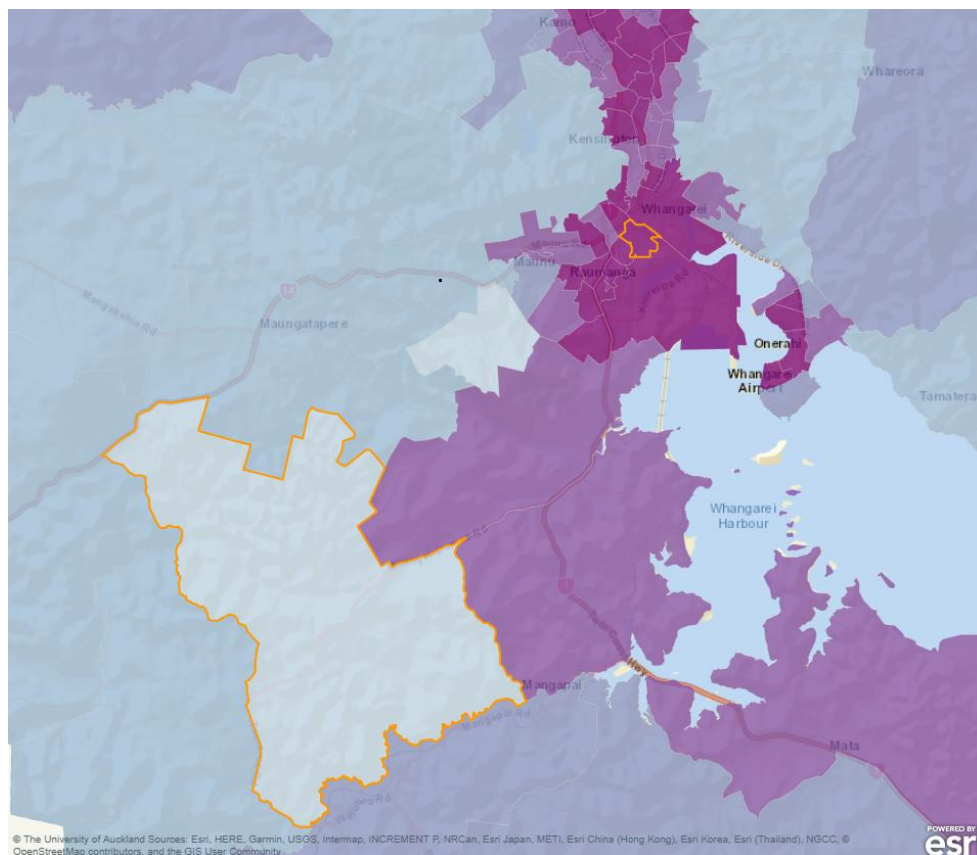


Figure 4 Map containing data the two case study data zones – outlined in orange. Data zone 200060 is located in the North Eastern quadrant. Data zone 200017 is located in the South Western quadrant. Image sourced from: http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html.⁶

Data zone 200060 is located in Morningside, bordered by Jubilee Park, Morningside Park and Railway Road within the Whangarei District. This data zone has a usually resident population of 645 individuals. This data zone falls within the Q5 (most deprived) in terms of the overall IMD. As shown in **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. The cluster or shopping complexes, service stations and schools near Railway Road lowers the access deprivation in this data zone considerably.

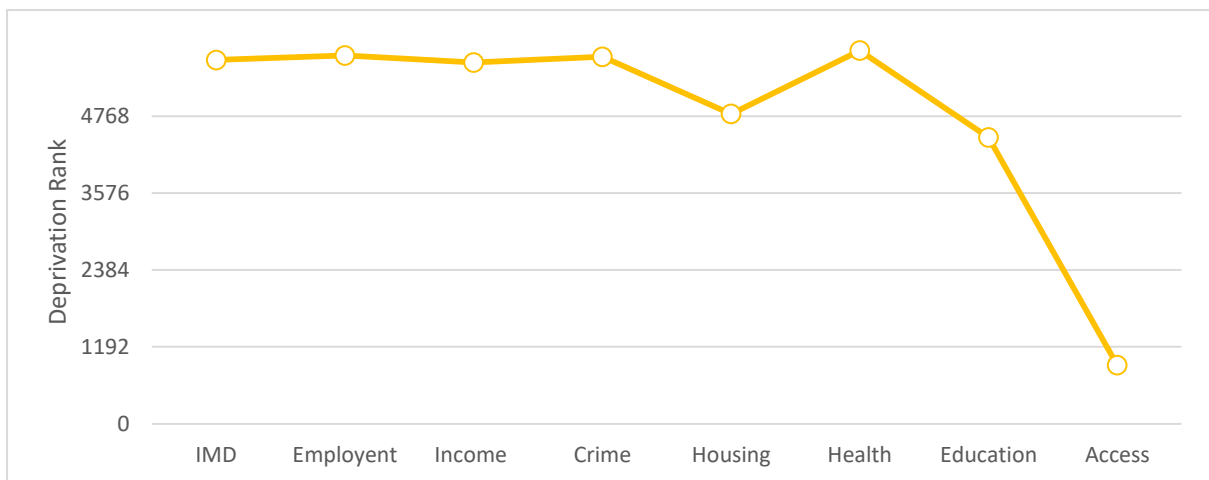


Figure 5 Deprivation ranking for data zone 200060 by overall IMD and deprivation Domains. Data for the graph above was obtained from http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html.⁶

Close by is data zone 200017. This data zone is located in Maunu, containing the properties between by Pompallier Estate Drive and Cemetery Road. This data zone contains a usually resident population of 582 individuals and represents the least deprived data zone within the Northland Region. As seen in Figure 6, there are low levels of deprivation in terms of overall IMD, Employment, Income, Crime, Housing, Health and Education Domains. However, this data is ranked among the 20% most deprived in New Zealand in terms of Access. This due to the data zone containing predominantly large rural properties, which increases the distance between amenities and households.

Comparing **Error! Reference source not found.** and Figure 6, shows a stark contrast two neighbourhoods that are geographically close to each other. Contrasts such as this are useful in identifying area where targeted initiatives could be directed. Areas such as Morningside that are experiencing deprivation across almost all domains are in greater need than relatively affluent areas such as Maunu.

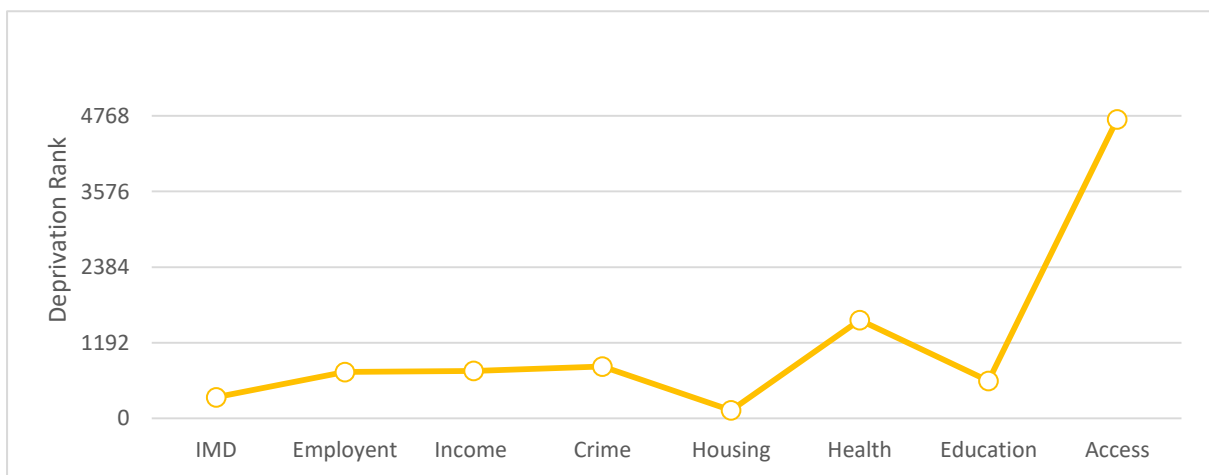


Figure 6 Deprivation ranking for data zone 200017 by overall IMD and deprivation Domains Data for the graph above was obtained from http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html.⁶

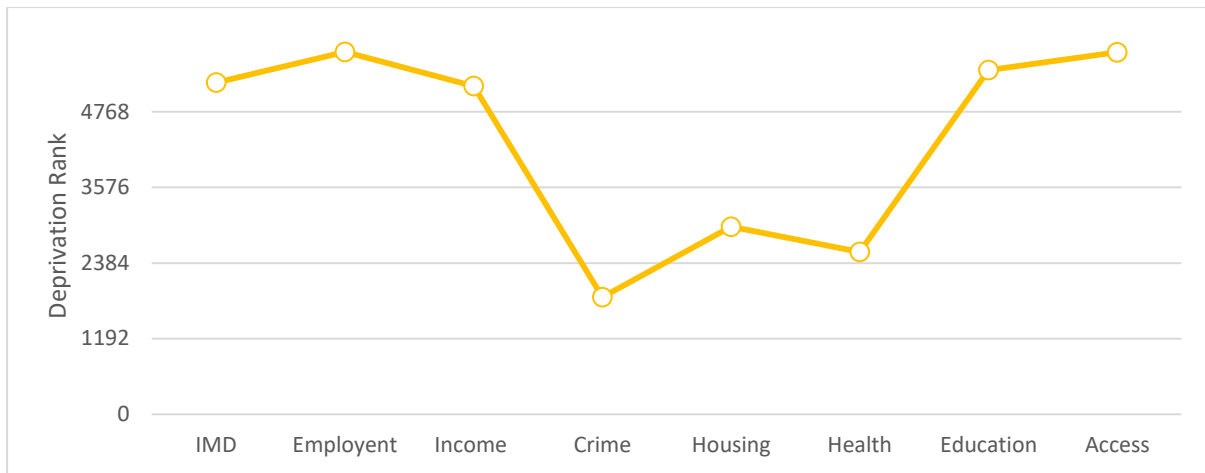


Figure 8 Deprivation ranking for data zone 100021 by overall IMD and deprivation Domains. Data for the graph above was obtained from http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html.⁶

The neighbouring data zone of 100016 is located in the northern half of Awanui. This data zone has a usually resident population of 534 individuals. . This data zone falls within the Q5 (most deprived) in terms of the overall IMD. As shown in Figure 9, this data zone is amongst the 20% most deprived data zones in New Zealand based on the overall IMD, Employment, Income, Crime, Education and Access Domains. In terms in the Health Domain, this data zone is ranked within Q3 and Q4 in terms for Housing and Health Domains.

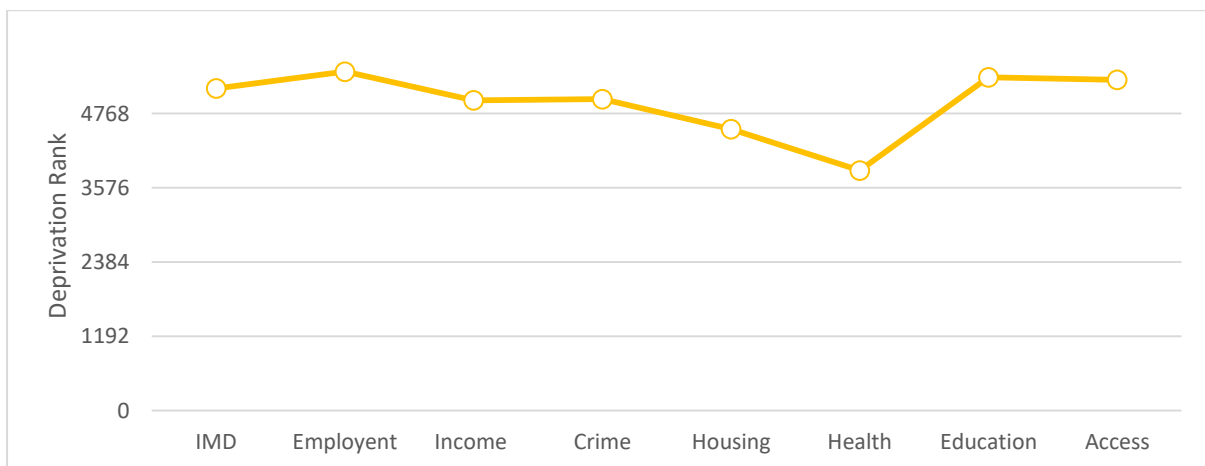


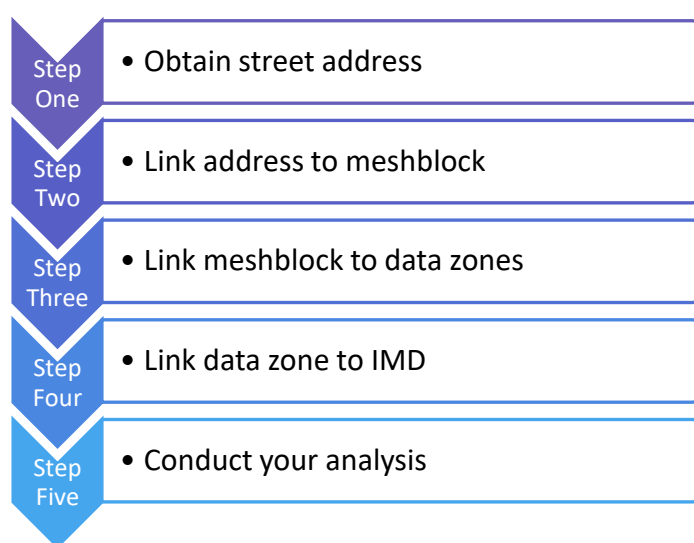
Figure 9 Deprivation ranking for data zone 100016 by overall IMD and deprivation Domains. Graph sourced from the IMD online interactive maps. Available at: http://www.imd.ac.nz/NZIMD_Single_animation_w_logos/atlas.html.⁶

Comparing Figure 8 and Figure 9, show similarities between these two data zones in terms of Employment, Income, Education and Access Domains. In terms of Crime, Housing and Health Domains it appears that South Awanui experience more deprivation than North Awanui. Nevertheless, North Awanui has a lower Overall IMD rank than South Awanui of 5,172 and 5,231, respectively. This is due to South Awanui being slightly more employment and income deprived. The Employment and Income Domains contribute the largest weighting to the Overall IMD rank. This demonstrates that small improvements in these two domains have a relatively large effect on the overall picture of deprivation in a particular area. Understanding the different impacts of the deprivation domains has the potential to contribute informing intervention priorities. For example,

South Awanui appears in to be in greater need of interventions targeting crime and housing deprivation compared to North Awanui.

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

Figure 10 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.⁷

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](#).⁸ 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](#).