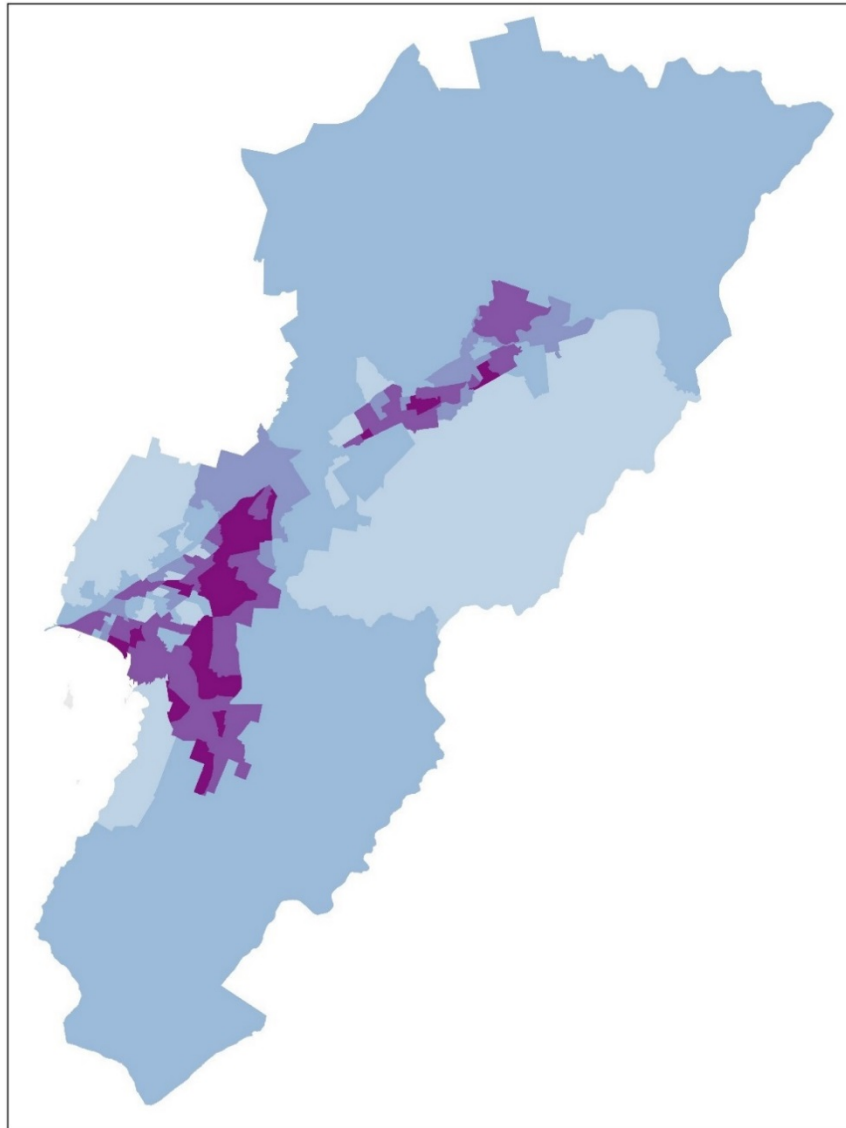


A deprivation and demographic profile of the Hutt Valley DHB



Hutt Valley DHB, showing overall IMD deprivation
with the most deprived areas shaded darkest

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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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A deprivation and demographic profile of the Hutt Valley DHB

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 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 1 shows the IMD's 28 indicators and weightings of the seven domains.

The IMD measures deprivation at the neighbourhood level, using custom designed data zones that were specifically developed for social and health research. The New Zealand (NZ) land mass has 5,958 neighbourhood-level data zones that have a mean population of 712 people. In urban settings, they are just a few streets long and a few streets wide. Data zones are ranked from the least to most deprived (1 to 5958) and grouped into five quintiles. 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%. This multidimensional deprivation information is combined with demographic information from the 2013 census to produce a DHB profile.

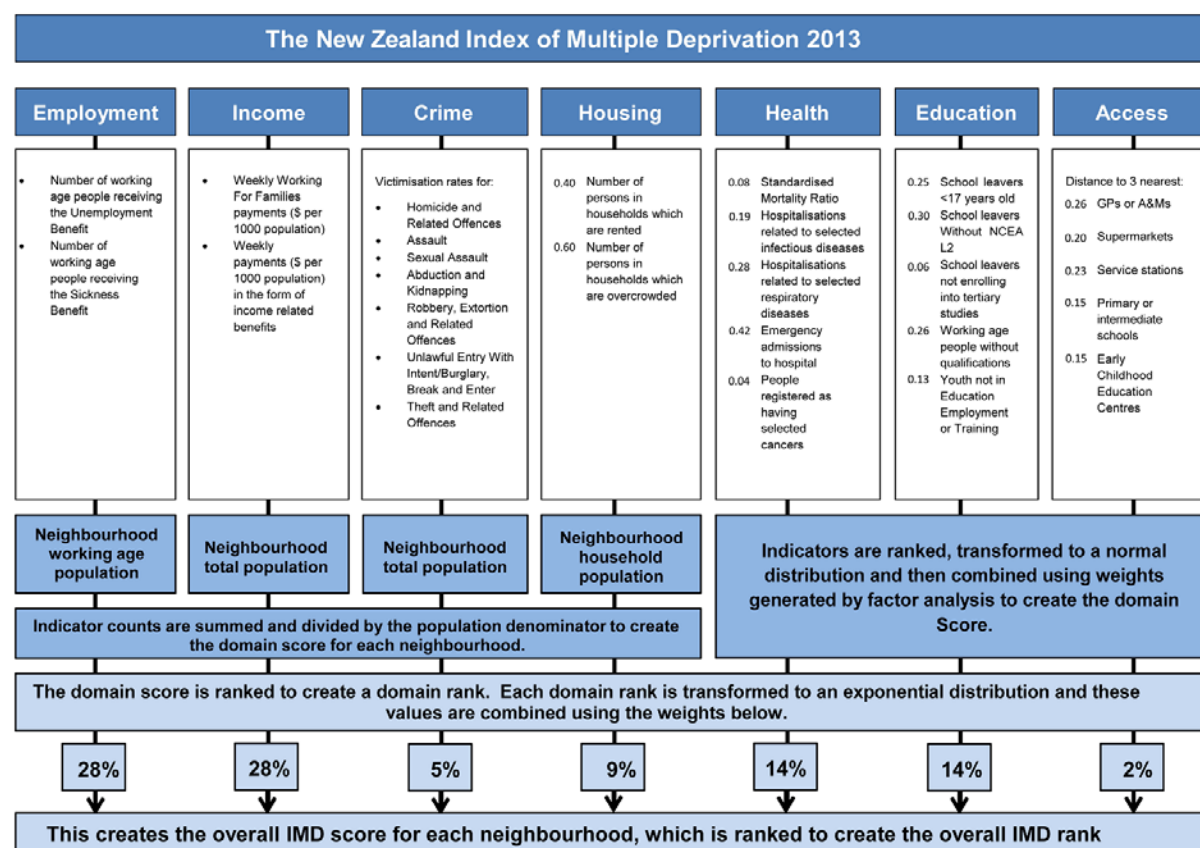


Figure 1. Flow diagram showing the IMD, its indicators, domains and weights. Adapted from Figure 4.2 SIMD 2012 Methodology, in Scottish Index of Multiple Deprivation 2012. Edinburgh: Scottish Government (Crown copyright 2012).

The stacked bar chart in Figure 2 shows the proportion of data zones in the Hutt Valley DHB (HVDHB) that belonged to each deprivation quintile for overall IMD deprivation and the seven domains in 2013. If the deprivation circumstances were the same as all of NZ, we would see 20% of the HVDHB's 197 data zones in each quintile. However, Figure 2 shows this was not the case. The proportion of data zones with Q5 deprivation was greater than 20% for overall (IMD) deprivation, employment, crime and health, and the proportion with Q4 deprivation was greater than 20% for all domains. The HVDHB has high levels of overall IMD deprivation, with 50.3% (99/197) of its data zones in Q4 or Q5.

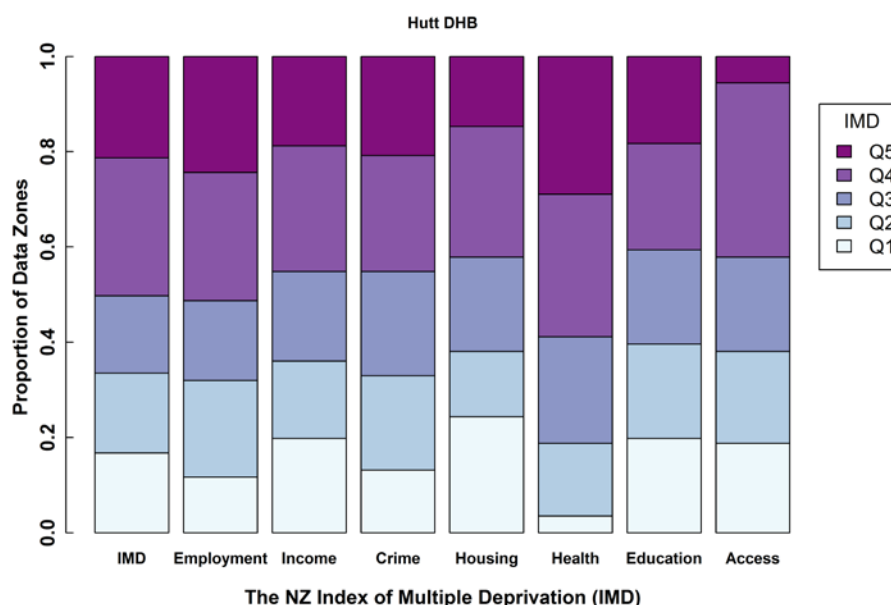


Figure 2. Stacked bar chart showing overall deprivation and seven domains in the HVDHB

Table 1 shows summary statistics by domain for the 42 HVDHB data zones that were among NZ's 20% most deprived, and reveals the contributions of different domains. In descending order, high (Q5) median deprivation ranks for Employment (5396), Health (5332), Income (5281), Education (5140) and Housing (5035) were contributing to high overall IMD deprivation in these 42 data zones in 2013, bearing in mind that these domains carry different weights in the IMD (see Figure 1).

Min, max and median ¹ deprivation ranks by domain for 42 data zones with Q5 IMD								
	IMD	Employment	Income	Crime	Housing	Health	Education	Access
Min	4787	3700	4285	1611	3372	3974	2391	211
Max	5814	5840	5809	5933	5676	5887	5904	4589
Median	5350	5396	5281	4296	5035	5332	5140	2540

Table 1. Minimum, maximum and median deprivation ranks by domain for 42 data zones in the HVDHB with Q5 IMD deprivation

¹ When discussing the 20% most deprived data zones, ranks will usually be skewed, so it is better to discuss the median rank (the middle value) rather than the mean rank (the average, which can be disproportionately affected by very high values).

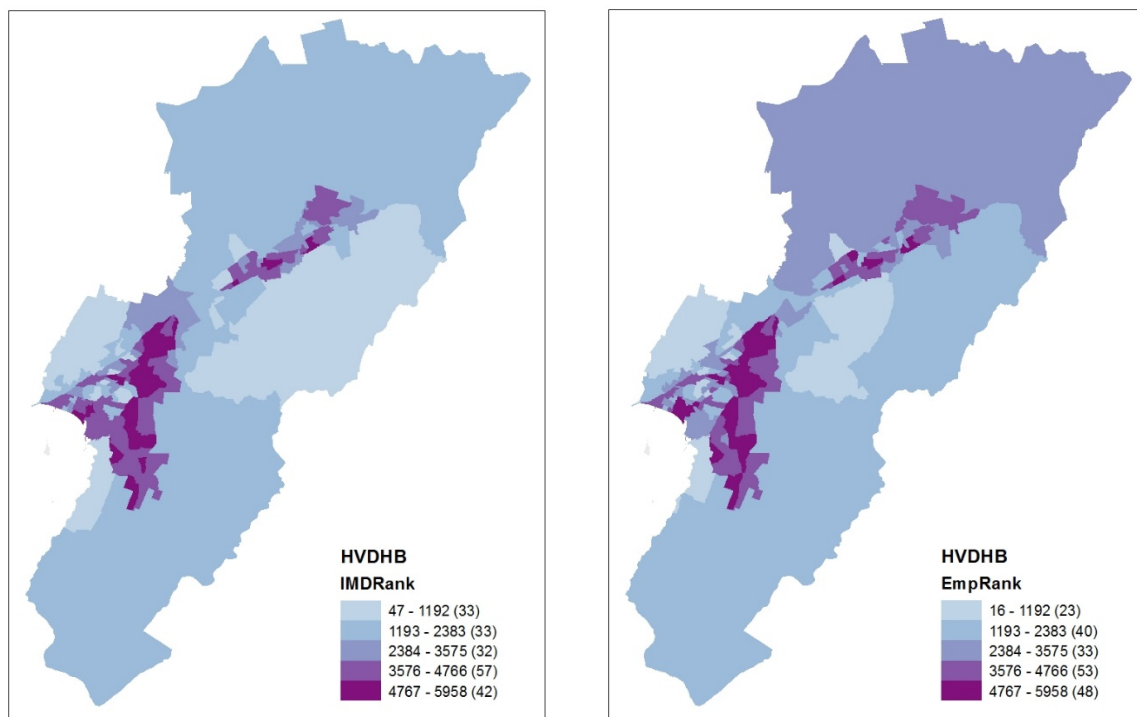


Figure 3. Distribution of overall IMD and employment deprivation in the HVDHB

The values in brackets in the legends of the maps that follow are counts of data zones in the relevant quintile. The map for overall deprivation (IMD) on the left of Figure 3 shows moderate levels of Q5 deprivation in the HVDHB. 21.3% (42/197) of its data zones were among the most deprived 20% in NZ, while 16.8% (33/197) were among the least deprived 20% (Q1). The median IMD rank in the HVDHB was 3599, 10.4% (620 ranks) worse than the NZ median of 2979. Most of the Q5 data zones were concentrated in Lower Hutt, and there were five Q5 data zones in Upper Hutt. Urban data zones are difficult to see on these maps, so we suggest that readers use the interactive maps at the [IMD website](#) to explore the HVDHB further.

The map of the Employment Domain on the right of Figure 3 reflects the proportion of working age people who were receiving the Unemployment or Sickness Benefits in 2013. In the HVDHB, 24.4% (48/197) of data zones were among the 20% most deprived in NZ for the Employment Domain, while only 11.7% (23/197) of data zones were among the least deprived 20%. The median employment deprivation rank in the HVDHB was 3700, 12.1% (721 ranks) worse than the NZ median of 2979. These high levels of employment deprivation closely followed the pattern of overall IMD deprivation occurring throughout the central and south-western part of the DHB.

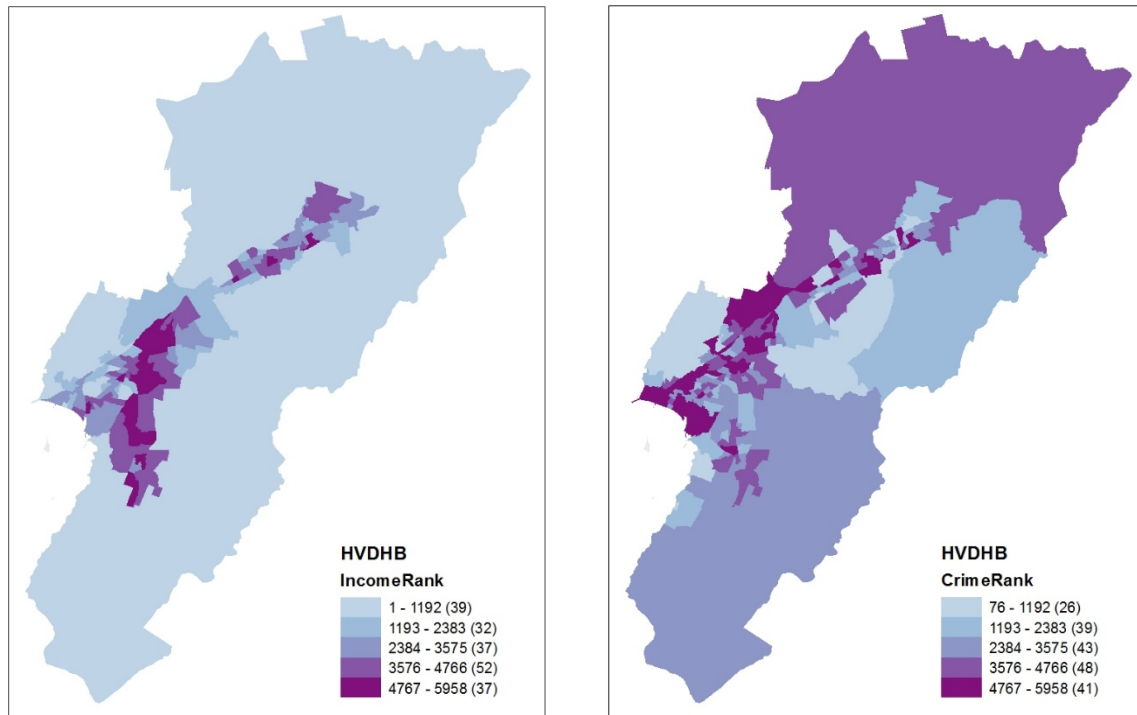


Figure 4. Distribution of income and crime deprivation in the HVDHB

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. In the HVDHB, 18.8% (37/197) of data zones were among NZ's 20% most income deprived, and 19.8% (39/197) of data zones were among the 20% least income deprived. The median income deprivation rank in the HVDHB was 3251, 4.6% (272 ranks) worse than the NZ median. High (Q5) levels of income deprivation were concentrated in the urban areas of the DHB, mainly in Lower Hutt, but also in Upper Hutt.

The Crime Domain measures victimisations per 1000 people and is largely driven by thefts (55%), burglaries (24%) and assaults (18%). In the HVDHB, 20.8% (41/197) of data zones were among NZ's 20% most deprived for the Crime Domain, while only 13.2% (26/197) were among NZ's 20% least deprived. The median crime deprivation rank in the HVDHB was 3262, 4.7% (283 ranks) worse than the NZ median. High (Q5) rates of crime victimization mainly occurred in Lower Hutt, but there were nine Q5 data zones in Upper Hutt.

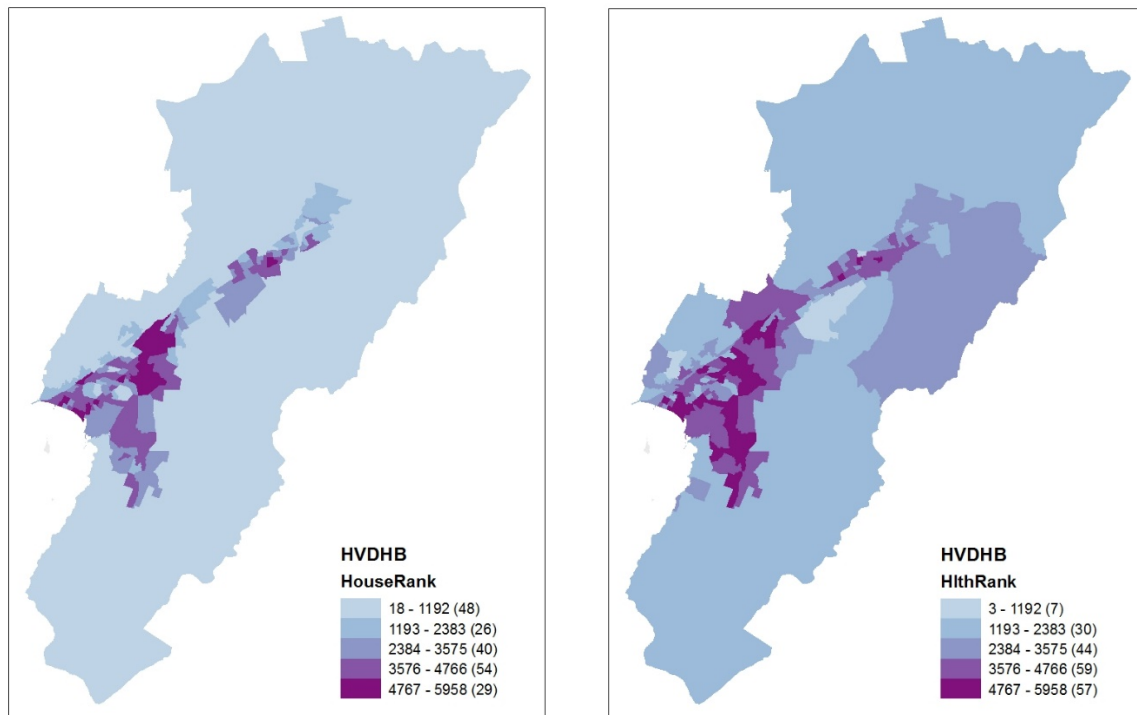


Figure 5. Distribution of housing and health deprivation in the HVDHB.

The Housing Domain measures the proportion of people living in overcrowded households (60% of the weighting) and in rented dwellings (40%). In the HVDHB, only 14.7% (29/197) of data zones were among the 20% most deprived in NZ, while 24.4% (48/197) of data zones were among the 20% least deprived. The median housing deprivation rank in the HVDHB was 3171, 3.2% (192 ranks) worse than the NZ median. High (Q5) levels of housing deprivation occurred in Lower Hutt in Taitā, Naenae and Petone.

The Health Domain consists of five indicators: standard mortality ratio, acute hospitalisations related to selected infectious and selected respiratory diseases, emergency admissions to hospital, and people registered as having selected cancers. In the HVDHB, 28.9% (57/197) of data zones were among the 20% most health deprived in NZ, while only 3.6% (7/197) were among the least deprived 20%. The median health deprivation rank in the HVDHB was 3926, 15.9% (947 ranks) worse than the NZ median. Patterns for high (Q5) levels of health deprivation resembled the other domains, with a high concentration of Q5 data zones in Wainuiomata, Moera, Waiwhetū and Taitā.

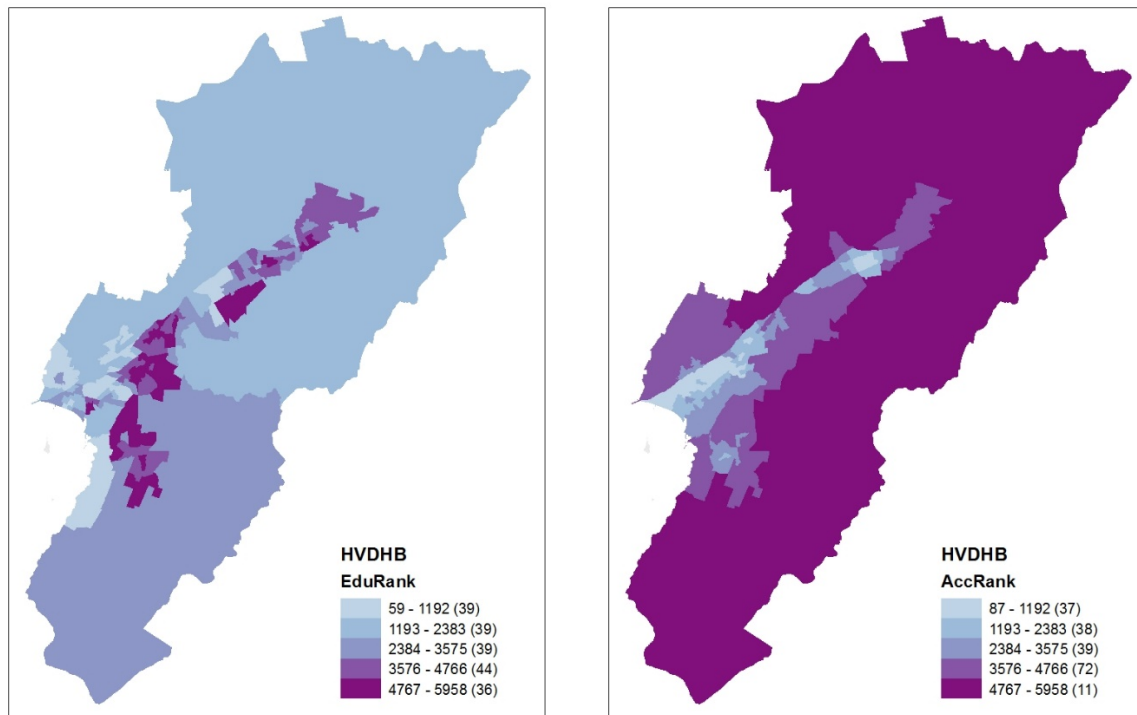


Figure 6. Distribution of education and access deprivation in the HVDHB.

The Education Domain measures retention, achievement and transition to education or training for school leavers; as well as the proportion of working age people 15-64 with no formal qualifications; and the proportion of youth aged 15-24 not in education, employment or training (NEET). In the HVDHB, 18.3% (36/197) of data zones were among NZ's 20% most education deprived, and 19.8% (39/197) were among the least deprived 20%. The median education deprivation rank in the HVDHB was 3158, 3.0% (179 ranks) worse than the NZ median. High (Q5) levels of education deprivation occurred throughout the southwestern part of the DHB in Lower Hutt, and there were five data zones with Q5 education deprivation in Upper Hutt.

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. In the HVDHB, only 5.6% (11/197) of data zones were among NZ's 20% most access deprived, while 18.8% (37/197) were among NZ's 20% least deprived. The median access deprivation rank in the HVDHB was 2972, 0.1% (seven ranks) better than the NZ median. There were only 11 data zones with Q5 access deprivation, and these were all located in rural parts of the DHB.

Age profile of the Hutt Valley DHB

In 2013 the HVDHB had a total population of 138,357 people living in 197 data zones, with a mean of 702 people each (range: 510 to 990).

Mean data zone proportions for five age groups in the HVDHB					
Age group	0-14	15-24	25-44	45-64	65+
Hutt Valley DHB	21.0%	13.0%	26.5%	26.1%	13.3%
New Zealand ²	20.4%	13.8%	25.6%	25.8%	14.3%
Difference	0.6%	-0.8%	0.9%	0.3%	-1.0%

Table 2. Mean data zone proportions for five age groups in the HVDHB

Table 2 shows that the age profile of the HVDHB differs most from the national age profile in that it has 0.9% more people aged 25-44 and 1.0% fewer people aged 65+. Figure 7 shows the distribution of people in these two age groups.

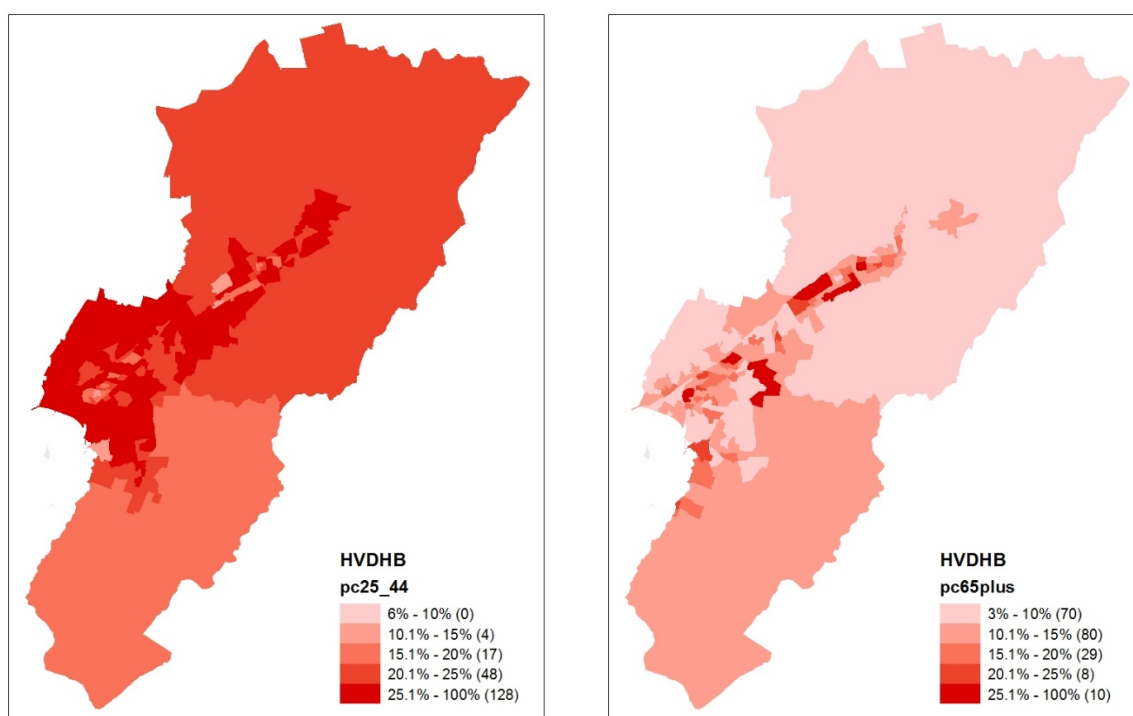


Figure 7. Distribution of people aged 25-44 and people aged 65+ in the HVDHB.

² Proportions for age groups and ethnicities at the national level are calculated using data zone counts to ensure fair comparison with DHB values, which also use data zone counts.

Ethnicity profile of the Hutt Valley DHB

This section uses the Total Response method to calculate proportions for each ethnicity from the 2013 census. Individuals who identify as more than one ethnicity are counted in more than one category. The proportion of Māori living in data zones within the HVDHB in 2013 ranged from 2.7% to 44.0%. The overall proportion of Māori was 16.1%, slightly greater than the national proportion of 14.9%. The proportion of Māori per data zone was greatest in the southwestern part of the DHB. A data zone in Upper Hutt had the greatest proportion of Māori (44.0%), followed by one in Lower Hutt (42.0%).

The proportion of Pacific ethnicity ranged from 0.0% to 44.1%. The overall proportion of Pacific ethnicity in the HVDHB was 9.2%, which is slightly higher than the national proportion of 7.3%. The proportion of Pacific per data zone was greatest in the south-western part of the DHB in the area between Upper Hutt and Lower Hutt.

The proportion of New Zealand European and Other ethnicities (NZE0) in the HVDHB ranged from 43.3% to 99.6%. The overall proportion of NZEO was 86.4%, slightly lower than the national proportion of 87.5%. The lowest proportions of NZEO (<60%) lived in data zones located in Lower Hutt.

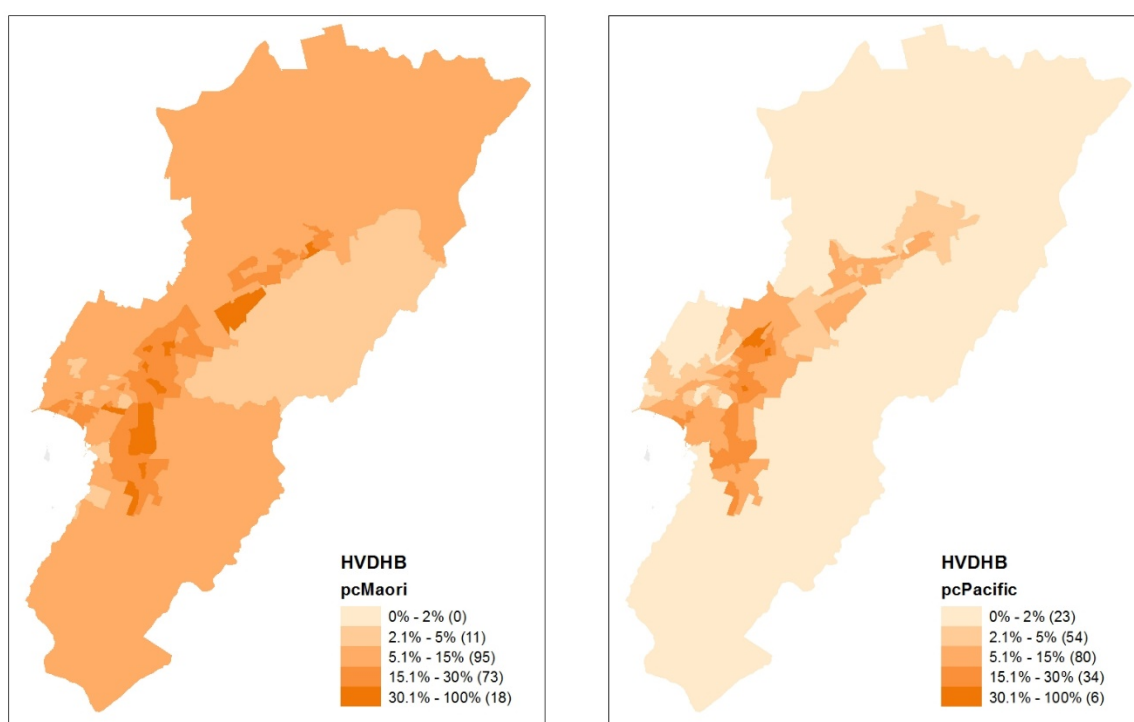


Figure 8. Distribution of Māori and Pacific people in the HVDHB

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