

Canterbury Region: A Deprivation and Demographic Profile

Featuring the New Zealand Index of Multiple Deprivation (IMD)

A presentation for the Canterbury Child Poverty Action Group

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CPAG and the IMD team

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**MEDICAL AND
HEALTH SCIENCES**



Statistics New Zealand Disclaimer Statement

Access to the data presented was managed by Statistics New Zealand under strict micro-data access protocols and in accordance with the security and confidentiality provisions of the Statistic Act 1975. Our findings are not Official Statistics. The opinions, findings, recommendations, and conclusions expressed are those of the researchers, not Statistics NZ, or the University of Auckland.

Acknowledgements

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Thanks to the developers of zone design software for allowing us to use their data, and to the IDI and geospatial teams at Statistics New Zealand for their input and use of data.

Census boundaries used in this analysis are Crown Copyright

Outline

- **Background**

What is deprivation, how is it used and by whom?

- **Developing the Index of Multiple Deprivation**

Data zones

Indicators, Domains and the IMD

- **How different is the IMD to NZDep?**

- **Case Studies:**

Aranui & Christchurch

Children in deprived areas

Dental health outcomes

- **Using the IMD**

Available Resources and How-to-Guide

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)

- Deprivation should be applied to conditions and quality of life that are of a lower standard than is ordinary in a particular society
- Living in poverty should refer to a lack on income and resources to obtain the normative standard of living



[Click here to view our deprivation weather forecast video](#)

Data Providers



**MINISTRY OF SOCIAL
DEVELOPMENT**
TE MANATŪ WHAKAHIATO ORA



The NZ Index of Multiple Deprivation (IMD)

EMPLOYMENT	Measure the degree to which working age people are excluded from employment
INCOME	Captures the extent of income deprivation in a data zone by measuring state-funded financial assistance to those with insufficient income
CRIME	Counts victims for 7 major offences per 1000. Counts were collected after 30 days of investigation: Homicide/Assault/Sexual Assault/Abduction/Robbery/Extortion/Unlawful Entry with intent/ Theft
HOUSING	Proportion of people living in overcrowded housing and the proportion living in rented accommodation.
HEALTH	Identifies areas with a high level of ill health or mortality.
EDUCATION	Captures youth disengagement, and the proportion of the working age population without a formal qualification
ACCESS	Measures the cost and inconvenience of travelling to access basic services. Supermarkets, GPs, service stations, ECE, primary & intermediate schools.

The 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	ACCESS
<p># of working age people on Unemployment Benefit</p> <p># of working age people on Sickness Benefit</p>	<p>Amount of Working for Families Payment</p> <p>Amount of Income Related Benefits</p>	<p># of Victims of:</p> <p>Homicide + RO</p> <p>Physical/Sexual Assault</p> <p>Abduction and Kidnapping</p> <p>Robbery, extortion + RO</p> <p>Trespassing + RO</p> <p>Theft + RO</p>	<p># of people in rented housing</p> <p># of people in overcrowded housing</p>	<p>SMR</p> <p># of emergency admissions</p> <p># of people with certain cancers</p> <p># of Hospitalisations related to selected:</p> <p>Infectious diseases</p> <p>Respiratory diseases</p>	<p># <17yo school leavers</p> <p># school leavers w/o NCEA L2</p> <p># working age w/o qualifications</p> <p># youth not working or in education</p>	<p>Distance to nearest 3:</p> <p>GP/ A&M</p> <p>Supermarket</p> <p>Service Station</p> <p>Primary + Intermediate Schools</p> <p>ECE Centre</p>
28%	28%	5%	9%	14%	14%	2%

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.

IMD compared to NZDep13

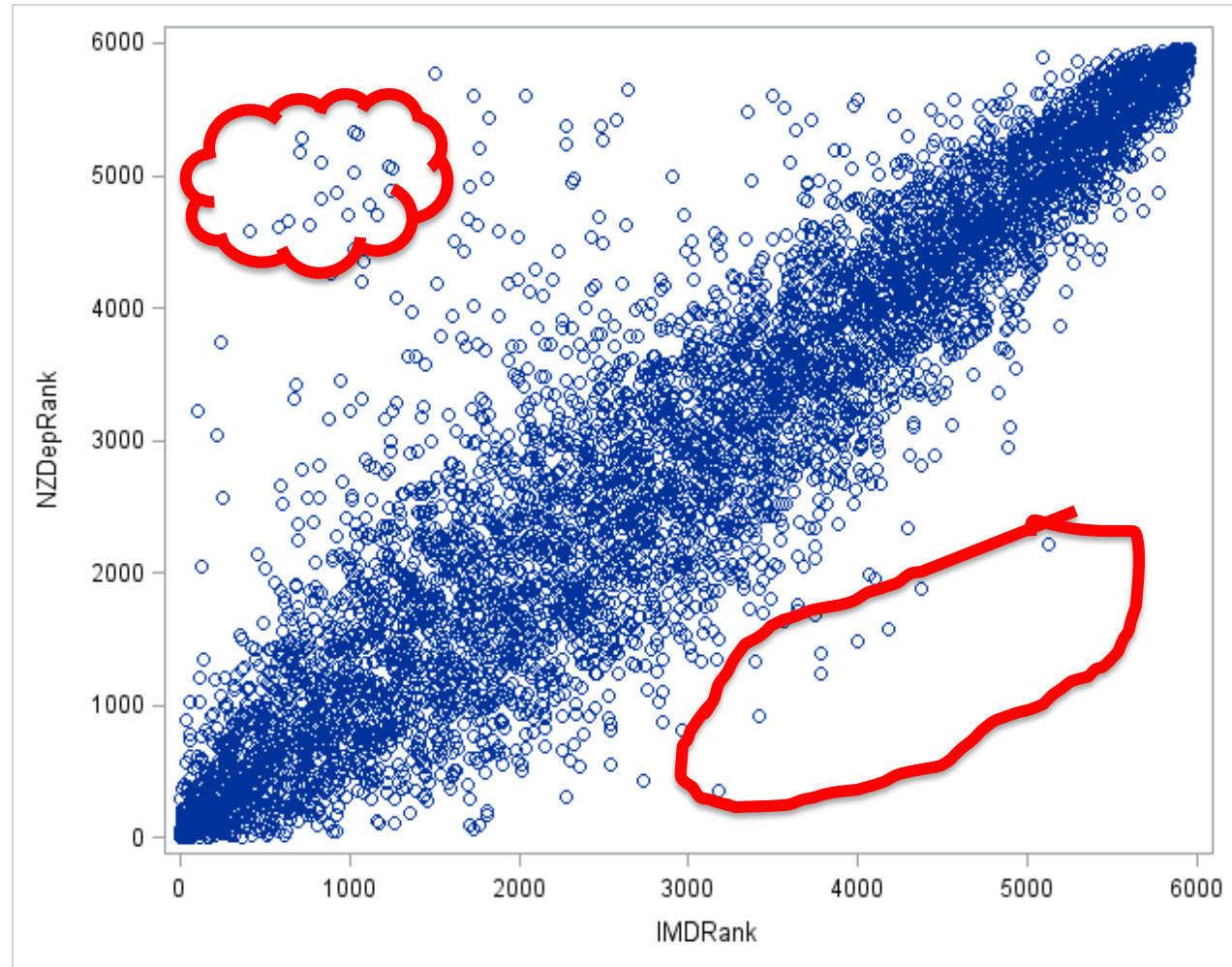
We calculated the population weighted average NZDep13 rank for each data zone

We excluded 86 (1.4%) data zones with MBs without an NZDep13 score

Spearman Correlation Coefficient:

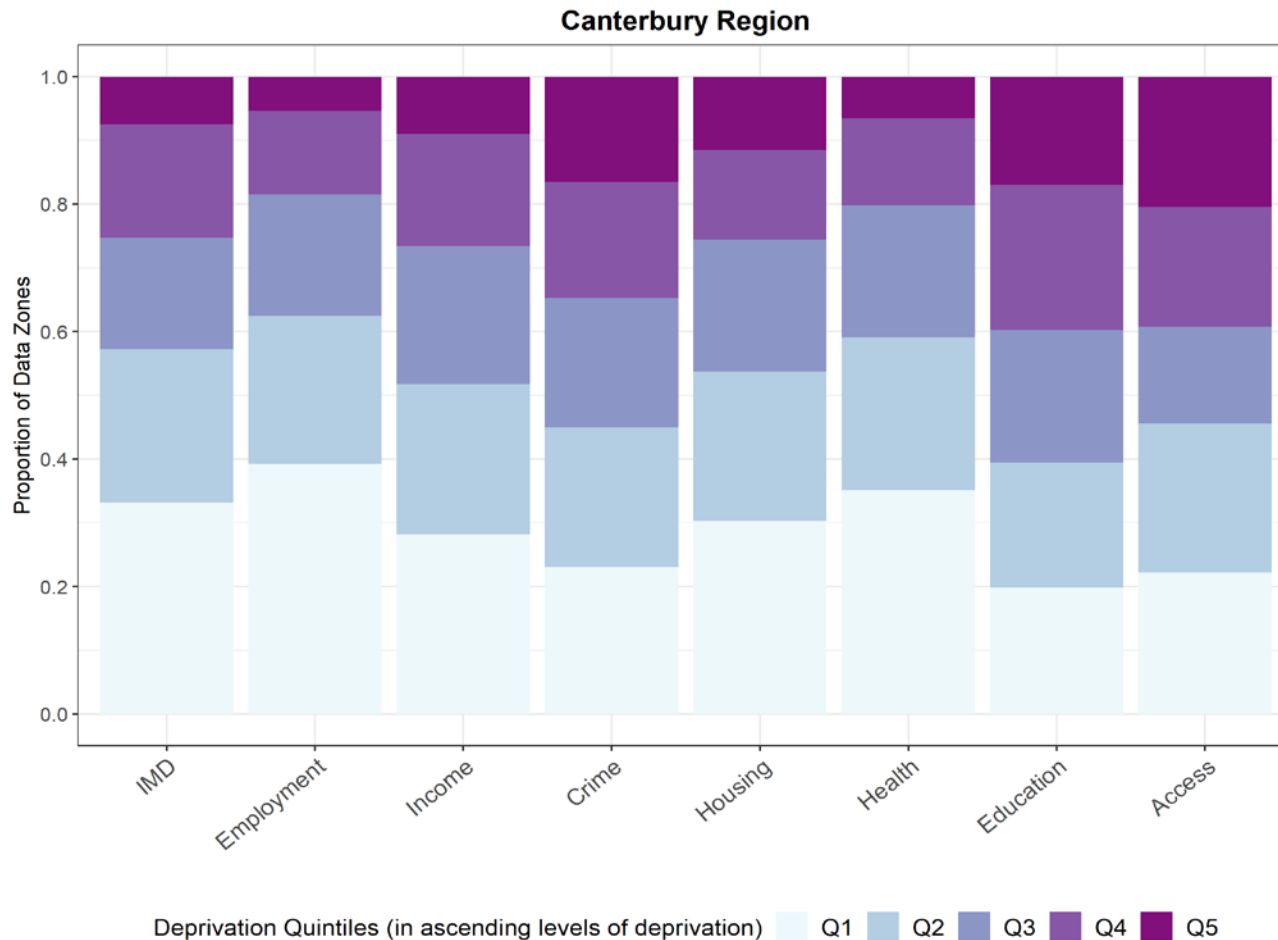
0.92

($p < .0001$)



Canterbury Region:

Deprivation Profile

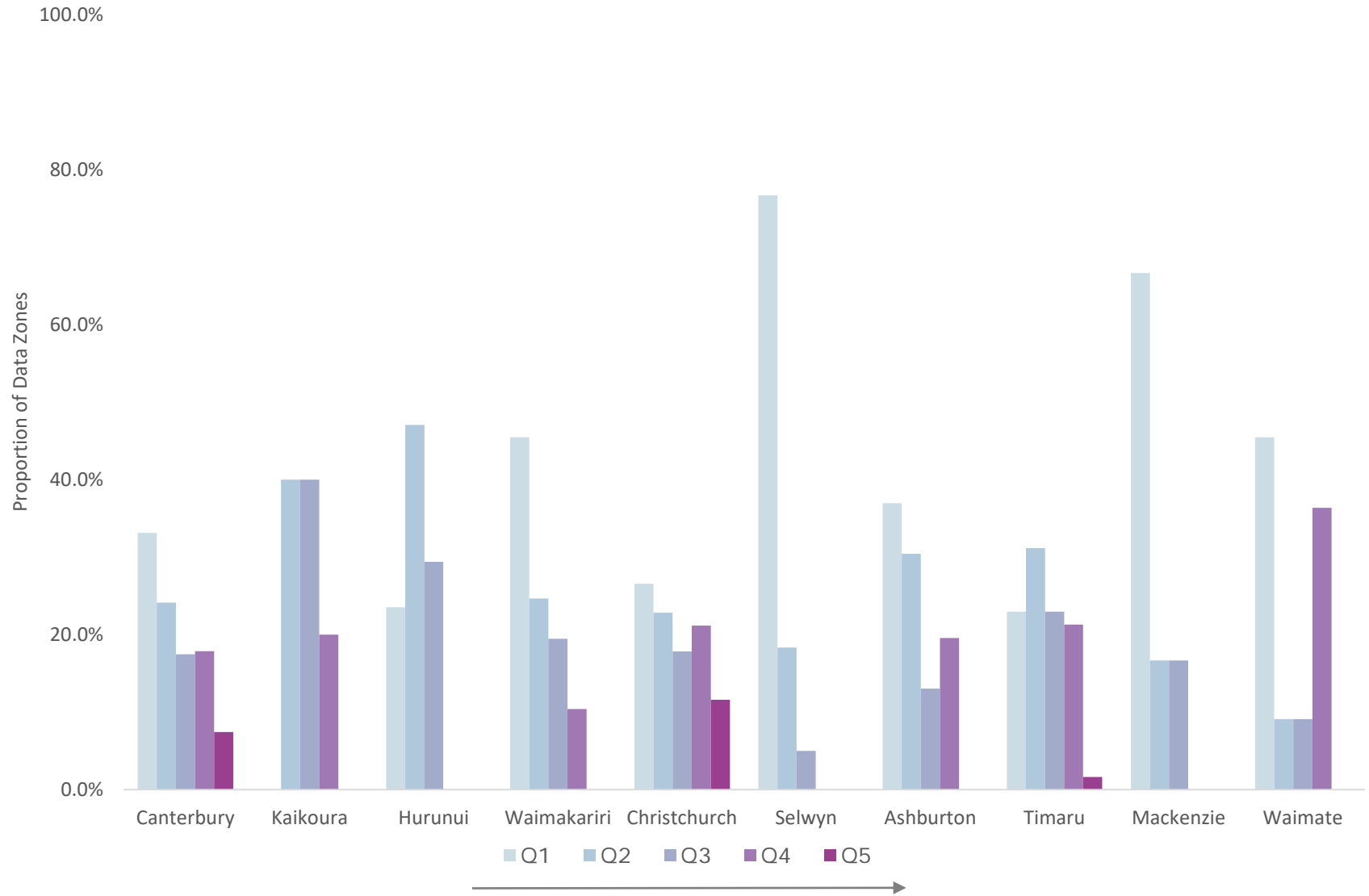


Note that if the deprivation circumstances in the Canterbury Region were the same as for all of NZ, we would see 20% of Canterbury's 765 data zones in each quintile.

- Only 7.5% (57/765) of Canterbury's data zones were Q5 for overall IMD deprivation.

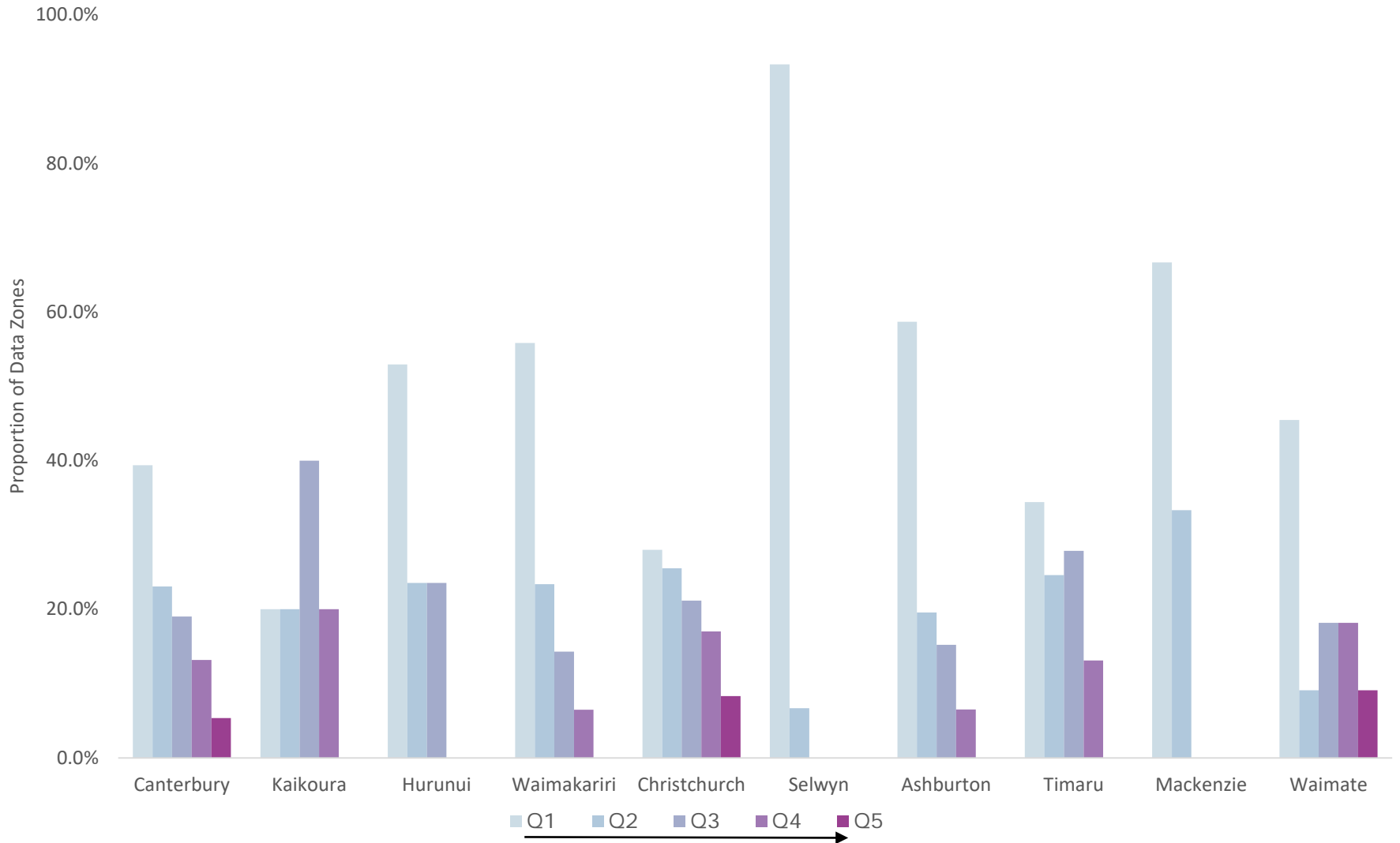
Canterbury Region:

IMD



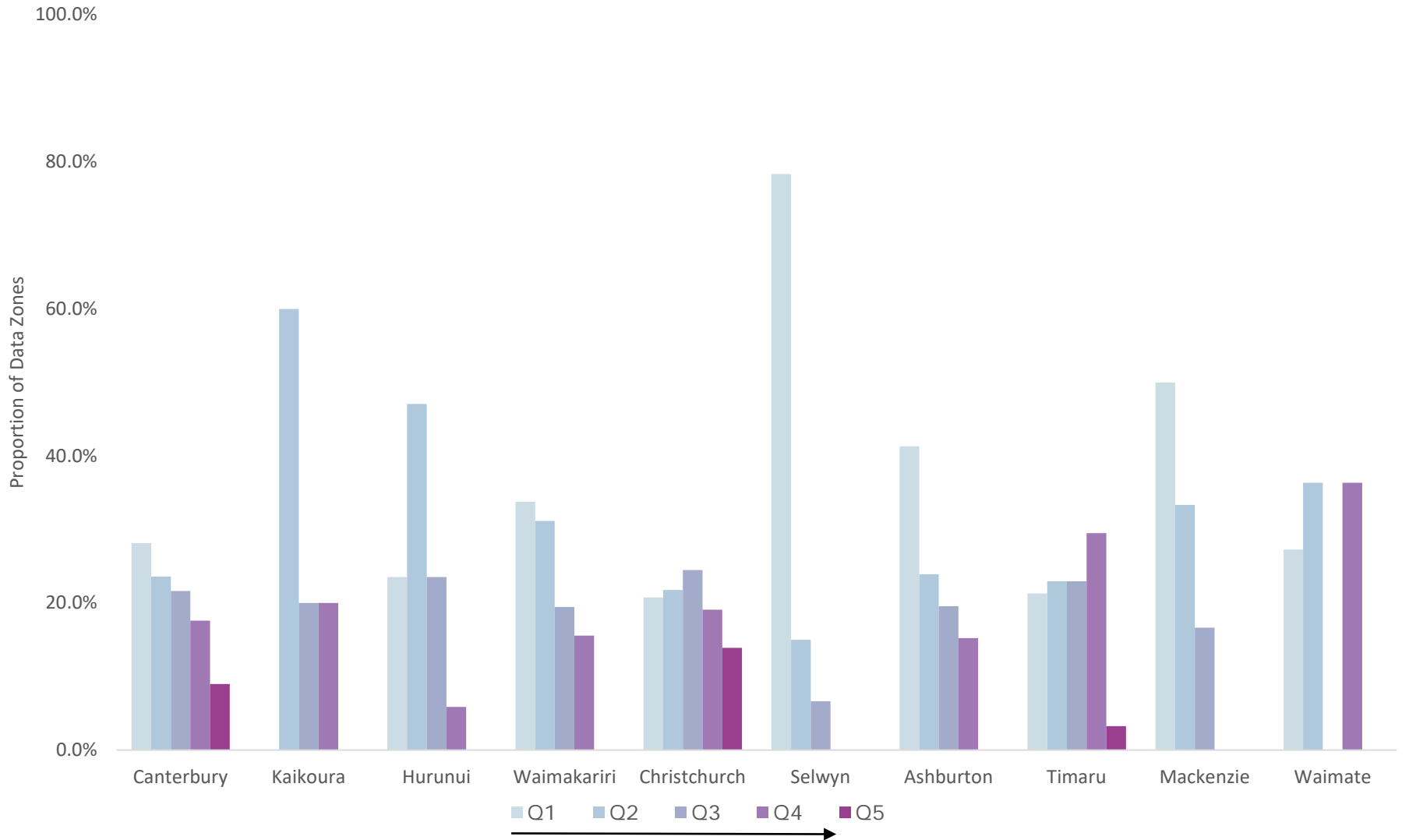
Canterbury Region:

Employment Domain



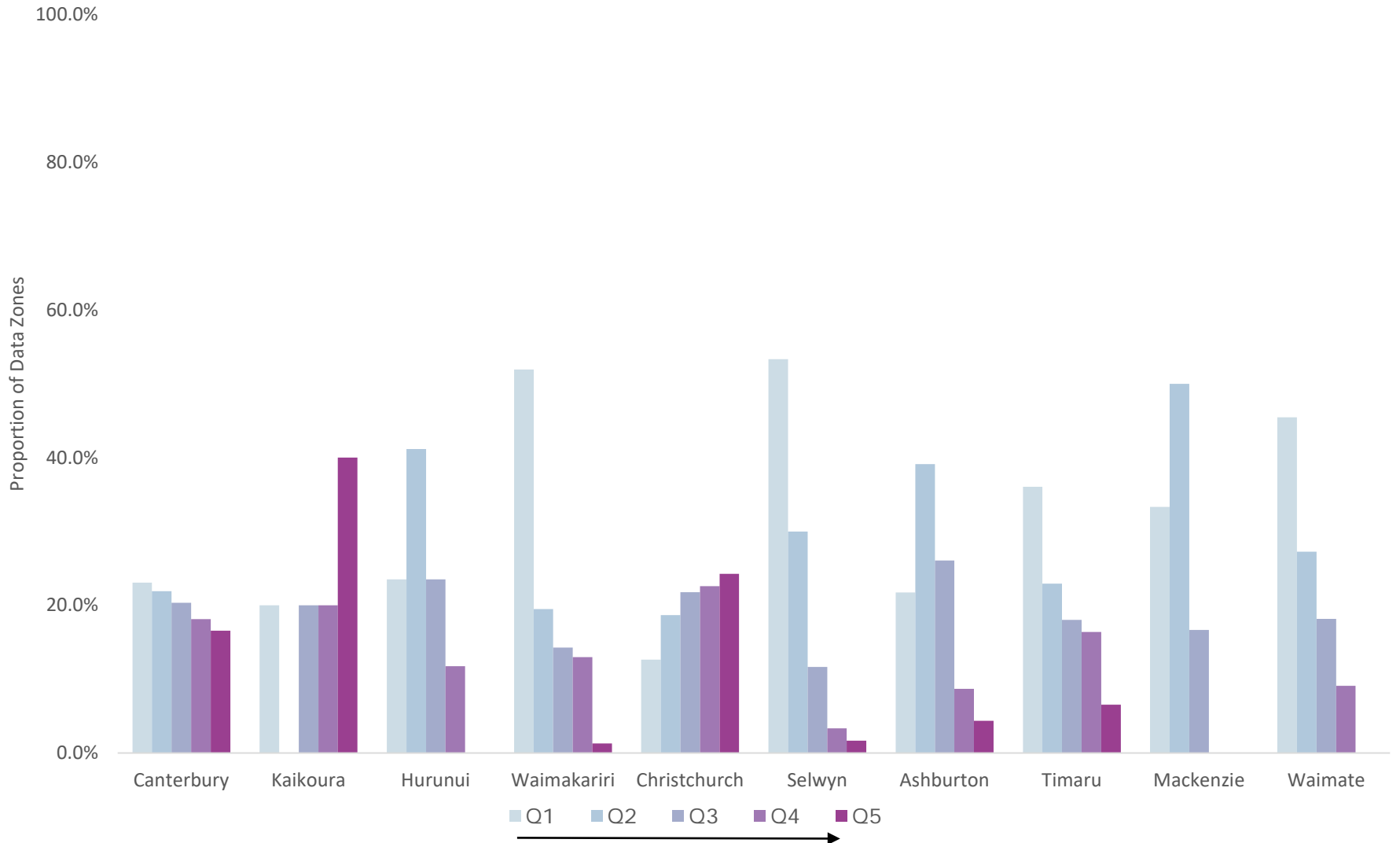
Canterbury Region:

Income Domain



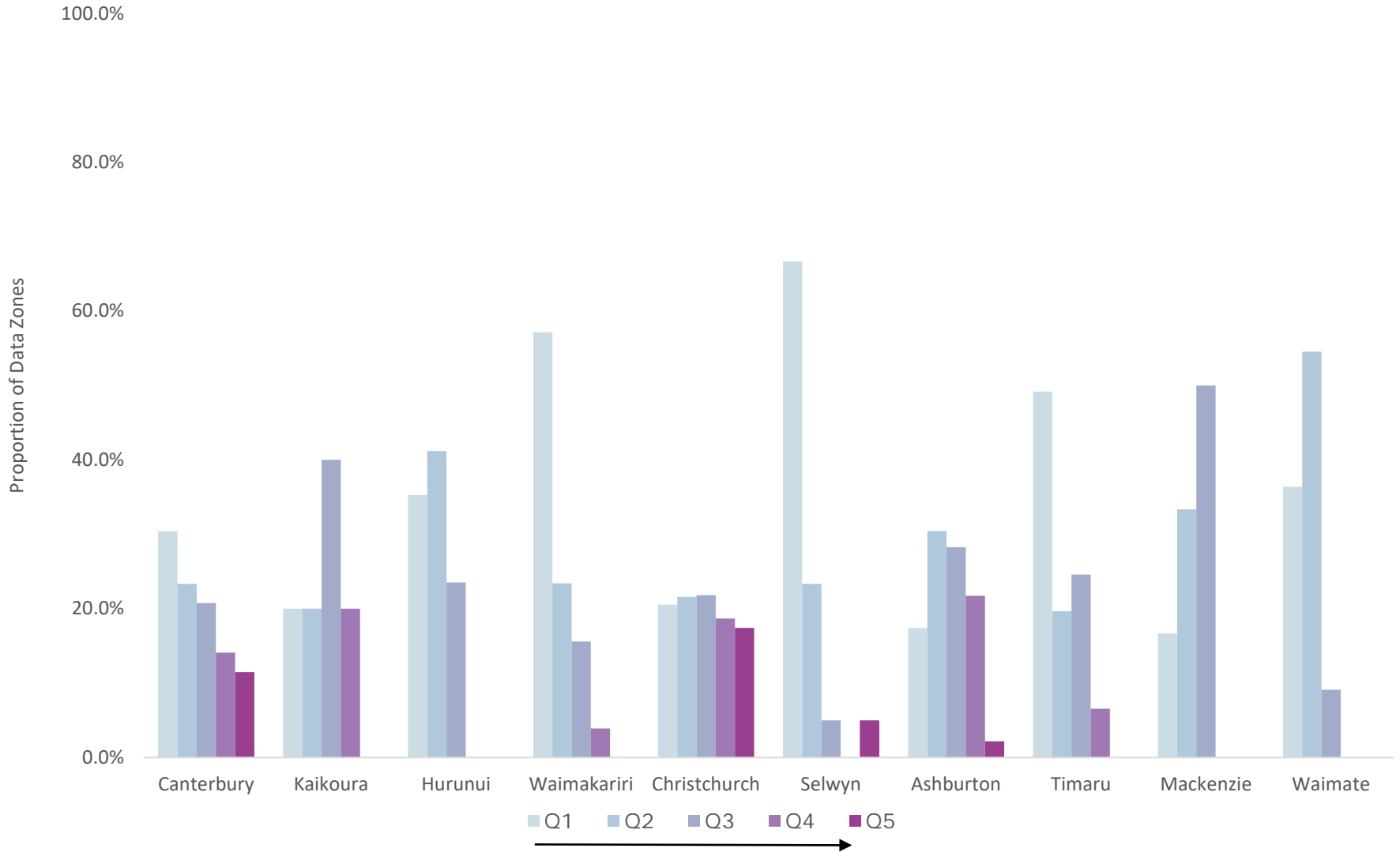
Canterbury Region:

Crime Domain



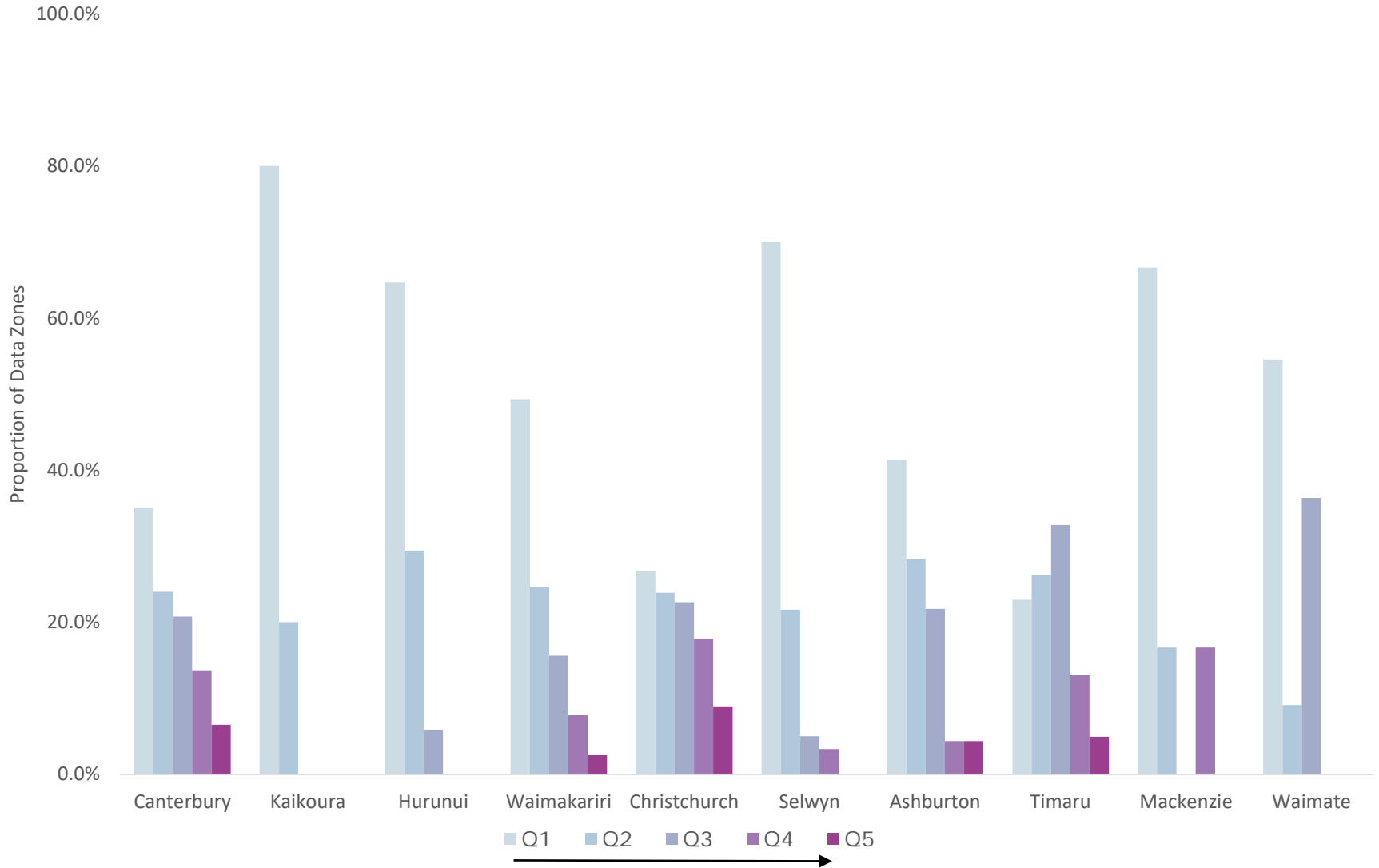
Canterbury Region:

Housing Domain



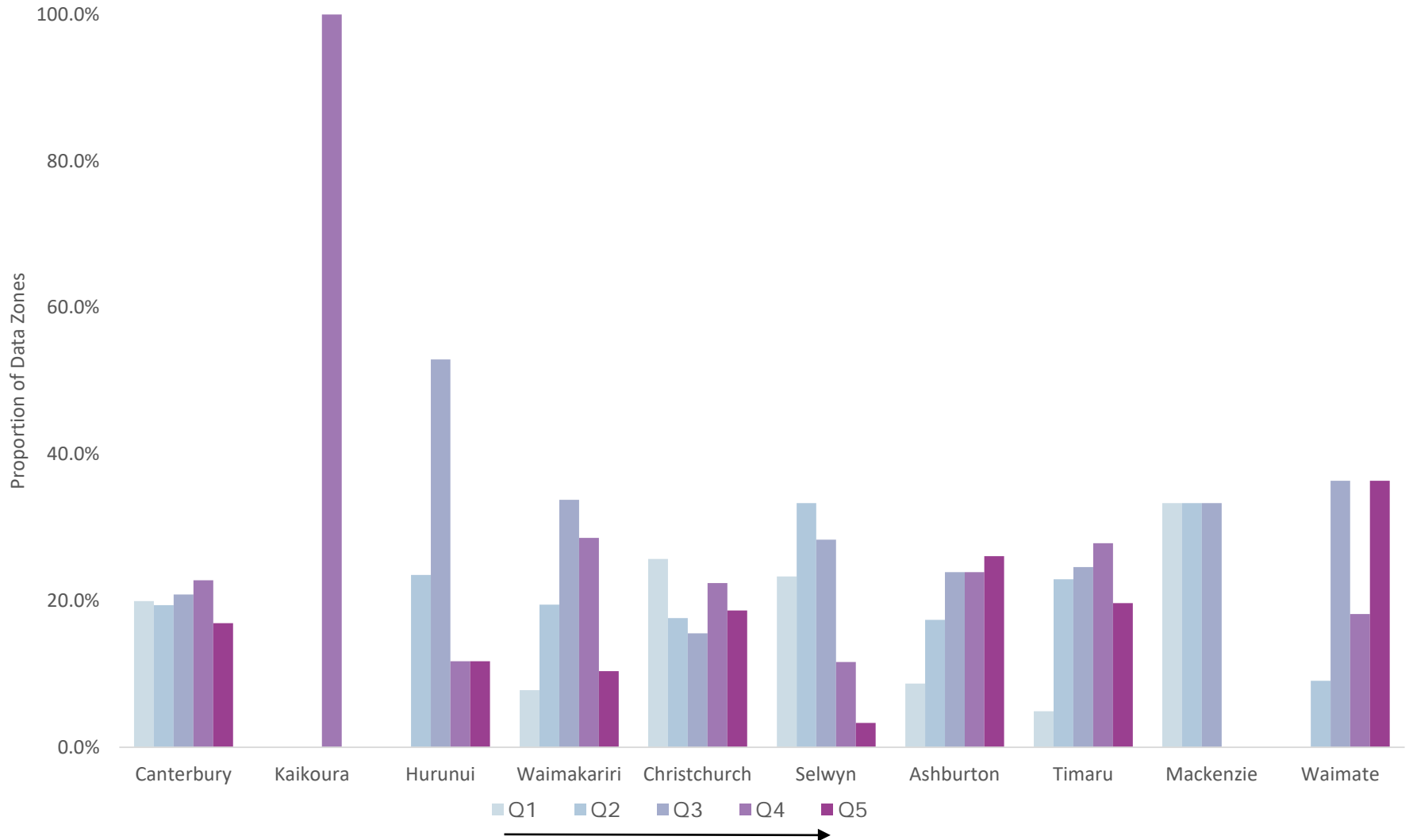
Canterbury Region:

Health Domain



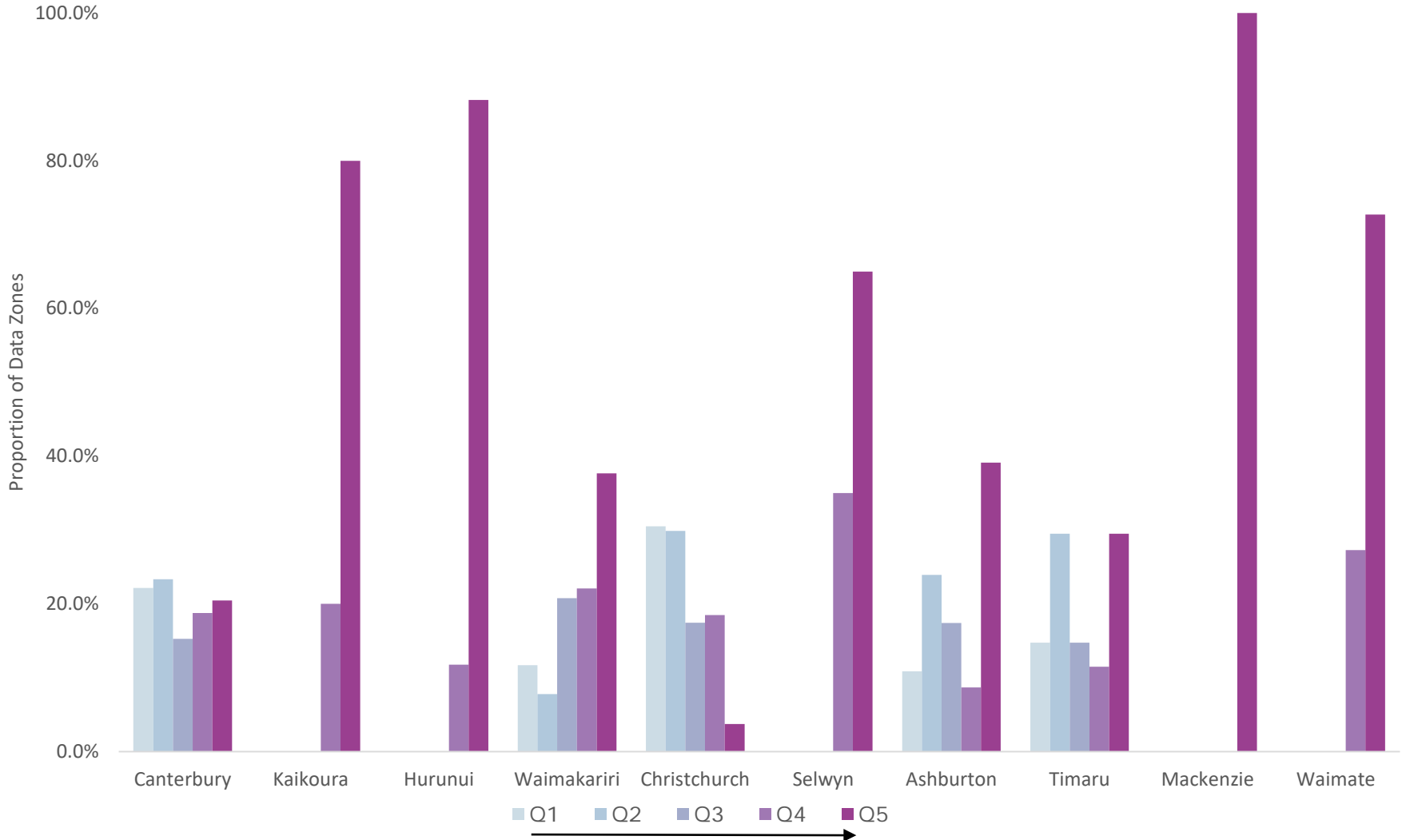
Canterbury Region:

Education Domain



Canterbury Region:

Access Domain



Case Study: Aranui and Christchurch City

Interactive Online Map

New Zealand Index of Multiple Deprivation

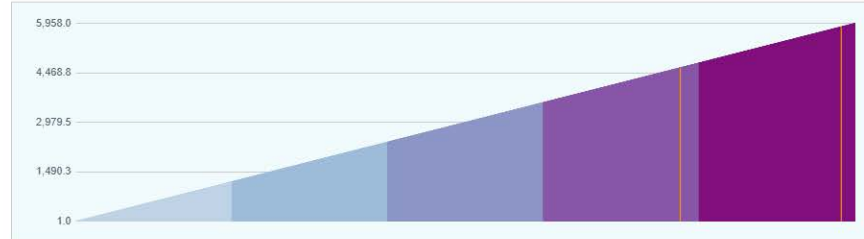
Name	Rank (IMD)
6000279	4,622
6000280	1,905
6000281	3,564
6000282	3,200
6000283	3,769
6000284	4,401
6000285	2,112

Clear Filter

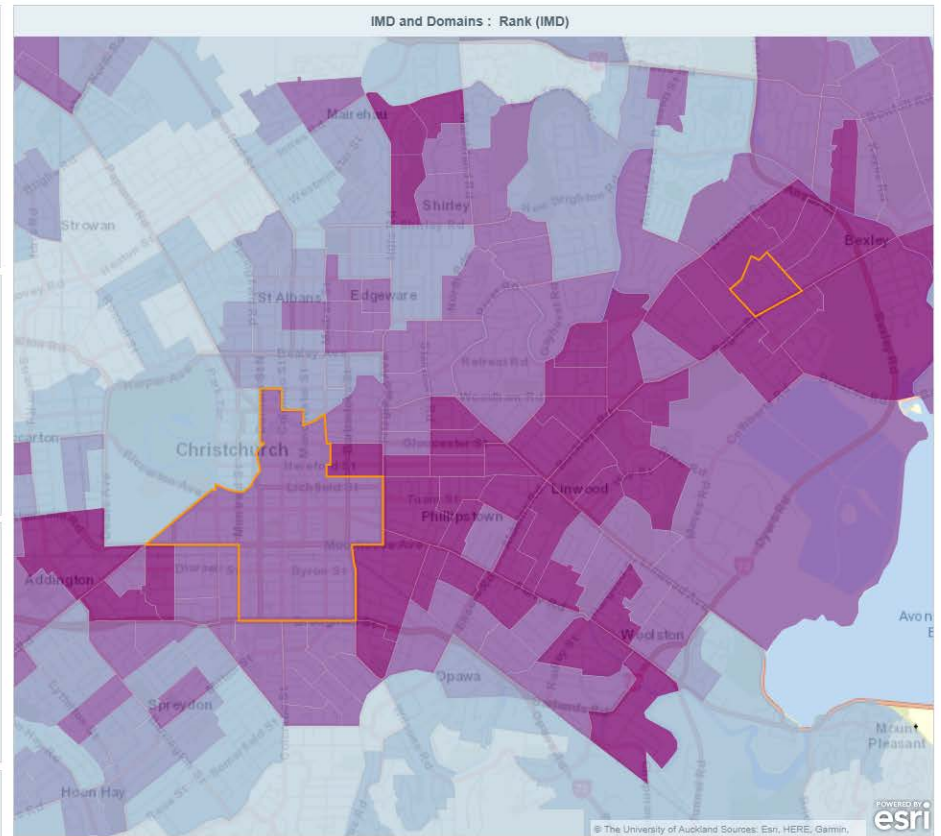
Data Zone

- Q1 - Least Deprived
- Q2
- Q3
- Q4
- Q5 - Most Deprived

World Street Map



Print | Explore Data | Filter Data | Acknowledgements



B4 School Check

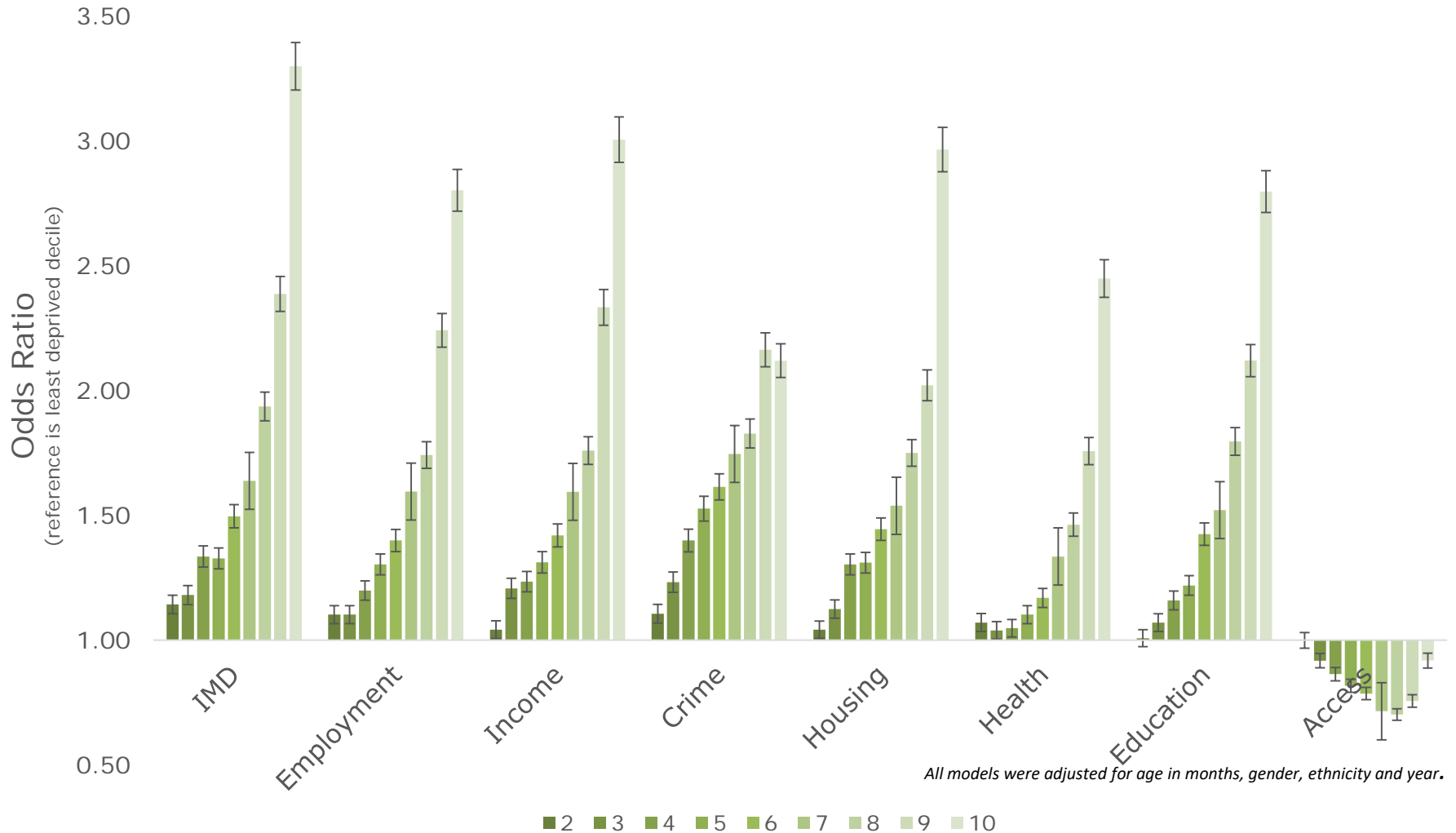
The B4 School Check is a nationwide programme offering a free health and development check for 4-year-olds.

The B4 School Check aims to identify and address any health, behavioural, social, or developmental concerns which could affect a child's ability to get the most benefit from school, such as a hearing problem or communication difficulty.

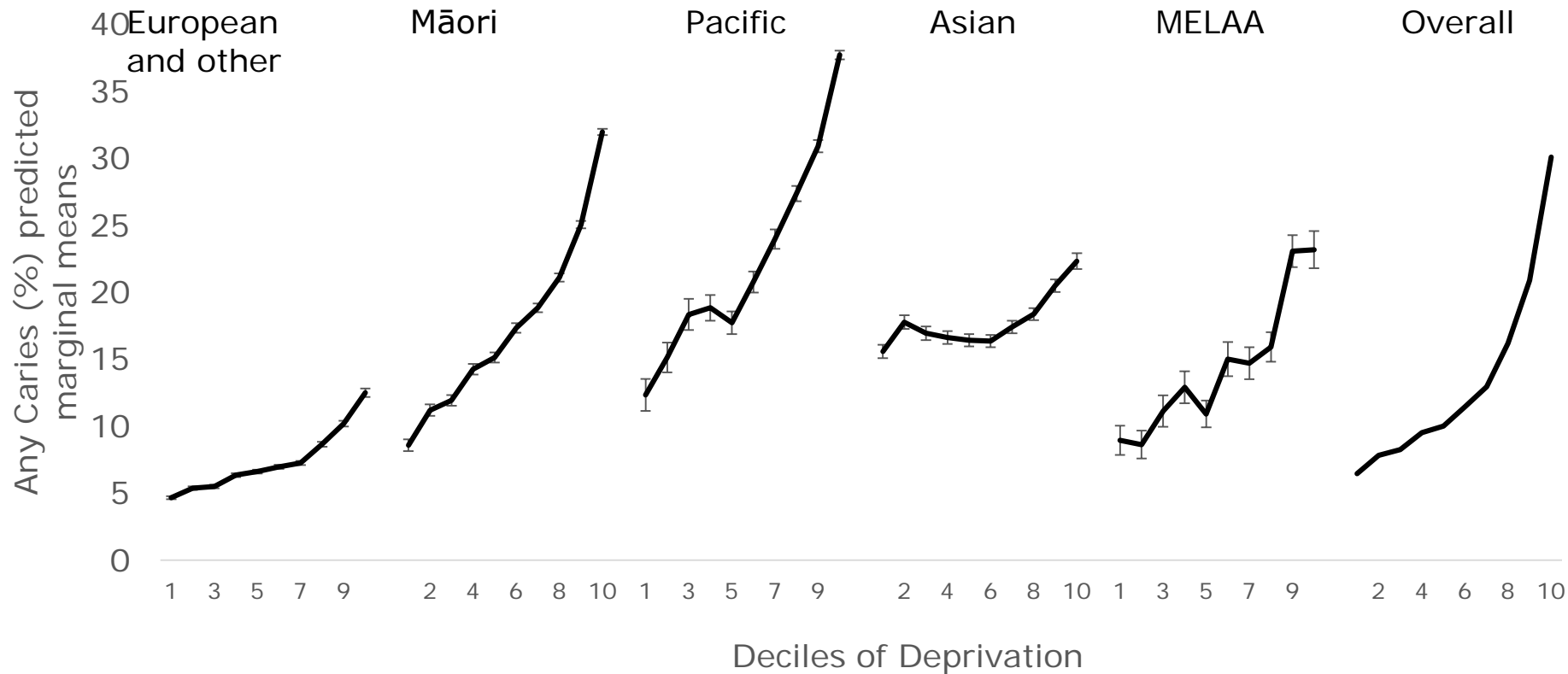
It is the 12th core contact of the Well Child Tamariki Ora Schedule of services.



Evidence of 'carries' in the B4SchoolCheck by the IMD and its domains

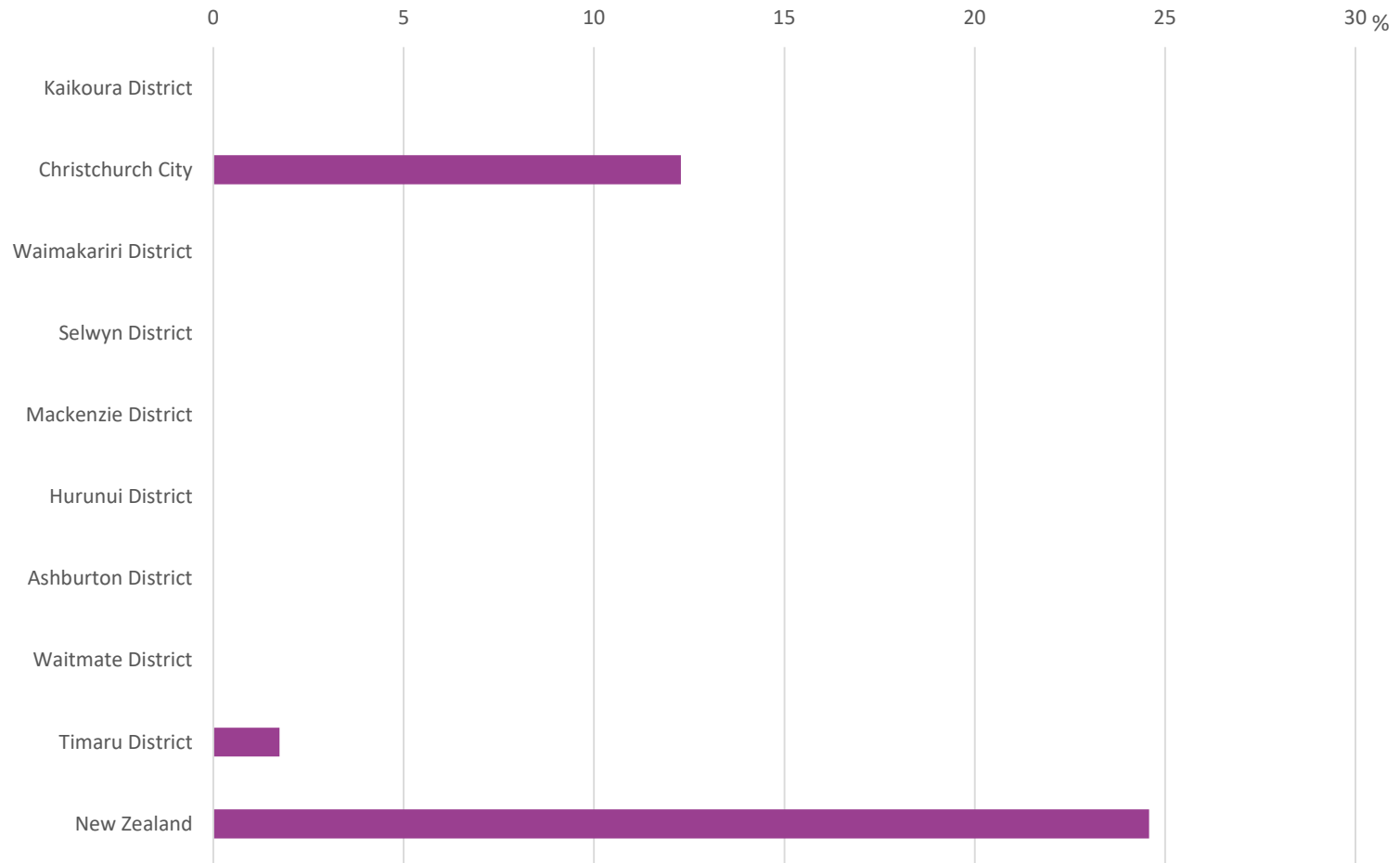


The probability of children having dental caries, by IMD decile and ethnicity



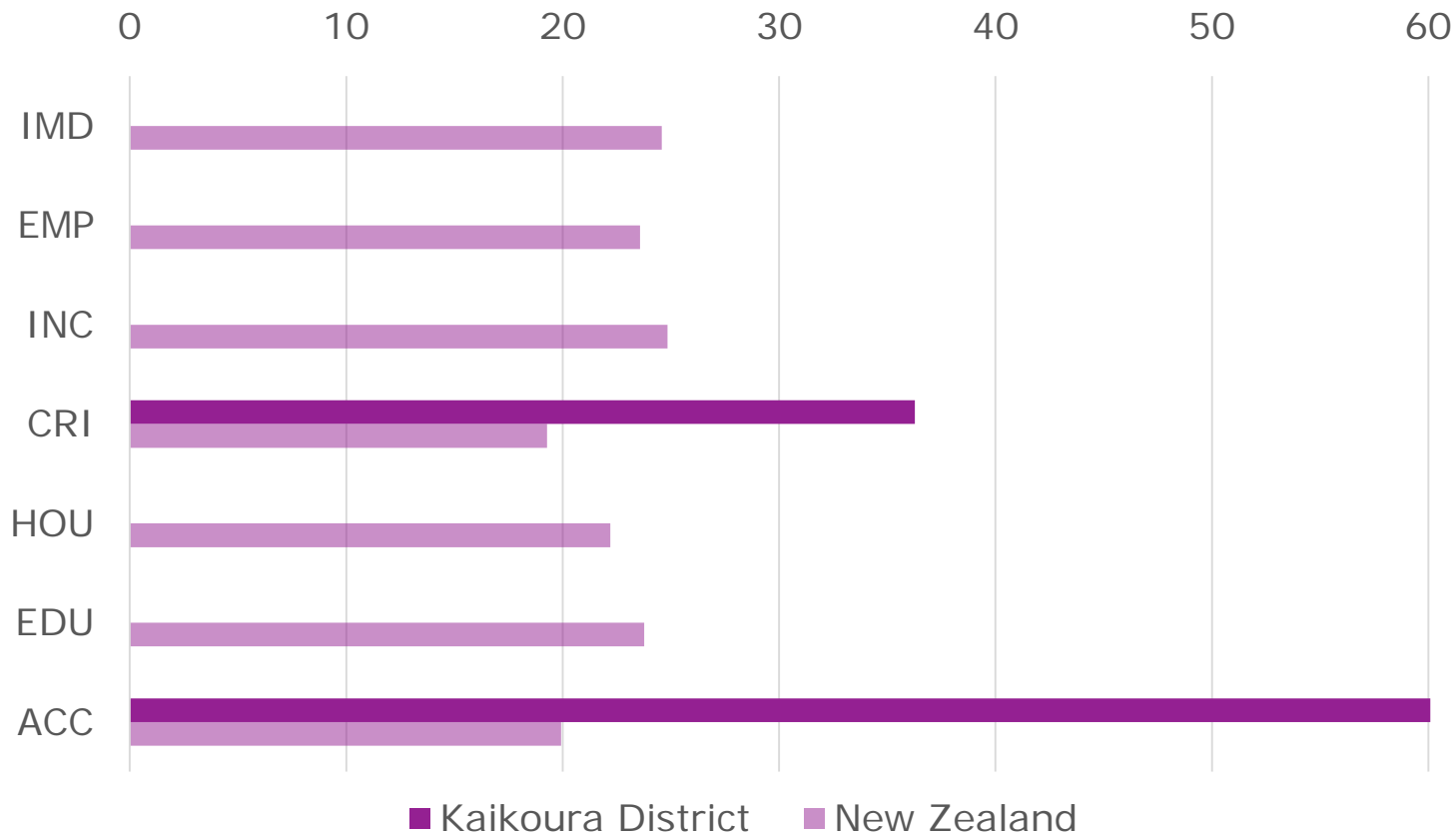
Case Study:

Children Aged 0 - 14 years Living in Q5 (IMD)



Case Study:

Children Aged 0 - 14 years Living in Q5 in Kaikoura



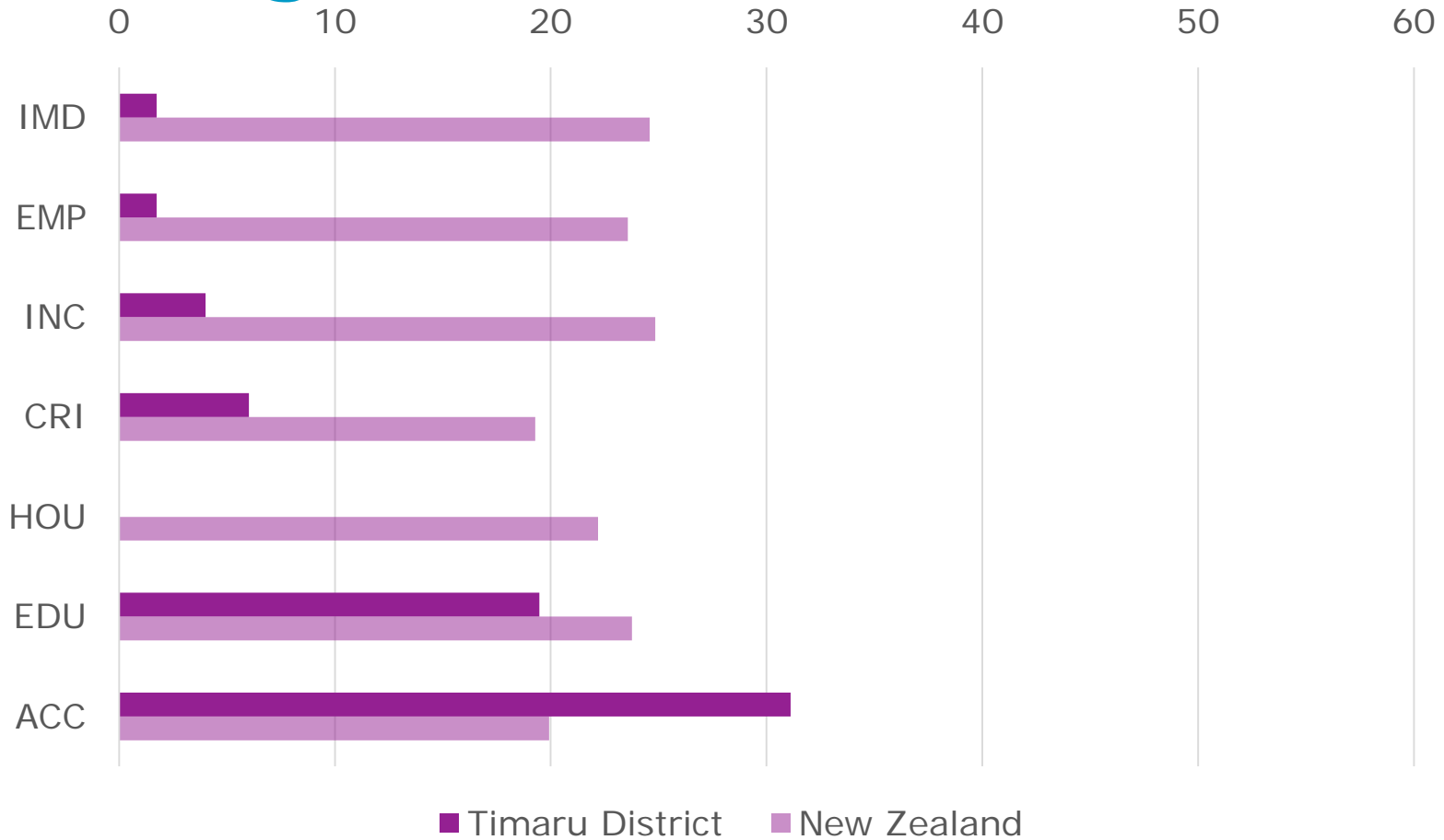
Case Study:

Children Aged 0 - 14 years Living in Q5 in Christchurch



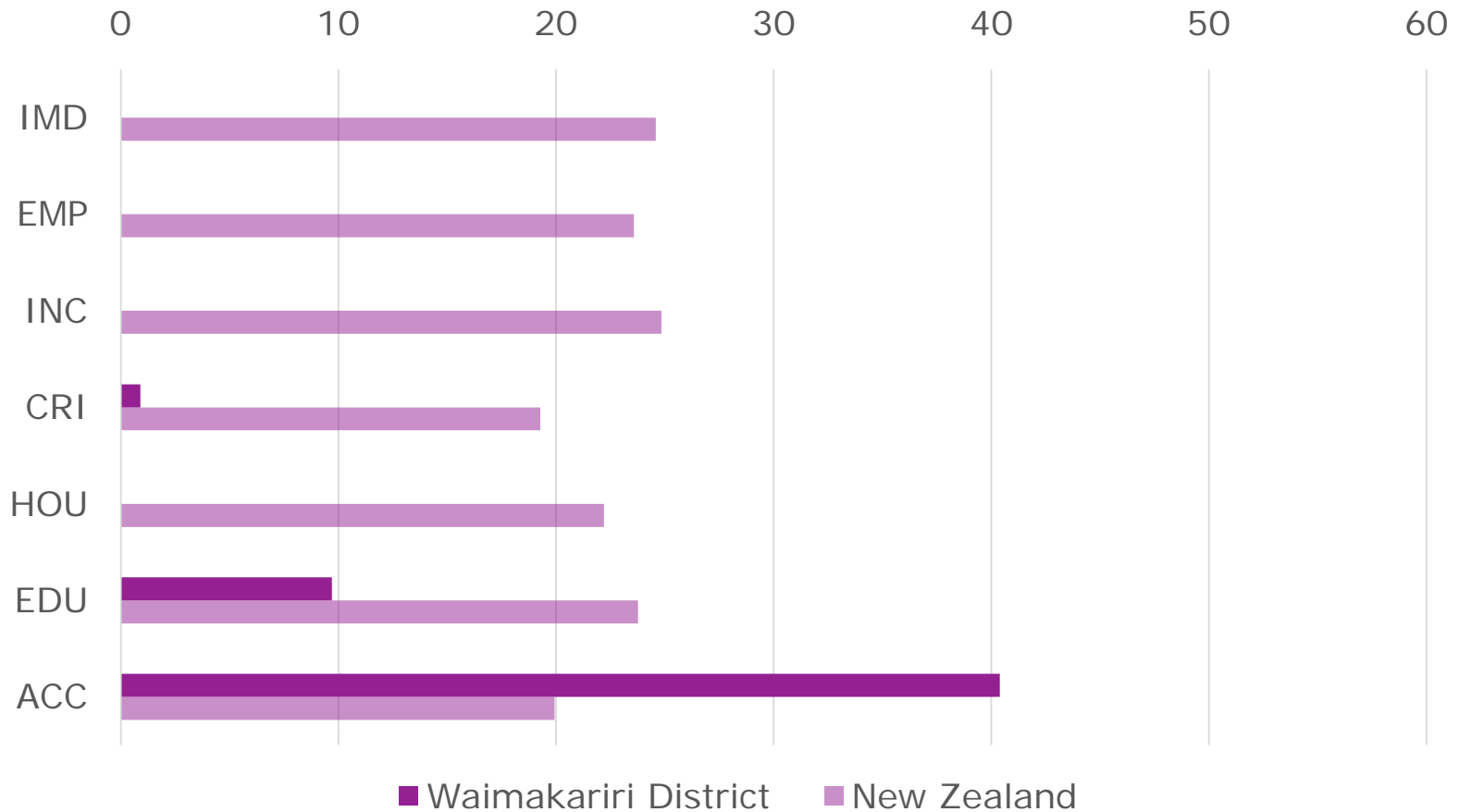
Case Study:

Children Aged 0 - 14 years Living in Q5 in Timaru



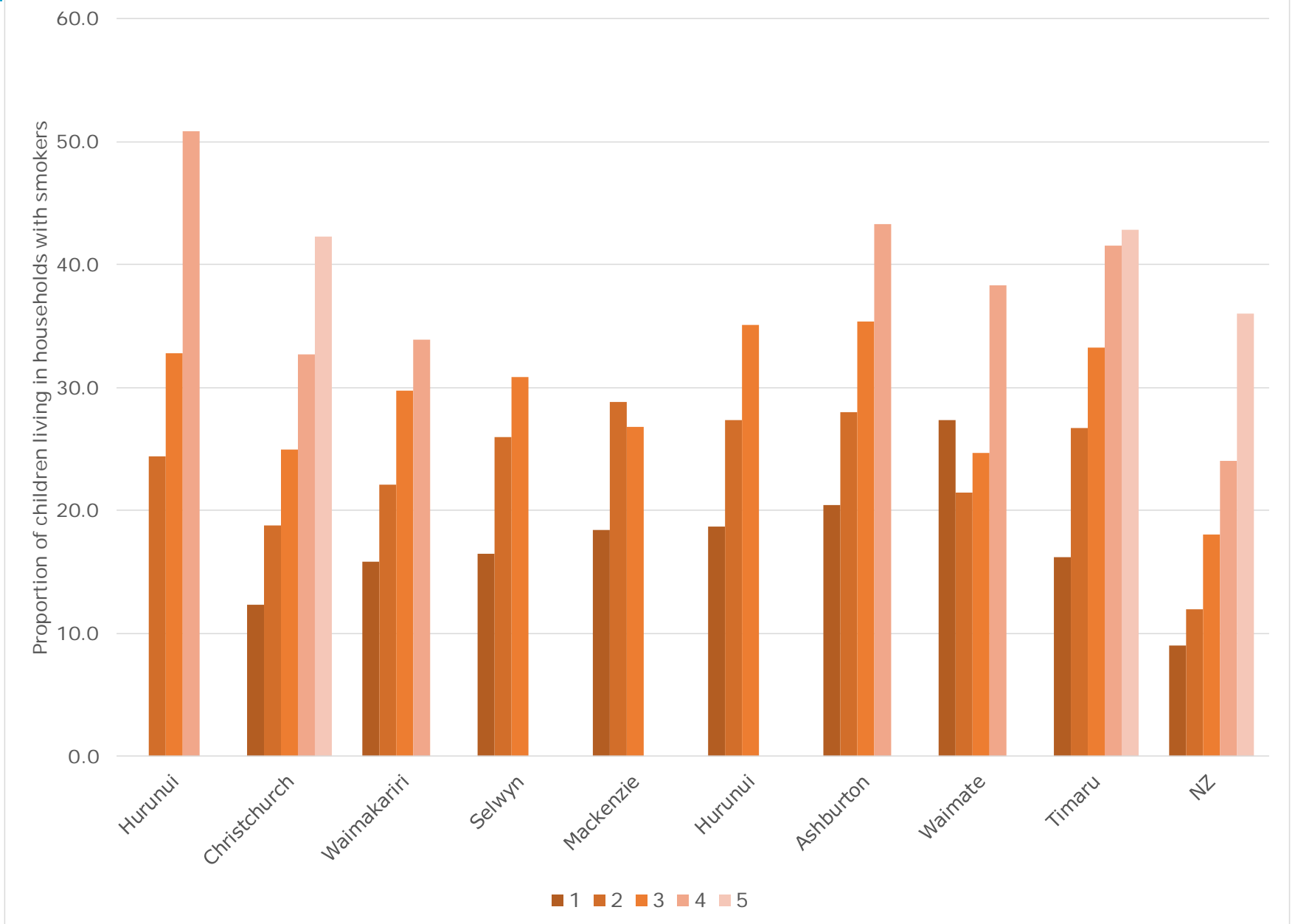
Case Study:

Children Aged 0 - 14 years Living in Q5 in Waimakariri



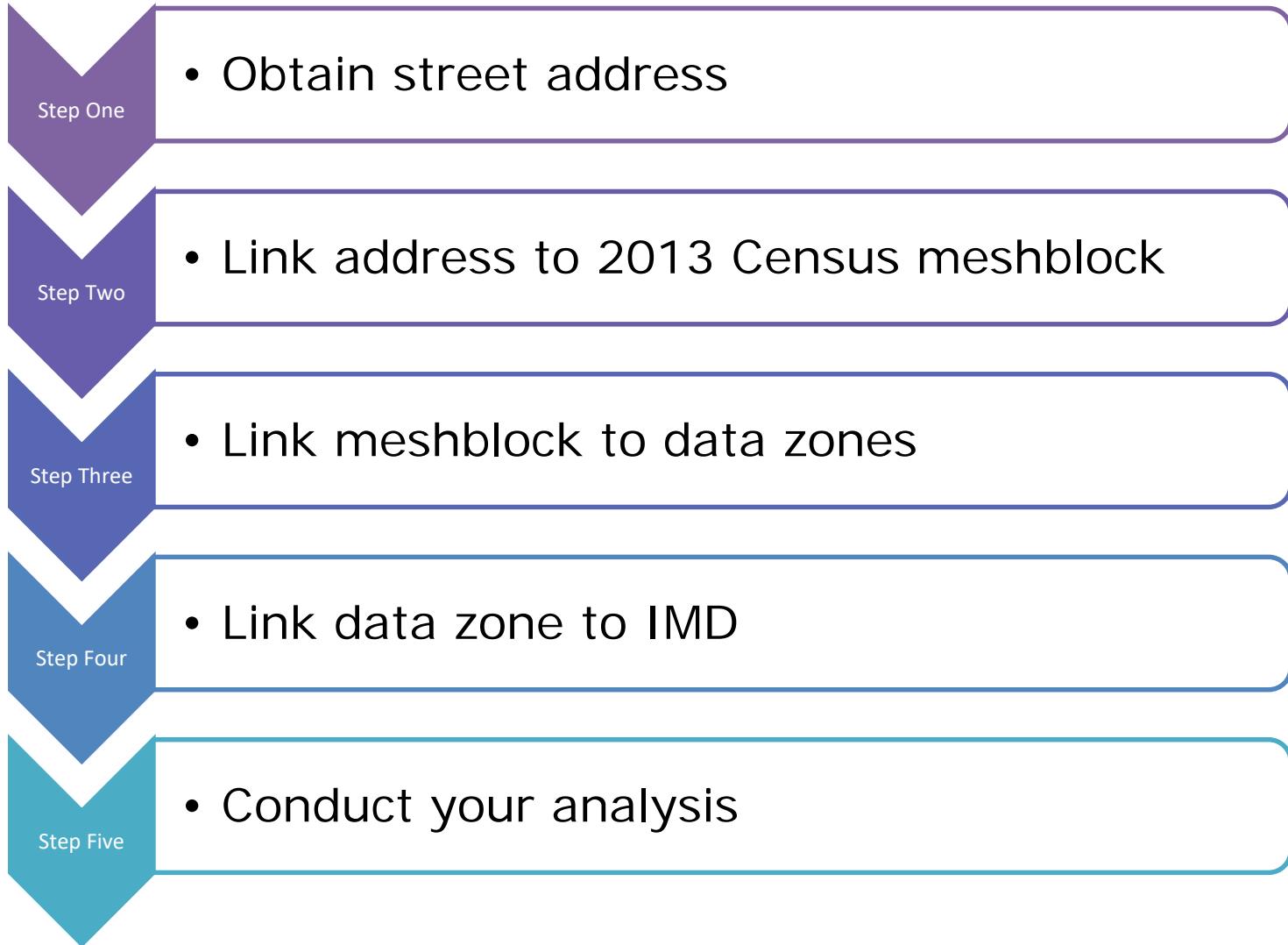
Case Study:

Children 0 - 14 years living with smokers



Using the IMD:

How-to Guide

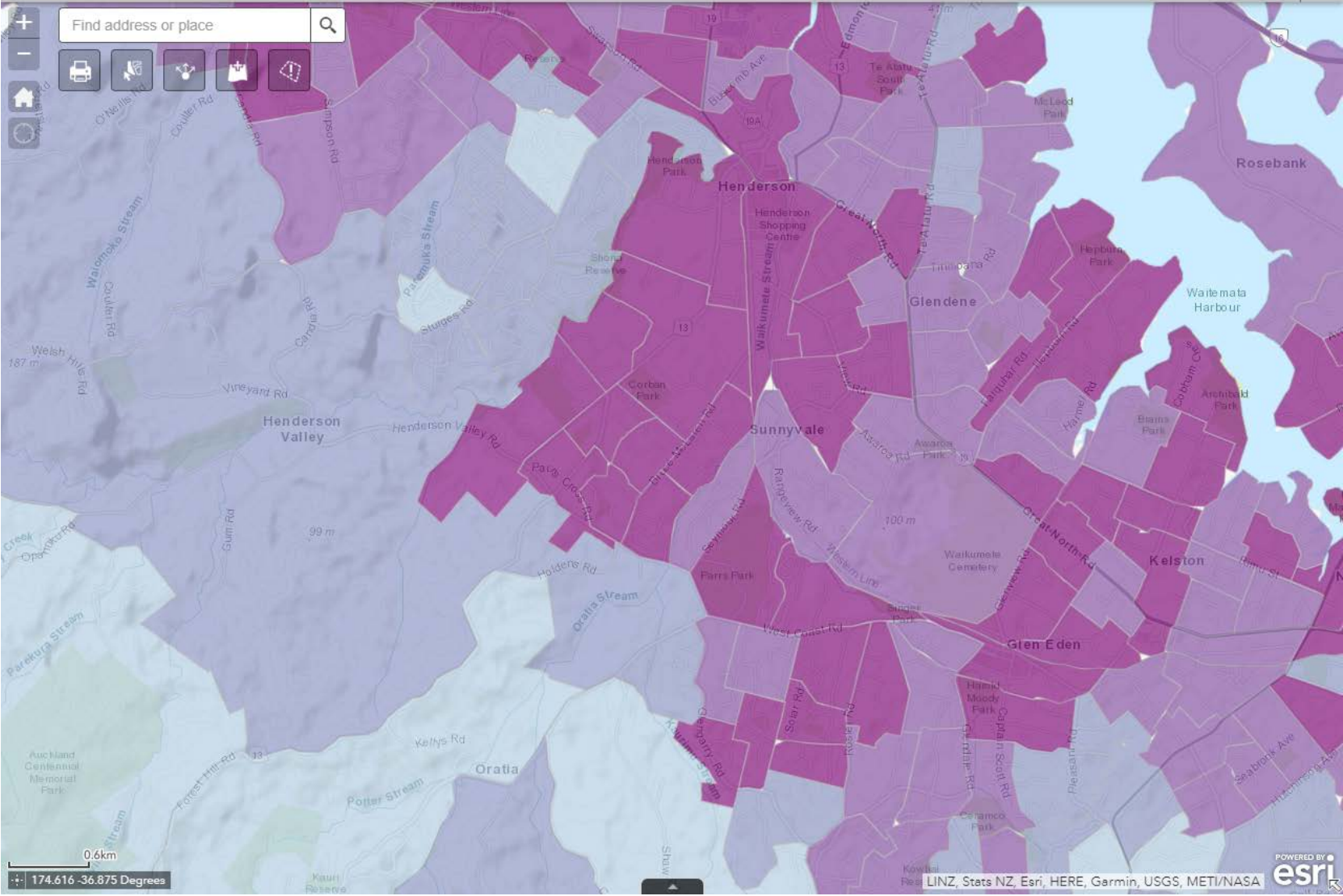


Get the IMD and Data Zones!

- We have a [website](#) that includes links to:
 - MB2013 to Data Zone concordance files
 - Data Zone to IMD concordance files
 - Data Zone and IMD shapefiles
- [Interactive online maps](#)
- [Papers](#), [reports](#), DHB profiles, API for geocoding in surveys
- All the info you need is available at www.fmhs.auckland.ac.nz/imd

Some other uses of the IMD

- Ministry of Education used IMD for their analysis of participation and attainment rates
- Advocating against new liquor outlets opening
- Online surveys (with data zones and IMD embedded at source)
- Auckland Council – Heat Vulnerability Index
- Councils putting together material to monitor long term outcomes for their populations





Enter your address and convert to data zone ID for IMD deprivation information

Convert to DatazoneID

Want to know more? [Visit IMD Website](#)

Created by the [Centre for eResearch, University of Auckland](#).

Q2. Enter your address and convert to data zone ID for IMD deprivation information

Convert to DatazoneID

Want to know more? [Visit IMD Website](#)

Created by the [Centre for eResearch, University of Auckland](#).

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Embedded Data

ImdRankD: 5

EmpRankD: 4

IncRankD: 4

CriRankD: 9

HouRankD: 8

HlthRankD: 5

EduRankD: 1

AccRankD: 2

Location Data

Location: [\(-36.86669921875, 174.76669311523\)](#)

Source: GeoIP Estimation



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