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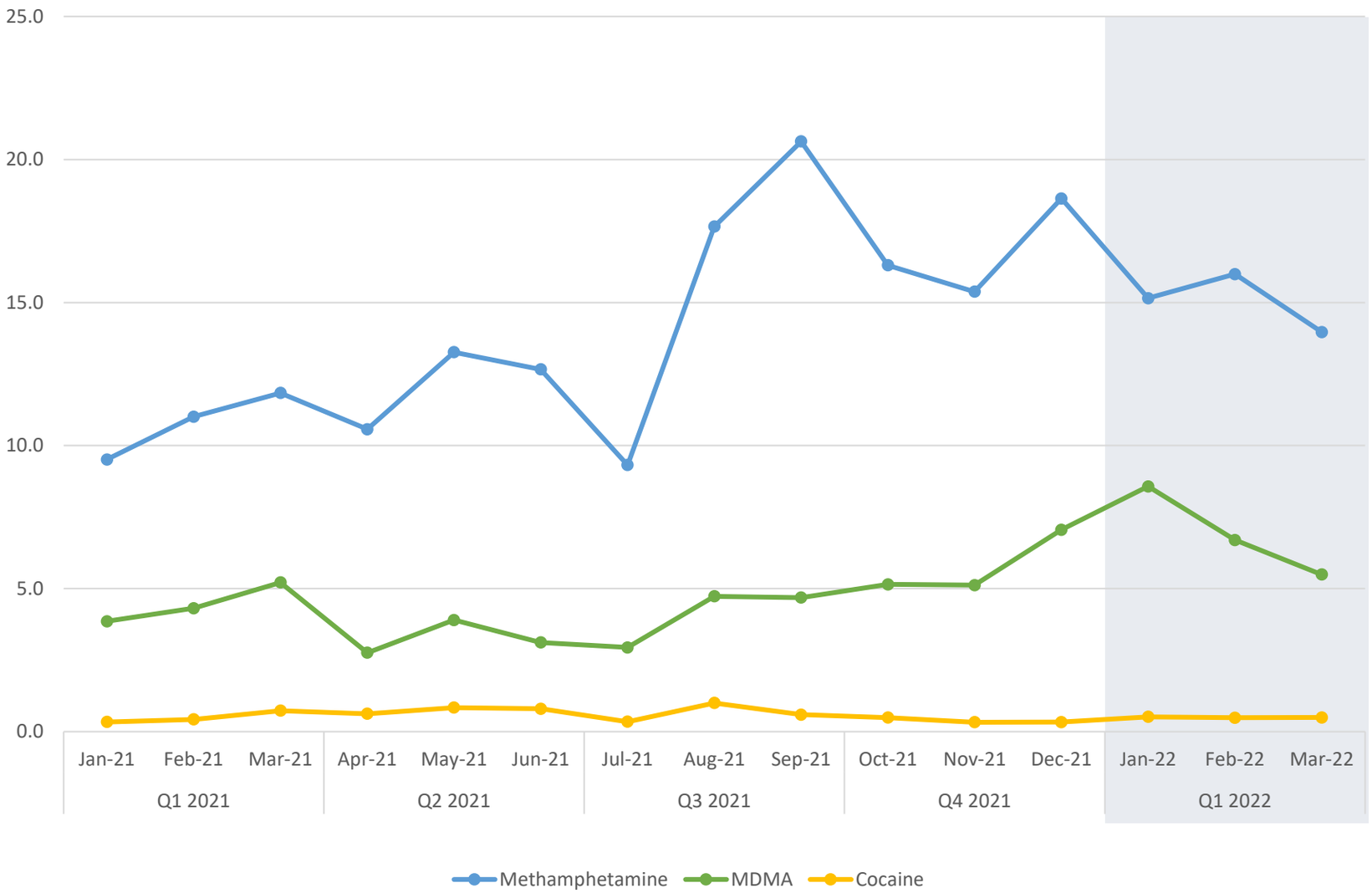
Wastewater Drug Testing in New Zealand: National Overview

Quarter One: January – March 2022

- Wastewater testing occurs during one week each month, however the frequency of testing varies between sites. Nationwide testing started in November 2018, with current testing sites covering up to 75 percent of the total New Zealand population. While the nationwide programme tests for indicators of consumption of methamphetamine, MDMA, cocaine, heroin, and fentanyl, the three commodities routinely detected in sufficient quantities to accurately report on are methamphetamine, MDMA and cocaine.
- Q1 2022 covers the three month period between January and March 2022 (inclusive).
- All data is representative of the sites tested only. It is not possible to extrapolate this data to nearby communities that are not tested.
- One Tāmaki Makaurau site was unable to be sampled in March 2022. On average this site contributes approximately ten percent of the national total load of methamphetamine and cocaine, and approximately six percent of the national MDMA load. Accordingly, imputed estimates for March 2022 (derived from the average use at that site over the last 12 months) have been used to calculate total load averages over the quarter.
- Drug use is calculated from the concentration of each drug biomarker detected in the wastewater. This is reflective of the amount of pure drug being consumed and does not include fillers, binders or adulterants.
- The estimated dollar value generated from illicit drug distribution takes into consideration the estimated national drug use and the typical street price (per gram) of each commodity.
- The social harm cost estimates are derived from the New Zealand Illicit Drug Harm Index 2020 (DHI 2020). The DHI 2020 provides a conservative measure of the harms associated with the use of illicit drugs in New Zealand and considers both personal and community harms.

ESTIMATED NATIONAL DRUG USE (KILOGRAMS/WEEK)



KEY FINDINGS

METHAMPHETAMINE

- An estimated average of 15.5 kilograms of methamphetamine was consumed per week in Q1 2022. This was less than Q4 2021, but remains above the average quantity detected over the previous four quarters (nine percent or 1.3 kilograms).
- Of the sites tested, Eastern district consumed the most methamphetamine per capita (1105 mg/day/1000 people), above the national average of 655 mg/day/1000 people.
- The 15.5 kilograms of methamphetamine consumed equates to an estimated cost of $17.2 million in social harm per week in Q1 2022.
- Approximately $7.8 million per week was generated from methamphetamine distribution across New Zealand sample sites in Q1 2022.

MDMA

- An estimated average of 7.0 kilograms of MDMA was consumed per week in Q1 2022. This was an increase when compared with Q4 2021 and was above the average quantity detected over the previous four quarters (50 percent or 2.3 kilograms).
- Of the sites tested, Southern district consumed the most MDMA per capita (538 mg/day/1000 people), above the national average of 300 mg/day/1000 people.
- The 7.0 kilograms of MDMA consumed equates to an estimated cost of $0.97 million in social harm per week in Q1 2022.
- Approximately $1.4 million per week was generated from MDMA distribution across New Zealand sample sites in Q1 2022.

COCAINE

- An estimated average of 0.5 kilograms of cocaine was consumed each week in Q1 2022. This was more than Q4 2021 but was below the average quantity detected over the previous four quarters (12 percent or 0.1 kilograms).
- Of the sites tested, Tāmaki Makaurau continued to consume the most cocaine per capita (41 mg/day/1000 people), above the national average of 22 mg/day/1000 people.
- The 0.5 kilograms of cocaine consumed equates to an estimated cost of $0.15 million in social harm per week in Q1 2022.
- Approximately $0.2 million per week was generated from cocaine distribution across New Zealand sample sites in Q1 2022.

Science for Communities

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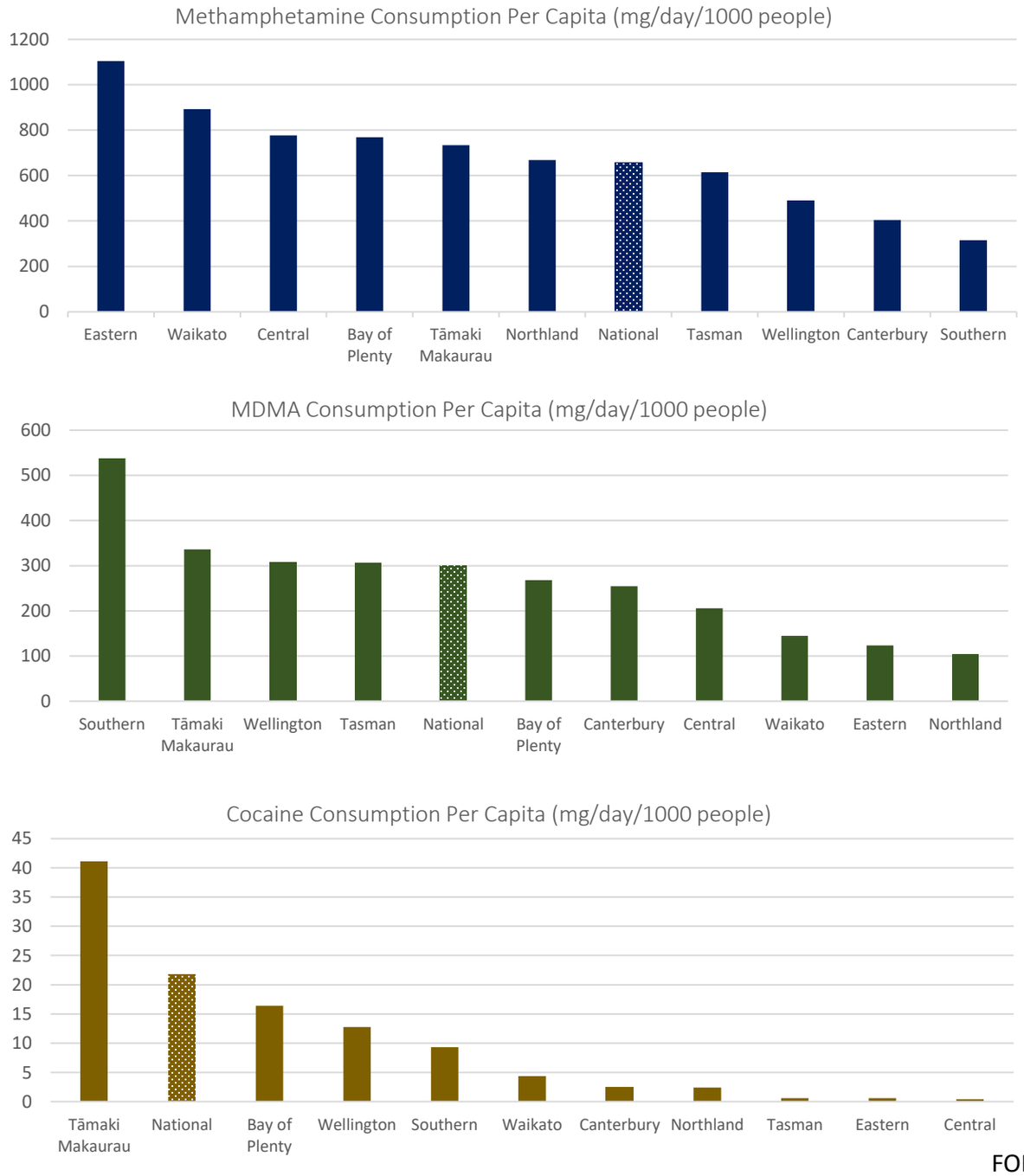
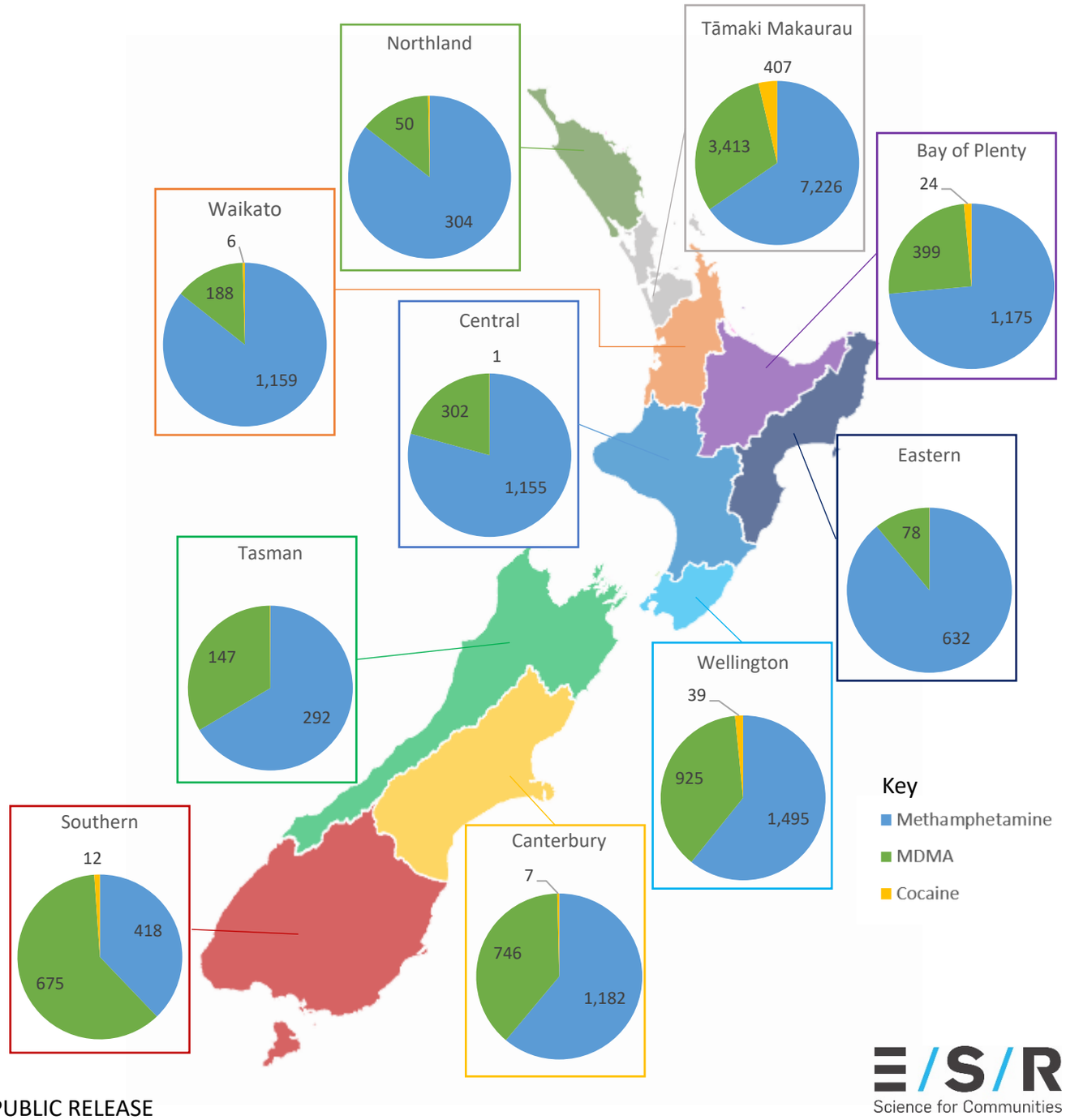
- Per capita drug consumption is shown as milligrams consumed per day, per 1,000 people. As a number of locations are tested every second month, the presence or absence of data from some sites within a district will affect the total load and per capita consumption rates reported each quarter.
- The average weekly drug use pie charts show the average estimated drug use (in grams) for each commodity per district during Q4 2021. As this data is not adjusted for population, larger metropolitan areas record higher quantities of drug use per week due to the larger number of people in the catchment zone.
- Population updates were applied in January 2022, these have impacted the per capita data for some districts. Most notably, the population update for Northland district resulted in a 27 percent decrease in per capita consumption rates. This means the per capita results from Q1 2022 cannot be directly compared with results from previous reports. Further information is available from the NDIB. Additionally, Kaitaia was unable to be sampled during Q1. This has also impacted the per capita consumption rates for Northland.

PER CAPITA DRUG COMSUMPTION BY DISTRICT: Q1 2022



AVERAGE WEEKLY DRUG USE BY DISTRICT Q1 2022 (GRAMS)



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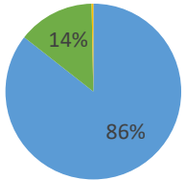
NEW ZEALAND POLICE
Ngā Pirihimana o Aotearoa

➢ The graphs below illustrate the proportion of drug use detected within catchment areas during Q1 2022. Kaitaia and Westport were unable to be sampled during Q1 2022 and therefore have been omitted from the chart.

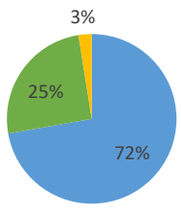
NORTHLAND

Whangārei

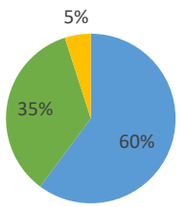


TĀMAKI MAKAURAU

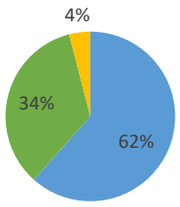
Rodney



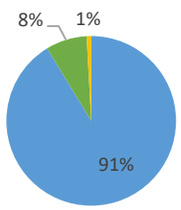
Northshore



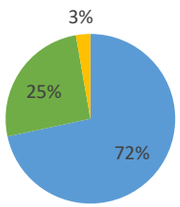
Central Auckland



South Auckland

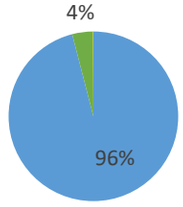


West Auckland

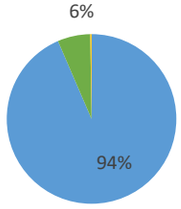


WAIKATO

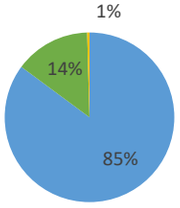
Huntly



Thames

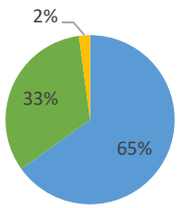


Hamilton

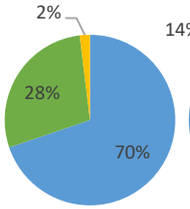


BAY OF PLENTY

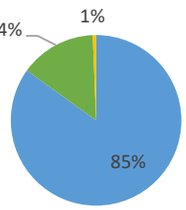
Tauranga Beach



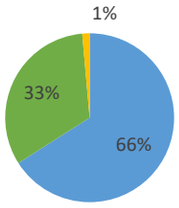
Tauranga City



Rotorua

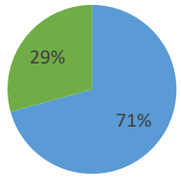


Taupō

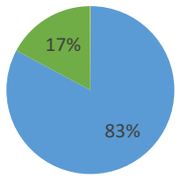


CENTRAL

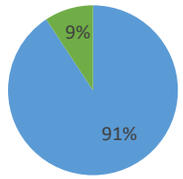
New Plymouth



Palmerston North



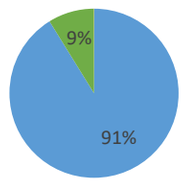
Whanganui



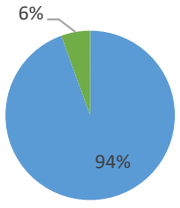
Levin

EASTERN

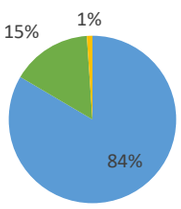
Gisborne



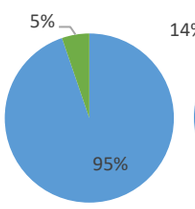
Wairoa



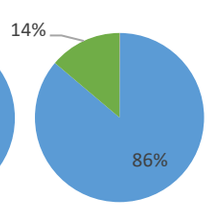
Whakatāne



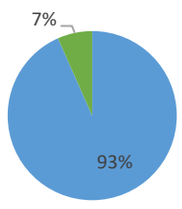
Tokoroa



Opotiki

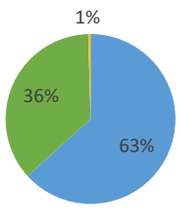


Kawerau

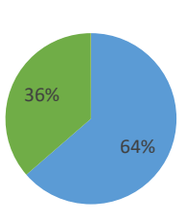


TASMAN

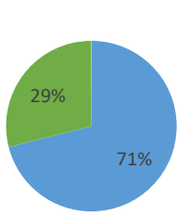
Blenheim



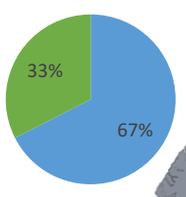
Nelson Bell Island



Nelson City

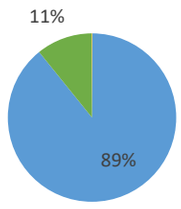


Greymouth

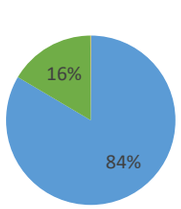


HAWKE'S BAY

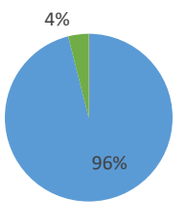
Hastings



Napier

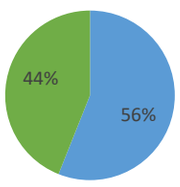


Waipukurau

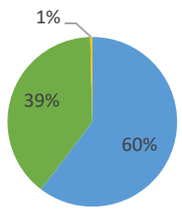


CANTERBURY

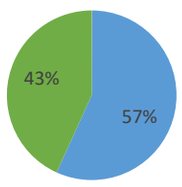
Rangiora



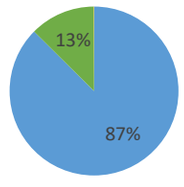
Christchurch



Timaru



Ashburton

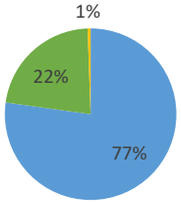


WELLINGTON

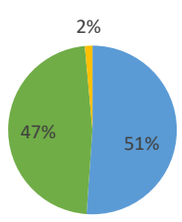
Moa Point

Porirua

Seaview



Karori



Paraparaumu

Masterton

SOUTHERN

Dunedin Tahuna

Dunedin Green Island

Invercargill

Queenstown

Key

- Methamphetamine
- MDMA
- Cocaine

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