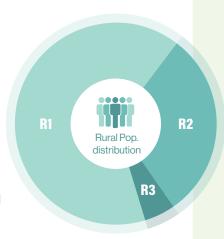


POPULATION

19% of the New Zealand population live in rural areas(1)



81% of the New Zealand population live in areas U1 and U2



R1 - 65%

total population: 576093

19% are Māori

50% are Female

19% are over 65 years old

R2 - 30%

total population: 268344

30% are Māori

49% are Female

20% are over 65 years old

R3 - 5%

total population: 44217

36% are Māori

48% are Female

19% are over 65 years old

Geographic Classification for Health (GCH)

The Geographic Classification for Health (GCH) is a rural:urban classification that categorises all of NZ into two urban (U1, U2) and three rural (R1, R2, R3) categories based on population size and travel time thresholds that reflect increasing rurality and remoteness from a health perspective.(3)



People live in



Population size thresholds U1 (≥100,000)

U2 (30,000, 99,999)

R1 (10,000, 29,000)

R2 (1,000, 9,999)

R3 (≤999)

Māori

Female





50% 50% Rural Urban

Over 65 years



20% 14% Rural Urban

NZDep Quintile 5*



25% Rural

20% Urban



Māori who are under 30 years old, living in remote areas (R3) are

22%

Rural

15%

Urban

twice as likely to die from a preventable cause

as Māori living in a large city (U1) (8)



Non-Māori aged 30 to 44 years in more rural areas (R2 and R3) are

1.8 times as likely to die from a preventable cause

compared to Non-Māori in large cities. (8)



Suicides for males are considerably higher in rural areas. For 15-44 year olds the

rural suicide rate is 64% higher than the urban rates.

overwhelmingly related to firearms. (9)



Increasing rurality is associated with an increasing gap between Māori and Non-Māori mortality rates. In our most remote communities the age standardised

mortality rate is $2.5 \times$

the Non-Māori rate. (8)



ETHNICITY & AGE



people live rurally







There are large and growing Pacific populations in some rural communities across NZ such as Oamaru, Ashburton and Tokoroa. (4)







24% of older non-Māori live in rural areas



Live in R3 rural areas (4)

20% 14%

Over 65 years of age



Over 75 years of age

living outside U1 areas (4)

60% of Māori 49% of European

Significantly more older Māori live outside large cities. (4)

Young adults 15-29 years



Rural populations are older and have less young adults aged between 15 and 29 years old living in them.⁽⁴⁾

ECONOMICS & GEOGRAPHY





Successive governments have ambitious trade targets of **doubling exports in 10 years.** Primary industry production is a significant contributor to achieving this. Healthy vibrant rural communities are essential to increasing primary industry production.

Primary Industries Produce:



81.9%

of New Zealand's trade exports (June 2023)



10.5% of GDP (June 2022)



13.1%

of New Zealand's workforce are employed in either the production of, or manufacturing of goods produced in the food and fibre sector (March 2021)⁽²⁾

SOCIAL DETERMINANTS OF HEALTH

Social and Economic Deprivation

Social and economic deprivation quintile 5* (Q5):

There is a substantial overlap of rurality and socioeconomic deprivation which is also strongly connected to ethnicity.

19% of New Zealanders living in U1 live within Q5 **37%** of Māori living in U1 live within Q5



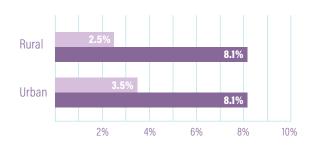
39% of New Zealanders living in R3 live within Q5 **73%** of Māori living in R3 live within Q5



Employment and income

Unemployment rates

Overall, unemployment rates are slightly lower in rural areas compared to urban areas but in rural areas, Māori have a much higher rate of unemployment than non-Māori. (4)





Income over \$70,000

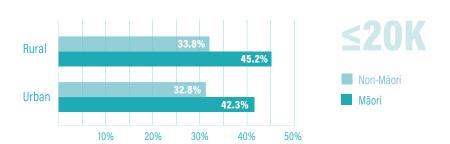
Both Māori and non-Māori living in remote areas are roughly half as likely to report a high income than those living in urban areas. (4)



Income under \$20,000

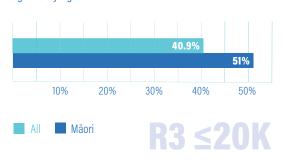
Low income rates are similar across urban and rural areas for the entire population but rural Māori have a higher rate of low income than urban Māori. (4)

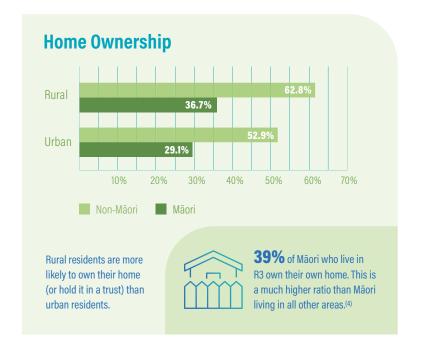
Note: Under \$20k is considered low, and over \$70k high. There is no analysis for income over \$70k.



Income under \$20,000 in remote R3 areas

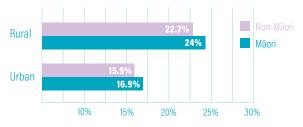
The rates of people living in remote, R3 areas who report having an income under \$20,000, are very high, but the rates for Māori are significantly higher.



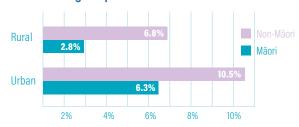


Education

No formal qualifications



Bachelor or higher qualifications



Level 3 NCEA attainment per GCH category



Rural people are substantially more likely to have no formal qualifications, and Bachelors or higher degrees are much less common in rural areas. (4)

The rate of rural origin students enrolled in medical school is less than half that of students from urban areas. (6)

Rural secondary school students collectively have much lower Level 3 NCEA results than urban students. It is likely that this means they have greater difficulty entering competitive medical and other professional programmes of study. (5)

Telecommunications

Access to a cellphone

R3 85.5% 64.6%

Internet connectivity

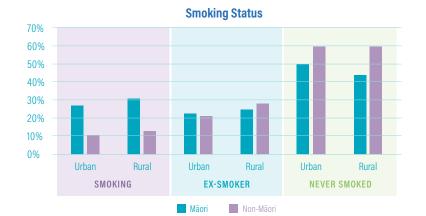


of rural households have no access to telecommunications Almost all NZ households have access to at least one form of telecommunication but rates of connectivity reduce significantly in rural areas compared with urban.(4)

HEALTH RISK FACTORS

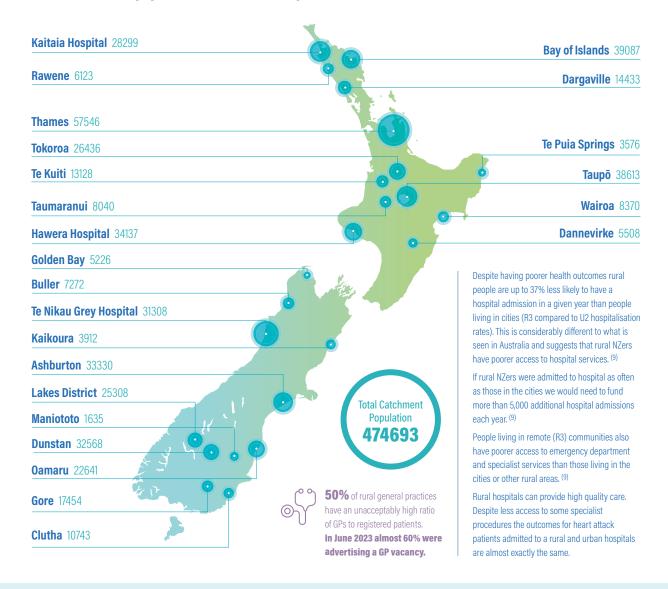
Compared to urban residents, people living in rural areas were more likely to be regular or ex-smokers. (4)





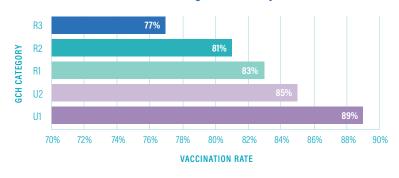
RURAL HOSPITALS

Indicative catchment populations of 24 rural hospitals



COVID-19 Vaccination Rates

COVID-19 Vaccination Rates - All ages, all ethnicity





Overall rural vaccination rates lagged behind urban rates, with the widest gaps seen in those aged 12 - 44 years. (11)

There is a clear gradient of lower vaccination rates with increasing rurality.

REFERENCES

https://rhrn.nz/gch/about-gch

Rural-urban differences in self harm in New Zealand. Publication in preparation. Data available by contacting the GCH Team.

- 1. As defined by the Geographic Classification for Health.
- MPI https://www.mpi.govt.nz/dmsdocument/60526-Situation-and-Out look-for-Primary-Industries-SOPI-December-2023.
- Whitehead J, Davie G, de Graaf B, Crengle S, Fearnley D, Smith M, et al.
 Defining rural in Aotearoa New Zealand: a novel geographic classification for health purposes. New Zealand Medical Journal. 2022;135(1559).
- 4. Whitehead, J. Atkinson, J. Davie, G. de Graaf, B. Eggleton, K. Crengle, S. Miller, R. Blattner, K. Crampton, P. Nixon, G. Comparison of the Sociodemographic Composition of Rural and Urban Aotearoa New Zealand: Insights from Applying the Geographic Classification for Health to the 2018 Census. NZ Population Review. 2024: 49, 27-69.
- Mason L, Turner-Adams H, Nixon G, Eggleton K. Rural secondary school leaver attainment inequities for students entering medical programmes in Aotearoa New Zealand. J Royal Soc of NZ. 2023.
- Bagg W, Curtis E, Eggleton KS, Nixon G, Bristowe Z, Brunton P, et al. Socio-demographic profile of medical students in Aotearoa, New Zealand (2016-2020): a nationwide cross-sectional study. BMJ Open. 2023;13(12):e073996.
- Crengle S, Davie G, Whitehead J, de Graaf B, Lawrenson R, Nixon G. Mortality outcomes and inequities experienced by rural Māori in Aotearoa New Zealand. The Lancet Regional Health - Western Pacific. 2022;28.
- Nixon G, Davie G, Whitehead J, Miller R, de Graaf B, Lawrenson R, et al. Comparison of urban and rural mortality rates across the lifespan in Aotearoa/New Zealand: a population-level study. J Epidemiol Community Health. 2023;77(9):571-7.
- Rural-urban differences in self harm in New Zealand. Publication in preparation. Data available by contacting the GCH Team. https://rhrn.nz/gch/about-gch
- Nixon G, Davie G, Whitehead J, Miller R, de Graaf B, Liepins T, et al. Rural-urban variation in the utilisation of publicly funded healthcare services: an age-stratified population-level observational study. N Z Med J. 2024;137(1590):33-47.
- Liepins T, Davie G, Miller R, Whitehead J, De Graaf B, Clay L, et al. Rural-urban variation in COVID-19 vaccination uptake in Aotearoa New Zealand: Examining the national roll-out. Epidemiol Infect. 2024;152:e7.



NOTE: This initial presentation of the Hauora Taiwhenua Rural Health Network's first edition of 'A Snapshot of Rural Health' is undergoing a final review by contributing researchers. The final release will be made available at the end of May 2024.

