Hauora Taiwhenua Rural Health Network

Rural Health Equity Through Principles of Considered Design

Rural-Proofing Decisions Related to Planning, Service Design and Funding in Health

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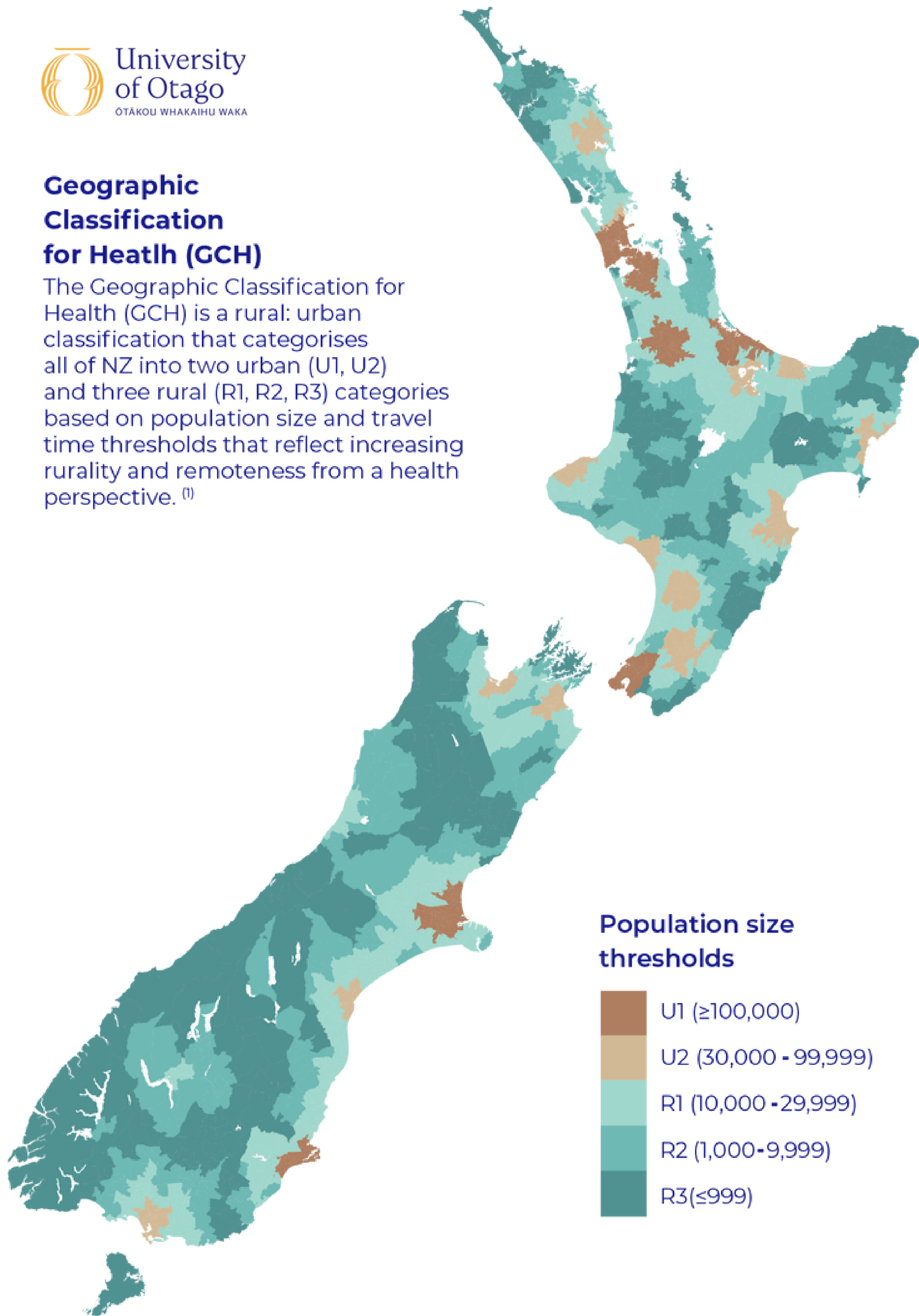

Geographic Classification for Heatlh (GCH)

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. [1]

BACKGROUND

Over 900,000 New Zealanders, around 20% of the population, live in rural parts of Aotearoa.[1] Compared to urban areas, this rural population has a greater proportion of older people and Māori. Rural populations also have poorer health outcomes, including higher mortality rates.[2] This is particularly true for rural Māori.[3] People living rurally, particularly Māori, are more likely to live in areas of high socioeconomic deprivation.[4] Despite these higher health needs, and key differences in access to the social determinants of health (including telecommunications limitations), rural people are up to 37% less likely to have a hospital admission in a given year compared to people living in cities.[5] This suggests poorer access to health services which is impacted by distance, travel times, and a range of associated direct and indirect costs.

Experiences of living rurally, and accessing and providing services, is nuanced and heterogeneous. There are degrees of rurality, with differing implications for people's access to and experience of health services. Rural people living close to urban areas can have better access to services than those living in more remote areas. Remote rural practices, often with low enrolled populations, dispersed over wide areas, have higher operating costs and can lack efficiencies of scale.

For those living in rural and remote rural areas, the cost of travel, accommodation and lack of earnings to seek health interventions in urban areas can be a real barrier to early diagnosis and then ongoing treatment, even if services are free.[6]

Historically, our health services have been designed by those with an urban-biased, and often hospital-centric, world view.[7] As a consequence, planning, delivery models and funding have not been flexible to ensure that the realities of rural health delivery have been considered. This has contributed to inequitable health outcomes for those living in rural areas.[8, 9]

With "considered design" rural health equity can be achieved. This can be done by carefully considering how every person, irrespective of their geographical location, can access a good, base level of health care. To ensure equitable health outcomes for all priority populations, there may need to be differential levels of service, planning or funding provided for certain targeted individuals or communities.[10, 11]

A sector group has defined this approach of "considered design" in order to give the best possible equitable health outcomes for priority rural populations: "Rural-Proofing Health Decisions".

The following Guiding Principles are provided to those making policy, funding and programme design decisions in order to help ensure that any outputs are the most appropriate for the rural context. These Principles are numbered for easy reference, but the numbers do not signify any relative importance. The context that they are considered for will make some Principles more important than others for that particular application.

THE FOLLOWING GUIDING PRINCIPLES CAN BE USED TO ENSURE EFFECTIVE RURAL-PROOFING.

01

The founding document of our country, Te Tiriti o Waitangi, is a binding contract between the Crown (NZ Government) and Māori as the Indigenous peoples of Aotearoa New Zealand. The Waitangi Tribunal determined, through a major report in 2019 (registered as WAI 2575),[12] that health is a taonga of Māori and that the Crown has systematically contravened obligations under Te Tiriti across the health sector. **Article Two of Te Tiriti guarantees iwi-Māori Tino Rangatiratanga over their taonga, while Article Three guarantees Māori equitable health outcomes.**[13-15] The Crown must continue to meet these commitments through Acts such as Pae Ora (Healthy Futures Act) and the Local Government Act, and their implementation through Crown Agencies.[16-17]

02

Community involvement is vital. A key strategy, for the mitigation of the limitation of tools, efficacy of decision making and social acceptance of decisions, is the involvement of the rural community in all processes from design, to implementation and evaluation. The rural community includes providers, patients, iwi/hapū and wider community members. At all stages, techniques to ensure community voices are heard, that address the "tyranny of distance", will need to be employed. All of this while remembering that every rural community is different and may require different approaches!

03

Continuity of care through ongoing relationships between the primary care team and whānau is the preferable health delivery system. Traditionally these relationships have been best achieved through in-person contact, but modern technologies can embrace different modalities to maintain these relationships including phone, video and text messaging between physical consultations. Continuity of care through these ongoing relationships with a primary care team has been shown to lower use of out-of-hours services, reduce acute hospitalizations, and lower mortality.[18] For rural communities this will mean strategies to ensure access to a stable primary care team over the short, medium and long terms.

04

Every person in New Zealand, irrespective of where they live, should have **equitable access to the healthcare and range of services** they need.[19,20] Health outcomes should not show significant disadvantage due to factors such as rurality/distance, ethnicity, gender and socio-economic status. For rural people and communities, this may necessitate providing mobile, outreach and virtual options to reduce barriers. Where services can't be delivered 'close to home', adequate travel subsidies must be in place to ensure equity of access. *(Note: people living in rural communities know and accept that time for emergency response and treatment will never be equitable).*

05

The **most health disadvantage often occurs where the nexus, or intersection of factors, combine**. Thus, identified populations or subgroups that are rural, identify as Māori and are also living in high socio-economic deprivation, are shown through research to have the worst health outcomes[3, 8, 21] and therefore warrant the earliest interventions and largest proportional allocation of resource.

06

Where possible, empirical evidence should be used to prioritise decisions regarding the allocation of resource to provide health equity. *(For example, if immunisation rates are lowest in remote rural communities, extra planning, services and funding should be directed to those areas to drive equitable health outcomes.)*

07

The sustainability of rural health service providers is vital because the rural communities who are recipients of those services rarely have alternatives if the provider fails - unlike peers in urban settings. "Sustainability" refers to a range of measures including finance and workforce (attract, train, retain).

08

There is **no single universal definition of "rural"** in New Zealand (or internationally). The concept of 'rural' is context specific and no one model or measure of rurality is universally applicable. The tools available all have limitations. Which particular tool, or combination of tools, should be applied to define rural inclusion in any commissioning process needs to be carefully considered to target specific outcomes of any initiative. **Note:** An analysis of different tools available to define 'rural' is available here: *htrhn.org.nz/rural-analysis-tool-comparison* for reference to this document. This analysis indicates that the Geographical Classification for Health (GCH)[1] has been developed specifically to compare health differences between urban and rural populations and is the preferred tool when identifying rural people, whānau and populations.

09

Evaluation, review and accountability should be embedded in decision making. The variability of rural community context means that there will likely be unintended consequences of commissioning, investment and resource support across a range of rural communities. Embedding a process to assess consequences and iterate implementation is important to mitigate risk. All government, local bodies, NGOs and others should be held accountable by rural communities, and must have considered each of these principles in all of their work in servicing those communities.

10

No rural-proofing solution or decision will ever be 100% 'right'. But that should not stop decisions being made that attempt to address rural health equity for the sake of those rural individuals, whānau and communities. Planning, service delivery and funding should be reviewed in an iterative process to fine tune any agreed solutions while minimising and mitigating any unintended consequences.

CASE STUDY 1: STAR - SPECIALIST TELEHEALTH AOTEAROA

In 2023 Waitaha Emergency Department staff came up with a vision to utilise telehealth to avoid unnecessary hospital presentation and admissions; while also achieving better patient outcomes and having a pro-equity approach for those in rural areas.

Consultation occurred on how this might be structured for best results. This consultation included Hato Hone St Johns, Aged Residential Care facilities, Māori providers and rural practices, among others.

A pilot programme was set up whereby an Emergency Physician was rostered on for ten hours per day (1200 – 2200), with some surge capacity to ensure continuity of service during those times. The STAR pilot provided advice, treatment and system navigation to clinicians from: (1) Hato Hone/St John, (2) Rural/regional facilities and (3) Aged Residential Care (ARC), who were considering transferring their patient to the ED.

During a three month (94 day) trial period, STAR consulted with 867 patients of which 499 were diverted being transported to ED and were able to be managed in their homes. Where the Emergency Physician decided that hospital admission was required for optimal patient care, the patient received streamlined patient admission at the admitting hospital whenever possible, avoiding ED queues and were navigated directly to inpatient services. Of the patients transported to hospital, 183 (50%) were directly navigated to a specialty service.

Rural practices and patients were unanimously glowing of this service. It provided rural practices with specialist Emergency Physician support and expertise, improving clinical support and peace of mind for clinical staff, many of which were nurse-led services. For rural patients it prevented unnecessary and costly (time and money) trips to base hospitals and allowed them to be treated at home close to whānau. For those that the decision was made to transport them to the Hospital, many were able to be navigated directly to specialist services and avoided the queues at ED, thus providing some consideration to the distance and time they had already endured in making the trip from their rural locations.

This is a good exemplar of Considered Design for Rural Health Equity, starting with community consultation, finding ways to support small rural practices and their clinical staff. Most of all was the impact on rural whānau, where STAR allowed most to remain in their homes for treatment and those that had to travel were given alternative pathways once arriving at hospital to recognise the time they had already committed to getting to the site.

Unfortunately, funding has not continued beyond the pilot.

CASE STUDY 2: ELECTRIC VEHICLES IN RURAL HOSPITALS

As part of the Carbon Neutral Government Programme, the Ministry of Health and Health NZ must have a strategy to report on emissions, reduction targets and initiatives in order that New Zealand can achieve its 1.5 degree pathway (setting targets to limit the global average temperature increase to 1.5 °C above pre-industrial levels).

One of the initiatives for decarbonisation has been in relation to its vehicle fleet of over 4000 vehicles. The strategy includes replacing fleet vehicles with battery electric vehicles (EVs) as those vehicles are due for replacement.

In 2024, a number of Health NZ owned rural hospitals have had their fleets replaced with EVs. This was not done in consultation with those hospitals.

Staff in the hospitals have to travel large distances in rural areas where charging stations are minimal or often non-existent. Those operating in colder climates suffer from decreased battery charge and therefore decreased driving range. EVs do not have spare tyres and rely on one-shot tyre sealant packs in case of a puncture.

In the short time since the EVs and been in service, staff have experienced up to 7 hour waits for tow truck pick-ups, driven out of their way to have lengthy waits at charging stations, and have their charging cards rejected in remote locations when their charging accounts have not been paid on time by central business units.

While being fully committed to supporting a decarbonising regime, rural hospital staff consider the use of these EVs, under the current provision of rural charging networks, to be a safety risk to themselves and their patients.

This is an example where adopting the principles of Considered Design for Rural Health Equity could have led to a much better result for those working in rural hospitals. Starting with consultation, and therefore understanding the special nature of rural work (distance, hills, cold, lack of charging stations, lack of road back-up assistance), would have quickly confirmed that hybrid vehicles would be a better option for rural work while still moving towards lower carbon emissions.

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