

# Rural & Remote Populations and Health Issues

Ross Lawrenson MD, FRCGP, FFPH, FAFPHM



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# Theoretical background



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- Rural communities have poorer access to health services
- This results in poorer health outcomes
- This can be fixed by improving the quality and capacity of the rural health workforce

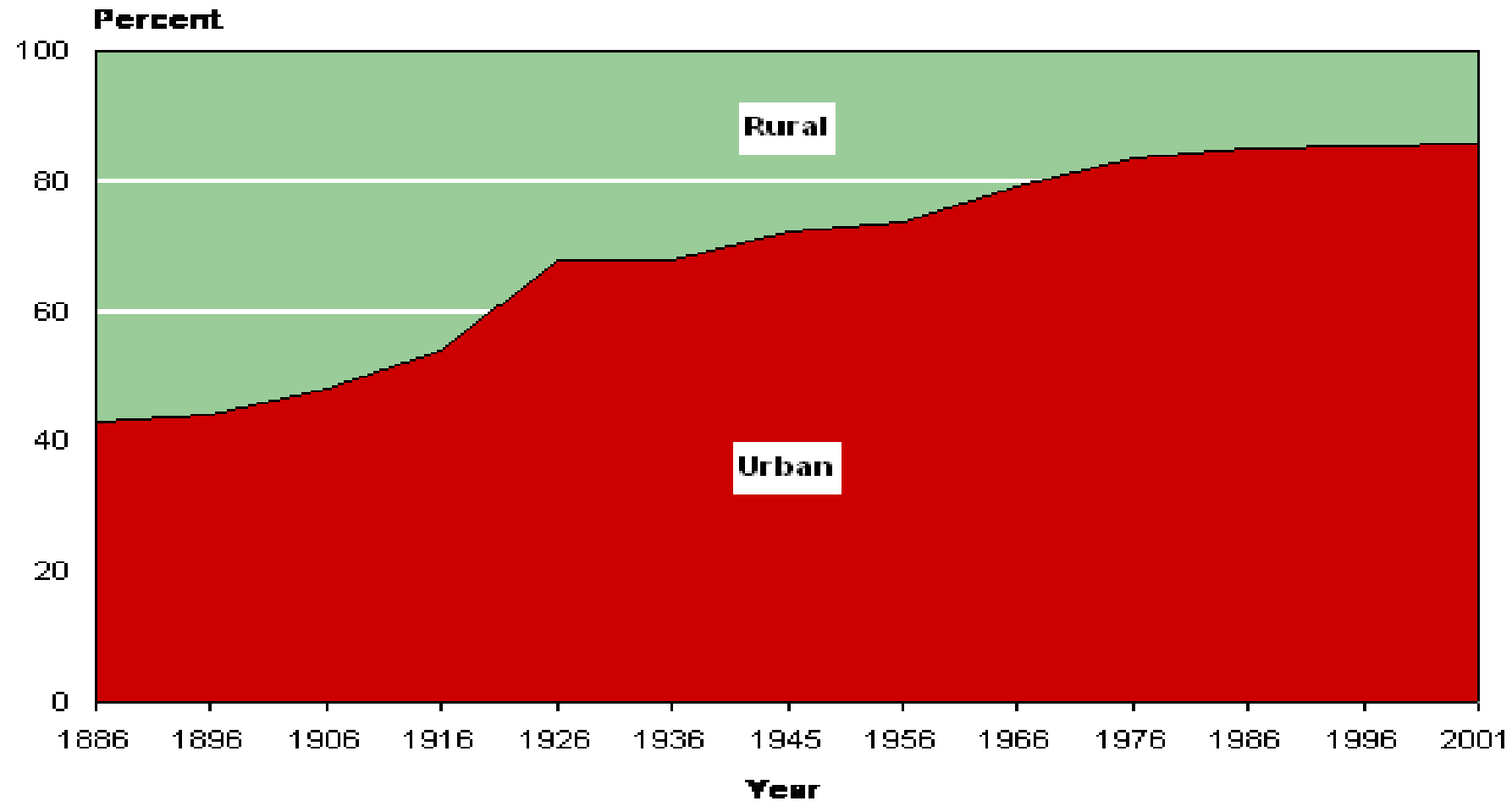


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# Trends in population distribution in New Zealand 1886-2001



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# What do we mean by “rural”?

- Dictionary - Rural - in, relating to, or characteristic of the countryside rather than the townland
- Countryside - land not in towns, cities, or industrial areas, that is either used for farming or left in its natural condition:
- U.S. Department of Health and Human Services defines the word rural as encompassing "...all population, housing, and territory not included within an urban area. Whatever is not urban is considered rural."



# Definition used in rural research



- Australian Bureau of Statistics (ABS)
- Remoteness classes range from 0 to 4
  - 0 = major cities 71%
  - 1 = inner regional 18%
  - 2 = outer regional 8.7%
  - 3 = remote 1.2%,
  - 4 = very remote 0.5%

# Rural classification Australia

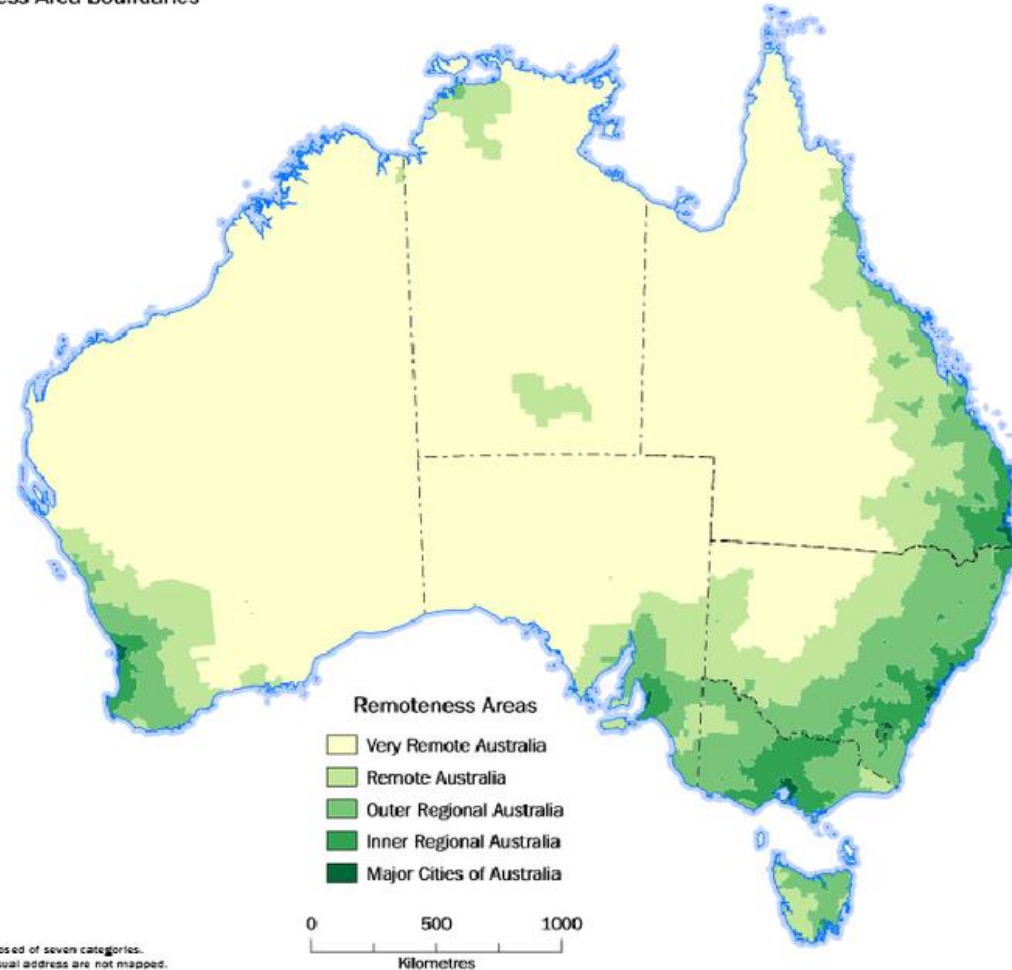


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2011 Australian Statistical Geography Standard: Remoteness Structure

Remoteness Area Boundaries



Note: The Remoteness Structure is composed of seven categories. Migratory - Offshore - Shipping and No usual address are not mapped.  
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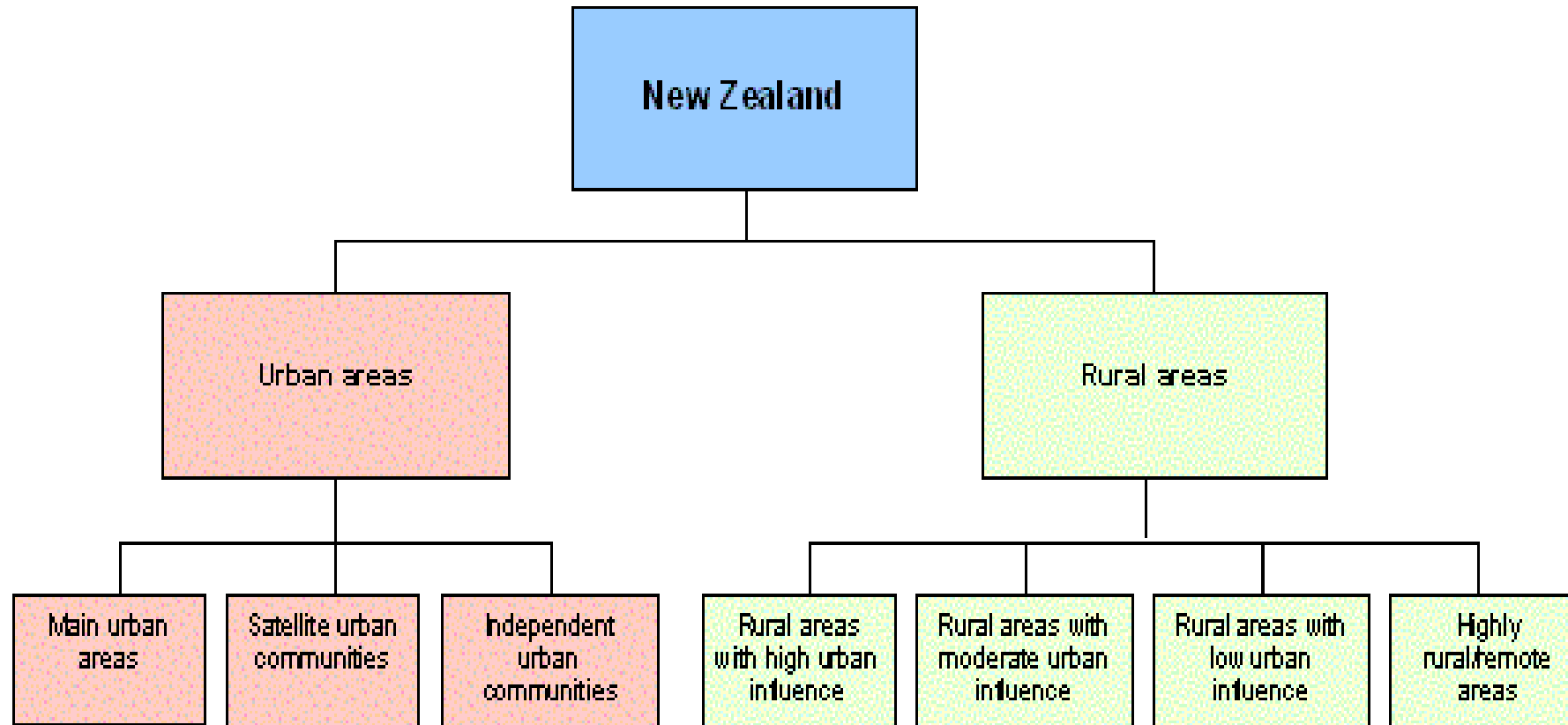
# Old Statistics NZ profile' for categorization purposes.



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Urban/rural classification	Area Type	Definition
Urban	Main urban	Towns and cities with a minimum population of 30,000 people
	Secondary urban	Towns with a population between 10,000 and 29,999 people
	Minor urban	Towns with a population between 1000 and 9999 people
Rural	Rural centre	Population between 300 and 999 people
	True rural	Population less than 300 people

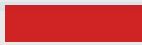
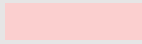






# New Zealand rural classification

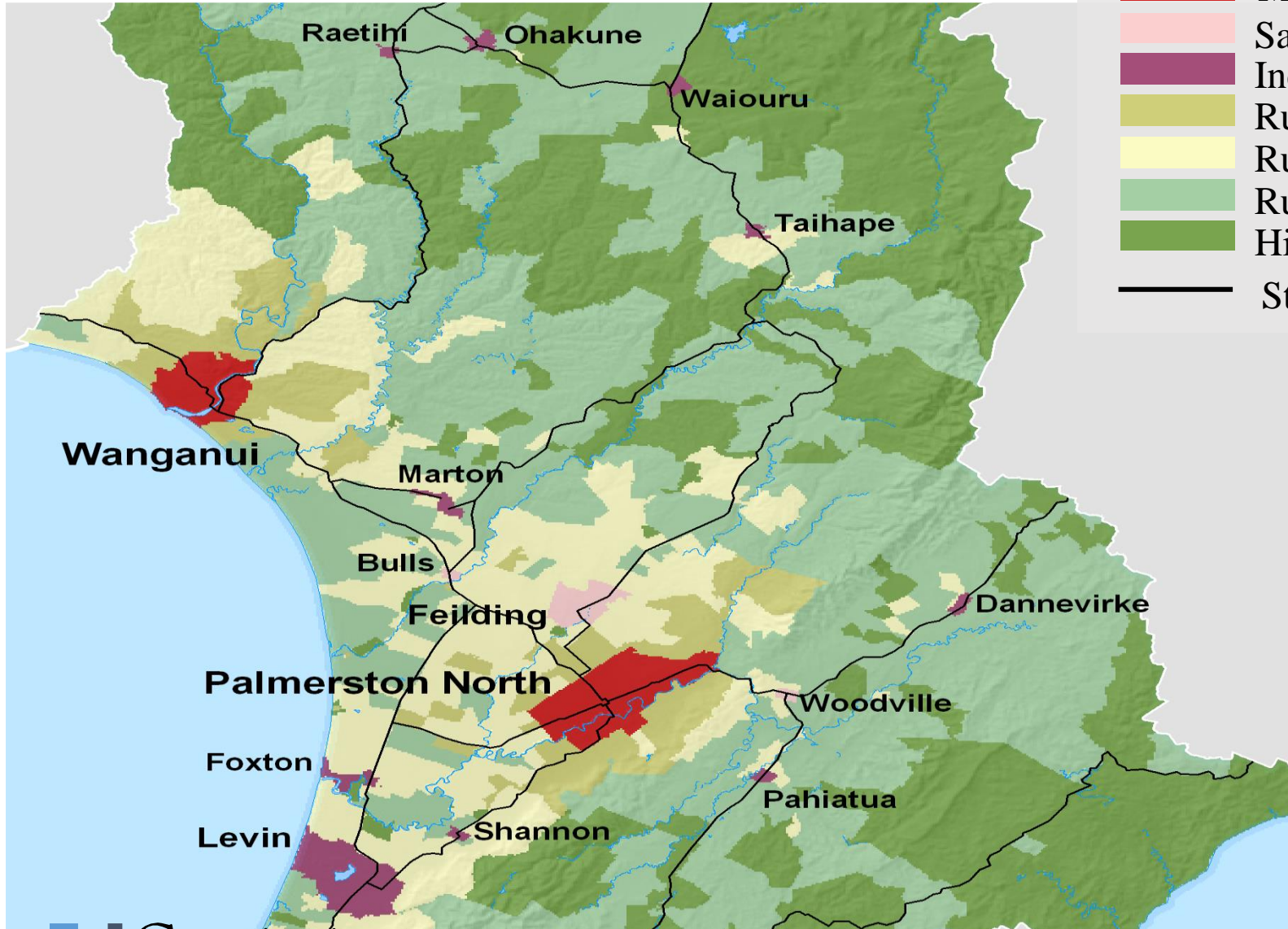




## Urban/Rural Profile Categories



-  Main urban area
-  Satellite urban community
-  Independent urban community
-  Rural area with high urban influence
-  Rural area with moderate urban influence
-  Rural area with low urban influence
-  Highly rural/remote area
-  State highway

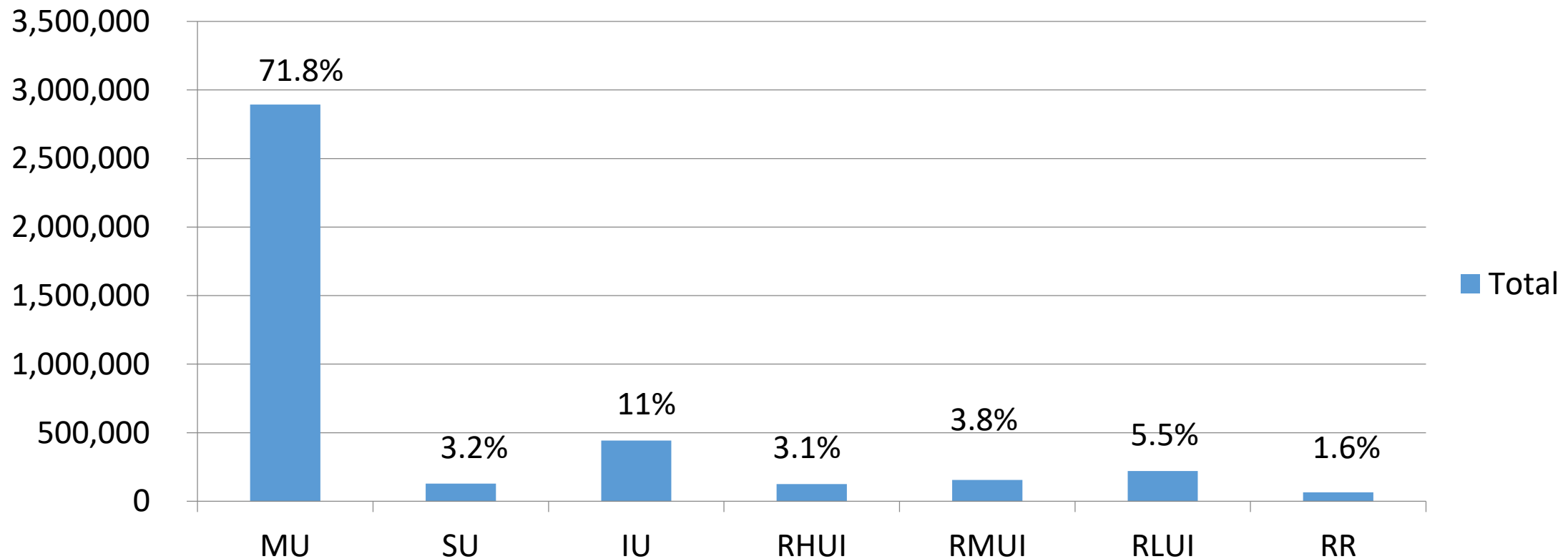


# NZ population by statistical classification 2006

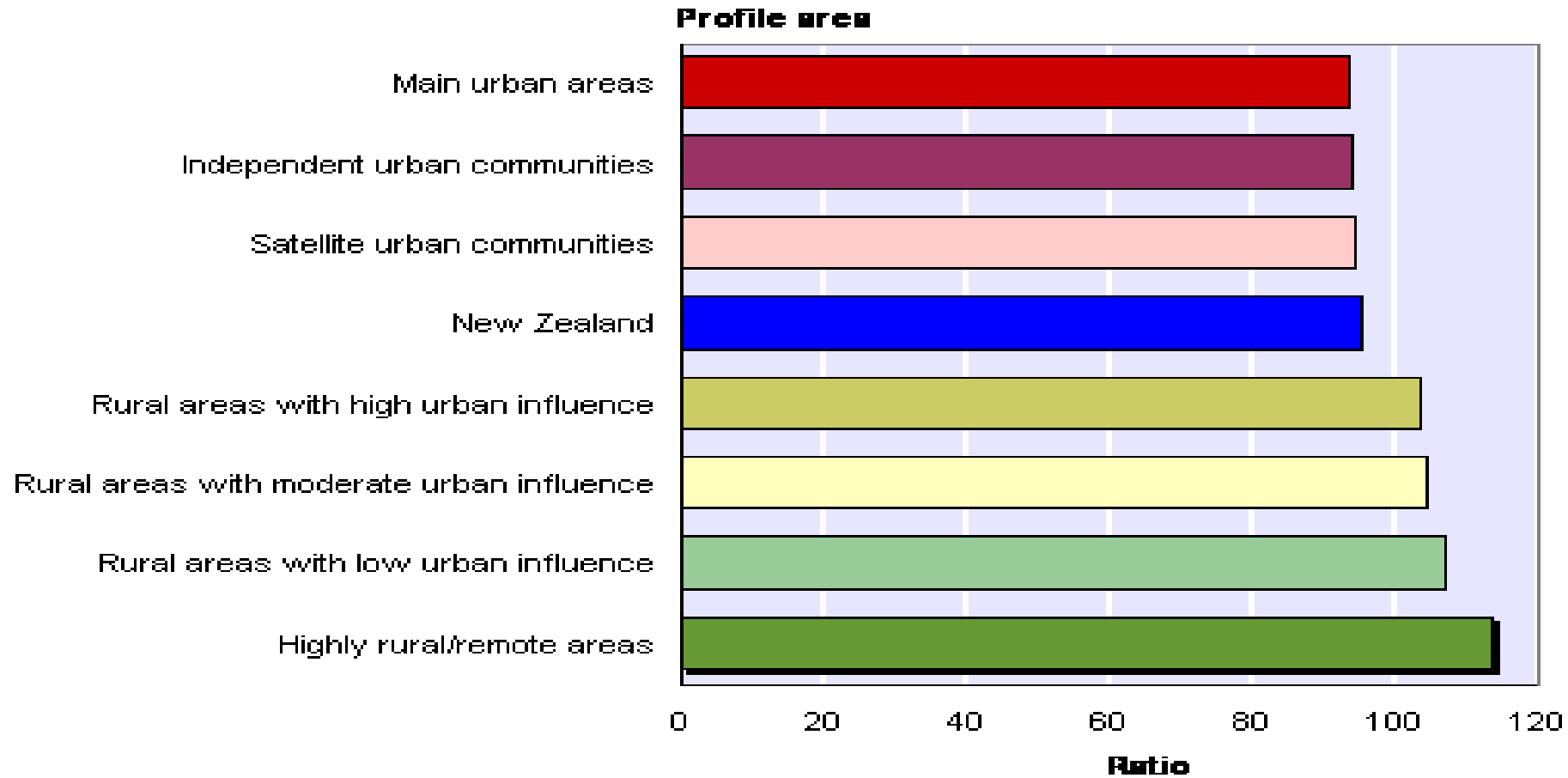


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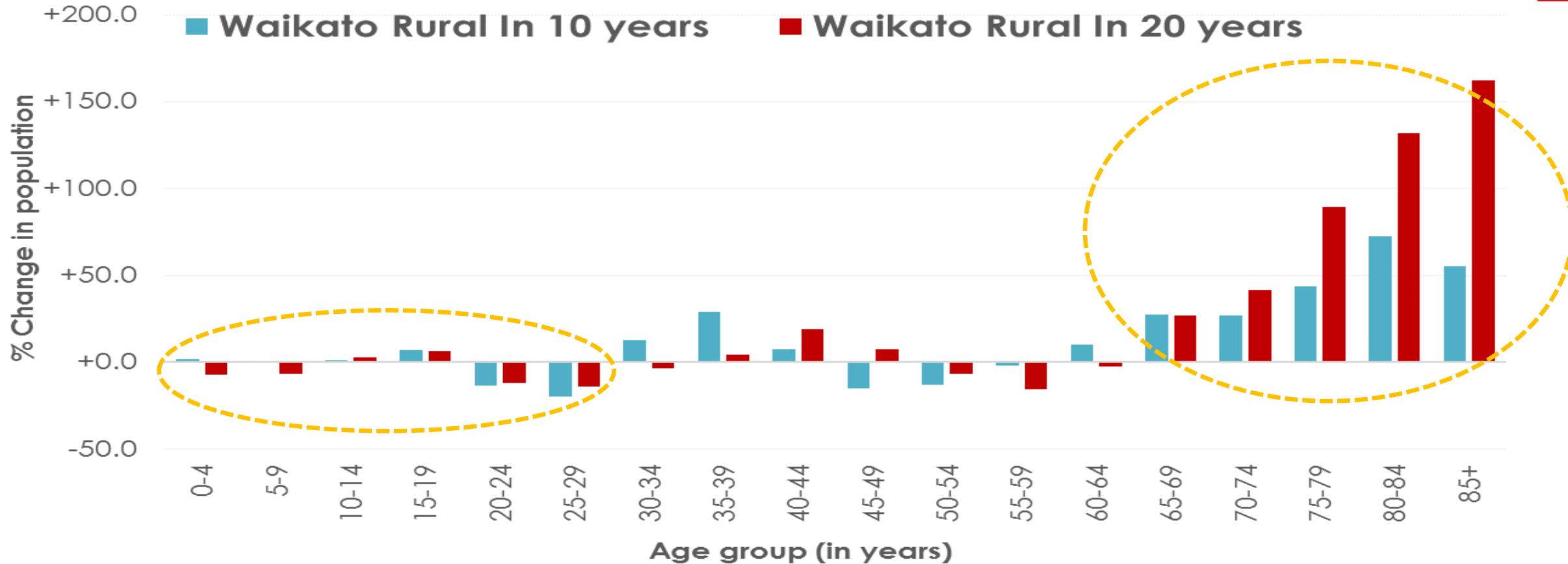
Total



# Male/female ratio



# Will be significant growth at older ages even in rural



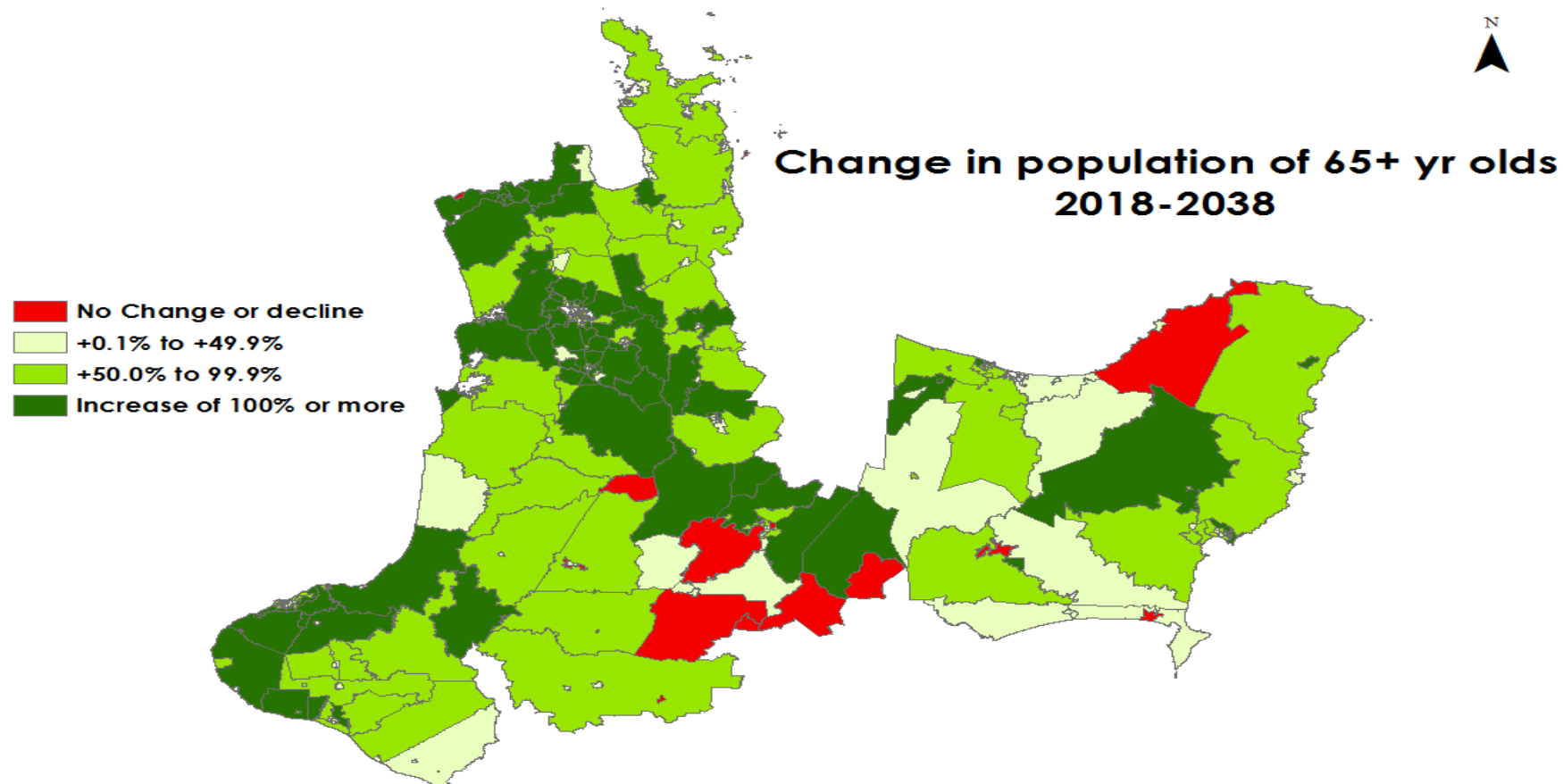
Source: Statistics NZ medium series projections (2013 Census based)



# Projected change in two decades: population aged 65+ years



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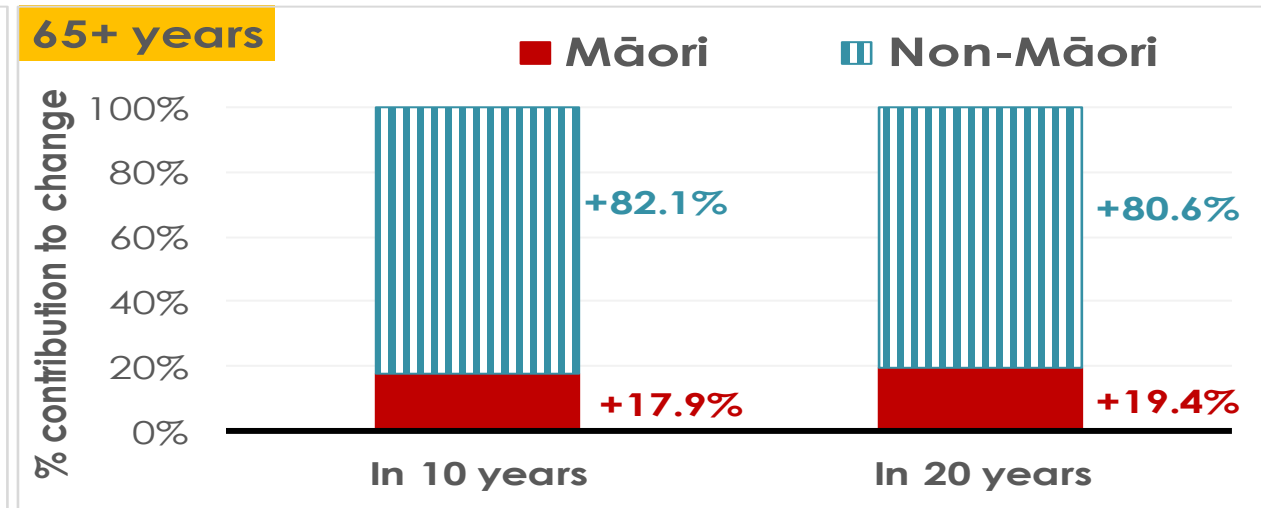
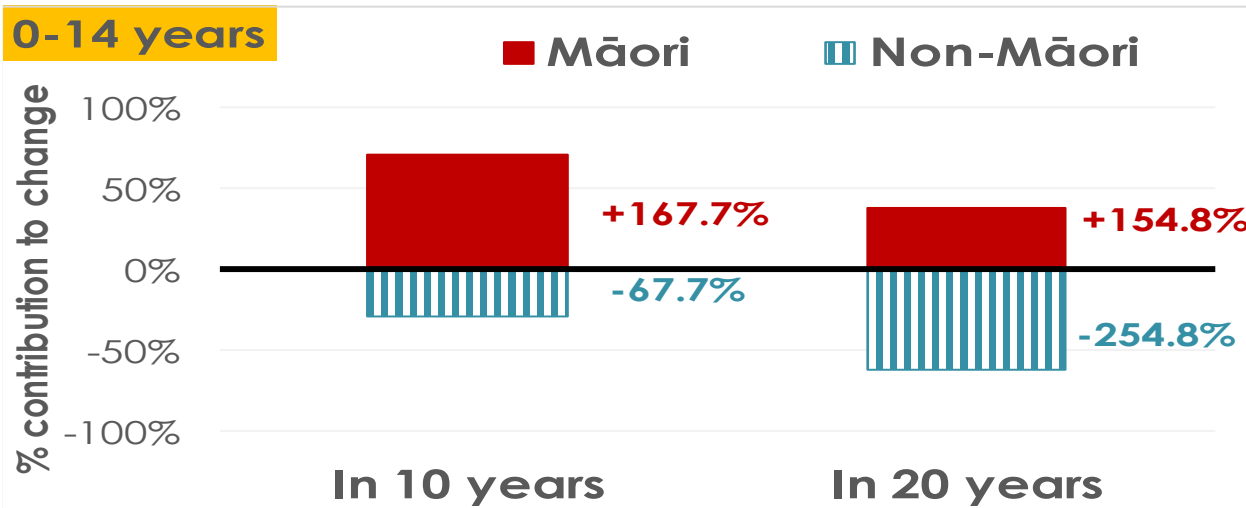


# Differing age structures for Māori



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## Waikato Rural



# Social deprivation



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## Zombie towns



## Tourist towns

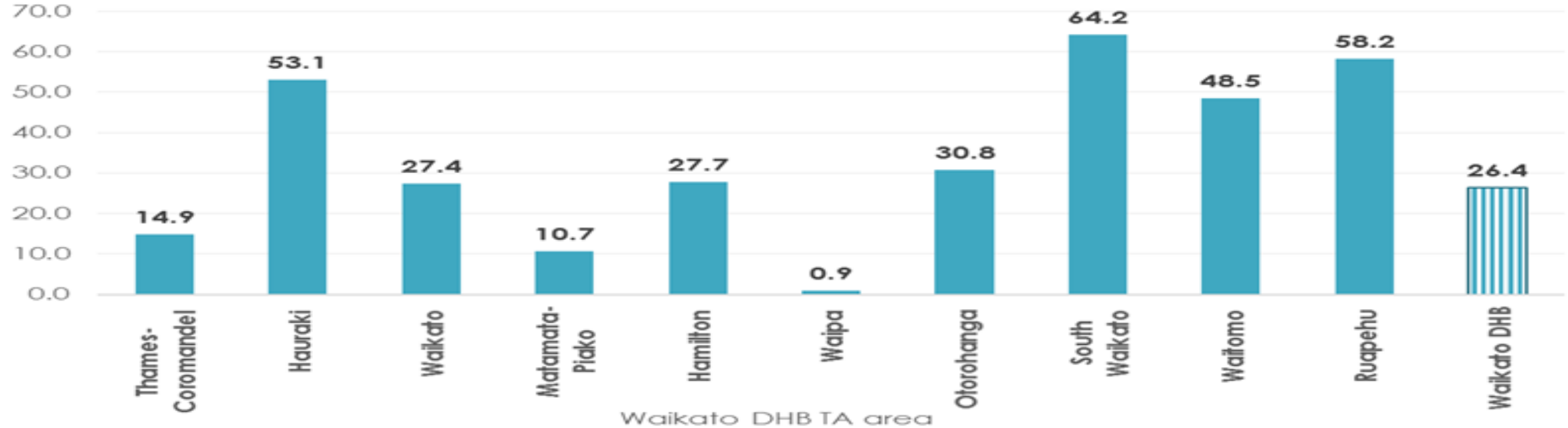


# Deprivation in Waikato Region



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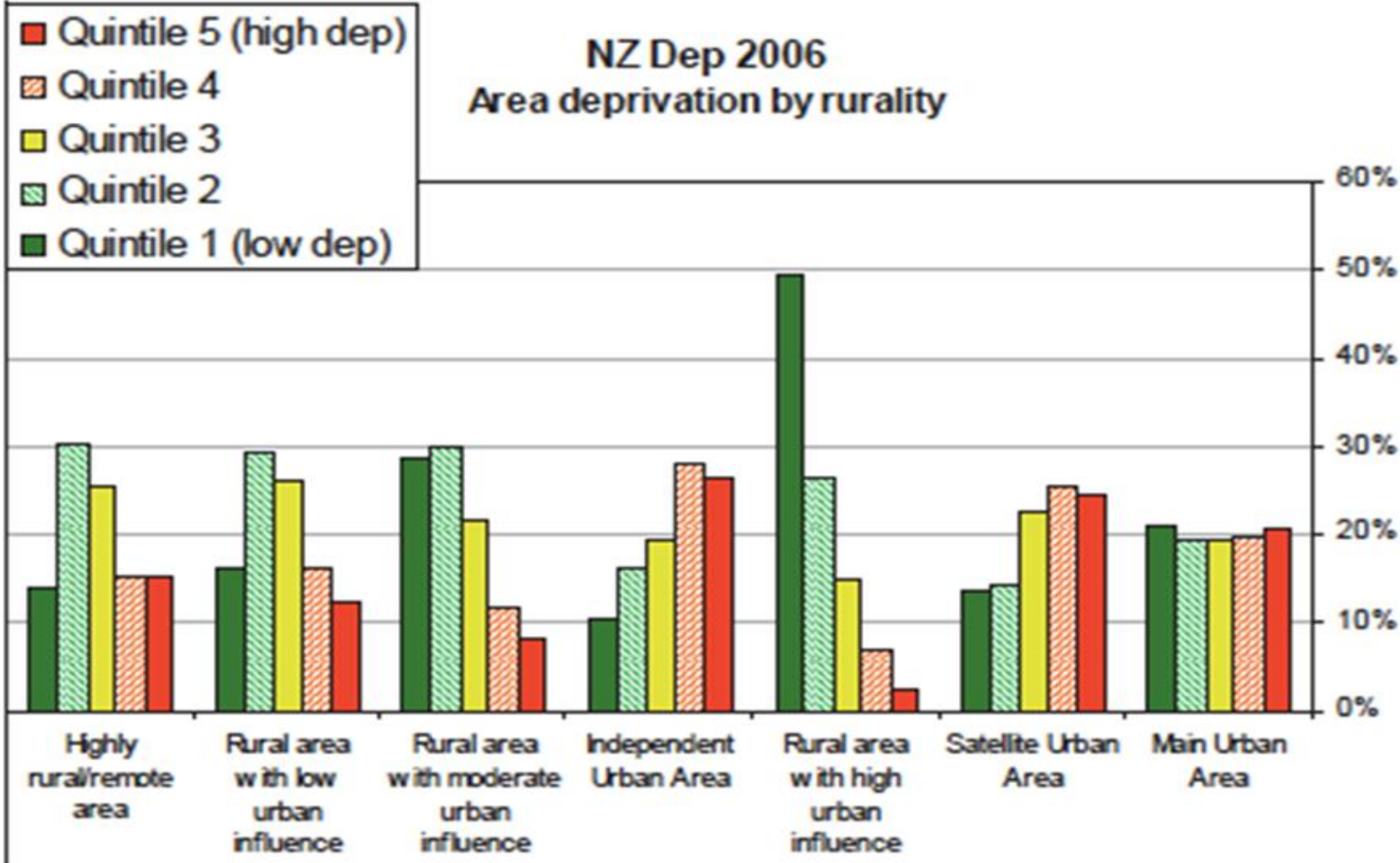
% of estimated population living in areas coded as NZDep deciles 9 and 10



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# Deprivation



Source: Statistics New Zealand 2009. Census 2006 by Urban/Rural Profile. Job ID: EWJ24689.

# What classifications have been used in rural research?



- Residents of the catchment areas of remote rural hospitals
- 21 local board areas within the Auckland region – designated urban or rural (Rodney and Franklin)
- Territorial local authorities (26 Rural Mayors)
- Rural - independent urban communities or those designated rural with moderate or low or no urban influence
- 3 Urban categories vs 4 rural
- Rural General Practices (as designated by rural ranking scale)



# Does this matter?



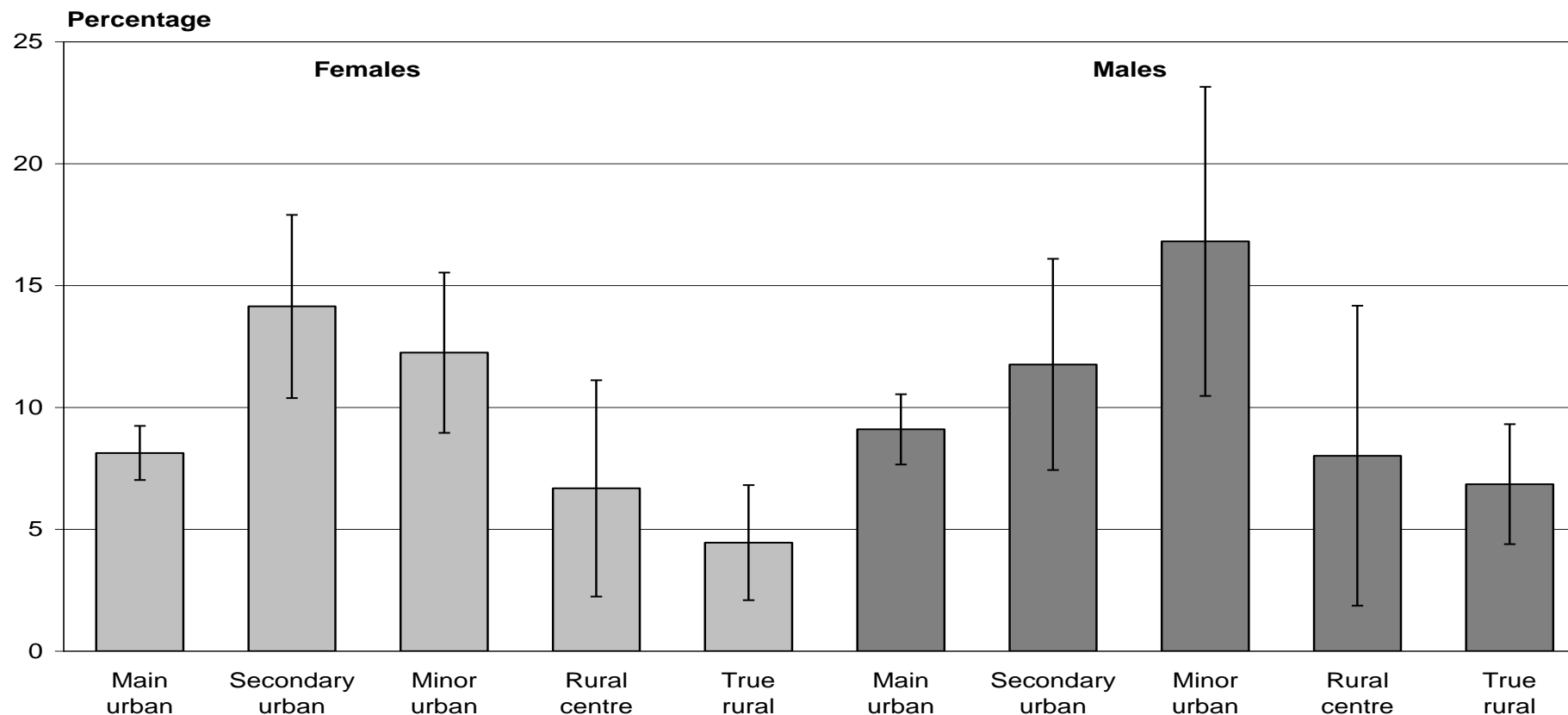
- MoH 2007 report concluded that:
- *“urban dwellers were significantly more likely to have been diagnosed with heart disease than rural dwellers”*
- 
- Whereas the NHC 2010 report concludes the opposite:
- *“notable factors are that rural people are more likely to have ischaemic heart disease ...”*

Study	Heart disease	Stroke
MoH 2007	0.62	0.88
NHC 2010	1.66	1.71

# Prevalence of heart disease, by sex and area type (age-standardised)



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# Rural health needs (Health Survey 2002)



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- There were no significant differences in the prevalence of diabetes between urban and rural dwellers.
- For females, the prevalence of diagnosed arthritis and osteoporosis was higher in urban areas than in rural areas.
- For males, the prevalence of spinal disorders was higher in rural areas than in urban areas.
- Rural Māori have higher mortality than urban Māori (Ministry 2002)



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# Rural urban differences for breast cancer specific and all cause mortality in NZ women with breast cancer



Groups	Unadjusted HR	95% CI	Adjusted HR	95% CI
Rural vs urban BCS	1.08	0.96 – 1.22	1.01	0.87 – 1.17
Rural Maori	1.31	0.97 – 1.76	<b>1.47</b>	1.00 – 2.16*
Rural European vs urban	1.04	0.90 – 1.19	0.94	0.79 – 1.10
Rural vs urban (All cause)	1.13	1.03 – 1.24*	1.04	0.94 – 1.16
Rural Maori	1.33	1.05 – 1.68*	<b>1.43</b>	1.08 – 1.91*
Rural European vs urban	1.05	0.94 – 1.16	0.90	0.80 – 1.02

# Characteristics of Rural GPs (*Natmedca*)



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- Rural GPs see more patients per week.
- Work longer office hours
- Rural GPs tend to be more of a generalist – wider range of skills
- Less likely to order lab tests although similar use of Xray and ECG
- Less likely to refer (Access to specialist care harder)

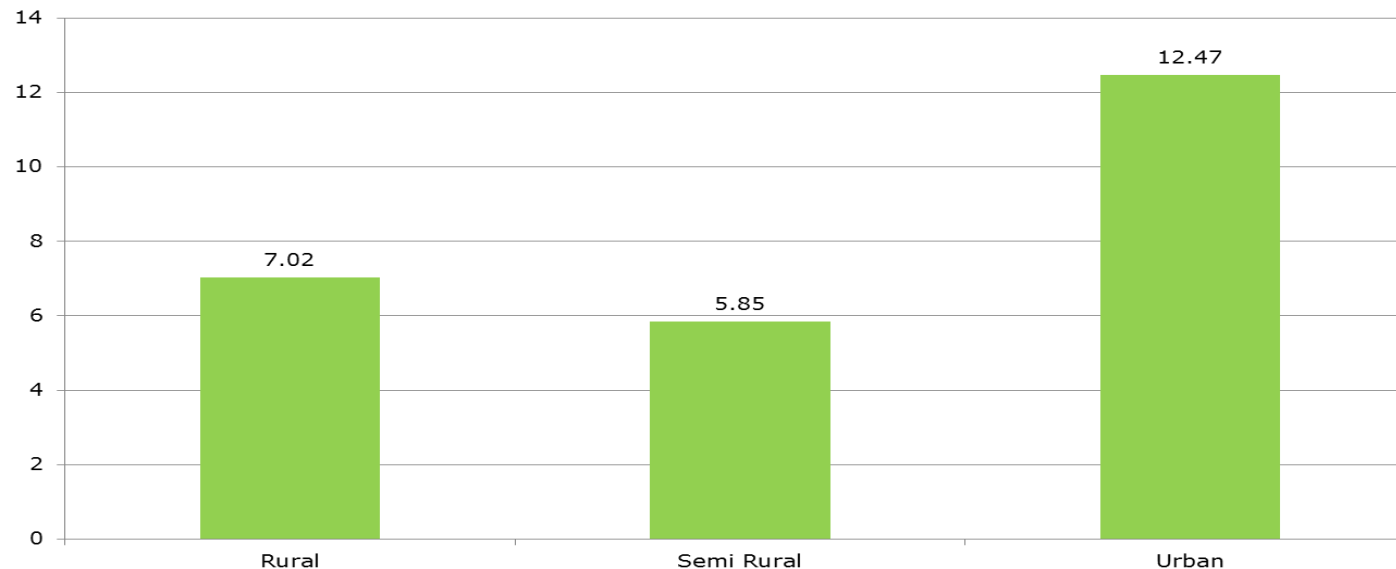


# Rural workforce



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- Rural health workforce reaching crisis point
- Commitment to addressing rural health workforce crisis welcomed; detail now needed
- Swift action wanted on rural GP shortage
- Urgency required on rural health training



Watch interviews from the



**NATIONAL RURAL  
HEALTH CONFERENCE 2017**

Healthy Rural Communities  
Mauri Ora, Whānau Ora, Wai Ora



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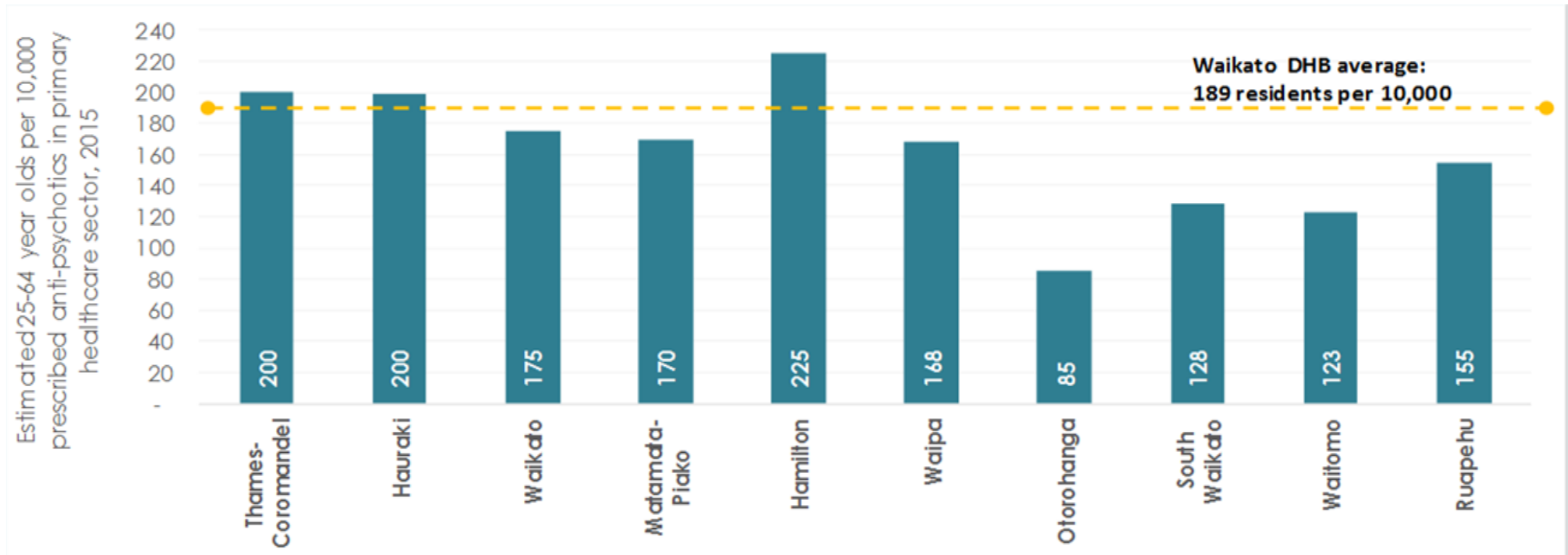
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# Prescribing anti-psychotics



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# Summary



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- Rural communities have poorer access to health services
- Rural communities are ageing rapidly, but for younger populations Māori are proportionately increasing
- Poorest health is found in our minor urban centres (rural towns)
- Rural Māori have poorer health than urban Māori, but generally less evidence of rural disparities in outcomes for NZ Europeans
- Addressing workforce needs should take into account population health needs



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