

# **The Rural Health Indicators Project**

## **Report 1 - Developing a Rural Health Indicator Framework**

### **Executive Summary**

In 2010, the New Zealand Institute of Rural Health (NZIRH) embarked upon a research project to develop a National Collection of Rural Health Indicators to demonstrate and measure the difference of the health status and health services for rural people opposed to those people who live in urban centres.

The purpose of this document is to report on the Rural Health Indicator Set proposed for use at a national level and the achievement and activity to date to differentiate between the health status and health services for these people.

There have been many attempts in New Zealand and internationally at delineating 'rural health' from urban. Variations of 'rural definitions' have meant there is little room for international comparisons. The geographical diversity across countries, and within, mean that a generic geographical description of rural is a doubtful descriptor. Also, rural dwellers are not a homogeneous group, different 'types' of people live under this label. Although at first glance, it would appear that health outcomes are generally poorer in rural areas, some research discrepancies have left in doubt its direct causation.

Therefore, it could be perceived that as the possible determinants of health are numerous, specific factors that predict health outcome in rural persons are nearly almost unattainable and that the subject matter has become all too hard.

Taking into consideration the development work on a Rural Health Indicator Framework from the Australian Institute of Health and Welfare over the years and noting that what started as Rural Health Indicators has now been pared down and are being used as

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National Health Indicators for Australia<sup>1</sup>. It was established that this Framework could lend itself to use in the New Zealand context. This would establish a sound footing for developing a set of Rural Health Indicators for New Zealand.

The framework that has been adopted contains 14 health performance dimensions overall, grouped under the three broad areas. For example, 'health conditions' is one of four dimensions in the 'health status' domain, 'environmental factors' is one of four in the 'determinants of health' domain, and 'effectiveness' is one of six in the 'health system performance' domain.

In general terms, 'indicators' can be defined as statistical measures selected to describe a situation concisely; to track change, progress and performance; and to act as a guide in decision making. Chosen carefully within a suitable framework, indicators should provide a systematic and efficient aid to monitoring and planning. Indicators can range from the very specific to the very broad.

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<sup>1</sup> Australian Institute of Health and Welfare (2010). Australia's health 2010, Australia's health series no. 12, Cat. no. AUS 122, Canberra: AIHW

## The Rural Health Indicator Framework Domains and Dimensions

### Health Status

Health Conditions	Human Function	Wellbeing	Deaths
Prevalence of disease, disorder, injury or trauma, or other health-related states	Alterations to body structure or function (impairment), activity limitations and restrictions in participation	Measures of physical, mental and social wellbeing of individuals	Mortality rates and measures of life expectancy

### Determinants of Health

Environmental Factors	Community and Socio-economic	Health Behaviours	Biomedical Factors
Physical, chemical and biological factors such as air, water, food and soil quality	Community factors such as social capital, support services and socio-economic factors such as housing, education, employment and income	Attitudes, beliefs, knowledge and behaviours such as patterns of eating, physical activity, smoking and alcohol consumption	Genetic-related susceptibility to disease; and other factors such as blood pressure, cholesterol levels and body weight

### Health System Performance

Effectiveness	Safety	Responsiveness
Care, intervention, or action provided is relevant to the client's needs and based on established standards. Care, intervention or action achieves desired outcome	The avoidance or reduction to acceptable limits of actual or potential harm from healthcare management or the environment in which healthcare is delivered	Service is client orientated. Clients are treated with dignity and confidentiality, and encouraged to participate in choices related to their care
Continuity of Care	Accessibility	Efficiency and Sustainability
Ability to provide uninterrupted, coordinated care or service across programs, practitioners, organisations and levels over time	People can obtain health care at the right place and right time irrespective of income, physical location and cultural background	Achieving desired results with the most cost-effective use of resources. Capacity of the system to sustain workforce and infrastructure, to innovate and respond to emerging needs

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To test the usefulness of the Rural Health Framework proposed in this document base analysis will be undertaken. The National Minimum Data Set (NMDS)<sup>2</sup> of a sample of five District Health Boards (DHBs) for 2005-2009 will be cross analysed by service related groups and diagnostic related groups. This data will then be analysed into different urban/rural populations using domicile codes within the NMDS in line with the National Health Committee Urban/Rural Profile<sup>3</sup> using the following Rural Health Indicators:

## **Health Status**

### ***Health conditions***

- incidence of disease - cardiovascular disease, malignancy, renal and respiratory disease),

### ***Deaths***

- mortalities - potentially avoidable mortalities (PAMs) and non potentially avoidable mortalities (Non PAMs),

## **Health System Performance**

### ***Efficiency and Sustainability***

- secondary care activity levels - discharges, inpatient and day patient, length of stay (LOS) and case weighted discharges (CWD).

The findings from this analysis will be presented in the document 'A Comparison of Five District Health Boards' where all data will be kept at a summary level and will not be adjusted to account for differences in either ethnicity or deprivation. However, this information and data is available by age, gender, ethnicity and ICD 10 Coding by each DHB.

Using the cross-sectional urban-rural analyses adapted by the NHC from Statistics New Zealand may display a useful construct about the impact of interplay with urban centres on rural areas within the findings. But it must be remembered the resulting urban-rural categories are not necessarily proxy determinants of health; some known health determinants vary widely within the urban-rural categories.

In summary the activity and achievements to date have been the development of a preliminary framework with an initial set of New Zealand Rural Health Indicators that

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<sup>2</sup> See Glossary of Terms

<sup>3</sup>Statistics New Zealand(undated) An Urban/Rural Profile

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could be used at a national level, the health status of rural and urban New Zealanders can be assessed and measured for specific indicators at a very high level, a crude methodology has been created that will allow regular reporting of the information measured to date.

Meanwhile, the indicators presented here can help in monitoring the gains and in highlighting areas where improvements can be achieved especially:

- measuring disease and health trends of rural communities,
- identifying high prevalence disease conditions that warrant particular attention and focus,
- assessing the performance of the national health system in relation to rural needs, and simplistic, and
- providing a data resource in support of other health research activities.