FOREWORD

More than six centuries ago, Te Arawa people moved inland from their landing at Maketu, on the Bay of Plenty coast to Rotorua, an area discovered by their ancestors.

The district is centred around a thriving urban area on the southern shore of Lake Rotorua, and extends to include a substantial rural area as well as lakeside communities.

Rotorua is a bicultural district with an increasingly multicultural population. Rotorua is the heart of Te Arawa people and Maori culture in New Zealand, and has a population of 65,901 (2006 Census).

European settlers arrived in New Zealand throughout the 18th Century. The development of the district was driven by tourism generated through the unique geothermal and cultural attractions of the area.

Today, the Rotorua District Council has responsibility, under the Local Government Act, for the provision of a wide range of services to the community and for coordination and planning of Rotorua's future social, cultural, economic and environmental development.

Part of the district council's work is to achieve the Community Outcomes identified by the people of the district. These outcomes contribute to the social, cultural, environmental and economic wellbeing of the community.

This report is part of an expanding series of publications produced by Council's Community Policy and Resources department to track the social trends, and to assist with community planning.

Incorporating 2006 Census data are publications on:

- Changing Communities Rotorua Rotorua District Demographic Profile 2007.
- Young People Rotorua Rotorua District Youth Demographic Profile 2007.
- Aging Population Rotorua Rotorua District Older Persons Profile 2007.
- Social Monitor Rotorua Rotorua District Indicators of Social Wellbeing 2007.
- Patterns of Wellbeing Indicators of Socio-Economic Status 2008.

Other publications based on the census will follow and will sit alongside 'Good Health, Rotorua District Health and Wellbeing Services,' to provide up-to-date information for businesses, students, not-for-profit organisations as well as local and central government agencies.

Naku noa na

Peter Guerin Chief Executive Rotorua District Council



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Report compilation: Caroline Matangi, RDC Social Research Officer

Meshblock maps: Michelle Dingwall, RDC GIS Officer

Editing: Ann Esler, RDC Community Policy & Resources Manager

This document is available on the Rotorua District Council website: www.rdc.govt.nz (keyword: "demographic")

Disclaimer: Care has been taken in the production of this publication to ensure its contents are as accurate as possible. However, the authors take no responsibility for any incorrect information contained within, or any actions that may result from the use of information in this publication.





EXECUTIVE SUMMARY

- This report is based around the NZDep Index of Deprivation. The NZDep and related Census indicators provide valuable information for resource allocation and advocacy in local communities. The report was developed as a reference for Council, local service providers, Central Government agencies, and voluntary organisations in the Rotorua District.
- The NZDep index is a weighted average of nine Census indicators of socio-economic status. The index divides New Zealand into equal tenths. A score of 10 indicates a geographic area is in the *most deprived* 10 percent of all areas in New Zealand.
- The Rotorua District scored 7 on the NZDep index in 1991, 1996, 2001 and 2006. This means that a 'typical' area within the District is in the 30% most deprived areas in New Zealand. The 2006 NZDep results show that 45.7% of the Rotorua District population live in areas that are considered the 30% most deprived in the country. In 2006 there were more residents living in very deprived areas (NZDep of 10), and fewer residents living in high socio-economic areas (NZDep of 1).
- The NZDep allows comparisons at a point in time, but does not measure absolute trends in socio-economic status. Census information shows that overall socio-economic status improved over the period 1991-2006.
- Positive socio-economic trends in the Rotorua District over the period 1991 to 2006 include increased median household income, fewer people receiving income support payments, more households with access to a car and telephone, lower unemployment, and more people with a formal academic qualification.
- A significant negative socio-economic trend over this period was a substantial decrease in home ownership levels.
- The most deprived parts of the District relative to New Zealand as a whole include Fordlands, Koutu, Selwyn Heights, Western Heights, Pukehangi North, residential areas close to the CBD, Whaka in the south, Ngapuna in the east and the rural settlement of Kaingaroa Forest. Variations between Census results for different suburbs and neighbourhoods are highlighted in the Data Appendix.

For further information contact:

Social Research Officer
Community Policy and Resources Department
Rotorua District Council
Civic Centre, 1061 Haupapa Street
Private Bag 3029, Rotorua Mail Centre, Rotorua 3046, New Zealand
Telephone: 64 7 348 4199 Fax: 64 7 350 0206



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INTRODUCTION

In recent years, Rotorua District Council has played an increasing role in social and economic development. Part of this role includes monitoring differences in socio-economic status throughout the District.

This report presents information on key indicators of socio-economic status for the period 1991 to 2006, sourced directly from Statistics New Zealand and the Ministry of Health. The report is based around the NZDep Index of Deprivation, developed by the Health Services Research Centre. The NZDep is made up of nine Census measures of deprivation. It was developed in consultation with key social service sectors, and has become a standard measure of relative socio-economic status in New Zealand.



The report begins with location maps of statistical Area Units (suburbs and rural communities) in the Rotorua District. Rotorua has 39 Area Units excluding Lake Rotorua/Mokoia Island. These range in population from Arahiwi (150 residents) to Springfield (4,275). Population density is highest in the urban areas around the southern shore of Lake Rotorua, and lowest in large rural meshblocks.

Part One presents the NZDep index scores for the Rotorua District and its Area Units over the period 1991 to 2006, as well as colour maps of NZDep scores at the meshblock (neighbourhood) level.

Part Two presents trend information for the Rotorua District and New Zealand in terms of the individual Census items that make up the NZDep index.

The Data Appendix presents NZDep and Census information comparing different Area Units as at Census night 2006. Additional Census statistics are contained in the Rotorua District Demographic Profile, which can be accessed from www.rdc.govt.nz (keyword: "demographic"). Additional information on the NZDep index can be found on the Ministry of Health website at www.moh.govt.nz/phi.

Cautionary note

This report follows the approach of Statistics New Zealand when calculating percentages, of first excluding invalid responses such as "Not stated", "Refused to answer" or "Not elsewhere included". These categories exist because some Census responses are illegible or their meaning is unclear, some are unanticipated and can't adequately be coded, and in some cases respondents have left questions blank. By excluding these categories the valid responses sum to 100.0%, but this assumes there are no underlying features separating the group of people who gave valid responses and the group of people who gave invalid responses.



DEPRIVATION

Uses for NZDep2006

NZDep91, NZDep96, NZDep2001, and NZDep2006 have been developed with three principal purposes in mind: resource allocation, research, and advocacy.

- 1. Indexes of deprivation have application in funding formulas. For example, indexes of deprivation are used in capitation funding formulas for primary health care services, the population-based funding formula for District Health Boards, and in funding formulas for social services in other sectors.
- 2. Indexes of deprivation have application in research in a variety of settings such as health and other social services. For example, in the health sector, many researchers use small area indexes to describe the relationship between socioeconomic deprivation and health outcomes; increasing levels of deprivation are associated with higher morality rates, and higher rates of many diseases.
- 3. Indexes of deprivation are used by community groups and community-based service providers to describe the population they serve, and to advocate for extra resources for community based services.¹

Health Outcomes

New Zealand research evidence demonstrates a strong association between NZDep and other health outcomes. Increasing NZDep scores are associated with increased total mortality, injury-related mortality, asthma prevalence in adults, sudden infant death syndrome, domestic fire deaths, and mortality due to causes which respond to medical treatment — including lung cancer, diabetes, rheumatic fever, ischaemic heart disease, pneumonia, chronic obstructive respiratory disease, asthma, peptic ulcer, alcoholic liver damage, complications of pregnancy and perinatal causes.

In New Zealand, environmental factors like the quality of water supply, aspects of lifestyle and disease risk factors are also patterned according to the level of NZDep. People living in areas with high NZDep scores are more likely to have their house close to a contaminated waste site, and are more likely to have a risky drinking water supply.

There is strong New Zealand evidence related to the association between measures of area deprivation and the use of hospital services. Increasing NZDep scores are associated with increasing total hospitalisations, hospitalisations due to heart failure, and hospitalisations avoidable through good primary care or outpatient care, including hospitalisations for pneumonia, asthma, cellulitis, kidney infections, ruptured appendix, congestive heart failure, immunisable infections and diabetes. There is less published research related to area deprivation and use of primary care services. While there is evidence that preventive services such as immunisation are taken up less by people in areas with high-ranking NZDep scores, frequent use of general practitioner services is higher in such areas.

Source: The deprivation atlas (reference: Crampton, P., C. Salmond, et al. (2004). Degrees of Deprivation in New Zealand: An atlas of socioeconomic difference. 2nd Edition. Auckland, David Bateman Ltd.).

¹ Source: NZDep2006 Index of Deprivation User's Manual (August 2007).



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LOCATION MAPS









