

HEALTH

Why is this important?

Research has found that health status is often related to socio-economic status and living conditions. Poor health can limit educational opportunities and employment, and lead to long term impacts.

Health indicators

- Infant death rate.
- Low birth weight babies.
- Young parenting.
- Deaths before age 65.²

How are we doing?



The infant death rate in the Lakes DHB region rose to 7.5 per 1,000 live births in 2010, compared to 5.4 per 1,000 live births in 2009 and 1.9 per 1,000 live births in 2006. The infant death rate in the Lakes region was higher than the national rate (5.1 per 1,000 live births) in 2010.

The rate of low birth weight babies in the region was below the national average in 2010, after rising in 2009.

The rate of young parenting fell in Rotorua between 1996 and 2006 but is still above the national average.

Mortality rates of children aged 0-14 years increased in 2010 compared to 2009, and were higher than the 2006 rate.

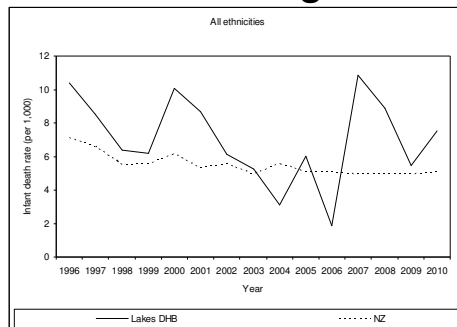
² In terms of deaths before age 65, this report provides age-specific deaths rates and standardised rates. Age-specific death rates calculate the number of deaths in relation to the population size of a particular age group. The numerator and denominator for this rate refer to the same age group, that is, both have the same age distribution. Standardised death rates (SDRs) provide a summary measure of the mortality experience for each area, but also allow for the different age-sex composition of each area. However, they are meaningful only in comparison with similarly computed rates. (Source: Statistics New Zealand)

Infant Death Rate

Why is this important?

An infant death is one that occurs before a child's first birthday. The infant death rate is measured as the total number of infant deaths per 1,000 live births. Infant deaths are closely related to socio-economic conditions, and access to effective health services. A low infant death rate indicates a healthy community.

How are we doing?



Infant death rate (all ethnicities), Lakes DHB and New Zealand, 1996-2010

Source: Statistics New Zealand



Infant death rate (Maori), Lakes DHB and New Zealand, 1996-2010

Source: Statistics New Zealand

In the 1970s the infant death rate at Rotorua Hospital was consistently higher than the national rate. Since then it has come more in line with the national average, and continued to decline and fluctuate.

There were 10 infant deaths in the Rotorua district in 2010, comprising 5 neonatal and 5 post-neonatal deaths³. This compares to 2 infant deaths in 2006, comprising 1 neonatal and 1 post-neonatal death and 13 infant deaths in 2007, comprising 4 neonatal and 9 post-neonatal deaths.⁴

There were 12 infant deaths in the Lakes DHB region in 2010 - 6 neonatal and 6 post-neonatal deaths.

The infant death rate in the Lakes DHB region has increased in 2010 to 7.5 per 1,000 live births, compared to 5.4 per 1,000 live births in 2009. The infant death rate in the Lakes region was higher than the national rate (5.1 per 1,000 live births) in 2010.

Infant deaths for the region's Maori population have increased slightly to 6.7 per 1,000 live births in 2010 compared to 6.6 per 1,000 live births in 2009. The infant death rate for the region's Maori population was slightly higher than the national rate (6.6 per 1,000 live births) in 2010.

³ A neonatal death is a live born infant dying in the first 28 days after birth.

A post-neonatal death is a live born infant dying after 28 completed days and before the first year of life is completed (NZIS - <http://www.nzhis.govt.nz/stats/fetal/glossary.html>).

⁴ Because infant death numbers are very small when distributed across territorial authority, annual fluctuations can be proportionately large. Therefore infant death rates by TA are not recommended.

Low Birth Weight Babies

Why is this important?

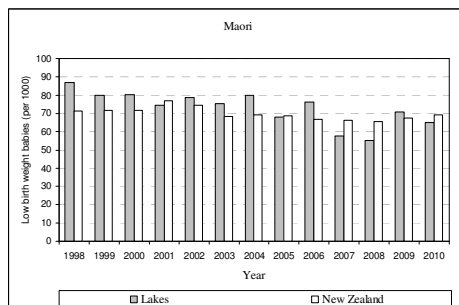
Babies that weigh less than 2,500 grams tend to have increased risk of health problems, and a greater risk of early death. Birth weight is linked with the overall health of the mother (including nutrition and cigarette smoking) as well as the quality and accessibility of prenatal care. The higher the number of low birth weight babies per 1,000 live births, the higher the social cost of poor health and educational attainment in the future. The incidence of low birth weight babies is correlated with the infant mortality rate.

How are we doing?



Incidence of all low birth weight live births, Lakes DHB region, 1998-2010

Source: NZ Health Information Service



Incidence of low birth weight live births (Maori), Lakes DHB region, 1998-2010

Source: NZ Health Information Service

Before 2008 in any given year around 60 to 70 of every 1,000 live babies born in the Lakes DHB region had a low birth weight. Historically, Lakes region has generally had a higher rate of low birth weight babies than the national average, although data for 2008 and more recently 2010 belied that trend. 2010 data showed there were 55.5 low birth weight babies per 1,000 live births in the Lakes region compared to 58.5 for New Zealand overall. Data for Lakes region shows a decreased level in 2010 compared with 63.7 per 1,000 live births in 2009.

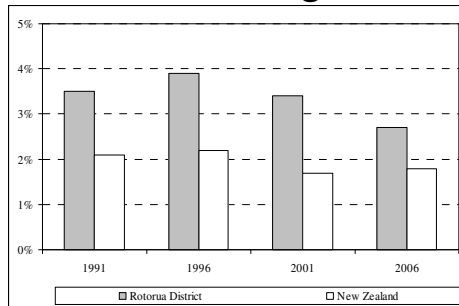
Similarly, the rate of low birth weight babies born to Maori mothers in the Lakes region was below the national average in 2010, after rising in 2009. Data for 2010 showed there were 65.1 low birth weight babies per 1,000 live births in the Lakes region compared to 69 for New Zealand overall. However, Lakes region data shows that the 2010 level remains higher than the 2007 and 2008 levels of 57.7 and 55 low birth weight babies per 1,000 live births respectively.

Young Parenting

Why is this important?

Teenage parenthood can be a turning point that reduces young people's life opportunities in such areas as education, and employment. Young people whose schooling is shortened because of the birth of a baby generally have less education, work experience and income, and are more likely to be single parents. This has significance for their personal health, as well as the health of their children.

How are we doing?



Percentage of people aged 15-19 years who stated a parent role, Rotorua District and New Zealand, 1991-2006

Source: Statistics New Zealand/Census

Census results show that the proportion of Rotorua 15-19 year-olds who are parents increased between 1991 and 1996 but has subsequently fallen. In 2006 there were 135 (2.7%) young parents aged 15-19 years compared to 159 (3.4%) in 2001, 186 (3.9%) in 1996 and 189 (3.5%) in 1991. However, this is still higher than the national average (1.8%).

In the 20-24 years age group in Rotorua there has also been a decline in the numbers of parents to 774 (21.6%) in 2006 compared to 1,080 (22.7%) in 1991. The comparable national figure for the 20-24 years age group in 2006 was 11.1%.

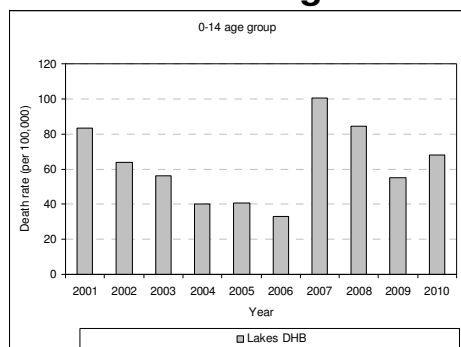
Deaths Before Age 65

Why is this important?

Life expectancy is a key indicator of overall health status. Regional differences in life expectancy may reflect differing social and economic conditions, lifestyle choices and access to health services. The Ministry of Health publishes annual data on age at death for district health boards, and sub-regions throughout New Zealand.

Although numbers and proportions of deaths for a certain group present a good snapshot of the community, when comparing different populations, especially those that might have different age structure and ethnicity composition (both factors usually influence mortality trends), it is worthwhile to look at age-specific death rates in addition to the crude numbers.

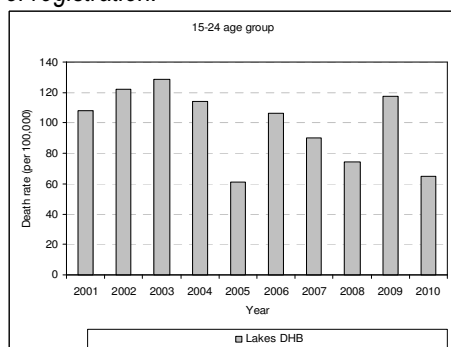
How are we doing?



Age-specific mortality rates per 100,000 for the 0-14 years age group, Lakes DHB area, 2001-2010

Source: Statistics New Zealand

Note: Deaths are based on deaths registered in NZ, of NZ residents, by date of registration.



Age-specific mortality rates per 100,000 for the 15-24 years age group, Lakes DHB area, 2001-2010

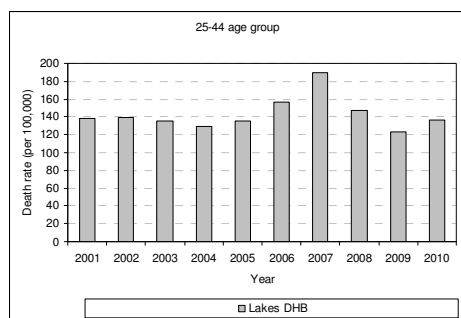
Source: Statistics New Zealand

Life expectancy in Rotorua District is gradually increasing but remains slightly below the national average. The 2005-2007 official estimates show that life expectancy at birth was 75.6 years for Rotorua males and 80.1 years for Rotorua females. The comparable national figures were 78.1 years and 82.2 years.

The 2005-2007 standardised death rates show that there were 6.9 deaths per 1,000 population in the Rotorua District. The comparable national figure was 5.8 deaths per 1,000 population. Standardised death rates in the Rotorua District in 1995-97 (8.7 per 1,000 population) and 2000-02 (7.8 per 1,000 population) remained consistently above the national average of 7.5 per 1,000 population and 6.5 per 1,000 population respectively.

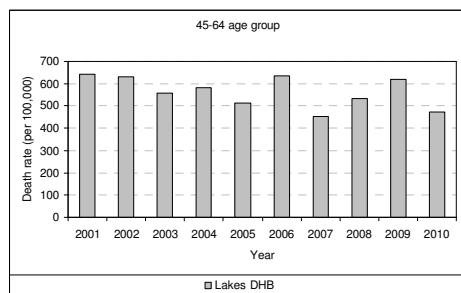
Mortality rates of children aged 0-14 years in the Lakes DHB region have increased and were up to 67.9 per 100,000 in 2010 compared to 55 per 100,000 in 2009. They are above the 2006 rate of 32.9 per 100,000. National rates have remained quite stable and were up to 50.3 per 100,000 in 2010 compared to 49.3 per 100,000 in 2006.

Mortality rates of the age group 15-24 years have decreased during the last year in the Lakes DHB area to 64.9 per 100,000 in 2010, compared to 117.6 per 100,000 in 2009. The 2010 figure is also significantly lower than the 2006 rate of 106.2 per 100,000. National rates for this age group were down to 56 per 100,000 in 2010, compared to 61.2 per 100,000 in



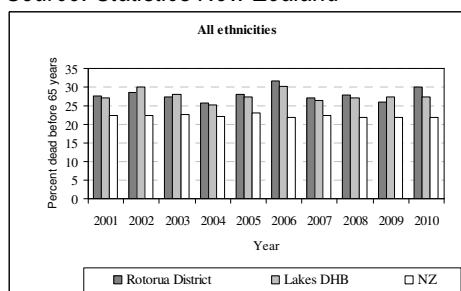
Age-specific mortality rates per 100,000 for the 25-44 years age group, Lakes DHB area, 2001-2010

Source: Statistics New Zealand



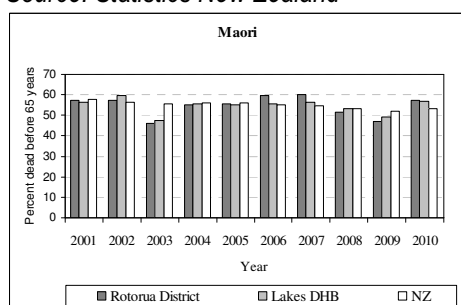
Age-specific mortality rates per 100,000 for the 45-64 years age group, Lakes DHB area, 2001-2010

Source: Statistics New Zealand



Percentage of deaths before age 65 years (all ethnicities), Rotorua District, Lakes DHB area and New Zealand, 2001-2010

Source: Statistics New Zealand



Percentage of deaths before age 65 years (Maori), Rotorua District, Lakes DHB area and New Zealand, 2001-2010

Source: Statistics New Zealand

2009. This is down from 62.2 per 100,000 in 2006.

Mortality rates of the age group 25-44 years have increased and were up to 136.7 per 100,000 in 2010, compared to 123.6 per 100,000 in 2009. This is below the 2006 rate of 156.2 per 100,000. National rates were down to 88.9 per 100,000 in 2010 compared to 96.1 per 100,000 in 2009 and 94.0 per 100,000 in 2006.

In the 45-64 years age group mortality rates have decreased during the last year in the Lakes DHB area and were down to 474.9 per 100,000 in 2010, from 619.1 per 100,000 in 2009. The 2010 rate is significantly lower than the 2006 figure of 635.3 per 100,000. National rates have steadily fallen over the past nine years to 398.1 per 100,000 in 2010, from 429.3 per 100,000 in 2006, and 482.7 per 100,000 in 2001.

In summary, the proportion of people in the Rotorua district who died before age 65 decreased from 31.6.2% (158) of all deaths in 2006, to 29.9% (129) in 2010. A similar trend is noticeable in the Lakes DHB area and nationally, however the percentage of people who die before the age of 65 is consistently lower nationally than in either Rotorua or Lakes DHB areas, and was 21.8% in 2010.

The proportion of Maori people in the Rotorua District who died before age 65 years decreased from 59.7% (71) of all deaths in 2006, to 57.5% (65) in 2010. A similar trend is noticeable in the Lakes DHB area. However due to the small numbers, and the overall trend over the last few years, this decrease does not seem to be statistically significant.