

ABOUT MORTALITY DATA FOR NEW ZEALAND MĀORI

By Domantas Jasilionis and Dmitri Jdanov Last updated: 07 December 2017

The Māori population is a subgroup of the New Zealand population (see the *Background and Documentation* file for New Zealand for more details). Māori data should be used with caution due to data quality problems.

First, Statistics New Zealand considers data on Māori births and deaths to be very incomplete at least until 1936. There is some evidence that some coverage problems persist up to 1961 (when the separate Māori vital registry was abolished). Some evidence was also found by the present authors of an undercount of Māori deaths at older ages prior to the 1960s (see the section on 'Data Quality Issues' in the *Background and Documentation* file for New Zealand). Data on births also have problems of undercounting and misreporting of the year of birth (see the *Background and Documentation* file for New Zealand for more details).

The second data quality issue relates to the population estimates. Estimates before the 1960s may be affected by the aforementioned problems with vital statistics. However, Māori population estimates are not reliable even for more recent periods. For example, because information on migration of the Māori population has not been available since the mid-1980s, estimates for the period from 1986 onwards involve approximations (see the *Background and Documentation* file for New Zealand for more details).

Ethnic-specific statistics experienced several conceptual changes during the 1970s and 1980s. However, the major reforms (significantly affecting time series data) took place in the 1990s. A new, broader definition of ethnicity has been applied to the Māori population estimates since 1991. In the case of births and deaths, such reform was not introduced until September 1st 1995. Thus, for the period 1991-1995, the official data on births/deaths and population are based on different definitions of ethnicity. Special adjustment factors have been introduced here in an attempt to resolve this inconsistency (see the *Background and Documentation* file for New Zealand for more details).

REVISION NOTES

Changes with the December 2017 revision:

Life tables: All life tables have been recalculated using a modified methods protocol. The revised protocol (Version 6) includes two changes: 1) a more precise way to calculate a_0 , the mean age at death for children dying during the first year of life and 2) the use of birth-by-month data (where and when available) to more accurately estimate population exposures. These changes have been implemented simultaneously for ALL HMD series/countries. For more details about these changes, see the revised Methods Protocol (at <http://v6.mortality.org/Public/Docs/MethodsProtocol.pdf>), particularly section 7.1 on Period life tables and section 6 and Appendix E, on death rates. The

life tables calculated under the prior methods (Version 5) remain available at v5.mortality.org but will not be further updated in the future.

APPENDIX 1:

DESCRIPTION OF DATA USED FOR LEXIS DATABASE

DEATHS

Period	Type of Data	Age Grouping	Comments	RefCode†
1930-1947	Annual number of deaths for the <i>de facto</i> population, by sex and age groups (5x1 rectangles)	0,1,5,10, ... , 95,100+	Death numbers are underestimated.	3
1948	Annual number of deaths for the <i>de facto</i> population, by sex and age groups (1x1 rectangles)	0,1,2,..., 100+		3
1949-1979	Annual number of deaths for the <i>de facto</i> population, by sex and age groups (1x1 rectangles)	0,1,2,..., max age		3
1980-1990	Annual number of deaths for the <i>de facto</i> population by sex, single year of age, and birth cohorts (Lexis triangles)	0,1,2,..., max age		4
1991-2008	Annual number of deaths for the <i>de jure</i> population by sex, single year of age, and birth cohorts (Lexis triangles)	0,1,2,..., max age	Since 1 September 1995, a new definition of ethnicity has been used.	4, 5, 6, 7, 8

POPULATION

Period	Type of Data	Age Grouping	Comments	RefCode†
1937-1990	Mid-year population estimates ("mean year ended December 31") for the <i>de facto</i> population by sex and single year of age	0, 1, 2, ...89, 90+	Based on the old definition of ethnicity	9
1996-2008	Population estimates for June 30 ("as at June 30") for the "usually resident" (<i>de jure</i>) population by sex and single year of age	0, 1, 2, ...89, 90+	Based on the new definition of ethnicity	10, 15

BIRTHS

Period	Type of Data	Comments	RefCode†
1937-1990	Annual counts of births by sex for the actually present (<i>de facto</i>) population		1
1991-2008	Annual counts of births by sex for the usually resident (<i>de jure</i>) population.	Since September 1 st 1995, a new definition of ethnicity has been used	1, 2, 11, 12