Mortality deficit in New Zealand through COVID pandemic

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Overview

- NZ’s death registrations
- Impact on NZ deaths due to COVID-19 pandemic
- Deaths statistics and visual tools
Death registrations in New Zealand

• Very high coverage
• Very timely
  – 1 in 100 deaths registered after 1 month
  – 1 in 1,000 deaths registered after 3 months
• Quarterly death publication
  – six weeks after the reference quarter
• Covid 19 increases the demand for death publication
  – weekly data published about 2 weeks after
• Cause of death collected by Ministry of Health
COVID-19 deaths in New Zealand

Cumulative death toll:

- **22** (Feb 2020)
  - NZ’s first community case

- **26** (May 2020)
  - Feb 2021

- **62** (Feb 2021)
  - Jan 2022
  - Start of Omicron outbreak

- **570***
  - Mar 2022
  - Apr 2021
  - Change in death reporting and reconciliation of deaths tally

*Includes all cases who died within 28 days of being reported as a COVID-19 case.
All cause weekly data

COVID-19 data portal | Stats NZ

Select category: Total deaths (all causes)
Select an indicator: Weekly deaths by age
Select a series: Total

Weekly deaths – Total

Corresponding API query:

Last updated: 19 April 2022
Source: Department of Internal Affairs
NZ Population growing and ageing

Between 2011 and 2021:

- Total population grew 16%
- 65+ population grew 39%
- 85+ population grew 28%
- Proportion of oldest population continues to increase
  - 65+: 13% to 16%
  - 85+: 1.6% to 1.8%
Quarterly deaths counts

Quarter of death

Mar-91  Mar-96  Mar-01  Mar-06  Mar-11  Mar-16  Mar-21

Actual  Seasonally adjusted

5,000  5,500  6,000  6,500  7,000  7,500  8,000  8,500  9,000  9,500  10,000

Sep-20
Quarterly crude death rates

Deaths per 1,000 population

- Actual
- Seasonally adjusted

Quarter of death

Note: Sep-20
Annual standardised death rates
year ended December

Deaths per 1,000 mean population

Note: The age and sex distribution of the mean estimated population for the year ended 31 December 1961 was taken as the standard.
Visualisation of short-term mortality fluctuations (STMF)

• Human Mortality Database

• Weekly death counts or death rates for 38 countries

• Open sources
Mortality deficit/excess mortality in New Zealand, 2020
Age-specific death rates, age 85+

2020

2021

2022
Summary

• Consistent findings from various mortality indicators
  – Mortality deficit in 2020, 2021
  – Excess mortality in early 2022 (?)
• Analysis needs to include rates, preferably age-specific
• Ongoing demand for very timely death statistics
• Questions?