A time series of deaths in New Zealand – are hidden epidemics concealed in the trends?

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Abstract

Background and aims The continuing increase in medical emergency admissions has been an international phenomena. Recent research in the UK has revealed that medical admissions show sudden spurts of growth during times of unexpected and unexplained higher deaths. These periods of higher deaths are also observed in Europe and Australia. Do similar periods occur in New Zealand (NZ)?

Methods Monthly deaths from January 1980 to June 2014 in NZ. A running 12 month total of deaths was calculated and analysed.

Results Extended periods of higher than expected deaths can be observed with preliminary evidence for spatial spread between Regional Council areas. These periods coincide with higher deaths and medical admissions in the UK, Europe and Australia. Preliminary studies suggest that higher medical admissions also occur at these times in NZ.

Conclusions A potential common infectious etiology seems implicated which may be due to outbreaks of a persistent infectious agent. Further research is required to demonstrate small area infectious spread and confirm the range of conditions/diagnoses already seen to rise during these times in the UK.