COVID-19 Weekly Excess Deaths

Health Inequalities Briefing
A Management Information release for Scotland

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About this release
This report compares age-sex standardised all-cause, COVID-19 and non-COVID-19 mortality rates by Scottish Index of Multiple Deprivation (SIMD2020) for weeks 1 to 23 of 2020 (30 December 2019 to 7 June 2020) against a pooled average for the same period in the previous five years (2015-19).

Main Points

Overall mortality trends

- The first COVID-19 deaths in Scotland were recorded in the week commencing 16 March 2020. Two weeks later (week commencing 30 March 2020) the mortality rate was markedly higher than in the preceding five years, and it peaked the following week (week commencing 6 April 2020) at about double the average historic rate.
- Both COVID-19 and non-COVID-19 deaths contributed to this excess mortality.
- The subsequent decline in all-cause mortality has been slower than the initial rise, with all-cause mortality rates only returning to within the historic range in the most recent week included in this analysis (week commencing 1 June 2020).

Absolute inequalities

- All-cause mortality rates for each deprivation category followed the overall mortality rate trend over the study period.
- This led to a doubling of the absolute gap between most and least deprived categories in early-April followed by a slower narrowing, with the absolute gap returning to within the historic range since the week commencing 18 May 2020.
- While inequalities have narrowed to within the historical range since the early-April peak, this should be seen within the context of Scotland historically having some of the widest health inequalities in Europe.

Relative inequalities

- Relative inequalities in weekly all-cause mortality rates did not show such a clear trend over time. This is at least in part due to the relative gap being sensitive to changes in the overall rate.
- However, over the whole period since the first certified COVID-19 death in Scotland, larger relative inequalities have been observed for COVID-19 deaths than for non-COVID-19 deaths.
- An excess of both COVID-19 and non-COVID-19 deaths have contributed to increased absolute inequality in weekly all-cause mortality in Scotland between April and May 2020.
- The relative gap between the least and most deprived areas was greater for COVID-19 deaths than for non-COVID-19.
Background

An expected rise in deaths has been observed in Scotland since the beginning of the COVID-19 pandemic. However, about a quarter of the excess deaths between the beginning of the pandemic and the week beginning 1 June 2020 have not been directly due to COVID-191. The aims of this report are to measure inequalities in all-cause, COVID-19 and non-COVID-19 mortality in 2020 by week; and to compare the inequality gaps for all-cause and non-COVID-19 deaths to the equivalent weekly average for the previous five years (2015-19).

We used death register data and small area population estimates provided by National Records for Scotland (NRS) to calculate directly age-sex standardised all-cause, COVID-19 and non-COVID-19 mortality rates by Scottish Index of Multiple Deprivation (SIMD2020) for weeks 1 to 23 of 2020 (30 December 2019 to 7 June 2020) against a pooled average for the previous five years (2015-19). We then used these rates to calculate the absolute and relative gap between the most and least deprived SIMD2020 quintile per week. The absolute gap was calculated by subtracting the least deprived quintile’s rate from that of the most deprived quintile. The relative gap was calculated by dividing the absolute gap by the rate for the least deprived quintile, and then converting into a percentage difference.

Contact

Andrew Pulford  
Public Health Intelligence Adviser  
Email: andrew.pulford@nhs.net

Elizabeth Richardson  
Public Health Intelligence Adviser  
Email: elizabeth.richardson1@nhs.net

Gerry McCartney  
Consultant in Public Health and Head of  
Public Health Observatory  
Email: gmccartney@nhs.net

Further Information

Data from this publication are available from the publication page on our website.

This report will be updated on an ad-hoc basis.

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