

# Pandemic had greater impact on younger age group mortality in deprived areas

July 19 2021, by Mike Addelman

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In the first year of the COVID-19 pandemic, deprived areas suffered more excess deaths than affluent areas , with a disproportionate impact on their younger age groups according to the early draft of a new study.

In addition to the deaths from COVID-19, longstanding socioeconomic and geographical health inequalities for a range of other conditions also worsened during the [pandemic](#), say the research team from the Universities of Manchester and York.

More people were estimated to have died from all-causes in deprived areas across all age-groups, but the differences between deprived and affluent areas were greatest amongst younger people.

For all-cause mortality in the most deprived areas, 15 to 44 year olds were estimated to have had 480 excess deaths, compared to 42 in the most affluent, or over 11 times as many.

And 45 to 64 year olds were estimated to have had 3,150 excess deaths in the most deprived areas , compared to 1,050 in the most affluent, or 3 times as many.

By comparison, estimated excess deaths for those aged 75 to 84 were 5,916 in the most deprived areas and 4,279 in the most affluent, or 40% higher; for those aged 85 or over they were 5,771 in the most deprived and a similar level of 6,094 in the most affluent.

For mortality caused by COVID-19 and respiratory illness, in the most deprived areas, 15 to 44 year olds were estimated to have had 268 excess deaths, compared to 51 in the most affluent, over 5 times as many.

Similarly, 45 to 64 year olds were estimated to have had 2008 excess deaths in the most deprived areas , compared to 681 in the most affluent, or 3 times as many.

By comparison, estimated excess deaths for those aged 75 to 84 were 5069 in the most deprived and 3655 in the most affluent, or 40% higher.

For those aged 85 or over they were 5,302 in the most deprived and a similar 5,636 in the most affluent.

To a degree, the differences were lessened when age structure within deprivation strata was taken into account as younger people live in more deprived areas. However, they remained significant.

The research team used 'Years of Life Lost' (YLL) as an alternative measure of premature mortality, measuring the 'excess' years lost during the pandemic compared with previous years.

The measure accounts for both the number of deaths and the age at which those deaths occurred and allows comparison between causes of [death](#) and across population groups

YLL adjusts for baselined levels across strata of interest such as different life expectancies for men and women.

There were an estimated 763,550 excess YLL in England and Wales in 2020 compared to 2019, 85% of which were directly attributed to COVID-19 or another respiratory disease.

Excess YLL varied widely across the regions, with per capita rates in the North West over three times as high as those in the South West of England

Rates also varied across social groups: the most deprived fifth of areas were 1.8 times those than in the least deprived fifth.

For every death, an average of 9.1 years of life were lost in the least deprived fifth of areas, compared to 10.8 years in the most deprived fifth. For COVID-19/respiratory deaths the numbers were 8.9 and 11.2 years, respectively.

More years of life were lost for men on average, 10.5 in COVID/respiratory deaths and 10.8 in all-cause deaths, compared to 9.5 and 8.2 for females, respectively.

The pandemic exacerbated longstanding socioeconomic inequalities, with the ratio of observed years of life lost for the most deprived fifth of areas compared to the most affluent increasing from 1.56 in 2019 to 1.64 in 2020.

Professor Evan Kontopantelis from The University of Manchester said: "The pandemic widened pre-existing health inequalities across England and Wales: regions and [social groups](#) with the highest baseline mortality rates experienced the greatest impact on years of life lost.

"Linked to this, we think the impact of the pandemic may have been higher than previously thought on the most deprived areas of England and Wales, with more younger people dying directly or indirectly from COVID-19 in these areas."

Professor Tim Doran from the University of York said: "Our findings support the notion that Years of Life Lost can be more informative for determining unmet needs and informing policy for this or future pandemics.

"In particular, it could provide vital information to aid the targeting of vaccines, financial aid and social support during this and future pandemics."

**More information:** Evangelos Kontopantelis et al, Excess years of life lost to COVID-19 and other causes of death by sex, neighbourhood deprivation and region in England & Wales during 2020, (2021). [DOI: 10.1101/2021.07.05.21259786](https://doi.org/10.1101/2021.07.05.21259786)

Provided by University of Manchester

Citation: Pandemic had greater impact on younger age group mortality in deprived areas (2021, July 19) retrieved 22 July 2023 from <https://medicalxpress.com/news/2021-07-pandemic-greater-impact-younger-age.html>

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