

were estimated, and for each deprivation quintile of the Scottish population. Years Lived with Disability (2% of all DALYs) were proportionately distributed to deprivation quintiles, based on YLL estimates. Socioeconomic inequalities were measured by the Relative Index of Inequality (RII), Slope Index of Inequality (SII), and attributable DALYs were estimated by using the least deprived quintile as a reference. Results were presented as a range, using a sensitivity based on YLL estimates using: cause-specific; and COVID-19 related deaths.

Results:

COVID-19 DALYs ranged from 96,500 to 108,200 in 2020, representing the second leading cause of disease/injury in Scotland, in 2020. Marked socioeconomic inequalities were observed across several measures. The difference between the most and least deprived areas, measured by SII, was 2,048 to 2,289 DALYs per 100,000. The RII was 1.16, meaning that the rate in the most deprived areas was around 58% higher than the mean rate of the population. DALYs attributable to differences in socioeconomic status accounted for 40% of total COVID-19 DALYs.

Conclusions:

The direct population health impact of COVID-19 in 2020 was substantial. Despite unprecedented mitigation efforts, in Scotland, a single case in early 2020 developed to having an impact second only to ischaemic heart disease. This impact was not shared equally, and socioeconomically deprived areas were hit hardest, a result confirmed across all measures of inequality. DALY estimation on both the ongoing direct, and indirect, pandemic harms will evidence the extent of impact on overall, and inequalities in, population health.

Key messages:

- The population impact of COVID-19 has been highly damaging. When measured by DALYs, the population health impact of COVID-19 in Scotland, during 2020, was second only to ischaemic heart disease.
- The population health impact of COVID-19 has not been shared equally, a result confirmed across all measures of socioeconomic inequality.

Socioeconomic inequalities in COVID-19 DALYs in Scotland, 2020

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Aim:

Our aim was to estimate the overall, and inequalities in the, population health impact of COVID-19 in Scotland, measured by disability-adjusted life years (DALYs) in 2020.

Methods:

National deaths and daily case data were input into the consensus model outlined by the European Burden of Disease Network, to estimate DALYs. Total Years of Life Lost (YLL)