The COVID-19 death toll in India, getting it right

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Context:

COVID-19 pandemic extracted a heavy mortality toll across the world during 2020 and 2021, and this has been a huge global public health concern. But we were not able to accurately assess COVID-related death toll.

Gaps in registration data :

1. Given the challenges in direct causal attribution of deaths to COVID-19 infection, the international public health community emphasised the need to measure pandemic impact in terms of excess mortality, derived by comparing observed mortality during the pandemic with expected mortality based on pre pandemic trends. Ideally, excess mortality estimation requires robust population based mortality data from death registration systems.
2. India faced a big challenge in estimating excess deaths directly due to COVID-19 due to the following issues:
3. Death registration in India is still about 70%, which further varies widely across States and districts.
4. Pandemic severity was particularly observed in India during the second wave in April-June 2021, when death statistics were not accurately captured.
5. India's death registration data also does not give weekly or monthly mortality data which is essential for excess death calculation.

Civil Registration System (CRS) and Sample Registration System (SRS) data:

1. To assess the mortality toll, independent investigators compiled CRS mortality records from local offices of the government in 14 States and 9 cities across India from 2018 to 2021. Various scientific teams utilised these and other available mortality data from the SRS and household surveys to develop modelled excess mortality estimates for India.
2. COVID-19 related death estimates varied widely from one to another study — the highest was 4.7 million excess deaths in India during 2020-21 using available local data as inputs for mortality models.
3. There has been intense debate and controversy around the likely plausibility of various mortality estimates for India, which have focused on the statistical methods and data assumptions employed for estimation.
4. However, most of these studies could not overcome some crucial biases in the input data for the modelling exercises, as well as in the assumptions applied to fill data gaps.
5. Some studies are based on insufficient samples while others have information bias at various levels. It is very likely that the COVID-related excess deaths in India may have been overestimated.

Set up a task force:

1. The official CRS report for 2021 is scheduled for release shortly, and holds much promise for providing the best possible primary evidence. However, it may also lead to new debates if variations such as improvements in reporting, delayed registration, and remaining deficiencies in data completeness across States by sex and age are not considered and appropriately accounted for, while inferring from this data.
2. Therefore, it is necessary that the government should convene a task force of national experts in this field to attend to this matter. This task force could be provided access to all the microdata from the CRS, SRS, and other relevant data sources as necessary.
3. Once equipped with all the available and required information, the task force will be enabled to conduct a thorough analysis using standard statistical methods that utilise empirical data, to provide measures of excess mortality by sex and age at national, State and district levels.

District- level interventions:

1. Going forward, the imperative for accurate district level mortality measures is urgent, for evidence based health action to tackle the quadruple burden from maternal and child health conditions, infectious diseases, non-communicable diseases (NCDs) and injuries.
2. Hence, while the outputs of such a detailed analysis would complete the debate on pandemic mortality in India, the analytical operations will establish capacity for subnational mortality measurement, and also inform interventions to strengthen local data quality.
3. Concomitantly, there is also an urgent need to strengthen attribution of causes of death, either through medical certification for physician attended deaths, or through the use of retrospective interview methods for household events.

Conclusion:

Taken together, the activities of the National Task Force for data analysis, along with proposed initiatives for data quality improvement, will vastly enhance the utility of the CRS for routine local and national mortality measurement in India.