

July 31, 2020

To the committee:

I would like to provide a few technical critiques on the recent report from New York State on COVID-19 in nursing homes from my vantage point as an infectious disease epidemiologist.

I think whoever conducted the investigation didn't set up the study design well from an epidemiologic standpoint. It appears to be a poorly designed study, given the question that they are trying to answer: to what extent if any did the return of hospitalized patients to nursing homes as per the policy (exposure) drive mortality among nursing home residents (outcome)?

My biggest concern is that the outcome of mortality was incompletely measured. My understanding is that deaths among nursing home residents who are hospitalized with COVID-19 who then die in the hospital are not counted among the 6000+ deaths mentioned in the report. Such patients are central to answering the above question, and should not be excluded. Moreover, their exclusion could have resulted in substantial undercount of nursing home deaths and bias in trying to assess whether there is any causal link between the nursing home policy and increased COVID-19 transmission.

There are a number of other key limitations:

- The analysis failed to introduce a lag period between the exposures (person returning from hospital) and the time period when they would expect to see the outcome of death (weeks later).
- One would also expect to see a higher risk of deaths in those homes where more versus fewer patients returned (i.e., a dose response). But the analysis didn't look at the data this way.
- Finally, why did the report focus only deaths? What about new infections and hospitalizations that didn't result in death. Indeed, the policy could have increased both the infection rates and hospitalizations among residents, which would also be really important to look at. This is why I think the above issue of not counting deaths that don't occur in the nursing home could be a huge problem.

In sum, I think there are major flaws in the approach that attempted to answer the question of whether the policy increased deaths. While I agree that most COVID-19 deaths among nursing home residents were likely not due to the policy, the report does not convincingly demonstrate that there were no adverse effects of the policy on COVID-19 outcomes, including deaths, among nursing home residents. To address this, a more rigorous epidemiologic study design would be needed that aims to answer the question: How many COVID-19 infections, hospitalizations, and deaths would have been avoided if there had been no such policy?

Sincerely,

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