

COVID-19: news bulletin #2

Key metrics of long term COVID-19 effects
on pension plan longevity

COVID-19 is having a significant effect on mortality in 2020. It is clear that this year’s extreme events have affected different populations across the country in different ways, but how will the pandemic affect longevity in the longer-term?

With so many moving parts and new information emerging every day, it is difficult to accurately predict the long-term effects of COVID-19 on the longevity of a given population. A first step for a pension plan or insurer to understand the possible range of outcomes for the change in their longevity-linked liabilities or duration of cashflows is to explore how things may play out under certain tangible scenarios.

Club Vita has developed a framework of three key metrics with which to quantify the drivers of long-term COVID-19 effects. As the impact of different drivers will vary depending on the characteristics of each population, understanding the experience of your plan through the pandemic will be vital for understanding the most likely developments in the future. We set out our framework in this bulletin; in future publications we will focus on how to calibrate this framework for specific future scenarios.

Three key metrics of long term COVID-19 effects

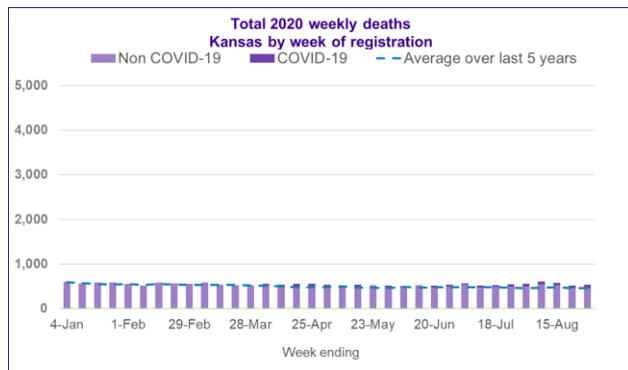
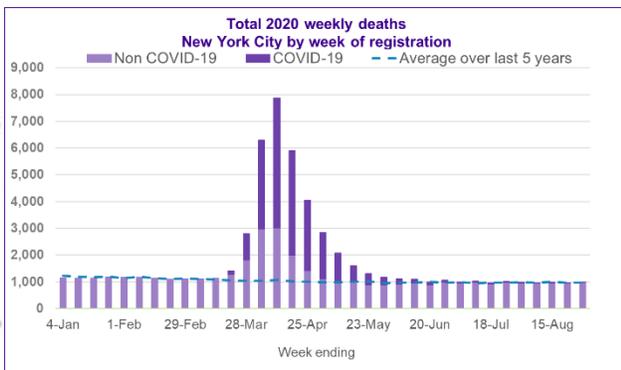
The three key metrics of different long term COVID-19 scenarios are:

- **Severity** – How severely has the population been affected by the pandemic (“excess mortality”)?
- **Impairment** – How will the population be affected in the long-run by consequences of COVID-19?
- **Selectiveness** – Will the outcomes from COVID-19 affect socio-economic groups in different ways?

Severity

Understanding the short-term (2020 and 2021) severity of COVID-19 will be important for understanding long-term scenarios. The short-term severity will not only immediately affect your plan’s liabilities, but it will also influence longer-term knock-on (micro and macro) effects of the pandemic on your population, for example the number of participants who have recovered from COVID, or effects on the wider economy.

We have seen that the severity of the pandemic has been noticeably different across different geographies in the US this summer, as demonstrated in the following weekly death charts for New York City and Kansas. With the potential for a second wave in the winter months, it is not only important to understand the past data for your plan, but also to monitor emerging information.

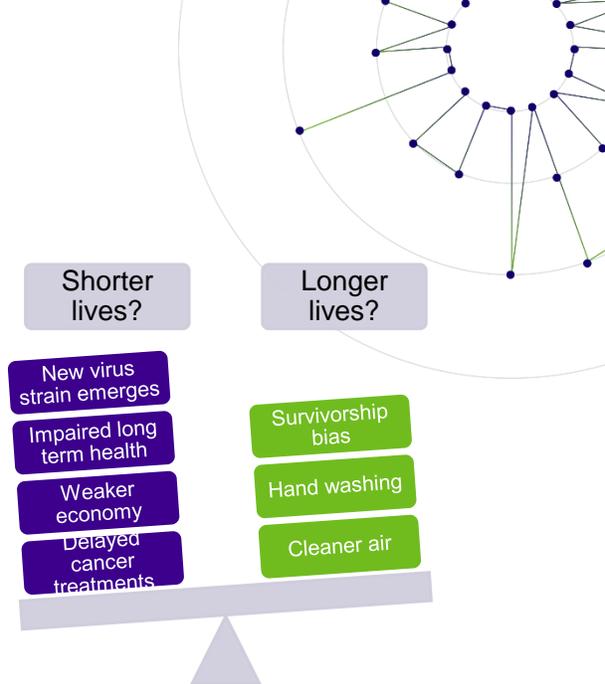


Source: [Weekly Counts of Deaths by State published on September 29, 2020 by the Center of Disease Control and Prevention \(CDC\).](#)

Impairment

The longer-term effects of COVID-19 on any population are not yet known. After the initial shock in experience in 2020/21 it is both conceivable that a surviving population will experience increased longevity improvements or that it will experience reduced improvements.

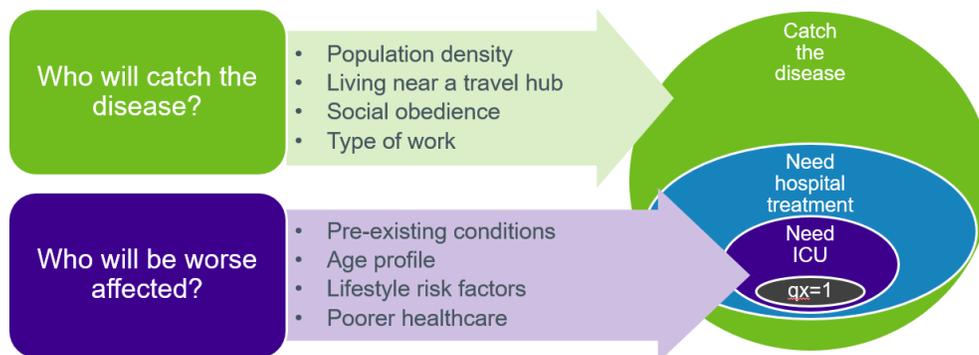
Contributing factors to lower improvement rates could be a weaker economy, long-lasting health impairment for survivors of COVID-19 or long-term effects of delayed screenings and elective procedures. Pulling in the other direction are factors such as a possible survivorship effect, where only the healthiest people survive the pandemic, or a prolonged focus on behaviors such as hand washing, social distancing and face coverings reducing excess deaths due to other infectious illnesses such as influenza.



Which factors dominate for your plan will depend on your population and the period you are analyzing.

Selectiveness

COVID-19 has affected different people in different ways. Socio-economic status is driving many factors contributing both to how likely someone is to catch the disease and how severe their symptoms might be. Understanding how selective, on socio-economic grounds, the previous drivers are will be key to understanding the different long-term effects of the pandemic on your population.



How can you get involved?

We are working to combine records from a diverse collection of workplace pension plans. Studying the experience data from this group will give us unique insight into emerging trends and how to calibrate the drivers described above for specific pension plans.

If you are a plan sponsor and you'd like to contribute data and gain access to early insights from our research tailored to your plan, please get in touch.



Jennifer Haid CFA FSA
jennifer.haid@clubvita.net
CEO Club Vita



Erik Pickett PhD FIA CERA
erik.pickett@clubvita.net
CPO Club Vita