

Beyond the numbers



Summary

- There have been approximately 62,500 excess deaths this year. How many precisely can be directly attributed to Covid-19 is difficult to determine.
- Those with pre-existing conditions such as diabetes and heart disease, males, older ages and those from socioeconomically-disadvantaged backgrounds have been more likely to die of Covid-19.
- The mortality trends for pension schemes have broadly matched that of the general population, although can vary greatly by scheme.
- Pension scheme liabilities have declined by approximately 0.5 per cent, so not changing insurer pricing for longevity hedging.
- Longer-term consequences of the pandemic are expected to have a greater impact on future longevity, such as medical complications for Covid survivors and the negative health effects of the lockdown.
- The biggest impact on longevity will be if there is another protracted recession, due to the rise in unemployment and decline in healthcare funding it may cause.

✓ Laura Blows explores what the spike in mortality caused by Covid-19 means for pension schemes and the long-term impact of the pandemic on longevity

6 2,500 is the current, tragic, total of excess deaths in the UK this year. However, there is a lot of detail behind this simple, yet shocking, headline number.

Excess deaths

The Continuous Mortality Investigation (CMI) states that there were 62,500 more

deaths in the UK from the start of the coronavirus pandemic to 26 June 2020 than if mortality rates were similar to those experienced in 2019.

According to the LCP *Longevity Report*, published in June, at the height of the pandemic in April/May, the Office for National Statistics (ONS) reported the highest number of registered deaths

in England and Wales in any week since 1993, and over double the typical number of deaths for that time of year. Therefore, as of end May 2020, the number of Covid-19 deaths in 2020 had led to a rise of 11 per cent in the year-to-date rate of mortality, LCP finds.

Meanwhile, Prudential Retirement head of longevity risk transfer, Amy Kessler, puts the number of UK deaths for March/April/May this year to be 125 per cent of 2019 totals over the same period last year.

Where these deaths are occurring has also changed compared to 2019. For instance, between 13 March and 8 May, over 8,000 fewer deaths were registered in hospitals than in the corresponding period in the weekly average, a decrease of 20.9 per cent, the ONS finds. In contrast, almost 11,000 more deaths were registered in care homes, an increase of 60.5 per cent, and over 8,000 more deaths were registered in private homes in this period, an increase of 42.6 per cent.

Covid-19 is attributable to the majority, but surprisingly not all, of these excess deaths.

For example, in just one week, ending 17 April, at the peak of the pandemic, XPS Pensions Group's Covid-19 Tracker finds that there were 14,340 excess deaths, with 9,408 of these being attributed to Covid-19, and 4,932 excess deaths being non-Covid related.

The largest increase in non-Covid excess deaths are seen in deaths due to 'dementia and Alzheimer's disease', at 5,404 excess deaths (an increase of 52.2 per cent the five-year average), with 'symptoms, signs and ill-defined conditions' (the latter mostly indicating old age and frailty) seeing 1,567 excess deaths between 13 March and 1 May. Combined, these comprise two-thirds of total non-Covid-19 excess deaths in this period, the ONS states. However, it warns that some of these may be due to undiagnosed Covid-19.

There are challenges to clearly defining which excess deaths are due to

“62,500 excess deaths”

Covid-19, and which to other factors. For instance, the ONS may publish how many have died where Covid-19 is mentioned on their death certificate, but the virus may not actually be the primary reason for death, LCP suggests.

While the exact role of Covid-19 in all excess deaths is hard to define, the total excess deaths are just a fifth of the worst-case scenario as charted by Imperial College, Kessler states.

In fact, the 62,500 excess is a decrease from 63,500 excess deaths to 12 June 2020, the CMI reports. At the time of writing, the CMI also finds a recent decrease in the number of deaths in the UK occurring each week. For instance, there were 7 per cent fewer deaths registered in week 26 of 2020 than if death rates had been the same as week 26 of 2019, it notes.

These fewer deaths compared to 2019 are particularly striking, considering that the average mortality rate in England & Wales fell in 2019 by 3.8 per cent, to 530,000, 13,000 fewer than the previous year, LCP finds. This year had also begun with mortality levels lower than the same time in 2019, until coronavirus struck.

“Excess deaths have declined now compared to March-May because I think those in the most infirm health that may have died from something else this year already died from Covid-19 during these peak months,” Kessler suggests.

Vulnerability

Those with certain pre-existing conditions, such as chronic kidney disease, serious heart conditions, type-2 diabetes, obesity or a weakened immune system, are more likely to die from Covid-19.

According to the CMI, the number of excess deaths has predominantly been driven by older ages dying, with the impact on males being slightly greater. *The Impact of Covid-19 on Future Higher-Age Mortality* report, published in May, states that more than 97 per cent

of deaths occur above the age of 50, but “the highest risk is of course frail elderly over 85”, Kessler (a co-author of the paper) adds.

People living in more deprived areas have seen a bigger increase in mortality rates during the pandemic compared to those in less deprived areas, the CMI also finds. Kessler gives the example of London, which has twice the amount of deprived areas as the rest of the country and also had twice the Covid infection rate. Yet these higher Covid-mortality groups did not actually see a disproportionate increase in mortality rates. According to the CMI, mortality rates nearly doubled for all groups during April, at the peak of the pandemic.

However, “the poor and poor health came into the pandemic with a higher mortality rate already”, Kessler says, “so it was just equally multiplying from that rate”. As she says, “the coronavirus has exposed the impact of inequality on longevity and magnified it”.

Pensions experience

The experiences of pension schemes seem to echo that of the general population.

The LCP *Longevity Report* analyses the recent experience of the defined benefit pension schemes it administers, covering around 65,000 members. “Our analysis shows there has been an increase in the number of deaths, but this has broadly been in line with the increases within the general national population,” it states.

“We are seeing the deaths within the pension schemes for which we do administration following the general population trends, but with a few-weeks delay, as people deal with other death-related matters like cancelling bank accounts before thinking to contact the pension provider,” XPS head of longevity, Steve Leake, says.

However, XPS’ Scheme Vulnerability Analysis tool shows that this can vary greatly by scheme, Leake adds. “During

the peak of the virus some schemes may have two to three times the number of expected deaths, while another pension scheme may just have the same volume of deaths as 2019,” he explains.

Using data analytics to conduct member profiling at a postcode level to determine things such as member age, likelihood of living in a care home, financial situation, living in pandemic ‘spike’ areas like London or Leicester, and health could help pension schemes understand how vulnerable their members are to the coronavirus.

“For instance, you may know how many members you have over 75 and are at greater risk but may not know how many live in a care home or hospital and so are at even greater risk,” Leake says.

This information can help a scheme assess the likely impact of Covid on its 2020 mortality levels.

Longevity hedging

“If the number of excess deaths continue to run off and stay low, and with an economic recovery, its impact on a typical pension scheme will be quite modest, around a 0.5-1 per cent reduction in liabilities,” Leake predicts.

Therefore, any trustees questioning whether now would be a sensible time to look to hedge longevity risk is unlikely to find a great difference in pricing.

“From LCP’s ongoing discussions with insurers and reinsurers, they are making very little (if any) allowance for the impact of Covid-19 in their longevity assumptions at the current time,” the LCP *Longevity Report* states. “Holding out for the potential for increased mortality in your scheme this year is unlikely to save you as much as locking into the favourable pricing opportunities that can arise during periods of volatile market conditions.”

Indeed, March and April saw attractive buy-in and buyout pricing of

“11% rise in mortality as of May 2020”

recent years, driven by the widening of UK and US corporate bond spreads, the report adds, so “schemes hedging longevity only (ie through a longevity

“18,000 increase in cancer deaths over next year due to Covid impact”

swap transaction, rather than a buy-in or buyout) will want to give careful consideration to the value offered given the current uncertainty around future longevity”.

“Many pension schemes are focused on the bulk of their liabilities, which mainly sit with the middle and upper aspects of their membership,” Kessler says. “In these groups of members there is not quite as much mortality as the lower groups that are less likely to be in the pension scheme or only have a small amount of money within it.”

Aon Risk Settlement Group partner and head of demographic horizons, Tim Gordon, agrees, stating in June that “the socio-economic profile of pension schemes means that their liabilities are typically partially insulated from the variations we see in national mortality statistics”.

Accordingly, it would be premature now to make major changes to best estimate longevity assumptions in either direction, he adds.

“Indeed, it is reasonable for median best estimate assumptions to remain broadly unchanged.”

Knock-on effects

The excess number of deaths experienced this year so far may not have a significant immediate effect on pension scheme liabilities, but the pandemic’s long-term knock-on effects may have an even greater impact on future life expectancy than the virus itself, *The Impact of Covid-19* paper predicts.

For instance, how the life expectancy

of Covid-19 survivors is affected is up for debate. There may be a modest increase in life expectancy of around 0.2 per cent at age 65, *The Impact of Covid-19* paper predicts.

Yet, akin to the 1918 Spanish flu or SARS, survivors may be left with long-term health damage such as lung scarring or blood clots, Institute and Faculty of Actuaries (IFoA) *Longevity Bulletin* editor, Matthew Edwards, warns.

“There is growing evidence that a number of survivors of the virus (often young people in their 30s) who needed to be hospitalised have developed serious health conditions that they did not have before, such as lung scarring and new-onset diabetes,” Pensions Institute director and co-author of *The Impact of Covid-19* paper, David Blake, agrees.

It may not be necessary to have even had Covid for health to be affected by the pandemic. There is expected to be an increase in non-Covid deaths due to people avoiding hospitals and missing doctor appointments during lockdown. For instance, LCP notes that A&E departments reported 50 per cent less activity than usual during April.

The result of this may already be playing out, as the ONS notes deaths due to causes such as asthma and diabetes increased up to the week ending 24 April 2020 and occurred increasingly outside hospital; this could suggest a delay in care for these conditions is leading to an increase in deaths, although this rise could also be related to undiagnosed Covid-19.

The Impact of Covid-19 paper cites research from the University College London and the Health Data Research Hub for Cancer, which predicts that up to 18,000 more people could die from cancer over the next year in England because of the impact of Covid-19.

The paper also highlights Cancer Research UK findings that referrals by doctors for urgent hospital appointments had fallen by 75 per cent – equivalent to 2,300 cases per week – while 400 cancers

a week were being missed because 200,000 weekly screenings for breast, cervical, lung and bowel cancer were suspended during the lockdown.

Longer term still, the cancellation of millions of non-urgent procedures, such as hip and knee replacements, is expected to affect morbidity and mortality patterns, LCP’s report predicts. “Several million are currently on waiting lists, and with fears that this could be as high as eight million by autumn, the waiting time for ‘non-urgent’ procedures is likely to be longer than ever. For those waiting for hip replacements, for example, this

“7% fewer deaths in week 26 of 2020 compared to week 26 2019”

can mean months longer with more sedentary lifestyles, affecting their mortality risk in years to come,” it states.

However, Kessler points out that, for the vast majority of people, missing four months of normal healthcare is not life changing. “The question is: are people immediately going to seek that healthcare they missed after lockdown or will they stay home all year?”

Avoiding doctors is not a welcome change, but some people implemented more positive health actions during lockdown, such as social distancing, wearing face masks, drinking less and exercising more.

Yet Edwards is sceptical that these new habits will transform into long-term change. “In five years’ time I doubt we’ll still be obsessing over 30-second handwashing,” he says.

Some behaviours may have become more self-destructive during lockdown, as estimates suggest one in three have put on weight, and smoking and alcohol consumption have increased in the most at-risk groups, while physical activity has declined, the LCP *Longevity Report* states.

“2-3x number of average deaths for some pension schemes during the virus peak”

At least half a million more people in the UK may also experience mental ill health as a result of Covid-19 over the next year, the Centre for Mental Health predicted in May. This makes the rise in mental health issues another increasing concern, Edwards says, also highlighting the centre’s statistic that PTSD occurs in about 20 per cent of people who needed intensive care treatment.

Looking further ahead, it is still very uncertain whether there may be future waves of Covid-19, or even of different pandemics, and whether survivors of previous pandemics will have immunity and therefore increased life expectancy is up for debate.

Economy/longevity link

But beyond the health issues, Covid-19’s biggest impact on life expectancy will likely be due to economic factors.

One of the predicted fallouts from Covid-19 is a global recession. In June, the Organisation for Economic Co-operation and Development (OECD) predicted that the UK economy will nosedive by 11.5 per cent. If history repeats with the global financial crisis (GFC) of 2008 and the longevity trends that followed it, “projected life expectancies could fall by as much as 4-5 per cent”, LCP says.

“Over the past 20-plus years there have been improvements in longevity of around 3 per cent a year between 2000-2010. Then between 2010-2015 it only increased around 1 per cent a year. This was due to many different drivers but one was the reduction in public funds to health and social care *[as a result of the GFC]*,” Edwards explains. “The strength of the economy relates to mortality and life expectancy. Both by directly in health expenditure but also with those employed being in better health than the

unemployed.”

The Impact of Covid-19 paper agrees that if there is long-term unemployment as a result of the pandemic, this could lead to so-called ‘deaths of despair’ in the future. The start of the year saw 3.9 per cent unemployment, one of the lowest rates since 2010, but this is expected to significantly rise as furlough winds up. According to the ONS, around 612,000 lost their jobs in May compared to March, a 2.1 per cent decline in paid employees.

However, while higher unemployment may result in an uptick in suicide instances and other stress-induced disorders, pensioners “may benefit from having family with time to spare to look after them” potentially leading to a rise in their life expectancy, LCP’s report suggests.

Yet an economic downturn might reduce spending on medical and pharmaceutical research, causing a reduction in long-term future mortality improvements, and may cause general medical advances to stall as resources are redirected to finding a vaccine and treatments for Covid-19, *The Impact of Covid-19* paper warns.

The current economic downturn may not play out in the same way as the global financial crisis though, since this one has come about under such different circumstances.

Leake recommends pension schemes consider the impact of a range of different economic scenarios, from an ‘instant’ recovery as lockdown eases, to a protracted global recession. “If things go back to normal there may be a 0.5 per cent reduction in liabilities for a typical scheme. But if we get a recession then it may result in a 5 per cent reduction in liabilities,” he says.

Monitoring

Therefore, it is important that pension schemes closely monitor member deaths over the next months and years to see whether they are in line with the death

rates predicted by their scheme actuaries, Blake says.

“Large schemes do this as a matter of course, but it is much more important now,” he says. “Clearly, excess deaths above predicted levels will reduce pension liabilities. But they should also stay in close contact with employers for evidence of younger employees taking

“Recession = estimated 5% reduction in pension liabilities”

sick leave *[due to the long-term health effects of surviving Covid-19]*. In extreme cases, this could result in ill-health early retirements, which could have the effect of raising liabilities as well as reducing future assets such as future employee pension contributions.”

However, pension schemes must not overreact to high short-term UK mortality data when looking to set their long-term mortality assumptions, as Aon warned back in June.

The past four months have been unique, and as such “the industry is trying to understand what ‘this’ all means at a population level, before we can extrapolate that down to individual schemes”, Kessler warns.

It is as AMNT co-chair, David Weeks, says: “Pension schemes should keep up-to-date with the latest mortality information. But recognise that decision making with imperfect information is the challenge that we are all having to work with.”



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