

# The big slowdown

Growth in UK life expectancy is starting to ease off – and no one knows why. **Clare Wilson** and **Andy Coghlan** explore the possibilities

THE past century saw rapid growth in life expectancy, a key measure of progress. But no longer.

UK figures released this month show that the life expectancy of people in the country, currently 79 for men and 83 for women, has started to rise more slowly. The change isn't something to panic about – life expectancy isn't falling, it's just not rising as fast as it was. But it will have an impact.

"Potentially, it's a really big societal, cultural and economic change that we are seeing," says Nick Stripe at the UK's Office for National Statistics (ONS), which produced the figures.

Life expectancy is calculated from the proportion of deaths of people at each age. This death rate has been falling in all Western countries for decades, thanks to a raft of improvements in medicine and nutrition. The fall started to slow down in 2011 in the UK.

At first it could have been a statistical fluke, but the latest

mortality figures are now being classed as a real change. They mean that although life expectancy was previously climbing by about three months a year in women and four months a year in men, it is now two weeks and one month a year respectively (see graphs, below).

Similar trends have been seen in other countries, such as the US, Australia and Germany, the ONS reported. However, that doesn't mean this lower growth in life expectancy will become the norm. Some other countries, such as Japan, Denmark and Italy, have previously seen a slowdown in life expectancy increases, but then reverted to the old, higher rate.

"The trend could reassert itself," says Stripe. "We do not have enough data yet to say."

What happens next will have tremendous importance for the future of the UK. So what are the possible explanations for the slowdown?

## SICK AT HEART

For a long time we have been successfully reducing death rates from heart disease and stroke, but now the knock-on effects are a major factor behind the unexpected backsliding in life expectancy, says the ONS.

Death rates for these conditions plunged by 70 per cent in the past three decades, thanks in part to improvements in heart surgery. Anti-smoking campaigns and the introduction of drugs to lower blood pressure also both prevented heart attacks and stroke. Now many of those who benefited may be starting to die.

One factor could be that the hearts of those saved by surgery eventually give out through heart failure, for which there is no effective treatment. Shifts to unhealthier habits could be another. Although smokers in the UK continue to quit – the biggest help to avoiding heart trouble – gains are now potentially being lost through poor diet and lack of exercise, says Rory Collins at the University of Oxford.

## DEADLY DEMENTIA

More than two-thirds of deaths in the UK are in people over the age of 75, so most of the recent slowdown in life expectancy improvements is likely to stem from changes to death rates in this age group.

The most obvious factor is an increasing number of deaths due to dementia. Some of this is down to doctors being more willing to put dementia as the



cause of death because of increased awareness and reduced stigma. But there is also a real rise in this condition. As more people survive heart attacks and cancer, they live long enough to get Alzheimer's disease and other kinds of dementia. This in turn can cause pneumonia: people with dementia often have difficulty swallowing, which leads to food entering the airways, triggering infections.

The rise in dementia cases is likely to persist because, unlike heart disease and cancer, we have no effective therapies for it. "These numbers will continue to rise in the absence of a new treatment," says Matthew Norton of Alzheimer's Research UK.

## AUSTERITY BITES

Stalling life expectancy isn't just an issue for older people. Since 2012, the death rates

among those aged 15 to 55 have also been increasing, mostly through accidents, assault or suicide. Although the number of deaths in this age group is too small to have much impact on headline life expectancy figures, the trend could be a sign of something larger.

One worry is that cuts in social support and healthcare resulting from the UK's austerity drive, allied to poor job prospects, could lead to "deaths of despair", like those seen in white, middle-aged Americans. There are parallels with the US, says Stripe, but he thinks the jury's out on whether austerity is to blame for the slowdown in the UK's life expectancy. "All we can say is that the data corresponds to an interesting period politically and economically. But correlation is not causation," he says.

What's not in doubt is that the UK's economy is stagnating.

In 2017, its economic growth was the fifth lowest in Europe at just 1.7 per cent. We know that economic collapses elsewhere have shortened lives. The most well known occurred following the fall of the Soviet Union, which saw life expectancy for men plunge from 63.8 to 57.7 between 1990 and 1994.

"Deteriorating health among working-age men is a type of canary in the coal mine for something going deeply wrong with our labour markets," says David Stuckler at the University of Bocconi in Milan, Italy.

## GOLDEN OLDIES

While the slowdown in life expectancy rises is recent, some of the factors responsible may have happened decades ago.

One could be the dwindling of the so-called golden cohort: a group of people who were born in

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the decade that followed 1925. For unclear reasons, they have long been experiencing higher rates of improvements in life expectancy than those born before and after.

There were several beneficial changes in the 1920s that could have helped kick this off, such as improved nutrition, better sanitation and the advent of

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vaccines for diphtheria and tetanus. But this doesn't explain why rises in life expectancy slowed for those born later. One theory is that the golden cohort benefited from eating more fruit and vegetables in their childhood and adolescence because food rationing, which began in the second world war and was phased out in the 1950s, restricted access to unhealthier foods.

Whatever the reasons, this group are now in their 80s and 90s and their numbers are falling – so they make less of a contribution to overall death rates. The health advantages of that group are beginning to fade from the overall figures, says Stripe.

## HEROIN HIKE

Another possible reason for a slowdown in life expectancy improvements in under-55s could be escalating drug deaths. A National Health Service report published in February revealed that 2593 people died from drug misuse in England and Wales in 2016, 58 per cent more than in 2006 and the highest toll since records began in 1993. Deaths from drug misuse are now the third most common killer in 15 to 49-year-olds, it said.

Increased availability and

purity of heroin has been blamed for a doubling in heroin-related deaths between 2012 and 2016, with many of those dying aged 40 or above, according to a report released by Public Health England in September.

"People who became addicted to heroin in their teenage years and 20s back in the 1980s and 1990s are now older, less resilient and therefore more susceptible to overdosing," says Johnathan Watkins of the PILAR Research Network, a think-tank in Cambridge, UK, that analyses public health issues. Austerity-related cutbacks in support systems for drug users may also have contributed, he says.

## OBESITY TIME BOMB

Doctors have long been predicting that today's children will be some of the first in history to have shorter lives than their parents thanks to the obesity epidemic. But it may be premature to assume that it is behind the recent slowdown in the rate of increase of our life expectancy.

Most of the levelling off stems from changes to death rates in people who are in their 70s or older – where there hasn't been so much of a rise in obesity in the UK. Changes to death rates in younger age groups are mainly due to other causes.

In fact, it takes fairly severe obesity to have much of an effect on lifespan, and the impact declines as people get older. For instance, people in their 60s and 70s who are classed as obese lose just one extra year of life on average. "Being mildly overweight doesn't cause a huge difference in mortality figures," says Steven Grover of McGill University in Montreal, Canada.

But David Ludwig of Harvard Medical School predicts that obesity will have more of an effect on life expectancy over the next couple of decades. "The impacts are still flowing through the pipeline," he says.

In the UK and US, the average annual increase in life expectancy at birth has fallen, although this isn't the case with all rich nations

