

Fertility rate: 'Jaw-dropping' global crash in children being born

By James Gallagher
Health and science correspondent
5 hours ago



The world is ill-prepared for the global crash in children being born which is set to have a "jaw-dropping" impact on societies, say researchers. Falling fertility rates mean nearly every country could have shrinking populations by the end of the century. And 23 nations - including Spain and Japan - are expected to see their populations halve by 2100. Countries will also age dramatically, with as many people turning 80 as there are being born.

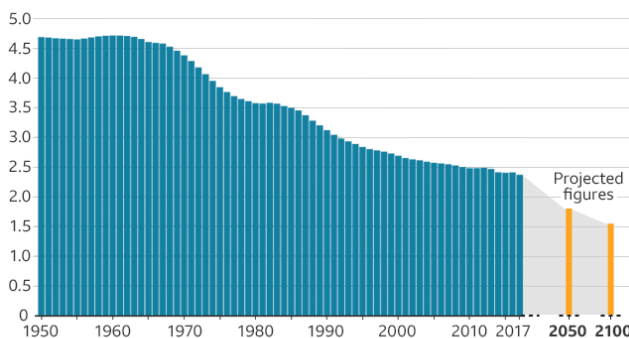
What is going on?

The fertility rate - the average number of children a woman gives birth to - is falling. If the number falls below approximately 2.1, then the size of the population starts to fall. In 1950, women were having an average of 4.7 children in their lifetime.

Researchers at the University of Washington's Institute for Health Metrics and Evaluation showed the global fertility rate nearly halved to 2.4 in 2017 - and their study, **published in the Lancet**, projects it will fall below 1.7 by 2100.

Women are having fewer children

Global fertility rate (livebirths per woman)



Source: Institute for Health Metrics and Evaluation at the University of Washington **BBC**

As a result, the researchers expect the number of people on the planet to peak at 9.7 billion around 2064, before falling down to 8.8 billion by the end of the century. "That's a pretty big thing; most of the world is transitioning into natural population decline," researcher Prof Christopher Murray told the BBC. "I think it's incredibly hard to think this through and recognise how big a thing this is; it's extraordinary, we'll have to reorganise societies."

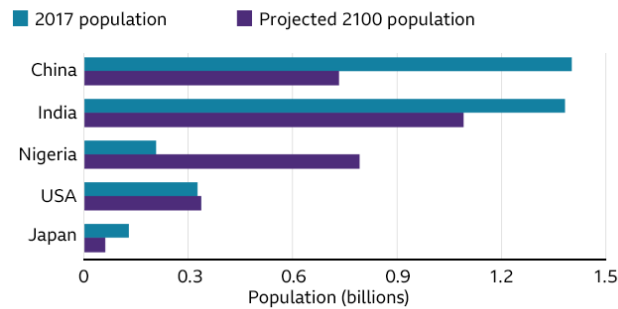
Why are fertility rates falling?

It has nothing to do with sperm counts or the usual things that come to mind when discussing fertility. Instead it is being driven by more women in education and work, as well as greater access to contraception, leading to women choosing to have fewer children. In many ways, falling fertility rates are a success story.

Which countries will be most affected?

Japan's population is projected to fall from a peak of 128 million in 2017 to less than 53 million by the end of the century. Italy is expected to see an equally dramatic population crash from 61 million to 28 million over the same timeframe. They are two of 23 countries - which also include Spain, Portugal, Thailand and South Korea - expected to see their population more than halve. "That is jaw-dropping," Prof Christopher Murray told me. China, currently the most populous nation in the world, is expected to peak at 1.4 billion in four years time before nearly halving to 732 million by 2100. India will take its place. The UK is predicted to peak at 75 million in 2063, and fall to 71 million by 2100.

How populations of selected countries might change, 2017-2100



Source: The Lancet

BBC

However, this will be a truly global issue, with 183 out of 195 countries having a fertility rate below the replacement level.

Why is this a problem?

You might think this is great for the environment. A smaller population would reduce carbon emissions as well as deforestation for farmland.

"That would be true except for the inverted age structure (more old people than young people) and all the uniformly negative consequences of an inverted age structure," says Prof Murray.



The world faces a shift from young to old

The study projects:

The number of under-fives will fall from 681 million in 2017 to 401 million in 2100.

The number of over 80-year-olds will soar from 141 million in 2017 to 866 million in 2100.

Prof Murray adds: "It will create enormous social change. It makes me worried because I have an eight-year-old daughter and I wonder what the world will be like."

Who pays tax in a massively aged world? Who pays for healthcare for the elderly? Who looks after the elderly? Will people still be able to retire from work?

"We need a soft landing," argues Prof Murray.

Are there any solutions?

Countries, including the UK, have used migration to boost their population and compensate for falling fertility rates.

However, this stops being the answer once nearly every country's population is shrinking.

"We will go from the period where it's a choice to open borders, or not, to frank competition for migrants, as there won't be enough," argues Prof Murray.

Some countries have tried policies such as enhanced maternity and paternity leave, free childcare, financial incentives and extra employment rights, but there is no clear answer.

Sweden has dragged its fertility rate up from 1.7 to 1.9, but other countries that have put significant effort into tackling the "baby bust" have struggled. Singapore still has a fertility rate of around 1.3.

Prof Murray says: "I find people laugh it off; they can't imagine it could be true, they think women will just decide to have more kids.

"If you can't [find a solution] then eventually the species disappears, but that's a few centuries away."

How do countries fight falling birth rates?

The researchers warn against undoing the progress on women's education and access to contraception.

Prof Stein Emil Vollset said: "Responding to population decline is likely to become an overriding policy concern in many nations, but must not compromise efforts to enhance women's reproductive health or progress on women's rights."

What about Africa?

The population of sub-Saharan Africa is expected to treble in size to more than three billion people by 2100.

And the study says Nigeria will become the world's second biggest country, with a population of 791 million.

Prof Murray says: "We will have many more people of African descent in many more countries as we go through this.

"Global recognition of the challenges around racism are going to be all the more critical if there are large numbers of people of African descent in many countries."

Why is 2.1 the fertility rate threshold?

You might think the number should be 2.0 - two parents have two children, so the population stays the same size.

But even with the best healthcare, not all children survive to adulthood. Also, babies are ever so slightly more likely to be male. It means the replacement figure is 2.1 in developed countries.

Nations with higher childhood mortality also need a higher fertility rate.

What do the experts say?

Prof Ibrahim Abubakar, University College London (UCL), said: "If these predictions are even half accurate, migration will become a necessity for all nations and not an option.

"To be successful we need a fundamental rethink of global politics.
"The distribution of working-age populations will be crucial to whether humanity prospers or withers."

World's population likely to shrink after 50 years

By Amy Woodyatt, CNN

<https://edition.cnn.com/2020/07/14/world/world-population-shrink-intl-scli-scn/index.html>

Updated 2259 GMT (0659 HKT) July 14, 2020



The population of sub-Saharan African countries, such as Nigeria, could triple, experts predict by 2100.

(CNN) The world's population is likely to peak at 9.7 billion in 2064, and then decline to about 8.8 billion by the end of the century, as women get better access to education and contraception, a new study has found.

By 2100, 183 of 195 countries will not have fertility rates required to maintain the current population, with a projected 2.1 births per woman, researchers from the Institute for Health Metrics and Evaluation at the University of Washington's School of Medicine said.

Some 23 countries -- including Japan, Thailand, Italy, and Spain -- will see populations shrink by more than 50%, researchers said.

However, the population of sub-Saharan Africa could triple, allowing for just under half of the world's population to be African by the end of the century.

The modeling study, published Tuesday in *The Lancet*, also forecasts dramatic declines in working-age populations in countries including India and China, which will hurt economic growth and could have negative implications for labor forces and social support systems, researchers said.

But as fertility declines, researchers note that immigration could offset population shrinkage, particularly in countries with low fertility, such as the US, Australia and Canada.

"The world, since the 1960s, has been really focused on the so-called population explosion," Dr Christopher Murray, who led the research, told CNN. "Suddenly, we're now seeing this sort of turning point where it is very clear that we are rapidly transitioning from the issue of too many people to too few."

Shrinking populations

Using data from Global Burden of Disease Study 2017, researchers predicted that the fastest-shrinking populations will be in Asia and eastern and central Europe.

The report authors project that the population of Japan will shrink from around 128 million people in 2017 to 60 million in 2100, Thailand will see a shrink from 71 to 35 million, Spain from 46 to 23 million, Italy from 61 to 31 million, Portugal from 11 to 5 million, and South Korea from 53 to 27 million.

A further 34 countries -- including China -- are also predicted to see their population decline by up to 50%.

Murray said that not only will the population shrink, but society will generally be older, which would have a substantial impact on economic growth.

"There's more people needing to receive benefits from the government, whether that's social security or health insurance, and there's fewer people to pay taxes," he explained.

Researchers project that the population of sub-Saharan Africa could triple over the course of the century, from an estimated 1.03 billion in 2017 to

3.07 billion in 2100.

North Africa and the Middle East is the only other region predicted to have a larger population in 2100 than in 2017, with a predicted 978 million compared to 600 million.

"Because fertility will remain high for longer, the relative share of the world population that is African will go up very substantially. We will reach the point towards the end of the century, where just under half the world's population will be African on these trajectories," Murray told CNN.

Over-80s will outnumber under-fives

The study also predicts major changes in the global age structure as fertility falls and life expectancy increases, with an estimated 2.37 billion people over 65 years globally in 2100, compared with 1.7 billion under the age of 20.

The global number of people older than 80 could increase sixfold, from 141 million to 866 million. Meanwhile, the number of children under the age of five is forecast to decline by more than 40% -- from 681 million in 2017 to 401 million in 2100.



As women have better access to education and contraception, the world's population is forecasted to shrink, researchers say.

Researchers said that these "dramatic declines" in working-age populations in countries such as India and China, will both obstruct economic growth and lead to shifts in global powers.

"It's already starting -- this is something that is not in the distant future. The number of working-age adults in China has already begun declining," Murray told CNN.

"The profound decline in working aged adults that will happen in a place like China means that they will not be able in the long term to sustain economic growth at the pace that they have," Murray told CNN.

The report authors say the new forecasts highlight the "huge challenges" that a shrinking workforce will pose to economic growth and the high burden that an aging population will pose to health and social support mechanisms.

The role of immigration

The authors suggest that population decline could be offset by immigration, and that countries with liberal immigration policies will be better able to both maintain population size and support economic growth -- even as fertility falls.

"If more people are dying and then are born, then the population will go into decline. And the only way to counteract that is with migration," Murray said.

Researchers suggest that population decline could be offset by immigration, predicting that countries with low fertility -- including the US, Australia and Canada -- will maintain working-age populations with immigration as fertility declines.

While the report authors note that fewer people would have "positive implications for the environment, climate change, and food production," an aging population can bring its challenges.

If it was just a question of the number of people and not all these other effects, you could make a very good case that for the planet -- it could be a good thing," Murray said.

"The problem is that it's the inverted age pyramid is a real issue for how societies are organized and how economies work, how taxes get paid," he said. "What we really need to figure out is how to transition from the state we're in now," he said.