

# Research challenges idea that birth weight is a good proxy for population health

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Despite dramatic improvements in human health, babies' average birth-weights have not increased over the last 150 years reveals new research from the London School of Economics and Political Science (LSE).

The paper, published in the journal *Social Science and Medicine* reveals that average birth weights, as well as the share of babies born at different birth weights, are very similar today as they were in the nineteenth century in Europe and North America. In contrast, average adult height and life expectancy has increased dramatically.

Dr Eric Schneider, Assistant Professor of Economic History at LSE and author of the paper, said: "Birth weights are used by health care professionals as a proxy for the health of babies in the womb, so there is an implicit assumption that they have increased historically as our overall health has improved. This is why my findings are so surprising and begs the question – are we looking at the right things when trying to measure fetal health, at both the individual and population level, in this way?"

Understanding [health conditions](#) in the womb is significant because recent research has found that they can affect children's health across their entire life, even into old age.

These findings question international birth weight standards that determine the 'ideal' weight that a baby should be. These were developed by the INTERGROWTH-21st consortium, led by the University of Oxford.

Dr Schneider said: "In Pakistan 32 per cent of babies are born at a [low birth weight](#), meaning that they weigh in at less than 2500 grams, and it is assumed that if health conditions improve, average birth weights will rise. However, given that this did not happen in Western Europe and the United States, despite significant historical improvements to maternal health care, it's possible that birth weights in Pakistan will not increase to the level set by the INTERGROWTH-21st standards."

Dr Schneider added: "My results do not in any way downplay the very real health risks low birth weight babies face or the fact that children developing in the womb are extremely sensitive to poor conditions, such as a lack of key nutrients or infection. I look at statistics at a [population level](#) to analyse what they can tell us on the general rather than the individual level."

Schneider analysed birth weights recorded in historical maternity records that have survived for a number of European and North American maternity hospitals.

He also looked at stillbirths and early infant deaths. While a dramatic fall in miscarriages and deaths in the first week of a child's life has occurred since the 1930s, this was driven by the greater use of invasive surgeries during labour rather than factors related to general health.

**More information:** Eric B. Schneider. Fetal health stagnation: Have health conditions in utero improved in the United States and Western and Northern Europe over the past 150 years?, *Social Science & Medicine* (2017). [DOI: 10.1016/j.socscimed.2017.02.018](https://doi.org/10.1016/j.socscimed.2017.02.018)

Provided by London School of Economics (LSE)

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