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MATERNAL AGE AND BIRTH

Children of older mothers do better

Children of older mothers are healthier, taller and obtain more education than the children of younger mothers. The reason is that in industrialized countries educational opportunities are increasing, and people are getting healthier by the year. In other words, it pays off to be born later.

Rostock, Germany. Most previous research suggests that the older women are when they give birth, the greater the health risks are for their children. Childbearing at older ages is understood to increase the risk of negative pregnancy outcomes such as Down syndrome, as well as increase the risk that the children will develop Alzheimer's disease, hypertension, and diabetes later in life.

However, despite the risks associated with delaying childbearing, children may also benefit from mothers delaying childbearing to older ages. These are the findings from a new study conducted by Mikko Myrskylä, the director of the Max Planck Institute for Demographic Research (MPIDR), and his colleague Kieron Barclay at the London School of Economics, that has been published today in *Population and Development Review*.

Both public health and social conditions have been improving over time in many countries. Previous research on the relationship between maternal age and child outcomes has ignored the importance of these macro-level environmental changes over time. From the perspective of any individual parent, delaying childbearing means having a child with a later birth year. For example, a ten-year difference in maternal age is accompanied by a decade of changes to social and environmental conditions. Taking this perspective, this new MPIDR-study shows that when women delay childbearing to older ages their children are healthier, taller, and more highly educated. It shows that despite the risks associated with childbearing at older ages, which are attributable to aging of the reproductive system, these risks are either counterbalanced, or outweighed, by the positive changes to the environment in the period during which the mother delayed her childbearing.

For example, a woman born in 1950 who had a child at the age of 20 would have given birth in 1970. If that same woman had a child at 40, she would have given birth in 1990. "Those twenty years make a huge difference," explains Mikko Myrskylä. A child born in 1990, for example, had a much higher probability of going to a college or university than somebody born 20 years earlier.





Barclay and Myrskylä used data from over 1.5 million Swedish men and women born between 1960 and 1991 to examine the relationship between maternal age at the time of birth, and height, physical fitness, grades in high school, and educational attainment of the children. Physical fitness and height are good proxies for overall health, and educational attainment is a key determinant of occupational achievement and lifetime opportunities.

They found that when mothers delayed childbearing to older ages, even as old as 40 or older, they had children who were taller, had better grades in high school, and were more likely to go to university. For example, comparing two siblings born to the same mother decades apart, on average the child born when the mother was in her early 40s spends more than a year longer in the educational system than his or her sibling born when the mother was in her early 20s.

In their statistical analyses, Barclay and Myrskylä compared siblings who share the same biological mother and father. Siblings share 50% of their genes, and also grow up in the same household environment with the same parents. “By comparing siblings who grew up in the same family it was possible for us to pinpoint the importance of maternal age at the time of birth independent of the influence of other factors that might bias the results” said Kieron Barclay.

“The benefits associated with being born in a later year outweigh the individual risk factors arising from being born to an older mother. We need to develop a different perspective on advanced maternal age. Expectant parents are typically well aware of the risks associated with late pregnancy, but they are less aware of the positive effects” said Myrskylä.

About the MPIDR

The Max Planck Institute for Demographic Research in Rostock (MPIDR) investigates the structure and dynamics of populations. It focuses on issues of political relevance such as demographic change, aging, fertility, the redistribution of work over the course of life, as well as aspects of evolutionary biology and medicine. The MPIDR is one of the largest demographic research bodies in Europe and one of the worldwide leaders in the field. It is part of the Max Planck Society, the internationally renowned German research society.

www.demogr.mpg.de

Contact

Mikko Myrskylä – MPIDR author of the article (speaks English and Finnish)

PHONE +49 381 2081 – 118

E-MAIL sekmyrskylä@demogr.mpg.de

Kieron Barclay – London School of Economics (speaks English)

E-MAIL k.j.barclay@lse.ac.uk





Silvia Leek – MPIDR Press Department
PHONE +49 381 2081 – 143
E-MAIL presse@demogr.mpg.de

This press release can be found at www.demogr.mpg.de/go/being-born-in-a-later-year.

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