

The open birth interval

Of female empowerment and smart economics

As her youngest child ages, a woman is gradually freed from childrearing demands to pursue alternative activities. The time since her latest birth is the 'open birth interval'. Dr John Ross, an independent demographic consultant, and Dr Kristin Bietsch, a data analyst from Avenir Health, have conducted the first extensive research into this open interval. They elucidate the factors that can prolong the open interval, especially contraceptive use. Longer open intervals influence women's employment and empowerment. The research can go far to help improve maternity and family planning services and to guide social policies.

The 'open birth interval' is the time since a woman's latest birth; it is equivalent to the age of her youngest child. The average open birth interval is different from the widely reported 'closed birth interval', which refers to the time between two births. The open birth interval is longer in a country with a low fertility rate, and shorter where the fertility rate is high. It is longer among older women, and it is related to the extent of contraceptive use. Despite the usefulness of open birth interval data, until recently there was little access to the international data over time, and so the patterns had not been investigated in detail.

Dr John Ross, an independent health consultant, and Dr Kristin Bietsch from Avenir Health have conducted the first extensive investigation into the open birth interval. Their research aimed to understand how factors such as the woman's age, wealth, and contraceptive use relate to the open birth interval and how this interval may vary over time and across cultures. Further, the research

aimed to explore the implication of the open birth interval for women's freedom to pursue non-child rearing activities, to obtain jobs, and to advance their empowerment. They also wanted to understand whether the declining proportion of women having children has been offset by the overall increase in the number of females in the population, and finally, how all this information can be applied to policy and practice.

CULTURAL DIFFERENCES

To conduct their research, Dr Ross and Dr Bietsch gathered information about open birth intervals, over time, from 74 nations, mainly developing countries. They found that some fertility rates are now about half of what they were in the 1960s, and they attribute this largely to the greater availability of contraception and personal decisions to use it. A shift has been growing across the developing world with more women and couples using contraceptive methods to postpone or avoid another birth and this pattern, common in many cultures, has led to a decrease in fertility.

Dr Ross and Dr Bietsch found that the proportion of married women aged 15-49 who have had a child in the last 5 years varies widely, from as low as 10% in some European countries to over 40% in some African countries. They suggest that this variation in the open birth interval implies vast differences in the personal opportunities for women. For example, a country where a high proportion of women have recently had a birth or are pregnant is a country where they are more preoccupied with child-rearing and are less likely to be in full-time employment.

FACTORS INFLUENCING PREGNANCY AND BIRTH RATES

On average across the 74 countries, the proportion of women who are

pregnant or have had a child in the last year has dropped over time, and this has occurred across diverse cultures. The birth-free time after a delivery is extended where contraceptive use is greater, and among older women the onset of menopause and marriage separations also work to postpone or prevent a next birth. In fact, most women who have gone 5 years since their latest birth tend not to have another child. Most births that occur do so within about 5 years of a previous birth (apart from first births); 84% of intervals between births are less than 5 years long.

Several demographic factors influence the frequency of pregnancies and births. For example, women who are younger, poorer, have fewer children, or live in rural areas are more likely to be pregnant or to have recently given birth. Recent births among the wealthiest women also occur at a later age than among other women.

Although the proportion of women who are pregnant or have recently given birth has decreased over time, Dr Ross and Dr Bietsch found that this doesn't necessarily mean there is a change in the absolute numbers of pregnant women and women who have recently done so. Their research showed that in some countries, despite a reduction in the proportion of women who are pregnant or have recently given birth,



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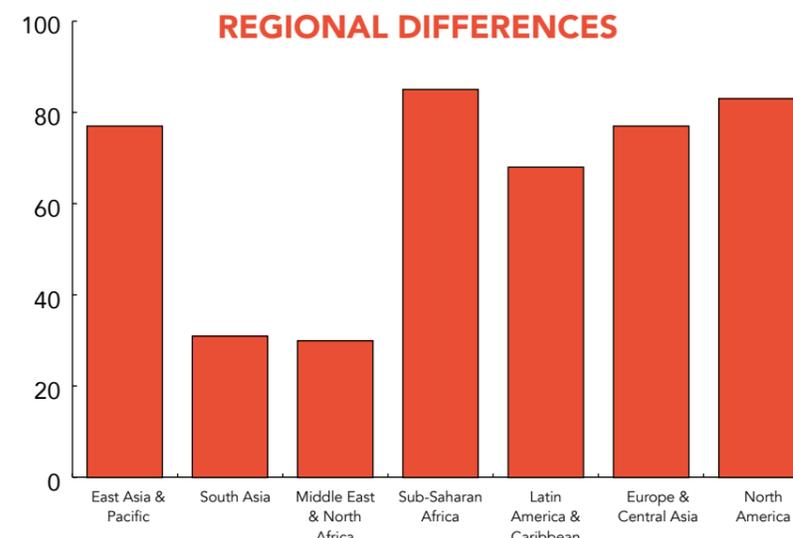
the absolute numbers are unchanged, as for example in Bangladesh, due to the increase in the female population. In other countries, such as Pakistan and Ethiopia, absolute numbers have actually increased, despite a proportional decrease in the number of women who are pregnant or have recently given birth. The authors stress that these findings highlight the importance of keeping track of

absolute numbers as they change over time, for purposes of national policies and programmes.

WOMEN'S EMPLOYMENT AND EMPOWERMENT

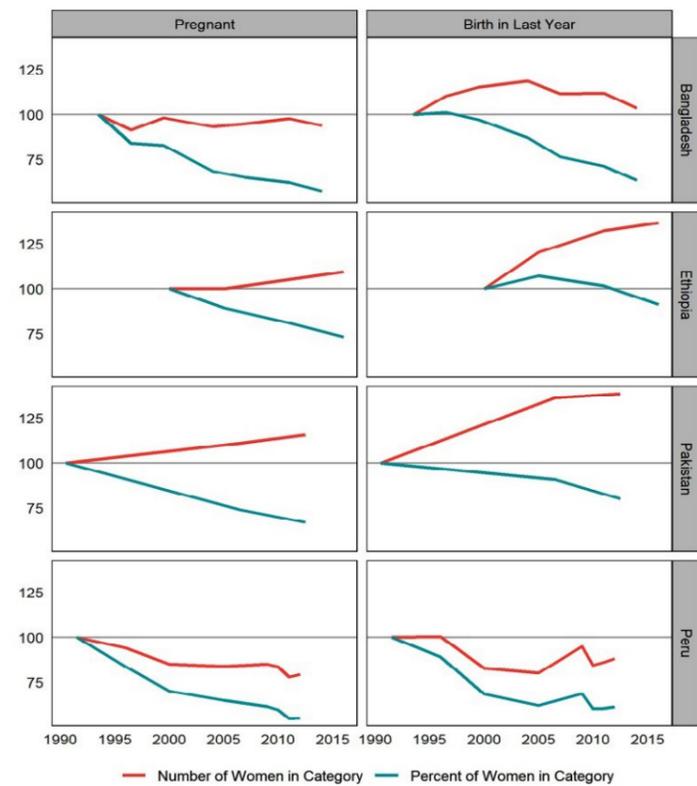
To investigate whether pregnancy and birth rates impact female opportunities and engagement in non-domestic activities, the authors explored women's participation in the labour force. They found in most countries a clear relationship between the length of the open birth interval and participation in the labour force. In general, as the woman's youngest child gets older, she can relinquish roles around the home (e.g. infant childcare and domestic duties) and can engage in more employment opportunities. With this employment comes more personal income, more freedom, and enhanced power within the family. It also opens opportunities to further her education and to seek job training. Such employment and educational opportunities enhance gender equality and women's empowerment.

High levels of female employment can also produce great benefits to the economy. For example, the World Bank notes that "gender equality is



Female/male ratio of labour force participation by region in 2020.



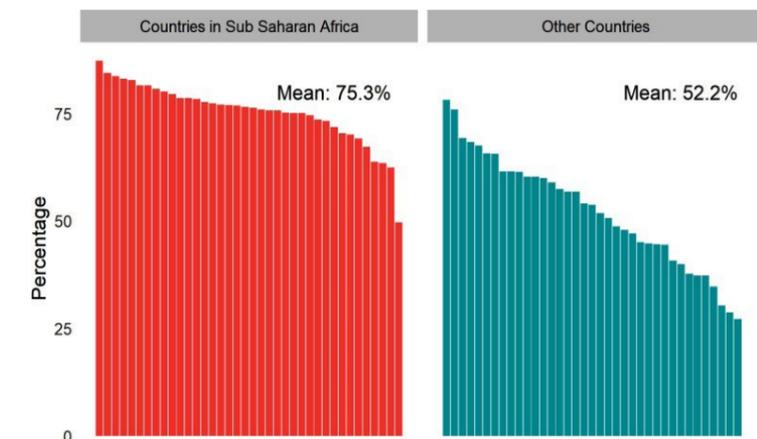


Changes in the percentage of women of reproductive age who are pregnant or in the first year after birth, in Bangladesh, Ethiopia, Pakistan, and Peru.

In most countries there is a clear relationship between the length of the open birth interval and female participation in the labour force.

a core development objective in its own right. But greater gender equality is also smart economics, enhancing productivity and improving other development outcomes.”

In fact, across countries lower fertility rates are associated with greater GDP, attributable partly to the proportion of women who are free from childcare and can engage in employment. This is also



Percentage of women with a child below the age of 5 in sub-Saharan Africa compared to other regions.

intertwined with cost of childcare, which if lower can help women engage in employment sooner after birth.

Together, women’s employment, education and empowerment have implications for social and educational planning. Advances are needed for female opportunities in the private sector and in non-governmental organisations, as well as in technical occupations. Social policies should nurture these in their own right, as well as for the spinoffs to the wider society through economic growth.

WHY IS THIS STUDY IMPORTANT?

It is crucial to understand the open birth interval and the impact that longer intervals can have on women (employment and empowerment) and the wider society (economy). The aging of the youngest child introduces new dynamics into the family; it releases the mother for new roles. For national planning, knowing the proportion and distribution of women who are pregnant or have recently given birth is crucial to allocate the appropriate services. These relate to maternity care, post-partum services, childcare, and early contraception services. Surveys show that most women do not wish to conceive again soon after the birth of a child, but where contraceptive access is limited many unplanned and unwanted pregnancies occur.

National social and economic policies are involved to enhance female equity in the labour force, and across the broader society, as well as in national governance. Educational and technical training opportunities need enlargement. All these carry implications for national budgets and regulations affecting women’s programs.

Overall, by investigating the open birth interval data across 74 cultures, Dr Ross and Dr Bietsch have highlighted differences in the proportions of women who are pregnant or have recently given birth, as this varies by age, wealth, area of residence, number of children, and contraceptive use. They have discussed how the age of the youngest child can constrain women’s freedom of action, or over time can enhance it, and how the larger society is influenced by the changing distribution of women by the age of the youngest child.

Behind the Research



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Research Objectives

Dr Ross and Dr Bietsch examine how a woman’s ‘open birth interval’, the age of her youngest child, shapes national fertility rates, public health needs, and women’s employment.

Detail

Bio

John Ross, Independent Demographic Consultant, holds a PhD in Medical Sociology from Yale University. **Kristin Bietsch**, Data Analyst at Avenir Health, holds a PhD in Demography from Princeton University. Both authors are active in research concerning population growth, family planning, women’s reproductive health, and the application of analytic methods.

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References

Ross, J. and Bietsch, K. (2019). The Open Birth Interval: A Resource for Reproductive Health Programs and Women’s Empowerment. *Global Health: Science and Practice*, 7(3), 355–370. Available at: <https://doi.org/10.9745/GHSP-D-19-00056>

Personal Response

What inspired you to conduct this research?

“ We have had a long-standing interest in birth interval dynamics and have been concerned about the lack of international data on the open birth interval and its implications for families and for societal and economic planning.

Is the open birth interval the most accurate way to measure fertility rates?

It is only one way, and it is closely related across countries to other rates. One advantage is that it requires only a single question in national surveys, to ask how long it has been since your latest birth. ”

