CHIARA ZARMATI

Planning for success

Access to affordable contraception can improve the social and economic status of women and their communities, especially in low-income countries. **By Emily Sohn**

In Zambia, almost one-third of girls become pregnant by the age of 20. In some parts of the country, the rate exceeds 40%, says Joseph Zulu, a public-health researcher at the University of Zambia School of Public Health in Lusaka.

To find out why teen pregnancies are so common, Zulu is interviewing adolescents about why they choose not to use family-planning services that offer access to contraception. Their answers often mention stigma, religious beliefs and myths about contraception. "I think we have a fair understanding of what are some of the main barriers to family-planning access," he says. "But the solution? Not yet."

Evidence that has accumulated over several decades shows that when family-planning programmes are in place, women have between 5% and 35% fewer children and space their pregnancies further apart. When given resources and access to affordable contraception, girls and women fare better in terms of education, participation in the workforce, job choice, health and much more. And their children, and often their entire communities, also benefit.

Nevertheless, questions remain about how large a part family-planning programmes play in comparison with other factors that influence economic and social outcomes. Researchers are also still investigating how best to implement these programmes to ensure that people use them. Studies from around the world suggest that the solution needs to vary depending on the place and culture.

"There's a lot of evidence suggesting that access to contraception, and lower-cost contraception, matters a great deal for women's choices and outcomes," says Martha Bailey, an economist at the University of California, Los Angeles. "We're still in the process of nailing down magnitudes."

Multiple benefits

The idea that women's lives might be limited by having more children than they want has a long and fraught history. Around the start of the twentieth century, commentators writing about slums speculated that high fertility rates trapped families in poverty — observations that were often tied up in prejudice and eugenics. Opportunities for research arose

by the middle of the twentieth century, when a global population explosion and concurrent famines coincided with the rising availability, affordability and acceptance of birth-control pills and other forms of contraception.

Before 1920, birth control was not widely discussed, even among doctors, and just 10% of physicians who earned a medical degree in the United States received training on contraception. But by 1959, the tide had turned, and 73% of respondents in a survey by the US polling company Gallup agreed that "birth control information should be available to anyone who wants it". Similar shifts were happening elsewhere in the world. By the 1990s, large-scale family-planning programmes were operating in 115 countries.

As these programmes took hold during the second half of the twentieth century, fertility rates in low- and middle-income countries fell by more than 50%. But many other changes happened over the same time period, including economic development, industrialization, cultural shifts and improvements in education. To understand how great a contribution family planning made to the decline in fertility rates and related outcomes, researchers began looking for patterns. For example, when people gain access to contraception in different places at different times, what happens to the fertility rate, education, health and job prospects of women?

One such study[1] analysed the period 1964 to 1973, when funding inconsistencies led to the staggered implementation of family-planning programmes around the United States. These programmes reduced the cost of contraceptives and increased the availability of family-planning services, particularly for those with low incomes who could not afford them otherwise. By analysing the number of children born from county to county before and after the programmes began, Bailey showed that fertility rates fell by 2% within 5 years of establishing the programmes, and that the effect lasted for up to 15 years. The work suggested that this change was driven by people with low incomes who had 30% fewer children over a 10-year period.

Studies in a variety of countries have pointed to several economic benefits that can emerge from family-planning programmes. Research into a long-term project in Colombia called Profamilia, for example, found[2] that women who were given access to a family-planning programme early in their reproductive years were up to 7% more likely to be employed by officially registered businesses later in life.

The children of women who can access contraception also have more opportunities. Bailey and her colleagues found[3] that for children born after family-planning programmes were implemented in the United States in the 1960s, household incomes were nearly 3% higher and the likelihood of living in poverty was 7% lower. The researchers estimated that the empowerment of women accounts for about two-thirds of those benefits – the rest being due to fewer children being born to women with low incomes. Other studies found that children whose mothers had access to family planning received more schooling and were less likely to live in poverty as adults. There are also links between family planning and lower rates of child mortality and better childhood health.

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These benefits can extend to entire communities, says Shareen Joshi, an economist at Georgetown University in Washington DC. Her studies in Bangladesh suggest that as maternal mortality rates fall – which often happens as a result of family planning – societal norms can change. Companies can become more likely to employ women and invest in their futures, for example. And some research suggests that the legalization of abortion in the United States led to a fall in crime levels[4].

There is evidence that family planning does not just correlate with benefits for women and their families, but is actually the cause. One large study that began in 1977 divided 141 villages in the Matlab region of Bangladesh into two groups. In half of the villages, female reproductive-health workers went to the homes of married women of childbearing age and offered free contraceptives and other health services. Women in the other villages were not visited and had to make the effort to go to government clinics to ask for contraceptives, says Joshi, who has collaborated on several analyses of the Matlab experiment.

In the villages visited by health workers, the fertility rate fell by 25% in the first two years of the programme, an effect that lasted for at least 20 years. These women had on average 1.5 children fewer than women who had to visit a clinic to get contraceptives. Rates of maternal mortality fell by 50% in villages visited by health workers, and women in these villages were less likely to be underweight than women who were not given easy access to contraception.

One important benefit of family planning, Bailey says, is that people can choose not just whether to have children, but when. In the Matlab study, for example, the spacing between births grew by as much as 13 months when contraceptives were delivered to the home. This gave women greater opportunity to stay in school, pursue a career, and invest in the health and education of the children they chose to have.

Several researchers found that when US states gave women access to contraception, women tended to get married later and have children later. People living in states with easy access to birth-control pills were also more likely to start and finish college, and women were more likely to work – including in jobs, typically done by men, with higher wages. When women can delay having children, Bailey found, they earn higher wages in their 30s and 40s.

The same seems to be true in low- and middle-income countries. Grant Miller, a health and development economist at Stanford University in California, has studied the implementation of a family-planning programme in Malaysia that started in the 1960s. He found that access to family planning was linked to girls having more than a year of extra schooling and a higher likelihood of securing well-paid jobs in their 20s and 30s. Miller and his colleagues are working to refine their analysis to better quantify those links. Women also gained bargaining power in their families, as seen by an increase in support for their own parents compared with their husband's parents.

Completing the task

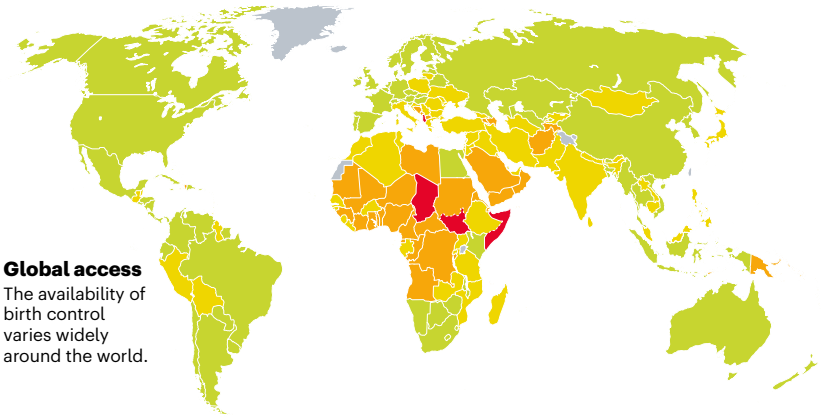
Despite the success of many family-planning programmes, these benefits are not guaranteed, and results are not the same everywhere. Randomized trials in Ethiopia and Kenya, for instance, have not shown any benefits. Even in places where access to contraception coincides with declining fertility rates, family-planning programmes seem to be only part of the explanation.

South Africa provides one example of how hard it can be to pinpoint the causes of fertility trends, says Johannes Norling, an economist at Mount Holyoke College in South Hadley, Massachusetts. Between 1950 and 1990, fertility rates in South Africa nearly halved from more than six children per woman to around three. Researchers have credited that decline to government investment in family-planning programmes that established thousands of clinics and sent advisers door-to-door. Areas that had the greatest access to family planning had the highest rates of contraception use and the biggest decreases in fertility, Norling found[5].

But the picture is more complicated than simple cause and effect, he says. Many political, economic and social factors were changing simultaneously, which suggests that

A LACK OF BIRTH CONTROL

Many women around the world cannot access the birth control they need. The problem is particularly acute in sub-Saharan Africa, especially among women with the least education and lowest wealth, and those in rural locations.



Global access
The availability of birth control varies widely around the world.

Proportion of women aged 15–49 whose contraception needs are being met (%)
75–92 50–75 25–50 7–25 No data

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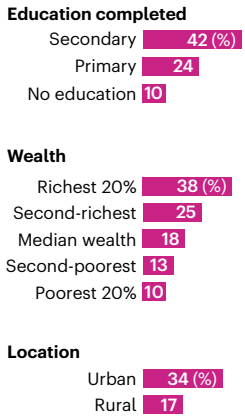
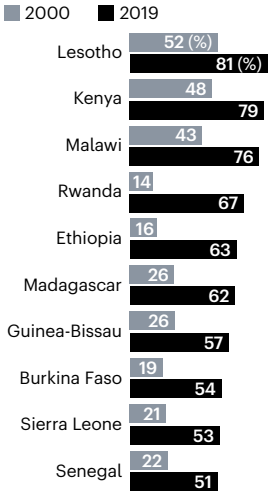
Socio-economic factors
Between 1998 and 2008, contraception use in sub-Saharan Africa varied with education level, wealth and location.



Regional gains
Use of contraception has risen in some sub-Saharan countries.



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family-planning programmes were not the only reason for the fall in fertility.

Iran is another dramatic example. In the 1980s, Iranian women had an average of more than seven children. After the country's legalization of birth control in 1989, and the subsequent launch of large-scale family-planning programmes, that number declined to fewer than two children per woman over the next decade. But there were many other changes at the same time, including people wanting fewer children. Family-planning programmes account for less than 20% of the drop in fertility rates, according to a review[6] of 30 studies. This is consistent with other countries such as Colombia and Tanzania.

Even with the widespread expansion of family-planning options around the world during the past few decades, many people who want to avoid pregnancy are still not using contraception. In 2019, according to a United Nations report[7], there were 190 million women of reproductive age worldwide who have difficulty accessing the contraception they need.

These unmet needs are highest in sub-Saharan Africa, where just 55% of those who want to avoid pregnancy have access to modern contraceptive methods, according to the UN report. However, the rates vary widely from country to country (see 'A lack of birth control'). In 23 countries in sub-Saharan Africa, more than half of people have unmet contraceptive needs — in South Sudan, the figure is as high as 96%.

The picture is better in Bangladesh, Malawi, Nepal, Rwanda and Zimbabwe, where more than 60% of women of childbearing age have access to family planning, perhaps because programmes are being implemented there.

Meeting unmet contraceptive needs will require an understanding of the culture of each place. Whether in Iran, Ghana or Bangladesh, Joshi says, family-planning programmes must take into account the relationships that women have with their husbands, their in-laws and others, and respond to the particular attitudes that are prevalent in each culture.

> **"It's not automatic that when you provide family-planning services, you get a reduction in early pregnancies."**

One study[8] in Zambia found that when women were offered a voucher for contraception in the presence of their husband, they were 19% less likely to seek family-planning services, 25% less likely to use the contraception, and 27% more likely to give birth than women who had been given the voucher without their husbands present. This finding suggests that disapproval from their families inhibited the women's use of contraception.

But the solutions are not as clear-cut as they might seem. Women in the study who were alone when offered injectable contraception (which is easy to conceal from their families) reported lower levels of well-being when surveyed two years later.

Some of the best strategies for increasing the use of contraceptives might include getting a partner's approval, and educating women about the risk of pregnancy if they do not use contraception. In Mozambique, for example, these interventions have been more effective than increasing the supply of contraceptives through costly policy changes.

The specifics will vary from place to place, says Miller. To determine how to improve access to contraception, he is now collecting data on women's beliefs about fertility, pregnancy risk, and how various contraceptives affect pleasure during sex or cause side effects.

In Zambia, Zulu welcomes developments that will help him to identify why adolescents are not using contraception and family-planning resources, even where they are available. Given the complex barriers to access, including religious views, politics, misconceptions, stigma and other social factors, Zulu and his colleagues are evaluating various interventions. These include talking to parents and providing incentives such as school fees in return for participation in programmes that provide family-planning education. The study involves more than 5,000 girls and is expected to conclude later this year.

"It's not automatic that when you provide family-planning services, you get a reduction in early pregnancies and early marriage. It's not like that in our society," Zulu says. "It's hard to tell at the moment what works best."

Emily Sohn is a freelance journalist in Minneapolis, Minnesota.

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