Abortions in Mexico Increased by a Third in 16 Years

A national study shows that the number of abortions performed in Mexico increased by one-third between 1990 and 2006, despite state-by-state legal restrictions that virtually ban the procedure in most parts of the country. (In 2007, watershed legislation was passed in Mexico City permitting the interruption of first-trimester pregnancies in the Federal District.) The study, conducted by Sandra G. García, the Population Council’s country director for Mexico, and colleagues at El Colegio de México, the Guttmacher Institute, and Mexico’s National Institute of Public Health, found that many abortions in Mexico take place under unsafe conditions, resulting in serious health consequences for women.

Unsafe abortion

Unsafe abortions, those that are performed by people who lack adequate skills or occur under conditions that do not meet basic medical standards, pose a huge public health threat. Worldwide, unsafe abortion accounts for 13 percent of the more than half a million pregnancy-related deaths that occur every year. Unsafe abortion is often the only choice for women who want to end a pregnancy in a country where abortion is illegal or greatly restricted. Countries in Latin America and the Caribbean have some of the most restrictive abortion laws in the world.

Estimates of the incidence of unsafe abortion are crucial for defining the scope of the problem and developing appropriate policies. Yet, collecting accurate data on this sensitive topic is extremely difficult. Women often underreport abortion because of stigma surrounding the procedure. In the early 1990s, Susheela Singh of the Guttmacher Institute, one of the researchers on this study, and her colleague Deirdre Wulf developed a new indirect method to estimate abortion incidence in Latin America using information about hospital admissions. Since not all women who get abortions need or seek follow-up in a hospital, the method combines data about hospitalizations with information gathered from knowledgeable public health experts to extrapolate the number of induced abortions occurring each year. Using 1990 data from Mexico, Singh and Wulf estimated that 533,000 induced abortions occurred that year, and that the abortion rate was 25 per 1,000 women aged 15–44.

Misoprostol

But the 1990 figures are nearly 20 years old, and significant changes have occurred since then that might influence the incidence of abortion. Chief among these changes is the use of misoprostol as an abortifacient drug. Misoprostol, marketed as Cytotec, is approved to treat gastric ulcers. Misoprostol also can be used to induce abortion. Preliminary findings from a recent Population Council study of Mexican pharmacies suggest that misoprostol has been gaining in popularity as a means of inducing abortion.

The new estimate

To produce a new estimate of abortion incidence, the researchers updated their methodology, including changes to reflect the availability of misoprostol. They analyzed hospital discharge data, surveyed knowledgeable health professionals, and examined the results of government surveys that asked about contraceptive use, unmet need for contraception, and pregnancy intentions. The most recent data are from 2006, the year for which these estimates were made.

Taken together and using a set of assumptions, the various data sources enable investigators to calculate estimates of abortion incidence. The team estimated that in 2006, 875,000 induced abortions occurred in Mexico, and that the abortion rate was 33 per 1,000 women aged 15–44. This represents an increase of 33 percent in the abortion rate from 1990. Coauthors also calculated first-time estimates of abortion incidence for sub-regions of Mexico.

“These findings confirm research from other parts of the world—that making abortion illegal does not significantly decrease its frequency, it just makes it unsafe and puts women’s lives at risk,” said Fatima Juárez, the study’s lead author and a professor at El Colegio de México and senior fellow at the Guttmacher Institute.

Lack of information on family planning and limited access to contraceptive methods may help explain why Mexican women are increasingly turning to abortion, the authors suggest. In addition, access to modern contraceptive methods in Mexico has not kept pace with women’s increasing desire to have smaller families. The average number of children per family has declined dramatically over the last 30 years, decreasing from 5.6 in 1976 to 2.2 in 2006.

“In Mexico, in this last decade we’ve seen setbacks in terms of pregnancy prevention,” notes the Council’s García. “For the past several years several states have not prioritized stocking their health centers with basic contraceptives, like pills and condoms. And they are definitely not doing adequate outreach to vulnerable groups. We think there needs to be more emphasis on preventing unintended pregnancy.”

To reduce the negative consequences of clandestine abortion, the researchers recommend broadening access to legal abortion beyond Mexico City to the rest of the country; improving contraceptive services, including postabortion contraceptive counseling; increasing youth-focused initiatives and school-based comprehensive sex education programs; and expanding training in safe abortion provision.

SOURCE

OUTSIDE FUNDING
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**ENDOCRINE DISRUPTORS**

**Study Finds Link between Phthalates and Low Birth Weight**

Phthalates, chemicals used to make plastics more flexible, are ubiquitous in the environment. They are found in the bottles of many personal care products, in flooring, shower curtains, and raincoats; and in medical tubing and fluid bags. They have been found to be endocrine disruptors, meaning that they can alter hormone levels in the body.

Animal studies have shown that increased exposure to phthalates is tightly linked to low birth weight in male offspring. Before now, however, there had been no studies on the effects of phthalates on birth weight in people.

To address this knowledge gap, Population Council Bixby Fellow Yunhui Zhang, Council biomedical researcher Renshan Ge, and their colleagues at Fudan University and Second Military Medical University in China examined phthalate levels in 201 mother–newborn pairs in Shanghai, China to determine whether there is a link between human low birth weight and phthalates.

**Low birth weight**

Infants born weighing less than 2500 grams, about 5.5 pounds, are considered to be of low birth weight. Almost a quarter of all babies born worldwide, more than 30 million infants annually, weigh less than 2500 grams. These babies, particularly those in developing countries, are susceptible to postnatal complications and infections. They have a higher death rate than heavier infants. A number of factors, including malnutrition in the mother, her socioeconomic status, and her exposure to smoking or second-hand smoke, are known to contribute to low birth weight.

During 2005–06, the researchers enrolled 88 mother–newborn pairs in which the baby had low birth weight and 113 pairs in which the baby was born at a normal weight. The pairs in both groups were similar in key characteristics, such as socioeconomic status, prenatal care, and the mother’s pre-pregnancy body mass index.

“Numerous studies have found that the effects of phthalates are more significant in children than adults,” explained Zhang. “A fetus, because it is still in early stages of development, might have yet further susceptibility to the potentially adverse effects of phthalates.”

To determine the level of phthalates to which the infants had been exposed in utero, the researchers gathered samples of the mother’s blood, blood from the umbilical cord, and all meconium from the first 48 hours after birth. Meconium, the baby’s first bowel movement, begins to accumulate in the fetus at about four months into a pregnancy and is not excreted until after birth. Because it builds up throughout much of the pregnancy, meconium is a good indicator of cumulative prenatal exposure to phthalates. Phthalates are broken down relatively quickly in the blood, so the blood samples give a snapshot of recent phthalate exposure. The scientists tested the biological samples for three phthalates and two chemicals that arise when these phthalates are metabolized by the body.

They found that more than 70 percent of the samples had quantifiable levels of phthalates and phthalate metabolites. Low-birth-weight babies had significantly higher phthalate levels than the infants who were of normal birth weight. In particular, one phthalate, known as DBP, was associated with low birth weight. A dose–response relationship was found between low birth weight and both DBP in cord blood and MBP (the metabolite of DBP) in meconium. This means that the higher the exposure to DBP, the lower the infant’s birth weight. Another phthalate, known as DEHP, was associated with babies being shorter than normal.

“Continued surveillance and additional research are needed to evaluate the complex potential health risks from high exposure to phthalates,” said Ge. ■

**SOURCE**


**OUTSIDE FUNDING**

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Program Shown to Significantly Delay Child Marriage

An innovative program designed and evaluated by the Population Council, in collaboration with government agencies in Ethiopia, has significantly reduced child marriage among young adolescent girls. (Child marriage, defined as marriage before the age of 18, is a violation of human rights, according to many international conventions.) The program, which also substantially improved many aspects of the girls’ lives, is one of the first such successes documented by rigorous research.

Rural Amhara

In the Amhara region of Ethiopia, rates of child marriage are among the highest in the world. Half of all girls in Amhara are married before their 15th birthday, and 80 percent are married by age 18. Girls who marry early are exposed to increased reproductive risks, experiencing sexual initiation earlier than unmarried girls as well as first births at a young age. Very early first births are associated with maternal risks, including obstructed labor that can lead to obstetric fistula.

Amhara also has high rates of divorce, with many divorced girls migrating to urban centers because of the stigma of divorce. Anecdotal evidence suggests that in order to survive, these young women often become domestic workers, involving long hours and low pay, and some, as a last option, become sex workers.

The Population Council, led by Ethiopia country director Annabel Erulkar, joined with Ethiopia’s Ministry of Youth and Sport and the Amhara Regional Bureau of Youth and Sport to design and implement the Berhane Hewan program in Amhara. Berhane Hewan means “Light for Eye” in Amharic. The groups developed the program to inform community members about the dangers of child marriage, to prevent early marriage among unmarried adolescents, and to provide support for girls who are already married.

Before the start of the program, researchers conducted a survey of adolescent girls in Amhara and found:

- Ninety-five percent of the girls surveyed did not know their husband before marriage, and 85 percent were not told that they were going to be married.
- More than two-thirds of married girls reported that they had not started menstruating when they had sex for the first time.
- Not surprisingly, many of these marital unions are unstable: 12 percent of girls in Amhara aged 10–19 are already divorced.

Younger girls involved in the program were 90 percent less likely to get married early than girls of the same age who did not participate.

On the basis of these findings and the results of conversations with community members, the program was designed to use a combination of approaches:

- participation in peer groups for married and unmarried girls led by female mentors in community meeting spaces to overcome the isolation of adolescents;
- promotion of school attendance for both formal and non-formal education, such as basic literacy and livelihood skills;
- economic incentives for school attendance and delaying marriage: unmarried girls who participated in the groups and remained unmarried for the duration of the program were presented with a goat at the graduation ceremony; and
- participatory community discussion concerning early marriage, other harmful traditional practices, and reproductive health.

The Amhara Regional Bureau of Youth and Sport pilot-tested the program in Mosebo Village, Amhara region, between 2004 and 2006. The community responded enthusiastically to the program; more than 650 girls in Mosebo joined Berhane Hewan in the two-year pilot period.

Participating girls had three options for involvement in the program. Girls who were still in school were encouraged to continue their education and were given school materials, such as paper, pens, and pencils. Out-of-school girls who wanted to return to formal school were encouraged to do so and were given the same materials. Other out-of-school girls, as well as those who never attended school, were organized into groups of married and unmarried girls of about 15–20 girls each and met regularly with mentors. Married girls, who face more time constraints than unmarried girls, met once a week; unmarried girls met five times a week.

The researchers also studied comparable girls in another area—Enamirt Village, Mecha District—where the program had not yet been launched. The researchers conducted population-based impact evaluations immediately before the implementation and again two years later, in both experimental and control areas. Researchers examined changes associated with the program by comparing characteristics of girls living in both locations before and after the pilot program. This evaluation focused on four main areas: social networks and participation, education, marital status, and reproductive health.

Success!

The evaluations showed that the vast majority of girls living in the experimental area (92 percent) had heard of the program. Eighty-five percent of them had taken part in the peer groups, and three-fourths had attended a community discussion. At the same time, no girls in the control area had heard of the program, reflecting no contamination of the control site.
The researchers found that the lives of girls who participated in the program improved in all areas that were targeted by the program, including friendship networks, school attendance, age at marriage, reproductive health knowledge and communication, and contraceptive use.

The impact of the program was particularly apparent for younger girls, aged 10 to 14. After controlling for marital status, age, and socioeconomic status, Mosebo girls in this age group were significantly more likely to be in school than were girls in the control area. Family planning use increased in both areas, but more so in the experimental site. No statistically significant differences were found between the two communities in use of family planning methods at baseline. Among married and sexually experienced girls, those living in Mosebo were nearly three times more likely to have ever used a family planning method after the intervention. Compared to girls in the control site, girls in the program site also were significantly more knowledgeable about HIV, sexually transmitted infections, and family planning methods, and were more likely to have discussed these issues with a close friend.

Child marriage

Perhaps most strikingly, statistical analysis revealed considerable effects on the age at marriage for younger girls, aged 10 to 14. Younger Mosebo girls were 90 percent less likely to be married than were Enamirt girls in the same age group. In addition, not one girl aged 10 to 14 in Mosebo had married during the previous year. However, marriage was more common for older girls in Mosebo, after the age of 15, than it was in Enamirt, as some girls in Mosebo who had avoided marriage at a younger age got married in their late teens. “This was perhaps due to the social expectation for marriage during adolescence and its linkage with the status of the girl’s father. In Ethiopia, girls who are not married by late adolescence are considered a disgrace to their family,” explained Erulkar. “Nevertheless, girls in Mosebo were given a few critical extra years in which to expand their social networks, attend school, learn more skills, and develop as individuals.”

Because most girls participated in all program components, it is difficult to tell whether specific components were more influential than others in bringing about change. The Berhane Hewan experiment demonstrates that significant impacts can be made on the social, educational, and health status of adolescent girls in a short period of time, through well-designed and -implemented support programs for girls. Based on this success, the program has been expanded and now enrolls 12,000 girls in rural Ethiopia, including in Enamirt.
Family Planning Programs Remarkably Successful

Do large-scale family planning programs improve the well-being of people, economies, and the environment? In recent years, critics have argued that the need for such programs has receded and that they are less crucial than other programs that compete for development aid. Partially as a result of these claims, funding for international family planning programs in developing countries has declined by 30 percent since the mid-1990s.

Population Council vice president and distinguished scholar John Bongaarts and Guttmacher Institute senior fellow Steven W. Sinding aimed to set the record straight in a recent article in the journal *International Perspectives on Sexual and Reproductive Health*. They urge that investment in family planning become a higher priority on the international development agenda. They show that decisions by policymakers and donors to reduce investments in contraceptive research, services, and supplies were in part based on plausible-sounding, but mistaken, arguments. In reality, family planning programs are a cost-effective way to address many of the needs of the world’s most vulnerable people.

**Family planning programs have a significant effect on fertility**

Decades of research show that comprehensive family planning and reproductive health services lead to sharp rises in contraceptive use that help women avoid unintended pregnancies. Over a 30-year period (1960–90), fertility declined in the developing world from more than six to fewer than four births per woman, and almost half of that decline—43 percent—is attributable to family planning programs.

Despite these drops in fertility, the United Nations still forecasts that the earth’s population will grow by 2.7 billion between 2005 and 2050. Nearly all of this growth will happen in the developing world, which has the fewest resources to deal with the strains on economies and the environment caused by population growth.

Reasons for this continued growth include the following:

- Current birth rates leave fertility substantially above the level needed to bring about population stabilization.
- People live longer as higher standards of living, better nutrition, expanded health services, and greater investments in public health have reduced death rates. Further improvements are likely.
- The large number of young people entering their childbearing years will result in population growth for decades to come, a phenomenon known as population momentum.

In sub-Saharan Africa, 43 percent of the total female population was younger than 15 years in 2005.

**Even with the HIV epidemic, family planning is necessary**

Despite the substantial mortality from AIDS, UN projections for all developing regions predict further large population increases. In sub-Saharan Africa, where the toll of the epidemic is largest, the region’s population is expected to grow by one billion between 2005 and 2050. The annual number of AIDS deaths worldwide (2 million) is equivalent to just 10 days’ growth in the population of the developing world.

Large-scale family planning programs appear to improve public health on the same scale as other health interventions such as basic sanitation for diarrheal disease, a short course of treatment for tuberculosis, and condom distribution for HIV prevention. All of these interventions are much more cost-effective than antiretroviral treatment of AIDS, which currently receives a large proportion of health-related development aid.

**Family planning programs empower women**

Today, nearly all family planning programs around the world respect the right of couples to make informed reproductive choices, free from undue persuasion or coercion. Bongaarts and Sinding acknowledge that an important exception is China, where the one-child policy continues to violate reproductive rights standards. However, “in our view,” they write, “the absence of access to contraception should also be considered a form of coercion, because it frequently condemns women to bearing children they do not wish to have.”

Population growth and what to do about it has been the subject of controversy since the 1700s. Perhaps because at its most fundamental level the subject deals with sex, it has been a heated topic of public policy debate. Yet, argue Bongaarts and Sinding, much of today’s discussion about family planning programs, the main way in which population policies have been implemented over the past 50 years, is based on faulty perceptions and misinformation. Large-scale national family planning programs have, for the most part, been remarkably successful.

Why does this debate matter? Because women and children continue to suffer and die as a consequence of unintended childbearing. Crucially, unsustainable population growth has been linked with environmental degradation, governmental instability, food scarcity, and pervasive poverty.

“In the face of declining political and financial commitment to family planning programs, we must address head-on the faulty criticisms that have held back efforts to satisfy the unmet demand for family planning services,” say Bongaarts and Sinding. “High fertility and rapid population growth remain real problems that merit our attention and action.”

**SOURCE**


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HIV AND AIDS


Trial Showed Anti-HIV Microbicide Candidate Is Safe, but Did Not Prove It Effective

A Phase 3 clinical trial in South Africa of the Population Council’s candidate microbicide, Carraguard®, showed the gel to be safe for vaginal use when applied approximately once per week, on average, for up to two years. The trial did not demonstrate that Carraguard is effective in preventing male-to-female transmission of HIV during sex. In February 2008, when the results were finalized, the Population Council announced these results and informed South African trial participants, government officials, advocates, and other scientists. In December 2008, the results were published in The Lancet. The Carraguard Phase 3 trial, a milestone in microbicide development, was the first such trial of a candidate microbicide to be completed with no safety concerns.

Clinical trial in South Africa

The Carraguard trial, which began in March 2004 and ended in March 2007, enrolled 6,202 women and was conducted at three sites in South Africa: the Setswaba Research Centre, through the University of Limpopo/Medunsa campus; the Empilisweni Centre for Wellness Studies, through the University of Cape Town; and the Isipingo Clinic, through the Medical Research Council of South Africa. These sites are located in areas where the HIV epidemic is acute.

Half of the women enrolled in the Phase 3 study were given Carraguard gel and condoms, and the other half received a placebo gel and condoms. There were 134 new HIV infections in the Carraguard group (an incidence of 3.5 infections per 100 woman-years) and 151 new infections in the placebo group (an incidence of 3.8 infections per 100 woman-years). The difference in infection rates between the two groups is not statistically significant, thus the product was not found to be effective.

Carrageenan

Carraguard is made from carrageenan, a seaweed derivative that is on the US Food and Drug Administration’s list of products “Generally Recognized As Safe” for consumption and topical application. Carrageenan has been used for decades as a thickening agent in many products, including infant formula, soups, and ice cream.

Laboratory research has shown Carraguard to be effective in blocking cells from becoming infected by HIV and human papillomavirus and in protecting mice from herpes simplex infection. Carraguard and similar carrageenan formulations had undergone extensive safety testing involving more than 850 women and men in earlier clinical trials in Australia, Chile, the Dominican Republic, Finland, South Africa, Thailand, and the United States.

Obtaining truly informed consent from individuals participating in human clinical trials has been a cornerstone of the Population Council’s microbicide research. Thus, the Council’s public health and social scientists collaborated closely with women’s health advocates and local community members to ensure that the ethical and practical challenges of testing and introducing microbicides were addressed. Further, the Population Council and our research partners aimed to provide the highest standard of care to women enrolled in the clinical trial as well as to women who volunteered but did not participate in the trial. Services included testing and treatment for sexually transmitted infections, pre- and post-test counseling for HIV, annual Pap smears with referrals for abnormalities, free condoms, and risk-reduction counseling. Pregnant women were referred for antenatal care, and women who tested HIV-positive—either at screening or during the trial—were referred to existing services in the communities. The study clinics also offered onsite services to women who tested HIV-positive, such as assessment of HIV disease progression, nutritional counseling, CD-4 cell counts, and support groups. The Council provided funding to the study clinics to support the referral services, and we conducted an evaluation with participants and clinic staff at the referral centers to identify barriers the women faced in seeking care.

The randomized, double-blind study found no differences between women using Carraguard and women using the placebo in terms of safety, and gel-related side effects were minor and infrequent. The findings regarding safety and lack of side effects are important because Carraguard’s favorable safety profile and physical properties make it a potentially useful vehicle for future-generation microbicides being developed by the Population Council.

SOURCE

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