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Access to Contraception in the Context of Zika: Health System Challenges and Responses

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Abstract

Women in areas of the Americas with endemic *Aedes* mosquito populations are at risk for exposure to Zika virus, which can cause fetal brain abnormalities and associated congenital microcephaly. Individual health care providers may encounter health systems barriers to providing evidence-based care. We focus on Mexico and the U.S. state of Texas to highlight the role of health system factors in contraceptive access in the context of Zika, and highlight efforts in Puerto Rico as an example of efforts to improve access to contraception. In Mexico, states with the highest unmet need for contraception are low-lying, coastal states. The government recently announced an investment to combat Zika, but made no mention of family planning initiatives to assist women in preventing pregnancy. In Texas, the Department of State Health Services (DSHS) has issued recommendations to help women and men avoid mosquito-bites; the issue of whether women should plan or avoid pregnancy is not addressed. Puerto Rico has the largest number of confirmed cases of Zika virus in the US states and territories. Recently, the CDC Foundation launched the Zika Contraception Access Network (Z-CAN), which provides contraceptives at no cost to participating clinics in Puerto Rico. The Zika virus highlights weaknesses in health systems that make it difficult for women to use contraception if they want to delay births. Women across the globe, with or without Zika, need access to contraception to prevent unintended pregnancy, and providers require functioning health systems that offer the support to ensure access is a reality.

Exposure to Zika virus during pregnancy by the bite of an infected *Aedes* species mosquito or through sex with an infected partner can cause fetal brain abnormalities and associated congenital microcephaly.[1] Women in areas of the Americas with endemic *Aedes* mosquito populations are at risk for exposure to Zika virus, including Mexico and the gulf states of the

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United States (US) where the *Aedes* species is distributed, are at risk. Puerto Rico has seen an especially large number of confirmed cases.[2]

The World Health Organization (WHO) recently issued guidance suggesting women residing in Zika-affected areas across the Americas delay pregnancy.[3] This guidance was revised in response to concerns that it implied an anti-disability stance. The new guidance instead focuses on offering information about Zika and its potential health impacts on the fetus, and on contraceptive counseling. The Centers for Disease Control and Prevention (CDC) has recommended that "health care providers discuss prevention of unintended pregnancy with women and couples who reside in areas of active Zika virus transmission and do not want to become pregnant".[4, 5]

For women wishing to avoid pregnancy, either out of concern about Zika or for any other reason, access to and use of effective contraception is crucial. However, barriers to accessing contraception can limit a woman's ability to prevent undesired pregnancy. Poor access to health care in general, and specifically contraception and abortion services, is well documented across the Americas (Latin America and the US).[2, 6] Despite a desire to inform and support patients, individual health care providers may themselves encounter health systems barriers to providing evidence-based care. Guidance for health care providers that does not acknowledge or address the health system constraints, challenges, and deficiencies in which they must operate will have a limited impact. Further efforts to overcome system barriers are needed to ensure access to contraception and to prevent undesired pregnancy in Zika-affected areas.

In this commentary, we focus on two case studies, Mexico and the US state of Texas, to highlight the role of health system factors in contraceptive access in the context of Zika guidance. Texas and Mexico provide a stark illustration of how existing inequities in healthcare access and population health could limit the impact of Zika awareness and prevention efforts. We then highlight efforts in Puerto Rico as an example to improve access to contraception.

MEXICO

Mexico, like much of Latin America, has long had a contraceptive culture of "stopping" versus "spacing". This means that women reach desired family size and then use permanent contraception, usually post-partum tubal ligation, to prevent further pregnancies. Sterilization is very common,[7] accounting for 45% of contraceptive use among women of reproductive age who currently use a modern method. Recent data highlight frequent provision of sterilization in the immediate post-partum setting, but 43% of all women leave the place of delivery without a method.[8] Access to contraception outside the immediate post-partum setting remains a challenge in Mexico, despite explicit government policy supporting access to all modern methods of contraception. Stock-outs and lack of provider training or willingness to provide contraceptives, especially to young or unmarried women, have been documented.[7] In this context, and despite the fact that adolescent births are a recognized government priority issue, women of all ages face hurdles in preventing pregnancy.

Mexico has recently implemented innovative and progressive health system reforms. *Seguro Popular*, which provides protection from catastrophic payments by those without employment-based or private health insurance, was implemented between 2001–2006 nationwide.[9] The government has recognized adolescent childbearing as a priority issue and published a national strategy to address it that encourages cross-sectoral approaches.[10] First trimester abortion was legalized in Mexico City in 2007 and is provided free of charge in the public sector. Abortion remains restricted in Mexico's other 31 states, and second trimester abortion remains restricted in Mexico City as well.

Despite these reforms, disparities in access to care and outcomes by geography, age, ethnicity, and socio-economic and marital status persist in Mexico, especially with regard to contraceptive access. Nulliparous women, adolescent women, and indigenous women consistently have the highest unmet need for contraception, lowest knowledge of contraceptive options, and most limited access to critical services, including emergency contraception and abortion.

Disparities in exposure to mosquito-borne diseases overlay disparities in access to family planning services. The four Mexican states with the highest unmet need for contraception are low-lying, costal states, and Zika prevalence in these states account for 38.8% of all confirmed cases in Mexico.[11] This means the women who are most at risk for Zika infection are also least able to plan or delay pregnancy.

To date, the Mexican government response to Zika has focused on vector control. Mexico has not followed the course of other countries in the region, including Colombia, El Salvador, and Jamaica, in advising women to avoid pregnancy until Zika no longer poses a risk.[12] In March, Mexico's Secretary of Health announced an $800 million investment in combating Zika but made no mention of family planning initiatives to assist women in preventing pregnancy. This is despite the fact that pregnant women comprise nearly half (41.6%) of all confirmed Zika cases in Mexico.[11] The approach thus far to Zika has mirrored that taken by the Mexican government in reponse to Chikungunya and Dengue (also transmitted by the *Aedes* mosquito) and has not focused on supporting providers to counsel and provide care for women at risk for Zika-affected pregnancies about contraception. The healthcare system may not be prepared to cope with any increase in demand for effective contraception outside the context of the immediate post-partum period.

TEXAS

In the US, the areas most likely to experience local transmission of Zika virus due to the presence of *Aedes* mosquitoes are also those with the highest rates of unintended pregnancy and the largest deficiencies in contraceptive access.[13] In Texas in 2010, 54% of pregnancies were unintended,[13] compared to the overall US rate of 45%.[14] Of those unintended pregnancies in Texas, 61% resulted in births.[13] Unintended pregnancy is a complex concept and not solely reliant on access to contraception, but for many women, the greatest barrier to preventing pregnancy in the wake of Zika virus will be lack of access to contraceptive services.

Over the past five years, publicly-funded family planning services in Texas have been dismantled and only partially pieced back together again. In 2012, Texas met only 13% of the need for publicly funded contraception—half what it had satisfied just two years earlier before the budget cuts. [15] In 2013, 1,774,240 women in Texas aged 13–44 were in need of publicly-funded family planning services. [15] In 2013, some of the lost funding for publicly-funded family-planning services was reinstated, but rebuilding the safety-net has been a slow and difficult process, particularly in rural parts of the state, with little to no decrease in unmet need. Texas also declined to participate in Medicaid expansion, meaning that 687,000 women in the "coverage gap" between the Affordable Care Act health insurance exchange and regular Medicaid qualification lost the opportunity to access contraception without a co-pay. Now, plans are in motion to end state-controlled Medicaid funding to Planned Parenthood.

The first locally transmitted case of Zika virus in Texas was reported in late November 2016. So far, no further cases have been reported outside of Brownsville, a town in the Rio Grande Valley near the US-Mexico border. Inequities in access to contraceptive counseling and provision disproportionately affect women living in poverty, women of color, and women who are undocumented immigrants. The need for publicly-funded contraception among Latinas in Texas is 1.6 times that of non-Hispanic whites.[15] Providers working in South Texas and the Rio Grande Valley, who already work within the confines of reduced services, may find themselves with few practical options to help women carry out official CDC advice to carefully plan or avoid pregnancy. Given the socioeconomic gradient associated with Zika risk, women with the fewest resources are not only at greatest risk of unintended pregnancy, but also of Zika infection.

The Texas Department of State Health Services (DSHS) has issued recommendations to help women and men avoid mosquito-bites and had also posted CDC recommendations to help prevent sexual transmission. The issue of whether women should plan or avoid pregnancy is not addressed, leaving healthcare providers to independently refer to CDC guidance. Governor Abbott has asked for $11 million to fund public health and surveillance measures to combat Zika. Yet the plan contains no mention of expanding access to family-planning services or meeting unmet need for contraception among Texans at risk. Finally, the US Office of Population Affairs (OPA) developed a provider toolkit to facilitate counseling on the risks and implications of Zika to help women, men, and couples make informed decisions on contraceptive use.[5] Despite these efforts, without the health systems infrastructure to back them up, healthcare providers will be limited to issuing advice many of their patients cannot follow.

Texas is not alone in its inadequate response to Zika, nor in the inequities faced by its most vulnerable residents. Neither Arizona nor Florida, two other Southern states with local *Aedes* mosquito populations, high unintended pregnancy rates, and restricted access to reproductive health services, have made attempts to increase access to contraception or abortion services for low-income women. Florida's only coordinated effort with respect to family planning was to distribute Zika kits containing condoms to women and men in the locally-affected Dade County region. By contrast, California—which has seen a high number of travel-related Zika cases but, as yet, no local transmission—has included

increased access to contraceptive services in its Zika preparedness plan. However, the state already funds programs to provide its indigent, undocumented, and vulnerable populations with much greater access to contraception and abortion compared to other states where local Zika transmission is a risk.

Contraception access efforts in Puerto Rico

Puerto Rico has the largest number of confirmed cases of Zika virus in the US states and territories, and nearly 25% of the population is projected to become infected during the current outbreak. [16] Puerto Rico also faces high rates of unintended pregnancy and significant barriers to contraceptive access, including shortage of contraceptive supplies, lack of provider training on insertion of Long Acting Reversible Contraceptives (LARC), and financial barriers.[2] CDC estimated that 138,000 Puerto Rican women of reproductive age not currently desiring pregnancy were not using a highly or moderately effective method of contraception as of March, 2016.[2]

In order to prevent Zika-related pregnancy complications in women not desiring pregnancy, the CDC Foundation, with technical assistance from CDC, initiated a public-private partnership with the aim of improving contraceptive access during the Zika outbreak (www.cdcfoundation.org/pr/2016/cdc-foundation-and-partners-launch-zika-contraception-access-network-women-puerto-rico). The Zika Contraception Access Network (Z-CAN) involves close coordination of the Puerto Rico Department of Health, the Puerto Rico Health Insurance Administration, US federal agencies, and private organizations. This program offers the full range of FDA-approved contraceptive options at no cost (since August 2016) through participating clinics in Puerto Rico, as well as provider training and donated birth control to address shortages. Z-CAN takes a health systems lens in that it created a network of trained providers across the island. A recent analysis presents strong evidence that increasing access to contraception both reduced the number of Zika-associated microcephaly and healthcare costs. [17]

Z-CAN is unique in its explicit acknowledgement that health systems must be strengthened and providers supported to ensure access to contraception and prevent undesired pregnancy in Zika-affected areas. It stands in stark contrast to Texas and Mexico where Zika-related efforts are not focused on health system strengthening. While Z-CAN relies on both public and private funding and therefore may not be easily transferrable to all settings, it does provide an example of a successful Zika intervention strategy focused on health systems and expanding access to contraception to prevent undesired pregnancy.

DISCUSSION

Removing barriers to access to and use of effective contraception is a global health and human rights priority, with or without Zika. However, Zika has brought the issue into sharp focus and highlights weaknesses in health systems that make it difficult for women to access and use contraception if they want to delay births in the context of widespread Zika infection. Women in much of the Americas, including Mexico and Texas, have limited access to abortion services, so a serious focus on expanding access to contraception is

essential. Recent work suggests that there has been a surge of information-seeking about safe pregnancy termination in key Zika-affected countries.[18]

To implement CDC and WHO counseling guidance on Zika transmission, risks to the fetus, and pregnancy options including delaying pregnancy, governments and public health systems across Zika-affected areas in the Americas need to acknowledge and act on the clear links between mosquito-borne disease, poverty, access to health services overall, and comprehensive reproductive health services in particular. These issues are larger than Zika, but Zika has clarified the links. Women across the globe need real access to contraception to prevent unintended pregnancy, and individual providers require functioning health systems that offer the guidance, training, supplies, and other means to make sure access is a reality.

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