CDC Guidance for Travel and Testing of Pregnant Women and Women of Reproductive Age for Zika Virus Infection Related to the Investigation for Local Mosquito-borne Zika Virus Transmission in Brownsville, Cameron County, Texas

Summary
On November 28, 2016, the Texas Department of State Health Services (TDSHS) reported the first case of locally acquired mosquito-borne Zika virus infection in the city of Brownsville, Cameron County, Texas. On December 9, 2016, four additional cases in people living in proximity to the first case were reported. TDSHS continues to investigate Zika virus transmission in Brownsville.

Currently only five cases are known to have been locally acquired in the Brownsville area, and there is not yet any evidence of widespread, sustained local transmission. However, temperatures in the region are still conducive to mosquito-borne transmission, and therefore the risk of continued local transmission of Zika virus cannot be ruled out. CDC, TDSHS, and local authorities continue to investigate the cases in Brownsville and will share up-to-date information and recommendations as the situation develops. The active, ongoing surveillance and response underway in Texas will provide more information over time that may allow for more precise and focused assessment of risk. The exact level and location of risk of Zika virus infection in Brownsville is unknown; pregnant women in the area are at some risk for Zika virus infection.

For these reasons, CDC is designating the city of Brownsville as a Zika cautionary (yellow) area for testing and travel guidance, as recommended in the CDC Interim Zika Response Plan (https://www.cdc.gov/zika/pdfs/zika-draft-interim-conus-plan.pdf). Based on the earliest time of symptom onset for cases of locally acquired Zika virus infection in Brownsville and a maximum 2-week incubation period for Zika virus, this guidance applies to pregnant women, women of reproductive age, and their sexual partners who live in or traveled to Brownsville on or after October 29, 2016. Because many people with Zika virus infection will not have symptoms or will have only mild symptoms, additional people may be infected.

Brownsville is located in Cameron County, Texas, which shares a border with Mexico (https://www.cdc.gov/zika/intheus/texas-update.html). Many people travel regularly across the United States-Mexico border to temporarily live, work, attend school, socialize, and seek medical care. Areas of active Zika virus transmission have also been reported in Mexico near the United States-Mexico border, and CDC issued a Travel Notice for Mexico (https://wwwnc.cdc.gov/travel/notices/alert/zika-virus-mexico) on December 10, 2015, recommending that pregnant women should not travel to any area of Mexico below 6,500 feet.

This is an ongoing investigation, and TDSHS, Cameron County Health Department, Brownsville Health Department, and CDC are working together to rapidly learn more about the extent of Zika virus transmission in Brownsville. CDC will update these recommendations as more information becomes available.

Recommendations for Brownsville, Texas (yellow area)

Travel Recommendations for Pregnant Women
Pregnant women who live in other areas should consider postponing travel to Brownsville. Areas of mosquito-borne transmission can arise and resolve over time. Travelers, and in particular, pregnant women, are urged to monitor the CDC website to ensure they have access to the most up-to-date information and recommendations (https://www.cdc.gov/zika/).
Prevention Recommendations for Pregnant Women
1. Pregnant women and their partners who live in or travel to Brownsville should be aware of local Zika virus transmission and should strictly follow steps to prevent mosquito bites. ([CDC website](https://www.cdc.gov/zika/prevention/prevent-mosquito-bites.html)).

2. Pregnant women and their partners who live in or travel to Brownsville should consistently and correctly use condoms to prevent Zika virus infection during sex (vaginal, anal, or oral) or should not have sex during the pregnancy.

Testing Recommendations for Pregnant Women
1. Pregnant women with an epidemiologic link to Brownsville on or after October 29, 2016, should be tested for Zika virus infection in accordance with CDC guidance. An epidemiologic link means that they live in, traveled to, or had sex without using a condom with someone who lives in or traveled to Brownsville on or after this date ([CDC website](https://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s_cid=mm6529e1_e)).
   a. Pregnant women with symptoms of Zika virus disease should be tested according to CDC guidance, which is based on the time of evaluation relative to symptom onset.
   b. Pregnant women with ongoing risks for exposure (who live in or frequently travel [for example, daily, weekly]) to Brownsville and who are without symptoms of Zika virus disease should consult with their healthcare provider to obtain testing for Zika virus infection in both the first and second trimesters of pregnancy.
   c. Pregnant women who are asymptomatic but who have had limited risks for exposure (limited travel to or sex without using a condom with a partner who lives in or has traveled to Brownsville) should also be tested for Zika virus infection. Laboratory testing for these women should be performed based on the time of clinical evaluation relative to last possible exposure in accordance with CDC guidance ([CDC website](https://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm)).

2. Healthcare providers should contact their state, local, or territorial health department to coordinate testing and interpret results. Healthcare providers should discuss the limitations of laboratory tests used to diagnose Zika virus infection with pregnant women and their partners, including the possibility of false positive results related to prior exposure to other flaviviruses (for example, dengue).

Women and Their Partners Who are Planning to Conceive in the Near Future
1. Women who have limited risk (limited travel to or sex without using a condom with a partner who lives in or has traveled to Brownsville) of possible exposure may consider waiting at least 8 weeks from symptom onset (if symptomatic) or last possible exposure (if asymptomatic) to attempt conception.

2. Men who have limited risk (limited travel to or sex without using a condom with a partner who lives in or has traveled to Brownsville) of possible exposure may consider waiting at least 6 months from symptom onset (if symptomatic) or last possible exposure (if asymptomatic) to attempt conception.

3. People living in Brownsville should be counseled on the possible risk for Zika virus infection during the periconceptional period. Women and men should discuss their reproductive life plans with their healthcare provider in the context of potential and ongoing Zika virus exposure. Women and men with ongoing risks for exposure and who are diagnosed with Zika virus disease should wait at least 8 weeks and at least 6 months, respectively, after symptom onset before attempting conception.

4. Some couples in which one or both partners have had a possible Zika virus exposure might choose to wait longer or shorter than the recommended period to conceive, depending on individual circumstances (for example, age, fertility, details of possible exposure) and risk tolerance. Limited data exist on the persistence of Zika virus RNA in body fluids, and the risk for adverse pregnancy outcomes associated with maternal Zika virus infection around the time of conception is currently not known.

5. Women and their partners who are attempting conception and live in or travel to Brownsville should be aware of Zika virus transmission and should strictly follow steps to prevent mosquito bites. ([CDC website](https://www.cdc.gov/zika/prevention/prevent-mosquito-bites.html)).
Background
Zika virus is spread to people primarily through the bite of an infected Aedes species mosquito (Ae. aegypti and Ae. albopictus). Zika virus can also be sexually transmitted. Zika virus infection during pregnancy is a cause of microcephaly and severe fetal brain defects and has been associated with other adverse pregnancy outcomes. Most people infected with Zika virus will not have symptoms; infants with microcephaly and other birth defects have been born to women with Zika virus infection who did not report symptoms.

For pregnant women who report clinical illness consistent with Zika virus disease (symptomatic pregnant women), CDC’s testing recommendations are the same for those with ongoing risk and those with limited risk for possible Zika virus exposure. Symptomatic pregnant women who are evaluated less than 2 weeks after symptom onset should receive serum and urine Zika virus RNA nucleic acid test (NAT) testing. Symptomatic pregnant women who are evaluated 2 to 12 weeks after symptom onset should first receive a Zika virus immunoglobulin (Ig) M antibody test; if the IgM antibody test result is positive or equivocal (unclear), serum and urine RNA NAT testing should be performed. If the RNA NAT result is negative, a positive or equivocal (unclear) Zika virus IgM antibody test result should be followed by plaque reduction neutralization testing (PRNT). Interpretation of serologic results has been described (https://www.cdc.gov/mmwr/volumes/65/wr/mm6521e1.htm).

Testing recommendations for pregnant women with possible Zika virus exposure who do not report clinical illness consistent with Zika virus disease (asymptomatic pregnant women) differ based on the circumstances of possible exposure. For asymptomatic pregnant women with ongoing risk for possible exposure who are evaluated less than 2 weeks after last possible exposure, RNA NAT testing should be performed. If the RNA NAT result is negative, a Zika virus IgM antibody test should be performed 2 to 12 weeks after the exposure. Asymptomatic pregnant women with limited risk for possible exposure who are first evaluated 2 to 12 weeks after their last possible exposure should first receive a Zika virus IgM antibody test; if the IgM antibody test result is positive or equivocal (unclear), serum and urine RNA NAT should be performed. Asymptomatic pregnant women with ongoing risk for possible exposure to Zika virus should receive Zika virus IgM antibody testing as part of routine obstetric care during the first and second trimesters; immediate RNA NAT testing should be performed when IgM antibody test results are positive or equivocal (unclear).

Further information on the interpretation of laboratory test results and clinical management of pregnant women with laboratory evidence of possible Zika virus infection are available below.

For More Information
• Interim Guidance for Health Care Providers Caring for Pregnant Women:
  MMWR: https://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s_cid=mm6529e1_w
• Interim Guidance for Prevention of Sexual Transmission of Zika Virus:
  https://www.cdc.gov/mmwr/volumes/65/wr/mm6539e1.htm?s_cid=mm6539e1_w
• Texas Department of State Health Services, Zika Virus information: https://www.texaszika.org/

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