

# ZIKA VIRUS TESTING GUIDANCE, UPDATED 9/7/2016

## Section 1: Which patients should be offered testing?

### SUMMARY OF CATEGORIES OF PATIENTS WHO SHOULD BE TESTED FOR ZIKA

- 1) Pregnant women who traveled to a Zika-affected area (see link to current list in Footnote 1 below) within the past 12 weeks. Must have been pregnant during travel or became pregnant within 8 weeks after travel.
  - **CONSULT DOH** (877-PA-HEALTH) if fetal problem has been noted (e.g. abnormal ultrasound, fetal loss, etc.)<sup>2</sup> or if there are other extenuating circumstances, even if testing deadline has passed
- 2) Pregnant women who have a sex partner<sup>3</sup> who traveled to a Zika-affected area<sup>1</sup>.
  - **CONSULT DOH** (877-PA-HEALTH) if fetal problem has been noted (e.g. abnormal ultrasound, fetal loss, etc.)<sup>2</sup> or if there are other extenuating circumstances
- 3) Men or non-pregnant women who traveled to a Zika-affected area<sup>1</sup>, and developed a Zika-like illness (fever, rash, arthralgia, or conjunctivitis) during travel or within 2 weeks after travel, or have been diagnosed with Guillain-Barre Syndrome.
  - **Test if** illness occurred within the last 12 weeks; antibodies to Zika virus are not reliably detected after this time period
- 4) Men or non-pregnant women who had a sex partner<sup>3</sup> -or- a household member who traveled to a Zika-affected area<sup>1</sup>, and BOTH the patient and the traveler developed a Zika-like illness (fever, rash, arthralgia, or conjunctivitis) or Guillain-Barre Syndrome (or the traveler has tested positive for Zika).
  - Acute illness (fever, rash, arthralgia, or conjunctivitis) in the sex partner or household member must have occurred during travel or within 2 weeks after travel
  - **Test if:** the patient's illness developed within the last 12 weeks, **and** (if sex partner-associated) the patient's illness occurred  $\leq$  6 months after the partner's illness, **or** (if household-associated) the patient's illness occurred  $\leq$  45 days after the household member's illness
  - Note: If a household contact of a traveler tests positive for Zika, it may indicate local mosquito transmission.
- 5) **CONSULT DOH** (877-PA-HEALTH) regarding testing of infants and children. Refer to the CDC Guidance document, "Interim Guidance for the Evaluation and Management of Infants with Possible Congenital Zika Virus Infection — United States, August 2016" ([http://www.cdc.gov/mmwr/volumes/65/wr/mm6533e2.htm?s\\_cid=mm6533e2\\_e](http://www.cdc.gov/mmwr/volumes/65/wr/mm6533e2.htm?s_cid=mm6533e2_e)).

#### FOOTNOTES:

<sup>1</sup>The current list of Zika-affected countries is at <http://wwwnc.cdc.gov/travel/page/zika-travel-information>. Areas in the continental US with local transmission are listed at <http://www.cdc.gov/zika/geo/index.html>. If patient's travel destination was near but not in a listed area, testing may still be indicated. Please call your local health department or DOH (877-PA-HEALTH) for consultation. Dengue and chikungunya virus testing is also recommended as there is considerable overlap of symptoms and affected areas for all three viruses.

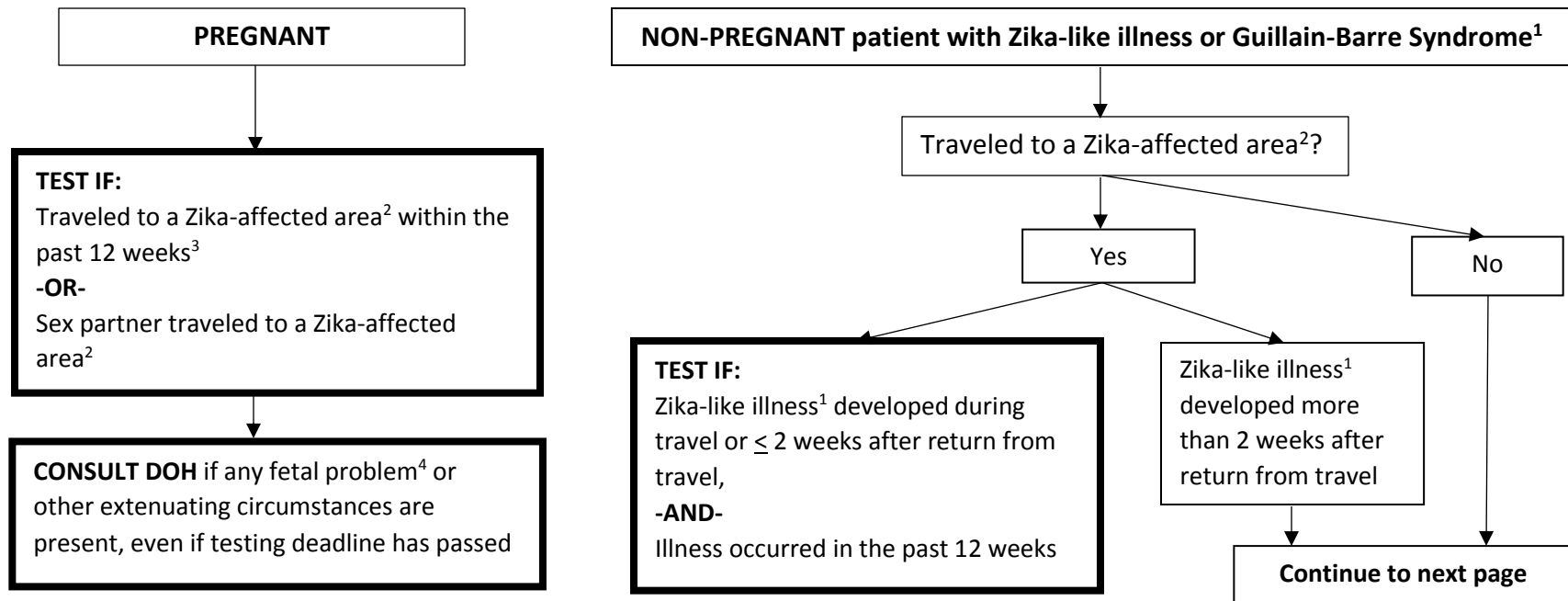
<sup>2</sup>Also see [http://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s\\_cid=mm6529e1\\_e](http://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s_cid=mm6529e1_e) ("Update: Interim Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure — United States, July 2016").

<sup>3</sup>See <http://www.cdc.gov/zika/prevention/protect-yourself-during-sex.html> for detailed information on sexual transmission of Zika.

**Detailed testing flow chart follows on the next two pages**

# ZIKA VIRUS TESTING GUIDANCE, UPDATED 9/7/2016

## Section 1: Which patients should be offered testing: Detailed testing flow chart



### Footnotes:

<sup>1</sup>Zika-like illness is defined as having **1 or more** of the following: fever, maculopapular rash, arthralgia, or conjunctivitis, with onset within 2 weeks of exposure. Guillain-Barre Syndrome (GBS) is also associated with Zika infection. Dengue and chikungunya virus testing is also recommended as there is considerable overlap with symptoms and affected countries for all three viruses. Testing is not indicated for asymptomatic persons who are not pregnant. If the patient is an infant or child, consult with local health department or DOH by calling 877-PA-HEALTH.

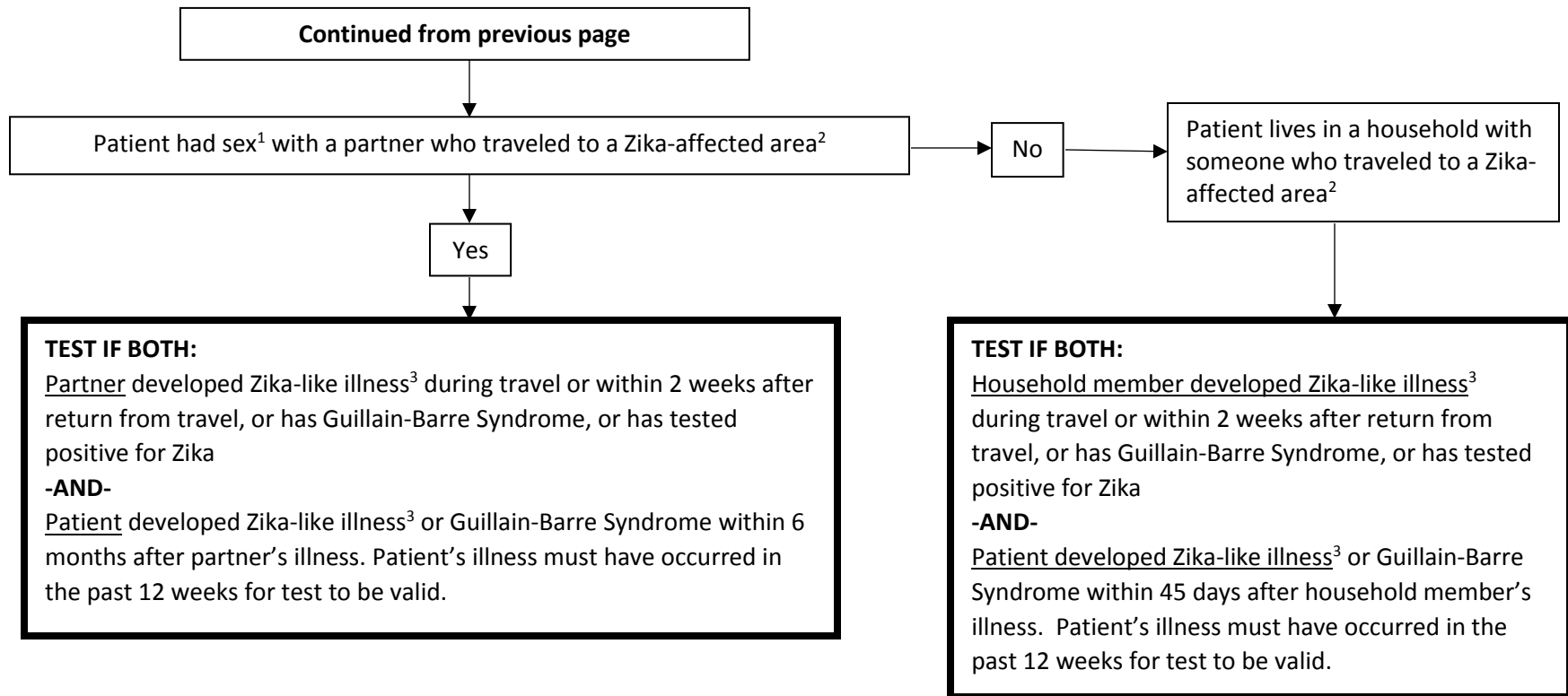
<sup>2</sup>See <http://wwwnc.cdc.gov/travel/page/zika-travel-information> and <http://www.cdc.gov/zika/geo/index.html>. **Please note:** if patient's travel destination is not listed, but in the vicinity of an affected area, testing may still be indicated. Please consult DOH (877-PA-HEALTH) if there are questions about whether patient travel is considered relevant or not.

<sup>3</sup>Include women who were pregnant during travel and women who became pregnant up to 8 weeks after the last day of travel.

<sup>4</sup>If pregnancy complications are present, consult with local health department or DOH by calling 877-PA-HEALTH. Also see "Update: Interim Guidance for Health Care Providers Caring for Pregnant Women with Possible Zika Virus Exposure — United States, July 2016" ([http://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s\\_cid=mm6529e1\\_e](http://www.cdc.gov/mmwr/volumes/65/wr/mm6529e1.htm?s_cid=mm6529e1_e)), and "Interim Guidance for the Evaluation and Management of Infants with Possible Congenital Zika Virus Infection — United States, August 2016" ([http://www.cdc.gov/mmwr/volumes/65/wr/mm6533e2.htm?s\\_cid=mm6533e2\\_e](http://www.cdc.gov/mmwr/volumes/65/wr/mm6533e2.htm?s_cid=mm6533e2_e)).

# ZIKA VIRUS TESTING GUIDANCE, UPDATED 9/7/2016

## Section 1: Which patients should be offered testing: Detailed testing flow chart, continued



### Footnotes:

<sup>1</sup>See <http://www.cdc.gov/zika/prevention/protect-yourself-during-sex.html> for detailed information on sexual transmission of Zika.

<sup>2</sup>See <http://wwwnc.cdc.gov/travel/page/zika-travel-information> and <http://www.cdc.gov/zika/geo/index.html>. **Please note:** if patient's travel destination is not listed, but in the vicinity of an affected area, testing may still be indicated. Please consult DOH (877-PA-HEALTH) if there are questions about whether patient travel is considered relevant or not.

<sup>3</sup>Zika-like illness is defined as having **1 or more** of the following: fever, maculopapular rash, arthralgia, or conjunctivitis, with onset within 2 weeks of exposure. Guillain-Barre Syndrome (GBS) is also associated with Zika infection. Dengue and chikungunya virus testing is also recommended as there is considerable overlap with symptoms and affected countries for all three viruses.

# ZIKA VIRUS TESTING GUIDANCE, UPDATED 9/7/2016

## Section 2: Which specimens should be collected, and which tests should be ordered?

**TABLE 1. General guidance regarding specimen type(s) and recommended testing for patients with suspected Zika virus infections**

Patient Characteristics	Specimen Type(s)	Recommended Tests
<p><b>Pregnant</b> and potentially exposed to Zika, either by:</p> <ol style="list-style-type: none"> <li>1) travel to a Zika-affected area within the past 12 weeks, or</li> <li>2) having a sex partner<sup>1</sup> who traveled to a Zika-affected area.</li> </ol> <p>Pregnant women with Zika infection may be viremic for several weeks. Note that antibodies to Zika typically do not persist for more than 12 weeks after exposure.</p>	Serum, paired with urine	<ol style="list-style-type: none"> <li>1) Zika rRT-PCR to detect presence of Zika RNA</li> <li>2) Zika IgM ELISA</li> <li>3) Dengue IgM ELISA</li> </ol> <p>Positive ELISAs should be confirmed by PRNT (plaque reduction neutralization test)</p>
<p><b>NOT pregnant, with a Zika-like illness<sup>2</sup></b> Specimen collected &lt;4 days after onset of illness</p>	Serum, paired with urine	Zika rRT-PCR to detect presence of Zika RNA
<p><b>NOT pregnant, with a Zika-like illness<sup>2</sup></b> Specimen collected <math>\geq 4</math> days but &lt;14 days after onset of illness (Antibodies to Zika generally take 4 days or more to become detectable.)</p>	Serum, paired with urine	<ol style="list-style-type: none"> <li>1) Zika rRT-PCR to detect presence of Zika RNA</li> <li>2) Zika IgM ELISA</li> <li>3) Dengue IgM ELISA</li> </ol> <p>Positive ELISAs should be confirmed by PRNT (plaque reduction neutralization test)</p>
<p><b>NOT pregnant, with a Zika-like illness<sup>2</sup></b> Specimen collected <math>\geq 14</math> days but <math>\leq 12</math> weeks after onset of illness (Non-pregnant patients are generally not viremic after 2 weeks.)</p>	Serum	<ol style="list-style-type: none"> <li>1) Zika IgM ELISA</li> <li>2) Dengue IgM ELISA</li> </ol> <p>Positive ELISAs should be confirmed by PRNT (plaque reduction neutralization test)</p>

NOTE: rRT-PCR and ELISA testing is available through commercial labs and also through the Department of Health lab.

<sup>1</sup>See <http://www.cdc.gov/zika/prevention/protect-yourself-during-sex.html> for detailed information on sexual transmission of Zika.

<sup>2</sup>Zika-like illness is defined as having **1 or more** of the following: fever, maculopapular rash, arthralgia, conjunctivitis, **with onset occurring during or within 2 weeks** after travel to an area with Zika virus transmission, or Guillain-Barre Syndrome. Dengue and chikungunya virus testing is also recommended as the symptoms are very similar to Zika and most areas with Zika also have dengue and chikungunya.