

Victoria County Zika Virus Preparedness & Response Plan

July 26, 2016



Overview

The Victoria County Public Health Department (VCPHD) is responsible for the coordination of the local response to Zika virus. VCPHD works closely with Victoria Emergency Management and the City of Victoria to ensure a timely and successful response should a local case of Zika virus transmission be identified within Victoria County. The Zika Virus Preparedness & Response Plan aligns with the CDC's recommendations for local Zika virus transmission preparedness and response. It is a multiphase plan and is divided into three separate sections. Section I describes activities that will be undertaken by VCPHD and its partners *prior to local Zika Virus transmission* in Victoria County by *Aedes aegypti* or *Aedes albopictus* mosquitos. Section II describes activities that will be undertaken once a *potential case or limited cluster of mosquito transmission* has been identified. Section III describes the actions that will be taken in the event that *sustained local mosquito transmission* has been confirmed.

Purpose

The purpose of this Preparedness & Response plan is to serve as a guide for VCPHD and its partners, for preparation and response to Zika virus transmission in Victoria County. It also serves as the basis for collaboration between VCPHD, the City of Victoria Parks and Recreation Department, and Victoria Emergency Management to address the possible impact of Zika virus within their jurisdictions.

Goal

The ultimate goal of this plan is to protect the citizens of Victoria County and the City of Victoria by preventing or delaying mosquito transmission of Zika virus for as long as possible; and at the same time be prepared to act quickly to intervene, should local mosquito transmission be detected. In particular, VCPHD and its partners are concerned with protecting pregnant women and their unborn children, due to the devastating birth defects linked to the disease.

Objectives

- Prevent transmission of Zika virus by identifying cases as quickly as possible and implementing vector control measures throughout the county and city
- Increase education and outreach efforts within the community, emphasizing individual protection from mosquito bites and elimination of mosquito breeding habitats
- Maintain transparency and provide timely updates to city and county leadership, health care partners, and the local community
- Coordinate the Health Department's response with local healthcare providers and emergency management

Facts

- Zika virus is mainly transmitted to people through the bite of an infected *Aedes aegypti* mosquito, through sexual transmission, or through maternal-fetal transmission¹
- There is currently no vaccine or treatment available for Zika virus infection²
- The Zika virus is still being studied, and recommendations may change as more is learned about it³
- Zika virus can be passed from a pregnant woman to her fetus during pregnancy or during birth⁴
- Zika virus infection has been linked to microcephaly, a serious birth defect of the brain, seen in the children of mothers who had Zika virus infections while pregnant⁵
- Zika virus can be spread from an infected man to his sexual partner(s) before, during, and after symptom presentation⁶
- There is no evidence Zika can be spread to people from contact with animals.⁷
- People with Zika don't usually get sick enough to go to the hospital and only very rarely die of Zika⁸
- In areas where local Zika transmission by mosquitos is present, there is a risk that the virus could be transmitted through the blood supply⁹

Assumptions

- Victoria County and the City of Victoria are not particularly high risk area of Zika virus transmission compared to the Texas/Mexico border or Lower Rio Grande Valley, but local transmission is definitely a possibility and should be prepared for
- State assistance may be available to supplement local efforts, if local capabilities are exceeded during emergency response (dependent on state resource availability)
- Due to recent Zika outbreaks in other countries, we may see cases of Zika in travelers returning to, or visiting, Victoria County or the City of Victoria
- 80% of Zika infections do not cause illness and many symptomatic cases may not be diagnosed due to the mild nature of the disease in most infected individuals
- Texas will probably experience local transmission of Zika virus at some point, possibly resulting in Victoria County or the City of Victoria seeing infected travelers from within the state

¹Zika Virus Risk-Based Preparedness and Response Guidance for States – CDC Webpage <http://www.cdc.gov/zika/public-health-partners/risk-based-prep.html>

²See footnote #1

³See footnote #1

⁴Zika and Pregnancy – CDC Webpage <http://www.cdc.gov/zika/pregnancy/question-answers.html>

⁵Zika Information for Pregnant Women – CDC Webpage <http://www.cdc.gov/zika/pregnancy/index.html>

⁶Zika and Sexual Transmission – CDC Webpage <http://www.cdc.gov/zika/transmission/sexual-transmission.html>

⁷Zika and Animals – CDC Webpage <http://www.cdc.gov/zika/transmission/qa-animals.html>

⁸About Zika Virus Disease – CDC Webpage <http://www.cdc.gov/zika/about/index.html>

⁹See footnote #1

- Vector control measures can be used to reduce the number of local mosquitos able to spread the virus, therefore mitigating the spread of the disease and reducing public impact of local transmission
- Due to the habitat and behavior of *Aedes aegypti* mosquitos, aerial spraying is not likely to be an appropriate control measure
- Mosquito pool testing on a large scale for Zika virus is not likely to be beneficial, however targeted testing in a small area focused around cases of local transmission could possibly be of benefit
- Zika virus transmission depends on a human-to-mosquito-to-human life cycle; interrupting this cycle will drastically limit the spread of the disease
- Zika virus does not appear to infect or cause illness in pets or other non-primate animals

Plan Format

This Zika Virus Preparedness & Response Plan consists of three (3) sections, each containing an overview of actions that will be taken to prevent initial or increased spread of the Zika virus and steps necessary to mitigate any particular phase of an outbreak in Victoria County or the City of Victoria. Responsibilities will be broken down among the following partners:

- Victoria County Public Health Department – Administration & Epidemiology
- Victoria County Public Health Department – Environmental Services Division
- City of Victoria Parks and Recreation Department
- Victoria Emergency Management – Public Health Emergency Preparedness

Section I: Prior to Local Mosquito Transmission

The primary goal prior to the confirmation of local mosquito transmission of Zika virus is to prevent mosquito breeding and biting. This section focuses on actions that will be taken by VCPHD and its partners during mosquito season to minimize the risk of seeing local transmission of Zika virus in Victoria County and the City of Victoria.

Assumptions:

- There may be travel related cases of Zika virus in Victoria County and the City of Victoria
- The most effective and efficient way to prevent travel related cases of Zika from spreading locally is robust control of the *Aedes aegypti* vector

Preparedness Activities to Prevent Local Mosquito Transmission and Educate the Community	
ENHANCED COMMUNICATIONS	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Initiate public awareness campaign ○ Design and distribute messaging to educate the community on Zika virus ○ Design and distribute messaging that encourages personal protection from mosquitos 	Public Health Emergency Preparedness
<ul style="list-style-type: none"> ○ Create and distribute resources for healthcare providers including case definitions and reporting instructions ○ Educate community leaders on Zika virus and methods to prevent it ○ Maintain transparency and work with local media outlets to distribute regular updates and advice to the community as more is learned about the Zika virus <ul style="list-style-type: none"> a) Alert the community, particularly pregnant women, to any risks of local mosquito transmission of Zika virus in specified areas and timeframes b) Recommend that all community members, especially those in areas where travel related cases have been identified: <ul style="list-style-type: none"> ❖ Take steps to prevent mosquito breeding on their property by removing standing water, trash, and open containers, as well as applying insecticide if there is increased mosquito activity on their property. ❖ Protect themselves from mosquito bites by using EPA-registered insect repellants, such as those containing DEET, wearing long sleeved shirts and pants, and limiting time spent outdoors just after dawn and before sunset. 	VCPHD – Administration & Epidemiology
INTEGRATED VECTOR MANAGEMENT – MOSQUITO CONTROL	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Receive reports of increased mosquito activity from the community and respond by spraying areas of concern in a timely manner ○ After periods of heavy rain, treat standing water on city or county property 	VCPHD Environmental Services Division <i>OR</i>

<ul style="list-style-type: none"> with larvicide to prevent mosquito breeding ○ Provide larvicide to community members that request it to treat standing water on their private property ○ Provide regular updates to Public Health Emergency Preparedness and the rest VCPHD to ensure inclusion of the most up-to-date information in educational material and communications to local leaders and media ○ Maintain records of mosquito activity complaints and spraying activity 	<p>City of Victoria Parks and Recreation Department (Depends on Jurisdiction)</p>
HEALTH SURVEILLANCE	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Work with local healthcare providers to quickly identify and investigate possible cases of local Zika virus transmission ○ Coordinate with local healthcare providers to arrange for testing of suspect Zika cases through the Department of State Health Services (DSHS) 	<p>VCPHD – Administration & Epidemiology</p>
COORDINATION AND PLANNING	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Coordinate with DSHS Region 8, to ensure that the local Zika virus response plan for Victoria County aligns with the overarching plans of the State Health Department and Centers for Disease Control ○ Attend relevant workshops hosted by the State Health Department focused on developing and improving Zika preparedness and response plans ○ Schedule regular meeting with the major partners that are involved in preventing local transmission of Zika virus to discuss and update the Victoria County Zika Virus Preparedness & Response Plan as necessary 	<p>VCPHD – Administration & Epidemiology Public Health Emergency Preparedness</p>

Section II: Suspected Case of Local Mosquito Transmission or Limited Local Transmission

The goal of the second section of this plan is to prevent or mitigate the risk of Zika virus being spread by *Aedes* mosquitos, if there is local transmission of the disease. This section focuses on actions that will be taken if a potential case of local transmission is identified in Victoria County or the City of Victoria. Determination of local mosquito transmission will be made through a collaboration of the VCPHD Epidemiologist and the Texas Department of State Health Services. This collaboration will also advise on the appropriate geographic boundaries for response activities.

Assumptions:

- VCPHD will be the first public health entity to become aware of a suspected case of local Zika virus transmission in Victoria County or the City of Victoria
- VCPHD will immediately update all partners about the potential case

Note: All partners involved in responding to a local Zika case should be mindful of preserving patient privacy and confidentiality.

Response Activities to Contain Suspected Cases of Local Mosquito Transmission	
ENHANCED COMMUNICATIONS	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Design and distribute messaging that focuses on advising community members: <ul style="list-style-type: none"> a) To contact their healthcare provider regarding any concerns b) To abstain or use condoms, if having sex with a male sex partner that has lived in or traveled to areas with sustained Zika virus transmission c) To avoid travel to areas with sustained Zika virus transmission 	Public Health Emergency Preparedness
<ul style="list-style-type: none"> ○ Maintain transparency and work with local media outlets to distribute regular updates and advice to the community as necessary, particularly: <ul style="list-style-type: none"> a) Alert the community, especially pregnant women, to any risks of local mosquito transmission of Zika virus in specified areas and timeframes b) Recommend that all community members, especially those in areas where travel related cases have been identified: <ul style="list-style-type: none"> ❖ Take steps to prevent mosquito breeding on their property by removing standing water, trash, and open containers, as well as applying insecticide if there is increased mosquito activity on their property. ❖ Protect themselves from mosquito bites by using EPA-registered insect repellants, such as those containing DEET, wearing long sleeved shirts and pants, and limiting time spent outdoors just after dawn and before sunset. 	VCPHD – Administration & Epidemiology

INTEGRATED VECTOR MANAGEMENT – MOSQUITO CONTROL	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ In collaboration with the Zoonosis Control Branch of DSHS, determine whether the facts surrounding the case indicate that increased vector control is necessary around the residence and other frequented locations of the case 	VCPHD – Administration & Epidemiology
<ul style="list-style-type: none"> ○ Conduct an environmental assessment around the case’s residence and other frequented locations to determine the appropriate vector control actions to minimize risk of Zika virus transmission. Actions may include any or all of the following within a 160 yard radius of the locations of interest: <ul style="list-style-type: none"> a) Offer to assist cases and at-risk (pregnant) residents with eliminating mosquito breeding habitats on their property – note that taking any action on private property requires the property owner’s permission b) If funding allows, coordinate with a contracted local licensed pesticide applicator to apply larvicide and adulticide around the residences of high-risk individuals and cases c) Offer assistance in securing homes against mosquito infiltration if those homes do not have indoor climate control or screens on windows and doors d) If additional cases are detected within the 160 yard response area, consider conducting mosquito surveillance to determine hotspots of vector activity and testing for Zika virus in this particular vector population 	VCPHD – Environmental Services Division <i>OR</i> City of Victoria Parks and Recreation Department (Depends on Jurisdiction)
HEALTH SURVEILLANCE/CASE INVESTIGATION/AT-RISK POPULATION OUTREACH	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Increase local surveillance for cases of Zika using methods such as: <ul style="list-style-type: none"> a) Local clinician outreach b) Syndromic surveillance in local hospitals ○ Conduct in-depth interview with Zika cases to determine possible exposure locations, i.e. places that they were bitten by mosquitos in the past 2 weeks ○ If a case of locally transmitted Zika is identified, compare their location of residence and places they have visited to those of identified travel related Zika cases to determine the likely location of infected mosquitos ○ Advise Zika cases to remain indoors as much as possible for about 2 weeks. If they must go outside, encourage them to wear mosquito repellent and clothing that reduces the amount of exposed skin as much as possible 	VCPHD – Administration & Epidemiology
<ul style="list-style-type: none"> ○ Identify high risk individuals (pregnant women) within a 160 yard radius of locations with suspected infected mosquitos <ul style="list-style-type: none"> a) Warn them of their increased risk and encourage them to: <ul style="list-style-type: none"> ❖ Contact their health care provider about their concerns ❖ Use condoms when having sexual activity b) Provide emergency Zika kits to these individuals including <ul style="list-style-type: none"> ❖ Mosquito repellent ❖ Information materials on Zika, mosquito bite prevention, and elimination of mosquito breeding areas ❖ Mosquito “dunks” to treat standing water around their 	Public Health Emergency Preparedness

residence that cannot be drained	
COORDINATION AND PLANNING	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Coordinate regular meetings between partners involved in the Zika response effort to discuss planning, recent developments, and impact of response ○ Continually evaluate the developing situation and implement further control measures if deemed necessary ○ Maintain communications with the State Health Department Zoonosis Control Branch, Health Service Region 8 and Centers for Disease Control to receive advice and request additional resources if necessary 	VCPHD – Administration and Epidemiology
<ul style="list-style-type: none"> ○ Work with DSHS Health Service Region 8’s Health Emergency Preparedness and Response Section to coordinate emergency response activities, especially if other counties in Region 8 are also seeing local Zika virus transmission 	Public Health Emergency Preparedness

Section III: Sustained Local Transmission of Zika Virus

The goal of the third section of this plan is to prevent or mitigate the risk of Zika virus being spread by *Aedes* mosquitos if there is sustained local transmission of the disease. This section focuses on actions that will be taken if a sustained local transmission of Zika virus has been determined to be occurring in Victoria County or the City of Victoria. Sustained local transmission includes continued transmission beyond a small initial point cluster or transmission occurring in multiple locations concurrently. Determination of sustained Zika virus transmission will be made through a collaboration of the VCPHD Epidemiologist and the Texas Department of State Health Services. This collaboration will also advise on the appropriate geographic boundaries for response activities.

Section III mostly consists of enhancing the activities of Section II to cover the entire City of Victoria or large areas of Victoria County. This is a worst-case scenario that could potentially exhaust City and County resources quickly, and would likely result in a public health emergency requiring requesting assistance from DSHS.

Assumptions:

- VCPHD will be the first public health entity to become aware of sustained transmission of Zika virus in Victoria County or the City of Victoria
- VCPHD will immediately update all partners about the situation
- If transmission becomes widespread enough to include multiple counties in the region, the Texas Department of State Health Services will take charge of the response effort, but local partners will still play important and essential roles in response efforts in Victoria County and the City of Victoria

Note: All partners involved in responding to a local Zika case should be mindful of preserving patient privacy and confidentiality.

Response Activities to Mitigate Sustained or Widespread Zika Virus Transmission	
ENHANCED COMMUNICATIONS	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Intensify efforts to educate community members, especially pregnant women, of the local risks presented by the Zika virus ○ Distribute alerts recommending that all residents in affected areas do everything they can to: <ul style="list-style-type: none"> a) Eliminate mosquito breeding habitats on their property by draining or treating standing water, removing trash and open containers, and spraying adulticide around their homes if there is increased mosquito activity b) Take precautions to avoid mosquito bites – use insect repellants, wear long-sleeved shirts and long pants, and limit time spent outdoors just after dawn and right before dusk ○ Advise men in affected areas that have a pregnant sexual partner to use condoms or abstain from sexual contact 	<p>Public Health Emergency Preparedness</p>

<ul style="list-style-type: none"> ○ Issue a press release highlighting the facts of the situation and what is being done to resolve or mitigate it ○ Continue to distribute the messages from Sections I & II through local media 	<p>VCPHD – Administration & Epidemiology</p>
INTEGRATED VECTOR MANAGEMENT – MOSQUITO CONTROL	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ As resources allow, continue to conduct environmental assessments around the cases’ residences and other frequented locations to determine the appropriate vector control actions to minimize risk of Zika virus transmission. Actions should be conducted within a 160 yard radius of the locations of interest. The recommended actions for this scenario are the same as those for Section II of this plan. 	<p>VCPHD – Environmental Services Division <i>OR</i> City of Victoria Parks and Recreation Department (Depends on Jurisdiction)</p>
HEALTH SURVEILLANCE/CASE INVESTIGATION/AT-RISK POPULATION OUTREACH	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Continue the Surveillance and Investigation activities from Sections I & II ○ Work with DSHS and local healthcare providers to expand testing for Zika virus to include asymptomatic pregnant women in affected areas and household members of confirmed cases ○ If the number of reported cases exceeds local capabilities to investigate promptly, request assistance from DSHS Health Service Region 8 epidemiologists to ensure that all reported cases of Zika can be investigated in a timely manner 	<p>VCPHD – Administration & Epidemiology</p>
<ul style="list-style-type: none"> ○ Identify high risk individuals (pregnant women) within a 160 yard radius of locations with suspected infected mosquitos and reach out to them as per Section II of this plan 	<p>Public Health Emergency Preparedness</p>
COORDINATION AND PLANNING	
Actions	Lead Partner
<ul style="list-style-type: none"> ○ Coordinate regular meetings between partners involved in the Zika response effort to discuss planning, recent developments, and impact of response ○ Continually evaluate the developing situation and implement further control measures if deemed necessary 	<p>VCPHD – Administration and Epidemiology</p>
<ul style="list-style-type: none"> ○ Work with DSHS Health Service Region 8’s Health Emergency Preparedness and Response Section to coordinate emergency response activities, especially if other counties in Region 8 are also seeing local Zika virus transmission ○ Work with Region 8’s Health Emergency Preparedness and Response Section to secure additional resources and/or personnel to meet local response needs 	<p>Public Health Emergency Preparedness</p>