



MINISTRY OF HEALTH, JAMAICA

ZIKA PREPAREDNESS AND RESPONSE PLAN FOR OUTBREAK CONTROL

EPIDEMIOLOGICAL SURVEILLANCE PLAN

24 MAY 2015 (REVISION 4: 16 NOVEMBER 2015)

BACKGROUND

The Pan American Health Organization (PAHO) / World Health Organization (WHO), on 7 May 2015, issued an Epidemiological Alert recommending that Member States establish and maintain the capacity for Zika virus infection detection, clinical management and an effective public communication strategy to reduce the presence of the mosquito that transmits this disease, particularly in areas where the vector is present.

PHASE 1: PREPAREDNESS

During the preparedness phase, the epidemiological surveillance system of Zika virus infection in Jamaica will be strengthened through the following strategies:

1. Training the epidemiological and clinical staff on Zika management
2. Standardizing a Case Definition
3. Designation of Zika Fever as a Class 1 Notifiable disease
4. Laboratory surveillance for confirmation of autochthonous transmission of Zika Infection

Clinical Features

Common Clinical Features

- Fever
- Non-purulent conjunctivitis
- Headache
- Myalgia
- Arthralgia
- Asthenia
- Maculopapular rash
- Oedema in the lower limbs

Less Common Clinical Features

- Retro-orbital pain
- Anorexia
- Vomiting
- Diarrhoea
- Abdominal pain
- Mild Thrombocytopenia (laboratory finding)
- Mild Leucopenia (laboratory finding)

Severe Clinical Features

- Guillain Barre
- Meningoencephalitis
- Thrombocytopenia purpura

Suspected Case (Preparedness Phase):

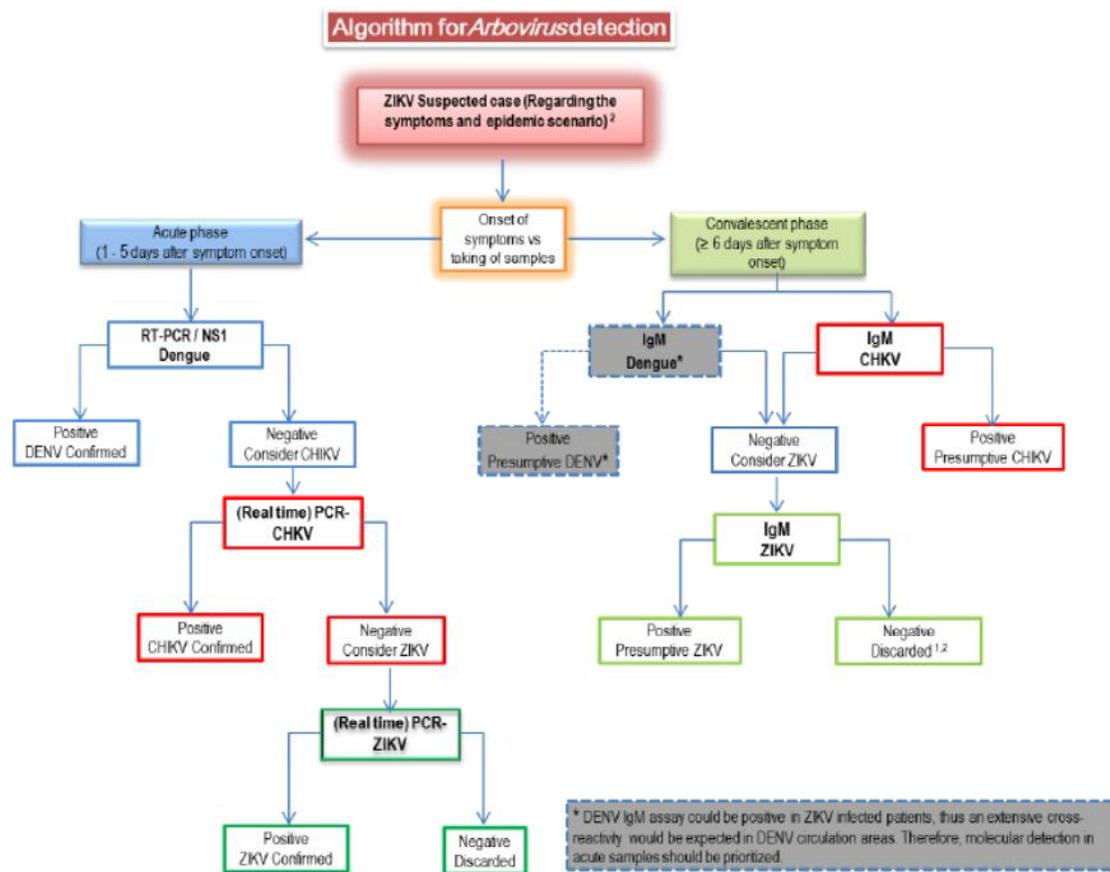
Patient with rash or elevated body temperature (> 37.2 °C) with one or more of the following symptoms (not explained by other medical conditions):

- Arthralgia or myalgia
- Non-purulent conjunctivitis or conjunctival hyperaemia
- Headache or malaise

in someone who resides in or has visited epidemic or endemic areas within two weeks prior to the onset of symptoms.

Confirmed Case:

A suspected case with laboratory positive result for the specific detection of Zika virus. (see figure 1).



Source: PAHO/WHO Zika virus (ZIKV) Surveillance in the Americas: Interim guidance for laboratory detection and diagnosis 12 May 2015

Figure 1: Algorithm for the Detection of the Zika Virus

Designation of Zika Fever as a Class 1 Notifiable Disease

Zika Fever is a Class 1 Notifiable disease and is to be notified on suspicion within 24 hours to the Parish Health Department and the National Epidemiology Unit, Ministry of Health. Cases (confirmed by laboratory testing) should also be notified as a Class 1 Notifiable disease to the Parish Health Department and the National Epidemiology Unit, Ministry of Health.

Laboratory Testing for Zika

Samples for serology should be sent to the National Public Health Laboratory along with the completed CARPHA Laboratory form. The following are the requirements for the sampling and for the conservation of the sample:

- **Type of sample:** Serum: 4-5 mls. of blood in a plain red top tube
 - Acute phase: Until 8 days after symptom onset
 - Convalescent phase: 10-15 days after symptom onset

- **Conservation of the sample:**

- Keep refrigerated (2-8°C) if sample will be processed within 48 hours at the NPHL.
- Keep frozen (-10 to -20°C) if sample will be processed after the first 48 hours.
- Maintain frozen (-70°C) if sample will be processed after one week.

Method for Confirmation of the Start of a Zika Outbreak in Jamaica

Laboratory surveillance will be used as the methodology for the confirmation of autochthonous transmission.

Inclusion Criteria

The following are inclusion criteria for the laboratory surveillance to confirm autochthonous transmission:

1. Samples that are negative for Dengue and CHIK testing **AND** consistent with ZIKA.
2. Cases consistent with clinical features of Zika: fever **AND** non-purulent conjunctivitis
3. The samples should be processed according to the day of sampling with respect to the onset of symptom. The algorithm in Appendix 2 should be strictly followed by the laboratory. At most 25 of the samples positive for Zika should be sent to the collaborating laboratory and 10% of the negative samples that fit the Case Definition.

PHASE 2: ESTABLISHED OUTBREAK

The confirmation of an imported or autochthonous case of Zika Fever will activate the Ministry of Health response mechanisms, the National and International Epidemiological Focal Point, National IHR Focal Point and the PAHO / WHO IHR Contact Point will be notified, as described by the International Health Regulations (Appendix 1).

Enhanced Surveillance

The clinical and epidemiological surveillance system will be enhanced based on the epidemiology of the confirmed case(s).

- The case definitions will be changed to:
 - **Suspected Case (Established Outbreak):**
Patient with rash or elevated body temperature (> 37.2 °C) with one or more of the following symptoms (not explained by other medical conditions):
 - Arthralgia or myalgia
 - Non-purulent conjunctivitis or conjunctival hyperaemia
 - Headache or malaise

- **Confirmed Case:**
 - A suspected case with laboratory positive result for the specific detection of Zika virus.
- All persons fitting the Case Definition should be notified immediately to the Parish Health Department and the National Epidemiology Unit, Ministry of Health.
- A detailed investigation of all suspected cases is to be conducted. A report should be submitted within 48 hours using the standard Investigation Form (Appendix 2), but not limited to this form.
- Surveillance of persons with similar exposure is to be conducted for at least 21 days post exposure. A line listing is to be completed, indicating the possible date of exposure, the date that person was contacted and their clinical status recorded.
- Active community surveillance is to be conducted where indicated (Appendix 3).

Characterization of the Outbreak

The data related to the Zika fever outbreak will be analyzed regularly (weekly or daily as required) to characterize the outbreak.

- Demographic characteristics of the outbreak
- Monitoring and description of the spread of Zika virus
- Clinical features
- Clinical severity and impact on society
- Identification of risk factors for severe disease

PHASE 3: END OF THE OUTBREAK

Based on the epidemiological assessment, a decision will be made regarding declaration of the end of the outbreak.

PHASE 4: ENDEMIC SEASONAL TRANSMISSIONS

Zika fever as a Class 1 Notifiable disease will be monitored according to the current Integrated Surveillance system. The preparedness plan will be reviewed and revised in keeping with the epidemiological situation to maintain preparedness.

FRAMEWORK FOR EPIDEMIOLOGICAL SURVEILLANCE OF ZIKA

Expected Result	Indicators
Zika Epidemiological Surveillance system for timely alert and opportune response implemented.	<ul style="list-style-type: none"> • Zika surveillance systems in place (e.g., laboratory data, clinical data, entomological data) • Number of sites (Hospitals, Health Centres, and Private Doctors) within the country that have the information about Zika fever (Epidemiological Surveillance Plan) • Zika fever outbreaks reported according to IHR (2005) guidelines.

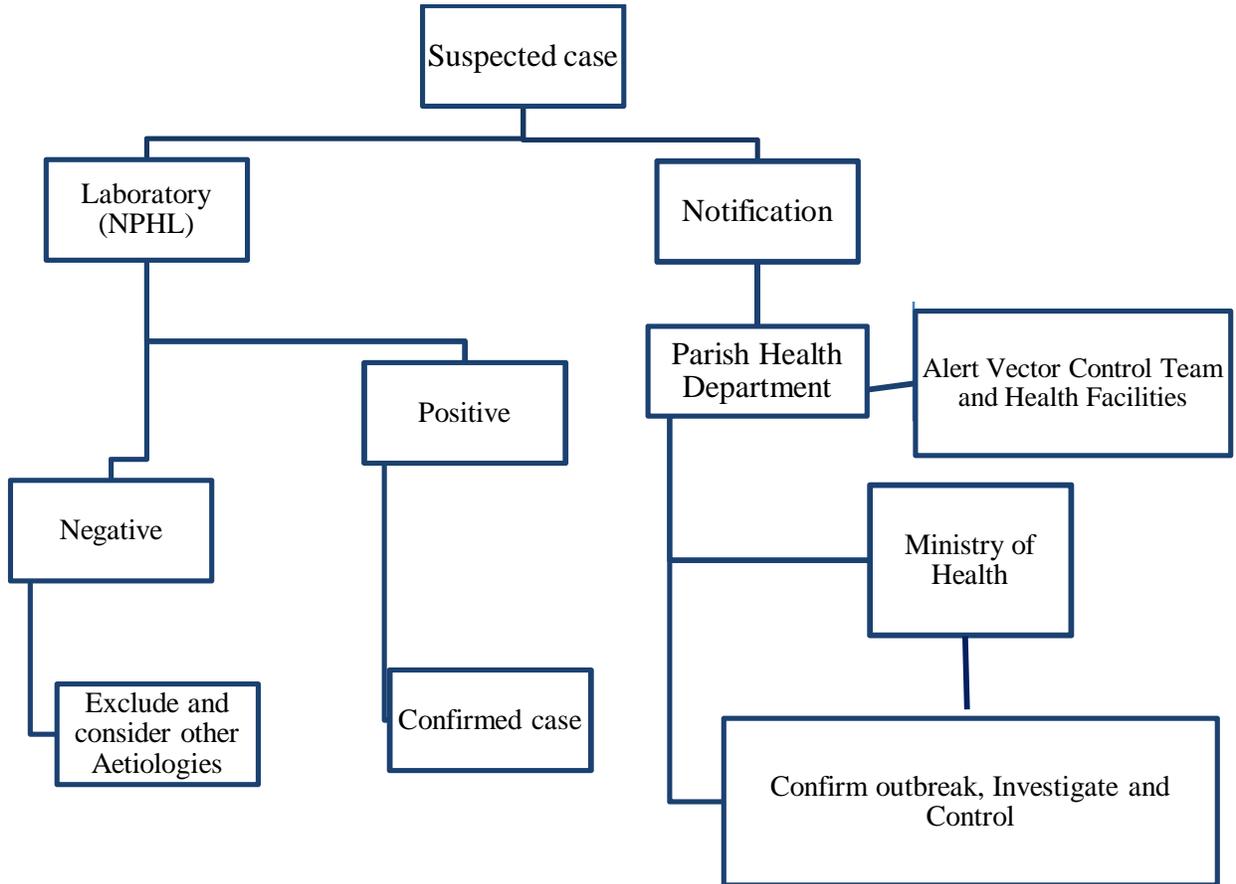
Epi Activities	Tasks	Responsible Persons	Budget
<p><u>Phase 1: Preparedness</u></p> <p>1. Strengthen the epidemiological and laboratory surveillance systems for Zika in the countries of the Caribbean Sub- region</p>	<p>Include Zika as part of Disease Surveillance System ó Class 1 Notifiable disease (reported immediately on suspicion, within 24hrs).</p> <p>Standardize a Zika Case Definition (clinical and epidemiological) based on PAHO/WHO guidelines.</p> <p>Set up clinical, laboratory and epidemiological surveillance</p> <p>Standardize the methods used to determine the criteria (clinical, epidemiological and laboratory) to confirm the start of a Zika outbreak</p> <p>Train the epidemiological, laboratory and clinical staff on Zika fever management</p> <p>Review and revise epidemiological surveillance plan</p>	<p>CMO, National Epidemiologist, Medical Epidemiologist, Communicable Diseases, Director, National Laboratory Services (NLS), Director, EDMSSB</p>	

Epi Activities	Tasks	Responsible Persons	Budget
<p><u>Phase 2: Established outbreak</u></p> <p>1. Confirmation/ Declaration of the beginning of an outbreak</p>	<p>Declare the start of the outbreak</p> <p>Classify cases as locally-acquired or imported cases.</p> <p>Notify the National and International Epidemiological Focal Points, National IHR Focal Point and PAHO / WHO IHR Contact Point, according to IHR (2005).</p> <p>Enhance clinical, epidemiological and laboratory surveillance systems.</p> <p>Review and revise epidemiological surveillance plan</p>	<p>CMO</p> <p>National Epidemiologist, Medical Epidemiologist, Communicable Diseases</p> <p>IHR NFP ó Officer with Primary Responsibility</p> <p>National Epidemiologist, Medical Epidemiologist, Communicable Diseases, Director, NLS</p>	
<p>Monitor and assess the epidemic situation</p>	<p>Activate and maintain the National, Regional and Parish Emergency Operations Centres / Coordination mechanisms.</p> <p>Establish routine communication mechanisms with parish and regional health authorities and international organizations</p> <p>Analyze and interpret weekly data and develop a daily and weekly outbreak report.</p> <p>Provide support and technical assistance to the field</p>	<p>CMO, Director. EDMSS, National Epidemiologist, MOH NEOC, Ministry of Health Emergency and Disaster Risk Management Committee</p>	

Epi Activities	Tasks	Responsible Persons	Budget
<p><u>PHASE 3: End of the outbreak</u></p> <p>1. Analyze the actions taken during the outbreak</p>	<p>Maintain the monitoring and evaluation activities.</p> <p>Conduct after-action evaluations to identify and remedy gaps in the country surveillance and response program.</p> <p>Review and revise Epidemiological Surveillance Plan</p>	<p>CMO, Director, EDMSS, National Epidemiologist, Ministry of Health Emergency and Disaster Risk Management Committee, Director, National Laboratory Services (NLS)</p> <p>National Epidemiologist, Medical Epidemiologist, Communicable Diseases, Director, NLS</p>	
<p><u>PHASE 4: Endemic seasonal transmissions</u></p> <p>1. Maintain the surveillance activities</p>	<p>Establish a regular, integrated surveillance program.</p> <p>Review evaluation of the plan and revise the preparedness plan to ensure preparedness is maintained.</p>	<p>CMO, Director, EDMSS, National Epidemiologist, Ministry of Health Emergency and Disaster Risk Management Committee</p>	

APPENDIX 1

Algorithm for Notification and Intervention of a Suspected Case



APPENDIX 2



**MINISTRY OF HEALTH
JAMAICA**

ZIKA FEVER CASE INVESTIGATION FORM					
Reporting Centre:			Date of Report / / (dd/mm/yy)		
1. Patient information					
Name			Age (yrs)	Sex: M F	
Address		Phone #	D.O.B: / / (dd/mm/yy)		
Community (STATIN):			Case #	Occupation	
2. Clinical Data					
Date of onset of illness / / (dd/mm/yy)			(dd/mm/yy)		
Clinical features	Y / N	Date of Onset	Clinical features	Y / N	Date of Onset
Fever	<input type="checkbox"/> <input type="checkbox"/>	___/___/___	Non-purulent Conjunctivitis	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Arthralgia	<input type="checkbox"/> <input type="checkbox"/>	___/___/___	Lower Limb Oedema	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Is the Arthralgia Severe?	<input type="checkbox"/> <input type="checkbox"/>		Periarticular oedema	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Arthralgia (joint pain) ó Circle/list joints involved			Skin manifestations Describe:	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Hand: R L	Wrist R L	Foot: R L	Ankle: R L	Myalgia	<input type="checkbox"/> <input type="checkbox"/> ___/___/___
Others:			Back pain	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Clinical features	Y / N	Date of Onset	Headache	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Arthritis	<input type="checkbox"/> <input type="checkbox"/>	___/___/___	Retro-orbital Pain	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Abdominal Pain	<input type="checkbox"/> <input type="checkbox"/>	___/___/___	Asthenia (generalized weakness)	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Vomiting	<input type="checkbox"/> <input type="checkbox"/>	___/___/___	Others: (Specify)	<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Diarrhoea	<input type="checkbox"/> <input type="checkbox"/>	___/___/___		<input type="checkbox"/> <input type="checkbox"/>	___/___/___
Additional Clinical Features:					
Risk Factors:					
Pregnancy	<input type="checkbox"/>		Other:	<input type="checkbox"/>	<input type="checkbox"/>
Diabetes	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
Cardiovascular diseases	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
Sickle Cell Disease	<input type="checkbox"/>			<input type="checkbox"/>	<input type="checkbox"/>
Clinical diagnosis:					
Is/was this patient hospitalised?	Y	N	Date (s)	Outcome of illness	
	<input type="checkbox"/>	<input type="checkbox"/>	___/___/___		
Resolution of symptoms	<input type="checkbox"/>	<input type="checkbox"/>	___/___/___		

3. Exposure and Travel History							
	Y	N	Date	Details			
Has the patient travelled to a Zika fever endemic/epidemic area within the past 2 weeks	<input type="checkbox"/>	<input type="checkbox"/>					
Has the patient been in contact with a Zika fever case within the past 2 weeks	<input type="checkbox"/>	<input type="checkbox"/>					
Country, Endemic/Epidemic Area	Arrival-Date & Time		Departure-Date & Time	Accommodations			
Visitors from abroad - Country	Date of Arrival		Date of Departure	Remarks			
Places visited in the past 2 weeks ó emphasis on places visited in the daylight hours							
4. LABORATORY DATA							
Specimen	Date collected	Date recød	Condition	Test	Result	Date sent	Comment
First blood specimen				Virus Isolation			
				IgM ELISA			
Second blood specimen				IgG			
				RT-PCR			
5. ENVIRONMENTAL SURVEY							
Community type	Planned		Unplanned				
Aedes population :	<input type="checkbox"/> Aegypti		<input type="checkbox"/> Albopictus				
Water supply:	<input type="checkbox"/> Piped		Stored				
Solid waste collection:	<input type="checkbox"/> Frequent (at least once weekly)		<input type="checkbox"/> Infrequent				
AEDES INDICES SURROUNDING COMMUNITY:							
	Home			Workplace/School			
Premises index:							
Container index:							
Breteaux index:							
INVESTIGATOR:							
Name:		Signature:		Date:			
TO BE COMPLETED BY THE MEDICAL OFFICER OF HEALTH							
6. Final Case	<input type="checkbox"/> Suspected Case			<input type="checkbox"/> Confirmed Case			
Classification:	<input type="checkbox"/> Imported <input type="checkbox"/> Autochthonous			<input type="checkbox"/> Imported <input type="checkbox"/> Autochthonous <input type="checkbox"/> Discarded			

APPENDIX 3

CONTACT TRACING AND COMMUNITY FEVER SURVEILLANCE

The methodology for community fever surveillance is different based on the epidemiological situation. The following scenarios are considered in this document:

- A. Imported Zika fever
- B. One Autochthonous Case
- C. Cluster of Suspected Zika fever

A. Imported Zika Fever

Imported Zika fever cases (suspected and confirmed) should be investigated and a case investigation completed using the Case Investigation Form as a guide. The investigation is to be reviewed by the Parish Medical Officer of Health (MO(H)) and forwarded to the National Surveillance Unit (NSU)

Travel Companions: persons with similar exposure, that is persons who travelled with the case should be followed for at least 12 days (maximum intrinsic incubation period) for the development of symptoms of Zika fever.

Household Contacts: household contacts should be followed for at least 22 days (total of the maximum extrinsic and intrinsic incubation period) after the onset of symptoms or after the person returned from overseas.

School and Work Contacts: If persons with the diagnosis of Zika fever during the likely period for transmission went to work or school the appropriate officer (nurse, HR Department, Manager, Principal, Guidance Counsellor) should be sensitized to report any new case or reported illness to the Health Department.

Community: Households/Premises within a **200m** radius from the case should be visited **at least** eight days after the onset of symptoms. Persons fitting the case definition should have a case investigation form completed at first contact. Blood should be taken from 1 in 10 persons that fit the case definition. That is a case investigation form should be completed for all suspected cases and blood from 1 in 10 of the cases. Community health alert cards should be distributed to each household visited.

The following information should be obtained for each community surveyed:

- Total number of households in the **200m** radius
- Number of households visited
- Number of households interviewed
- Number of persons with fever
- Number with fever and joint pain
- Number of community health alert cards distributed

Note Well: The symptoms of Zika fever are non-specific and the following should be considered in the differential:

1. Dengue ó often cases fit the definition for Zika virus infection, chikungunya fever and dengue fever.
2. Chikungunya - often cases fit the definition for Zika virus infection, chikungunya fever and dengue fever.
3. Fever and rash ó persons presenting fitting the case definition for this class 1 notifiable disease and should be investigated on first contact and blood taken (first contact) for all.
4. Malaria
5. Leptospirosis

**Health Alert Card
Sample**

Front



**Community
Health Alert Card**

To: The Resident

The ***** Health Department is conducting surveillance for a mosquito borne disease in your area. If you become ill with fever in the next three (3) weeks, please visit your health center or health care provider and present this card.

Back

**Community
Health Alert Card**

To: The Physician

The patient presenting this card may have been exposed to a communicable disease. Please contact the Medical Officer of Health for the Parish.

Medical Officer of Health

*****Health Department

Address: _____

Telephone: ###-####

B. One Autochthonous Case

Zika fever cases (suspected and confirmed) should be investigated and a case investigation completed using the Case Investigation Form as a guide. The investigation is to reviewed by the Parish Medical Officer of Health (MO(H)) and forwarded to the National Surveillance Unit (NSU).

Household Contacts: household contacts should be followed for at least 22 days after the onset of symptoms or after the person returned from overseas.

School and Work Contacts: If persons with the diagnosis of Zika fever during the likely period for transmission went to work or school the appropriate officer (nurse, HR Department, Manager, Principal, Guidance Counsellor) should be sensitized to report any new case or reported illness to the Health Department.

Community: Households/Premises within a **200m** radius from the case should be visited **at least** eight days after the onset of symptoms. Persons fitting the case definition should have a case investigation form completed at first contact. Blood should be taken from 1 in 10 persons that fit the case definition. That is a case investigation form should be completed for all suspected cases and blood for 1 in 10 of the cases. Community health alert cards should be distributed to each household visited.

The following information should be obtained for each community surveyed:

- Total number of households in the **200m** radius
- Number of households visited
- Number of households interviewed
- Number of persons with fever
- Number with fever and joint pain
- Number of community health alert cards distributed

Note Well: The symptoms of Zika fever are non-specific and the following should be considered in the differential:

1. Dengue ó often cases fit the definition for Zika virus infection, chikungunya fever and dengue fever.
2. Chikungunya - often cases fit the definition for Zika virus infection, chikungunya fever and dengue fever.
3. Fever and rash ó persons presenting fitting the case definition for this class 1 notifiable disease and should be investigated on first contact and blood taken (first contact) for all.
4. Malaria
5. Leptospirosis

C. Cluster of Suspected Zika Fever

In the event that there is a cluster of cases (2 or more cases) with symptoms suggestive of Zika fever the parish team should investigate as an outbreak. An outbreak report (see outbreak reporting form on pages 16 and 17) should be written and include a line listing, an epidemiological curve for the cases, hypothesis as to the cause and spread and interventions/actions taken or to be taken. The investigation should be reviewed by the MO(H) and forwarded to the NSU.

Example of a Line Listing:

	Name	DOB	A	S	Address	Telephone	Fev	Ra	Joint pains	Where	Oth	DOO	Treatment	Travel Histo	Visitors from Overseas	Comments
1																
2																
3																
4																
5																
6																
7																
8																
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24																
25																

Based on the report received about the cluster a geographical area for community surveillance should be defined. A map of the area and the defined boundaries would be useful for the investigating team and for the reviewing team.

A house-to-house (premises-to-premises) fever surveillance should be conducted in the defined area. Persons fitting the case definition should have a case investigation form completed at first contact. Blood should be taken from 1 in 10 persons that fit the case definition. **Please note** that a case investigation form is to be completed for all suspected cases and blood taken from 1 in 10 of the suspected cases. Community health alert cards should be distributed to each household visited.

The following information should be obtained for each community surveyed:

- Total number of households in the defined area
- Number of households visited

- Number of households interviewed
- Number of persons with fever
- Number with fever and joint pain
- Number of community health alert cards distributed

Given that the symptoms for Zika fever are non-specific and the following conditions should be considered in the differential:

1. Dengue ó often cases fit the definition for Zika virus infection, chikungunya fever and dengue fever.
2. Chikungunya - often cases fit the definition for Zika virus infection, chikungunya fever and dengue fever.
3. Fever and rash ó persons presenting fitting the case definition for this Class 1 Notifiable Disease and should be investigated on first contact and blood taken (first contact) for all.
4. Malaria
5. Leptospirosis

It is likely that follow-up visits will need to be done in the communities with clusters.

OUTBREAK REPORTING FORM

<p>A. Reporting Details</p> <p>1. Agency submitting report: _____</p> <p>2. Region: _____</p> <p>3. Parish: _____</p> <p>4. Name of person submitting report: _____</p> <p>5. Contact telephone number: _____</p> <p>6. Date this form was completed: _____/_____/_____</p> <p>7. Is this <input type="checkbox"/> a first report or <input type="checkbox"/> an updated/amended report?</p>	<p>D. Clinical Details</p> <p>16. Common Symptoms/Syndromes (check all that apply)</p> <table style="width: 100%; border: none;"> <tr> <td><input type="checkbox"/> Nausea</td> <td><input type="checkbox"/> Vomiting</td> </tr> <tr> <td><input type="checkbox"/> Diarrhea</td> <td><input type="checkbox"/> Abdominal cramps</td> </tr> <tr> <td><input type="checkbox"/> Fever</td> <td><input type="checkbox"/> Rash</td> </tr> <tr> <td><input type="checkbox"/> Respiratory symptoms</td> <td><input type="checkbox"/> Hemorrhagic symptoms</td> </tr> <tr> <td><input type="checkbox"/> Genital ulcer</td> <td><input type="checkbox"/> Genital discharge</td> </tr> <tr> <td><input type="checkbox"/> Neurological symptoms</td> <td><input type="checkbox"/> Headache</td> </tr> <tr> <td colspan="2"><input type="checkbox"/> Other, specify: _____</td> </tr> </table> <p>17. Number of cases hospitalized: [] (including cases that died)</p> <p>18. Number of cases that died: [] (including cases hospitalized)</p> <p>19. Incubation period (circle appropriate units) Average: [] hours / days Range: [] hours / days - [] hours / days</p> <p>20. Duration of illness (circle appropriate units) Average: [] hours / days Range: [] hours / days - [] hours / days</p>	<input type="checkbox"/> Nausea	<input type="checkbox"/> Vomiting	<input type="checkbox"/> Diarrhea	<input type="checkbox"/> Abdominal cramps	<input type="checkbox"/> Fever	<input type="checkbox"/> Rash	<input type="checkbox"/> Respiratory symptoms	<input type="checkbox"/> Hemorrhagic symptoms	<input type="checkbox"/> Genital ulcer	<input type="checkbox"/> Genital discharge	<input type="checkbox"/> Neurological symptoms	<input type="checkbox"/> Headache	<input type="checkbox"/> Other, specify: _____																																								
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<input type="checkbox"/> Other, specify: _____																																																						
<p>B. Type of Outbreak</p> <p>8. <input type="checkbox"/> Food-borne <input type="checkbox"/> Respiratory <input type="checkbox"/> Water-borne <input type="checkbox"/> Sexually transmitted infection <input type="checkbox"/> Vector-borne <input type="checkbox"/> Unknown at this stage <input type="checkbox"/> EPI disease <input type="checkbox"/> Other, please specify below</p> <p>9. Was a vehicle/vector/source identified? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>10. If yes, please specify: _____</p>	<p>E. Case Summary (time)</p> <p>21. Please record number of cases per unit time (attach epi curve). Record time interval as: - Month (i.e. Jan 04, Feb 04, Mar 04), or - Epidemiological week (i.e. 23, 24, 25), or - Day (record as exact date, i.e. 23/06/04)</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center;">Time Interval</td> <td style="text-align: center;">Number Suspect/ Probable Cases</td> <td style="text-align: center;">Number of Confirmed Cases</td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	Time Interval	Number Suspect/ Probable Cases	Number of Confirmed Cases																																																		
Time Interval	Number Suspect/ Probable Cases	Number of Confirmed Cases																																																				
<p>C. Descriptive Epidemiology (person, place)</p> <p>11. Number of cases: [] Suspected or Probable [] Confirmed []</p> <p>12. List number of cases (suspect, probable and confirmed) by age group and gender:</p> <table border="1" style="width: 100%; border-collapse: collapse; text-align: center;"> <thead> <tr> <th rowspan="2">Age Group</th> <th colspan="3">Cases</th> <th rowspan="2">Total</th> </tr> <tr> <th>Male</th> <th>Female</th> <th>Unknown</th> </tr> </thead> <tbody> <tr><td>< 1 year</td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>1 - 4 years</td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>5 - 14 years</td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>15 - 24 years</td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>25 - 44 years</td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>45 - 64 years</td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>65+ years</td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>Unknown</td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td>Total</td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table> <p>13. Was the whole country affected? <input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>14. If no, describe the areas affected: _____</p> <p>15. Exposure setting (check all that apply): <input type="checkbox"/> General community <input type="checkbox"/> Health institution (e.g. hospital, nursing home) <input type="checkbox"/> Other institution (e.g. prison, boarding home) <input type="checkbox"/> Hotel or resort complex <input type="checkbox"/> Restaurant <input type="checkbox"/> School or child care facility <input type="checkbox"/> Other, please specify, <input type="checkbox"/> Don't know</p>	Age Group	Cases			Total	Male	Female	Unknown	< 1 year					1 - 4 years					5 - 14 years					15 - 24 years					25 - 44 years					45 - 64 years					65+ years					Unknown					Total					
Age Group		Cases				Total																																																
	Male	Female	Unknown																																																			
< 1 year																																																						
1 - 4 years																																																						
5 - 14 years																																																						
15 - 24 years																																																						
25 - 44 years																																																						
45 - 64 years																																																						
65+ years																																																						
Unknown																																																						
Total																																																						

OUTBREAK REPORTING FORM

F. Etiology

22. Was a primary causative pathogen identified in the outbreak? Yes No

23. If yes, please specify the name and subtype (if known) of the pathogen _____

G. Clinical Specimens (*e.g. stool, blood, urine, nasal aspirate, etc)

24. Type of Specimen	Number Tested	Number Positive	Etiologic Agent	Subtype 1	Subtype 2	Antimicrobial Resistance Profile

H. Food or Environmental Specimens (*e.g. ground beef, raw chicken, water, surface swab, etc)

25. Type of Specimen	Number Tested	Number Positive	Etiologic Agent	Subtype 1	Subtype 2	Antimicrobial Resistance Profile

I. Results of an epidemiological study

26. What type of epidemiological study was conducted?

Cohort study Other, please specify _____

Case Control Study No epidemiological study was conducted

27. If a cohort study was conducted, what was the overall attack rate? _____ %

(note, attack rate = [number ill/total persons at risk] x 100)

28. If a cohort or case control study was conducted, please complete the following table

Risk Factor	Odds Ratio or Relative Risk	95% Confidence Intervals	p-value