

Operational Checklist for Local Health Departments, Local Vector Control Agencies, and California Department of Public Health In the Event of Local Dengue, Chikungunya, or Zika Transmission

This document provides a summary of roles and responsibilities of local and state California agencies that would be involved should local transmission of dengue, chikungunya, or Zika be detected. More detailed information and resources may be found in <u>Guidance for Surveillance</u> of and Response to Invasive Aedes Mosquitoes and Dengue, Chikungunya, and Zika in <u>California</u>

(https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/ InvasiveAedesSurveillanceandResponseinCA.pdf)

Trigger Level 1: Single suspect case of local transmission or presumed viremic blood donor (Case-patient should have confirmatory or probable laboratory results)

Local Health Department

- □ Notify California Department of Public Health (CDPH) Vector Borne Disease Section epidemiologist Charsey Porse by email (<u>charsey.porse@cdph.ca.gov</u>) or phone (916-552-9730), or if after business hours, call CDPH duty officer (916-328-3605)
- □ Inform CDPH if case of suspected local transmission was identified through blood donor screening
- □ Assess needs for technical, risk communication, vector control, and logistical support
- □ Initiate epidemiologic investigation and enhance case surveillance to identify other possible cases of local transmission
 - □ Interview case-patient to determine timing of potential exposure, rule out sexual contact and other exposures with a returned traveler or visitor from a Zika-affected area, ascertain history of mosquito bites, and assess geographic area(s) for potential exposure (e.g., home, work, etc.)
 - Interview case-patient's household members and close contacts (Appendix A) to identify other persons with recent (past 4-21 days) illness that includes rash, fever, joint pain, muscle aches, or conjunctivitis
 - □ Administer door-to-door questionnaire (Appendix B) to determine if any neighbors within 150-yards (or other boundary, as appropriate) of case-patient's home have recently (past 4–21 days) had rash, fever, joint pain, muscle aches, conjunctivitis, or other symptoms
 - For persons (e.g., family members, neighbors) reporting recent symptoms suggestive of chikungunya, dengue, or Zika, coordinate collection of urine and serum specimens and facilitate testing at the local or state public health laboratory (guidance available at <u>CDPH's Laboratory Testing Guidance link</u>, https://www.cdph.ca.gov/Programs/CID/DCDC/CDPH%20Document%20Library/Zi kaLaboratoryTestingGuidance_VRDL.pdf)

- □ Advise patient(s) to take all steps to avoid mosquito bites for 14 days after illness onset to minimize the risk of infecting mosquitoes and furthering local transmission
- Notify the local medical community, including hospitals and laboratories, to look for and encourage testing of all suspected dengue, chikungunya, Zika, and other exotic mosquito-borne infections, regardless of recent travel history, and to report them as soon as possible; discuss the issuance of a California Health Alert Network (CAHAN) notification with CDPH
- □ Immediately notify the local vector control agency of all cases, including patients' residential addresses, symptom onset dates, and local travel history
- Work collaboratively with CDPH and the local vector control agency to issue a joint media release ensuring patient confidentiality. See media release template in Appendix B of <u>Guidance</u> <u>document</u>. Engage the public in detecting and reporting daytime-biting mosquito activity to the local vector control agency, reducing mosquito larval habitats on their property, and protecting themselves from mosquito bites.

Local Vector Control Agency

- In coordination with the local health department, enhance larval and adult mosquito surveillance and control within 150-yards (or other boundary, as appropriate) of case-patient's home (maintaining patient confidentiality), and in other locations where exposure to invasive *Aedes* mosquitoes may have occurred
 - □ Determine presence of invasive *Aedes* (if not previously documented) using traps and/or aspirators
 - Send female Aedes mosquitoes to UC Davis Arbovirus Research and Training (DART) laboratory for arboviral testing (instructions available in Appendix F of <u>Guidance for Surveillance of and Response to Invasive Aedes Mosquitoes and</u> <u>Dengue, Chikungunya, and Zika in California</u>)
 - □ Apply larvicides and/or adulticides as appropriate
- Distribute public relations materials (such as door hangers) to raise awareness aboutinvasive Aedes mosquitoes, the viruses they can transmit, symptoms of disease, the importance of seeking healthcare for testing if symptomatic, and use of personal protective measures
- Continue to engage the public in detecting and reporting daytime-biting mosquitoes, reducing larval habitats on their properties, and taking personal protective measures to prevent mosquito bites
- Explore focused community interventions to disrupt breeding grounds, such as tire collections and waste removal in at-risk areas. Leverage partnerships with local governments and nonprofits for support.

California Department of Public Health

- □ Activate state incident command structure
- □ Follow Action Steps listed in Appendix B-1: Zika CDC Draft Interim Response Plan
- □ Evaluate need for federal assistance

□ Deploy targeted communications, surveillance, and monitoring programs for pregnant women in the county/jurisdiction

Trigger Level 2: Single confirmed case of local transmission

Local Health Departments

- □ All the steps listed above
- □ Intensify surveillance for human cases in a 150-yard radius (or other boundary, as appropriate) around case-patient's home
- □ Increase laboratory capacity to test (or coordinate testing at state public health laboratory) the following persons living within 150-yard radius of case-patient's home:
 - □ All pregnant women
 - □ Persons with symptoms consistent with dengue, chikungunya, or Zika
- □ Ensure that state and local maternal and child health and birth defects programs are integrated into Zika virus planning and response activities
- □ Issue joint media release with CDPH and the local vector control agency (ensuring patient confidentiality) to increase attention to Zika virus transmission risk and personal protection measures

Local Vector Control Agency

- □ All the steps listed above
- □ Intensify larval and adult mosquito control in a 150-yard radius (or other boundary, as appropriate) around case-patient's home
- □ Conduct rapid insecticide resistance study for local mosquito populations

California Department of Public Health

- □ Follow Action Steps listed in Appendix B-1: Zika CDC Draft Interim Response Plan
- Notify Centers for Disease Control and Prevention (CDC) and blood collection centers in jurisdiction of confirmed case of local transmission, and include if case was identified through blood donor screening
- □ Review CDC toolkit for investigation of transfusion-transmitted infection
- □ Evaluate need for federal assistance, including invitation for CDC to send a CDCEmergency Response Team
- □ Ensure that state and local maternal and child health and birth defects programs are integrated into Zika virus planning and response activities
- □ Monitor local news stories and social media postings to determine if information is accurate, identify messaging gaps, and make adjustments to communications as needed

Trigger Level 3: Confirmed multi-person local transmission (Zika transmission area)

Local Health Departments

- □ All the steps listed above
- □ Together with CDPH and local vector control agency, determine geographic boundaries for area of active transmission that will be used for aggressive response efforts
- □ Intensify county-wide (or jurisdiction-wide) outreach (newspaper, radio, social media, call centers)
- □ Intensify county-wide (or jurisdiction-wide) surveillance for human cases (e.g., clinician outreach, syndromic surveillance in hospitals, etc.)
- □ Increase laboratory capacity to test (or coordinate testing at state public health laboratory) the following persons living or working within area of active transmission:
 - □ All pregnant women
 - □ Persons with symptoms consistent with dengue, chikungunya, or Zika
- Implement intervention plans for high risk populations (pregnant women). Options to consider include mosquito-proofing homes through installation of screens and provision of airconditioning if necessary, as well as household vector control, and distribution of Zika Prevention Kits.

Local Vector Control Agency

- □ All the steps listed above
- □ Intensify and expand mosquito control efforts
 - □ Tailor control strategies, including both adult and larval control methods, to local needs
 - □ Consider ground application and/or aerial spraying
 - □ Repeat applications as necessary to achieve adequate control
 - Communicate with local elected officials, local health department, and CDPH to craft outreach messages regarding large-scale vector control campaign. Utilize local media and social media to disseminate messages.
- □ For areas where A/C and screens are not widely available, consider offering Indoor Residual Spraying (IRS) to vulnerable homes
- □ Monitor effectiveness of vector control efforts through mosquito trapping surveillance

California Department of Public Health

- □ Follow Action Steps listed in Appendix B-1: Zika CDC Draft Interim Response Plan
- □ Together with local health department and vector control agency, determine geographic boundaries for area of active transmission that will be used for aggressive response efforts
- □ Notify CDC to update interactive map of areas with risk and active transmission of Zika
- □ Advise pregnant women to postpone travel to areas with active risk for transmission, or if they

must travel, to consistently follow steps to prevent mosquito bites

- □ Alert all blood collection centers in California about active transmission area
 - □ Advise blood centers collecting within affected area to stop collections OR implement Zika NAT screening for all blood donors OR implement pathogen reduction technology per Food and Drug Administration (FDA) guidance
 - □ Advise blood centers outside of affected area to include the active transmission area in donor travel and sexual exposure deferrals
- □ If multiple jurisdictions are affected, coordinate and lead the regional public health response including surveillance, investigation, and control
- □ Notify neighboring jurisdictions and states, depending on extent of disease transmission
- □ Coordinate centralized regular media updates on the situation and risks

APPENDIX A

Questionnaire for contact to case-patient with locally-acquired Zika infection

Hi, my name is [NAME] and I work at the [HEALTH DEPT NAME]. I'd like to ask you some questions because your household member/friend/relative [NAME OF INDEX CASE] was recently infected with Zika virus. To prevent the spread of Zika, we are trying to determine if any additional people have been infected, and where they may have been exposed to mosquitoes carrying the virus. We would like to ask for your participation on a questionnaire which will take approximately 5–10 minutes. If you agree to take part, you will be asked about potential exposures to Zika virus and any symptoms consistent with Zika. All the information you share will be kept confidential. Would you be willing to participate?

Questionnaire for Contact to Case-patient with Locally-Acquired Zika Infection
Interview Information
Interviewer Name (First, Last):
State/Local/Territorial Health Department:
Language survey was conducted in:
Date of interview: Who answered on behalf of individual? □ Self □ Parent □ Other:
1. ID number
 Name
5. Sex Male Female 6. If female of reproductive age, pregnant? Yes, weeks No
7. Relationship to case-patient
Thank you for participating in this survey. I would like to ask you some questions about potential exposures that you may have had to Zika virus. During XX/XX/XX through XX/XX/XX, did you:
8. Reside in the same household with the index case? Yes No
8. Reside in the same household with the index case? Li Yes Li No If yes, which house and dates?
If yes, which house and dates? 8a. House 1:
If yes, which house and dates?
If yes, which house and dates? 8a. House 1:
If yes, which house and dates? 8a. House 1:
If yes, which house and dates? 8a. House 1: Which dates did you reside at this house with the index case?
If yes, which house and dates? 8a. House 1: Which dates did you reside at this house with the index case?to to to to to to to to to to
If yes, which house and dates? 8a. House 1: Which dates did you reside at this house with the index case?
If yes, which house and dates? 8a. House 1: Which dates did you reside at this house with the index case?
If yes, which house and dates? 8a. House 1: Which dates did you reside at this house with the index case? to 8b. House 2: Which dates did you reside at this house with the index case? to 9. Work at the same location as the index case?
If yes, which house and dates? 8a. House 1: Which dates did you reside at this house with the index case?

Questionnaire for Contact to Case-patient with Locally-Acquired Zika Infection

Next, I'd like to ask if you've had any of the following symptoms during XX/XX/XX through XX/XX/XX. For this, we mean new symptoms, not chronic, baseline symptoms.

this, we mean new sympt			
Symptoms	First date with this symptom	For which dates did you have this symptom?	Symptom info/description
10. Fever 🗆 Yes 🗆 No	//		
11. Rash □ Yes □ No	/		Was the rash itchy? Where was the rash located?
12. Conjunctivitis (redness in whites of eyes) □ Yes □ No	//		
13. Joint pain □ Yes □ No	//		
14. Other symptoms (please list) □ Yes □ No	// //		
If 'yes' for fever, rash, conjunctivitis, or join pain:			
15. Did you seek medical care for the symptoms?	□ Yes □ No	15a. If yes, date of visit: //	15b. Diagnosis from clinician:
Travel			
16. In which country were	you born?		
17. Have you ever <u>lived</u> ou If yes, please list countries		□ No	
Country:	St	art date: <u>/</u> //	End date://
Country:	St	art date: <u>/</u> /_/	End date://
Country:	St	art date: <u>/</u> //	End date://

Country:______Start date:__/__/___End date:__/__/____

Travel		
18. Did you travel outside the	ne United States since XXXX? Yes] No
If yes, please list countries a	nd travel dates:	
Country:	Start date://	End date: / /
	Start date://	
	Start date://	
	Start date://	
Country:	Start date://	End date://
Country:	Start date://	End date://
Madical Information and Co	asimon Collection	
Medical Information and Sp		
offer Zika testing if you allo	ess to participate in this survey. Based on w blood and urine samples to be collected st, and all results will be kept confidential.	I. Each person who is tested will be
	en is consented for: Thank you again for yo	our willingness to provide the
-	additional questions, is it okay to contact y	
□ Yes □ No	(If yes, verify contact details)	2
_	s consented for, complete specimen collect a few more questions about your health s	
To the best of your knowled	ge, have you ever received any of these va	ccines? (these are vaccines that may
be given to persons who tra-	vel out of the country)	
19. Yellow fever vaccine	□ No □ Unsure, but does not think so	Yes, year of last dose
20. Japanese encephalitis		
vaccine	□ No □ Unsure, but does not think so	Yes, year of last dose
21. Tick-borne encephalitis		
vaccine	□ No □ Unsure, but does not think so	
22. Has your doctor told you □ Yes □ No	that you have any medical conditions that Unknown	: limit your ability to fight infections?
23. Are you taking any medi	cations that suppress your immune system	?
□ Yes □ No	Unknown	
24. In the past 2 months, dic	l you receive a blood transfusion or organ t	ransplant?
□ Yes □ No	Unknown	

Medical Information and Specimen Collect	tion					
25. We are asking this last question because Zika can be spread through unprotected sex (sex without a						
condom). For this question, I will ask you to	o read it, shov	w you a list of countries, and ask you to point to the				
answer.						
During the time XXXX through now, have ye	ou ever had u	inprotected sex with someone who had recently				
-		en spreading? For the purpose of this question, sex is				
	-	of sex toys. By recently returned, we mean a man				
	-	had unprotected sex or a woman who had returned				
within 2 months before the time you had u	nprotected se	ex.				
x • D y	—					
Your Answer:	□ No	Don't know				
Obtain clinical specimens if not already obt						
If person HAS NOT had any of the second	he 4 sympton	ns since XX/XX/XXX:				
	o Obtain serum					
	 If person HAS HAD ANY of the 4 symptoms since XX/XX/XXX: 					
 Obtain serum Obtain write if the person 		anast was less than 14 days and				
 Obtain urine if the perso 	n s symptom	onset was less than 14 days ago				
Thank you very much for your willingness	to answer the	ese questions and provide blood and urine				
samples. We will next contact you directly	/ about your r	results of the tests. It may take several weeks to get				
the final results.						
□ Urine Date of Collection//	Sample	e ID number				
□ Serum Date of Collection///	Sampl	e ID number				
No specimens collected						

APPENDIX B

Zika Community Survey — Household Enrollment Form

Zika Community Survey — Household En	rollment Form	
Household ID:	ſ	Date:
Home Address:	-	
Street address:		or e-mail:
City:State:	ZIP:County:	
(Best way to contact them in the f	uture) Phone:	or e-mail:
Home Type: Single family dwelling C	Duplex or four-plex 🛛 Apartment	nt or condo 🛛 Mobile home 🗖 Other (specify)
community because a locally acquired cas infectious disease transmitted by mosquit community have been infected, and wher household's participation in this survey, w other members of your household will be	se of Zika has been reported in the toes. To prevent the spread of Zik re they may have been exposed to which will take approximately X m e asked questions about exposure	I. The health department is conducting a survey in this the area. You might have heard about Zika, which is an Zika, we are trying to determine if additional people in the I to mosquitoes carrying the virus. We would like to ask for your minutes per person. If you agree to take part, you and the re to mosquito bites, travel, and any symptoms consistent with household be willing to participate in this survey?
Household: Consented to participate] Did NOT consent to participate	.e
Can you tell me the names of all the peop	le who stayed in your house for a	r at least two nights per week since XXXX until now?
List first and last name for each person a necessary.	nd verify that they have been at	at this address for the last month. Attach additional pages if

No.	Name of Resident	Age	Age Type (*Record in months if child <2 years)	Sex	Blood specimen label	Urine specimen label	If no specimen collected, reason for non-participation
01			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached
02			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached
03			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached
04			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached
05			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached
06			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached

No.	Name of Resident	Age	Age Type (*Record in months if child <2 years)	Sex	Blood specimen label	Urine specimen label	If no specimen collected, reason for non-participation
07			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached
08			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached
09			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached
10			□ years □ months	□ F □ M			 Consent refused Parental consent refused Could not be reached

Zika Community Survey — Individual Questionnaire

Zika Community Survey – Individual Questionnaire
HH ID:
Interview Information
Interviewer Name (First, Last):
State/Local/Territorial Health Department:
Language survey was conducted in:
Date of interview:
Who answered on behalf of individual?
Thank you for participating in this survey. I would like to ask you some questions about potential
exposures that you may have had to Zika virus.
Exposures First, I would like to ask you about your time outdoors or potential exposure to mosquitoes.
Since XXXX, how much time on average have you spent outdoors each day?
How often did you wear mosquito repellant when you were outdoors for 15 minutes or more?
□ Always □ Most of the time □Sometimes □Never □ Don't know
Since XXXX, did you get any mosquito bites?
□ Yes □ No □ Don't know
Do you use an air conditioner at home?
□ Yes □ Have A/C but do not use □ Do not have A/C
For windows and outside doors that you have left open this summer, how many of these have screens?
🗆 All 🛛 Most 🖓 Some 🖓 None 🖓 Don't know 🖓 Never leave windows/doors open
In the past three months, have you seen mosquitoes in your home?
□ Yes □ No □ Don't know
Resident's Travel and Potential Flavivirus exposure
Next, I would like to ask you about if you might have been exposed to Zika virus or related viruses before.
Did you travel outside the United States (or to a US territory: Puerto Rico, USVI, Am Samoa) in the last
year (since XXXX)? 🗆 Yes 🛛 🗆 No
If yes, please list countries and travel dates:
Country:Start date://End date://
Country:Start date://End date://
Country:Start date://End date://
Country:Start date:/_/End date:/_/
Country:Start date://End date://
Country:Start date://End date://

Zika Community Survey – Individual Questionnaire						
-		•	rs outside the United States?□Yes	□ No	🗆 Unknown	
If yes, where?						
Medical Informa	ition					
Since <u>XXXX</u> , have	e you had an	y of these	symptoms? We are talking about sym	ptoms that	would have been	
new for you, not	long-standi	ng probler	ns.			
Fever	□ Yes	🗆 No	If yes, first date with this/			
			How many days did it last? _			
(Note, here we v	vould count	their repo	rt of subjective fever. Interviewer, ple	ase use cale	ndar aid)	
Rash	🗆 Yes	🗆 No	If yes, first date with this/	_/		
			How many days did it last? _			
(here we are NO	T asking abc	out a rash t	hat was just on one arm or one leg, li	ke poison ivy	()	
Conjunctivitis (re	edness of th	e white pa	rt of the eyes)			
	🗆 Yes	🗆 No	If yes, first date with this/]		
			How many days did it last?			
(here we are NO	T asking abc	out red, itc	hy eyes that you may know you get be	ecause of all	ergies)	
Joint Pain	🗆 Yes	🗆 No	If yes, first date with this/	_/		
			How many days did it last? _			
(here we are NOT asking about pain that was definitely from an injury)						
Other Symptoms 🗆 Yes 🔹 🗆 No						
If yes, list symptoms and onset dates:						
-		-	ospital to be checked? Yes	No		
If yes, date of vis						
What did the doctor/nurse decide that you had?						
(Use this addition	nal space if i	more than	one episode, or additional notes)			
For females age	>12 years a	and <45 ve	ars: Are you pregnant or think you mi	ght he nreg	nant?	
\Box Yes \Box No	•		and the you pregnant of think you his	But be pregi	iunt:	
If yes, approximation	-	-	cv?			
ii yes, approxim		h hieguan	cy:			

Information related to blood and urine specimens and interpretation of results						
Thank you for your willingness to participate in this survey. Based on your responses (or the location of						
your residence), you might have been exposed to Zika or a mosquito-borne infection. We would like to						
offer testing if you allow blood and urine samples to be collected. Each person who is tested will be						
given the results of their test, and all results will be kept confidential. Would you like to have your						
blood and urine tested for Zika?						
If NO blood or urine specimen is consented for: Thank you again for your willingness to provide the						
information. If we have any additional questions, is it okay to contact you again?						
□ Yes □ No (If yes, verify contact details on household list)						
If blood or urine specimen is consented for, complete specimen collection form, and ask these						
additional questions: We would like to ask you a few more questions about your health so we can better						
understand your test results.						
To the best of your knowledge, have you ever received these vaccines (these are vaccines that may be						
given to persons who travel out of the country):						
Yellow fever vaccine						
Japanese encephalitis vaccine 🛛 No 🖓 Unsure 🖓 Yes, year of last dose						
Tick-borne encephalitis vaccine 🛛 No 🖾 Unsure 🖓 Yes, year of last dose						
Has your doctor told you that you have any medical conditions that limit your ability to fight infections?						
□ Yes □ No □ Unknown						
Are you taking any medications that suppress your immune system?						
□ Yes □ No □ Unknown						
In the past 2 months, did you receive a blood transfusion or organ transplant?						
□ Yes □ No □ Unknown						
For this last question, I will ask you to read it and point to the answer.						
In the last year, have you ever had unprotected sex with someone who had recently returned from a						
country where Zika has been spreading? For the purpose of this question, sex is defined as vaginal sex,						
anal sex, oral sex, or the sharing of sex toys. By recently returned, we mean a man who had returned						
within 6 months before the time you had unprotected sex or a woman who had returned within 2 months						
before the time you had unprotected sex.						
Your Answer:I YesI NoI Unknown						
Thank you very much for your willingness to answer these questions and provide blood and urine						
samples. We will next contact you directly about your results of the tests. It may take several weeks to						
get the final results.						