

MOSQUITO CONTROL AND ZIKA

Preparedness Planning and Response Checklist for Local Governments

The S.C. Department of Health and Environmental Control (DHEC) has developed this checklist to help local governments prepare to respond to potential Zika cases based on guidance from the Centers for Disease Control and Prevention (CDC). The checklist includes recommended items to be considered as part of a local government's Zika preparedness plan, as well as steps that should be taken if a case of Zika is confirmed in your jurisdiction.

Vector Present or Possible in Jurisdiction

Risk Category: Preparation

Definition: Vector Present or Possible in Jurisdiction (*Aedes aegypti* or *Aedes albopictus* present)

CDC and DHEC recommended activities and responses include:

Response Actions

- Appoint a representative to coordinate Zika response efforts for your jurisdiction and serve as your designated Point of Contact (POC) to DHEC.
- Review and assess your local mosquito control capacity and capability. If you do not currently have a vector control program, consider establishing a mutual aid agreement for mosquito control services with a neighboring jurisdiction.
- Review (or develop as needed) a vector-borne disease preparedness and response plan, and tailor as appropriate for Zika.
- Review preparedness plans to ensure emergency rapid hiring and contracting processes are in place (*e.g.*, vector control surveillance and response). Once a contract is signed, notify the DHEC Entomologist of the vector control company selected.
- Review plans with relevant response partners, identify gaps in preparedness, and develop a plan for improvement.
- Ensure coordination with state public health officials so vector control and human surveillance activities can be linked.

Communication

- Prepare a communication campaign for the public to raise awareness of Zika virus. Update your website to include Zika prevention messaging for citizens.

NOTE: Campaign materials and messaging resources are available at www.scdhec.gov/zika.

Vector Control

- Plan preparedness and mitigation activities to reduce the likelihood of transmission from mosquitoes, including: reduce habitat/potential breeding sites, initiate community clean-up efforts, and initiate public information campaigns encouraging yard clean up, use of insecticides and mosquito repellent, and placement of window screens *etc.*
- Review and, as necessary, conduct mosquito surveillance activities to assess whether historic maps of *Aedes aegypti* and *Aedes albopictus* distribution are accurate.

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During Mosquito Season

Risk Category: 1

Definition: Mosquito Season (*Aedes aegypti* or *Aedes albopictus* mosquito-biting activity)

CDC and DHEC recommended activities and responses include continuing Preparation activities and also taking the following steps:

Response Actions

- Organize regular meetings between your pre-identified POC and state vector preparedness and response partners to discuss plans and progress.

Communication

- Initiate a public awareness campaign, with primary messaging focusing on personal protection against mosquitoes (e.g., “fight the bite”) and residential source reduction (e.g., “tip ‘n toss”).
- Deploy messages encouraging travelers returning from areas with Zika transmission to take precautions upon return (actively take steps to prevent mosquito bites for at least three weeks) to reduce the risk of spread to local mosquito populations.

NOTE: Campaign materials and messaging resources are available at www.scdhec.gov/zika.

Vector Control

- Conduct focused community interventions to disrupt breeding grounds, such as tire collections and waste removal in at-risk areas. Leverage partnerships with other local governments and non-profits for support.

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Confirmed or Possible Travel-Associated Case

Risk Category: 1

Definition: Confirmed or possible case(s) of travel-acquired Zika in a county or jurisdiction

CDC and DHEC recommended activities and responses include continuing Mosquito Season activities and also taking the following steps:

Response Actions

- Enact the county's established notification process for a confirmed case of Zika virus and formulate a plan of action/response based on information provided by DHEC.
- Protect the confidentiality of the person with suspected/confirmed Zika virus.**
- Notify the appropriate jurisdictional mosquito control staff or contractors. *(The DHEC Entomologist will provide relevant information to the designated POC in order to carryout mosquito control activities.)*

Communication

- Perform public health education within a 165-yard radius of the Zika virus case site.
 - Encourage the public to continually dispose of water-holding containers to eliminate larval habitats (e.g., "tip 'n toss").
 - Educate the public to protect themselves from Zika virus exposure from mosquito bites by using an EPA-approved mosquito repellent, wearing long-sleeved shirts and long pants when outdoors, and making sure there are screens over windows and doors to keep mosquitoes outside (e.g., "fight the bite"). Include messaging on the risk of sexual transmission and steps people can take to prevent it.

NOTE: Campaign materials and messaging resources are available at www.scdhec.gov/zika.

Vector Control

- Perform adulticiding** for at least **2 weeks** (the approximate survival time of an infected mosquito), with spraying missions occurring intermittently according to the pesticide label instructions. DHEC recommends spraying within a **500-yard radius** around the Zika case site (the minimum recommended radius by CDC is 165 yards).
- Perform mosquito surveillance**, including trapping, and larval control activities for a minimum of **2 weeks**, with visits occurring every **5 to 7 days**, within a minimum **165-yard radius** of the Zika case site. Conduct systematic searches for immature mosquito or larval stages by looking for water-holding containers near human habitations. Discard or turn over water-filled containers, or use larvicide in containers, including storm drains, which cannot be dumped. Continue source reduction and larviciding for **45 days** if *Aedes aegypti* or *Aedes albopictus* is still found, assuming no further cases are identified.
- Coordinate with the DHEC Entomologist to track and report vector control activities.

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Confirmed Local Transmission

Risk Category: 2

Definition: Confirmed Local Transmission (single case or cases clustered in a single household or community in a jurisdiction)

CDC and DHEC recommended activities and responses include continuing Category 1 activities, in addition to taking the following steps:

Response Actions

- Coordinate with DHEC to determine if there is a need for assistance from the state or CDC to provide on the ground technical, risk communication, vector control, and/or logistical support. (*DHEC will activate its incident management structure.*)

Communication

- Coordinate with DHEC to issue a press release/media statement as appropriate and intensify visible activities in the county to increase attention to Zika virus transmission risk and personal protection measures (*e.g., flyers, community leaders, and social media*).
- Coordinate with DHEC to deploy targeted communication and outreach to pregnant women in the jurisdiction.
- Monitor local news stories and social media postings to determine if information is accurate, identify messaging gaps, and make adjustments—in coordination with DHEC—to communications as needed.

Vector Control

- Perform the same basic elements of response as in Risk Category 1 with travel-associated cases, but increase the intensity of intervention and scale of resources that are committed.
- Coordinate with DHEC to establish the limits of the affected area. The size of the transmission area will be unclear at the outset. The Zika virus transmission area may model a neighborhood, city, county, or group of counties depending on the extent of transmission. Vector control teams and epidemiologists should work closely together to delineate an initial area for control efforts. A **one-mile radius** is a good starting point for identifying the transmission area, but might not be the ultimate geographic area of concern. The identified area might be expanded or reduced if indicated by epidemiologic, entomologic and environmental information.

NOTE: Due to its relative ineffectiveness compared to ground or truck-mounted spraying, DHEC recommends that aerial spraying of adulticide or larvicide to control the spread of the Zika virus should be used only in the event that both ground and truck-mounted spraying are determined to be inadequate to stem local Zika transmission.

- Duration of activities should be no less than **45 days** after the date of onset of the last known case (the time it is possible for an *Aedes* feeding on that person to continue to transmit Zika virus). As a precaution, the state might choose to continue moderate control efforts beyond the 45-day buffer or until the end of mosquito season.
- Coordinate with the DHEC Entomologist to track and report vector control activities.

If you have questions or would like assistance developing your preparedness plan, please contact:

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