NMCPHC Surveillance Advisory: Chikungunya (Updated) 30 October 2015

(with DRSi reporting guidance)

Issue

- In December 2013, local transmission of chikungunya virus was found for the first time in the Americas in a Caribbean island. Since then, case numbers in the Americas have exceeded 1.7 million. In the U.S., 2,799 chikungunya virus disease cases acquired from regional travel were reported from U.S. states in 2014. Eleven locally-transmitted cases were reported from Florida. As of 27 October 2015, a total of 542 chikungunya virus disease cases have been reported from 41 U.S. states for 2015. All reported cases occurred in returning travelers.
- Because the disease vectors are found in many areas of the U.S., there is the potential for local transmission of the virus in other states. PAHO and the CDC have issued recommendations for preparedness and response.
- Chikungunya is not an emerging virus. It has caused outbreaks in parts of Africa, Asia and Europe in the past. Routine personal protective and vector control measures are essential components of any effective chikungunya control program.
- NMCPHC medical surveillance strategy includes timely reporting of chikungunya fever as well as unusual conditions/clusters via Disease Reporting System internet (DRSi) and enhancing installation chikungunya vector surveillance.

Background

Chikungunya is a viral disease causing fever, joint and muscle pain, rash, and headaches. Most people who get infected develop symptoms and, while mortality is uncommon, chronic rheumatic disorders can ensue. The disease is transmitted through the bite of an infected mosquito. Chikungunya virus was first isolated in the 1950s and has historically caused outbreaks in parts of Africa, Europe and Asia as well as islands in the Pacific and Indian Oceans. However, local transmission of the virus has never before been reported in the Americas. In December 2013, PAHO reported the first two cases of locally transmitted chikungunya in a Caribbean island. The virus has established itself in the local mosquito population of the region with over 1.7 million suspect and confirmed cases. Additionally, many imported cases following exposure in the Caribbean have been reported in the U.S.

The mosquito vectors for chikungunya, *Aedes aegypti* (yellow fever mosquito) and *Aedes albopictus* (Asian tiger mosquito), are prevalent in the U.S. Given the situation in the Americas, imported US cases will continue to be seen due to the frequency of travel within this region and locally transmitted cases can be expected in the U.S. where competent mosquito vectors are present. PAHO and CDC have issued prevention, control, and patient management recommendations to limit introduction of the virus into local mosquito populations.

NMCPHC Surveillance and Reporting Guidance and Chikungunya Resources

- Navy and Marine Corps units providing patient care should:

  - Report confirmed chikungunya cases via Disease Reporting System Internet (DRSi) as "Chikungunya Fever."
  - Include information on clinical presentation, travel history, relevant deployment status, and hospital admission status/dates in the DRSi Medical Event Report (MER).
  - Report in a timely manner to enable rapid implementation of control measures.
  - Seek further information on reporting Medical Events by clicking here or contacting the DRSi helpdesk at usn.hampton-roads.navmcpubhlthcenpors.list.nmcphc-ndrs@mail.mil, COMM: 757-953-0954, DSN: 377-0954.
- Suspect chikungunya in patients with acute onset of fever and polyarthralgia, especially travelers who returned within two weeks from areas with virus transmission. Chikungunya infection can be laboratory confirmed via:
  - Viral isolation,
  - Detection of viral RNA by RT-PCR,
  - Detection of IgM in a single serum sample (collected during acute or convalescent phase),
  - Four-fold increase in chikungunya-specific antibody titers (samples collected at least two weeks apart).
  - Note: Since clinical presentations of chikungunya and dengue are very similar, dengue must be ruled out. Send blood for serology and/or RT-PCR.
- If you suspect a case, notify your Public Health Emergency Officer, cognizant Navy Environmental and Preventive Medicine Unit (NEPMU), and state or local health department so that measures can be taken to mitigate the risk of local transmission. NEPMU staff can advise on and/or assist with case investigation activities, laboratory testing, and vector control measures.
- Remain up-to-date on state and local chikungunya reporting and surveillance requirements and mosquito control measures.
- Installation vector surveillance activities play an integral part in DON's preparedness strategy. Navy medical treatment facilities (MTFs) should ensure installation mosquito surveillance programs are capable of efficiently detecting chikungunya vectors. Contact the Navy Entomology Center of Excellence (NECE) at 904-542-2424, DSN 942-2424 or Fleetsupport-NECE@med.navy.mil for enhanced mosquito surveillance guidance.
- Refer to NMCPHC's Chikungunya webpage for additional resources including updates of this surveillance advisory, BUMED guidance, fact sheets, and technical guidance on installation vector surveillance.
- NMCPHC hosted a disease surveillance webinar for MTFs describing chikungunya vectors, vector control strategies, and medical surveillance and reporting guidance. A recording of this webinar, along with a copy of the PowerPoint slides, can be accessed through the Disease Surveillance Training webpage under the Archived Training Directory.
- The CDC Chikungunya webpage provides recommendations on clinical evaluation and diagnostic testing for healthcare providers. CDC has released a number of Travel Health Notices encouraging travelers to various areas throughout the region to practice usual precautions of mosquito bite prevention.
- For more information on the chikungunya situation in the Americas, click here.
- Contact your cognizant NEPMU if you have any questions including clinical and laboratory testing recommendations released by the Armed Forces Health Surveillance Center.