

## Health Advisory:

Advice for Health Care Providers Treating Patients In or Recently Returned From Hurricane-Affected Areas

October 25, 2017

This document will be updated as new information becomes available. The current version can always be viewed at <http://www.health.mo.gov>.

The Missouri Department of Health & Senior Services (DHSS) is now using 4 types of documents to provide important information to medical and public health professionals, and to other interested persons:

**Health Alerts** convey information of the highest level of importance which warrants immediate action or attention from Missouri health providers, emergency responders, public health agencies, and/or the public.

**Health Advisories** provide important information for a specific incident or situation, including that impacting neighboring states; may not require immediate action.

**Health Guidances** contain comprehensive information pertaining to a particular disease or condition, and include recommendations, guidelines, etc. endorsed by DHSS.

**Health Updates** provide new or updated information on an incident or situation; can also provide information to update a previously sent Health Alert, Health Advisory, or Health Guidance; unlikely to require immediate action.

Health Advisory  
October 25, 2017

**FROM: RANDALL W. WILLIAMS, MD, FACOG  
DIRECTOR**

**SUBJECT: Advice for Health Care Providers Treating Patients In or Recently Returned From Hurricane-Affected Areas**

On October 24, 2017, the Centers for Disease Control and Prevention (CDC) issued a Health Advisory containing recommendations for health care providers who are seeing patients that have recently returned from areas impacted by hurricanes, such as Puerto Rico and the US Virgin Islands (USVI). The following is a slightly edited version of this Health Advisory which includes information specific to Missouri.

### Summary

CDC is working with federal, state, territorial, and local agencies and global health partners in response to recent hurricanes. CDC is aware of media reports and anecdotal accounts of various infectious diseases in hurricane-affected areas, including Puerto Rico and USVI. Because of compromised drinking water and decreased access to safe water, food, and shelter, the conditions for outbreaks of infectious diseases exist.

The purpose of this Health Advisory is to remind clinicians assessing patients currently in or recently returned from hurricane-affected areas to be vigilant in looking for certain infectious diseases, including leptospirosis, dengue, hepatitis A, typhoid fever, vibriosis, and influenza.

### Background

Hurricanes Irma and Maria made landfall in Puerto Rico and USVI in September 2017, causing widespread flooding and devastation. Natural hazards associated with the storms continue to affect many areas. Infectious disease outbreaks of diarrheal and respiratory illnesses can occur when access to safe water and sewage systems are disrupted and personal hygiene is difficult to maintain. Additionally, vector borne diseases can occur due to increased mosquito breeding in standing water; both Puerto Rico and USVI are at risk for outbreaks of dengue, Zika, and chikungunya.

Health care providers and public health practitioners should be aware that post-hurricane environmental conditions may pose an increased risk for the spread of infectious diseases among patients in or recently returned from hurricane-affected areas; including leptospirosis, dengue, hepatitis A, typhoid fever, vibriosis, and influenza. The period of heightened risk may last through March 2018, based on current predictions of full restoration of power and safe water systems in Puerto Rico and USVI.

In addition, providers in health care facilities that have experienced water damage or contaminated water systems should be aware of the potential for increased risk of infections in those facilities due to invasive fungi, nontuberculous *Mycobacterium* species, *Legionella* species, and other Gram-negative bacteria associated with water (e.g., *Pseudomonas*), especially among critically ill or immunocompromised patients.

Office of the Director  
912 Wildwood  
P.O. Box 570  
Jefferson City, MO 65102  
Telephone: (800) 392-0272  
Fax: (573) 751-6041

Website: <http://www.health.mo.gov>

Cholera has not occurred in Puerto Rico or USVI in many decades and is not expected to occur post- hurricane.

### **Recommendations**

**These recommendations apply to healthcare providers treating patients in Puerto Rico and USVI, as well as those treating patients in the continental US who recently traveled in hurricane-affected areas (e.g., within the past 4 weeks), during the period of September 2017 – March 2018.**

- Health care providers and public health practitioners in hurricane-affected areas should look for community and healthcare-associated infectious diseases.
- Health care providers in the continental US are encouraged to ask patients about recent travel (e.g., within the past 4 weeks) to hurricane-affected areas.
- All healthcare providers should consider less common infectious disease etiologies in patients presenting with evidence of acute respiratory illness, gastroenteritis, renal or hepatic failure, wound infection, or other febrile illness. Some particularly important infectious diseases to consider include leptospirosis, dengue, hepatitis A, typhoid fever, vibriosis, and influenza.
- In the context of limited laboratory resources in hurricane-affected areas, health care providers should contact their territorial or state health department if they need assistance with ordering specific diagnostic tests.
- For certain conditions, such as leptospirosis, empiric therapy should be considered pending results of diagnostic tests— treatment for leptospirosis is most effective when initiated early in the disease process. Providers can contact the Missouri Department of Health and Senior Services (DHSS) or CDC for consultation.
- Missouri’s Disease Reporting Rule (19 CSR 20-20.020) requires all known or suspected cases of dengue, hepatitis A, or typhoid fever to be reported within one day to the local public health agency (LPHA) or to DHSS. All known or suspected cases of leptospirosis or vibriosis are required to be reported to the LPHA or to DHSS within three days. Prompt reporting facilitates public health investigation and, as appropriate, enhances the ability to mitigate the risk of local transmission.

Questions should be directed to DHSS’ Bureau of Communicable Disease Control and Prevention at 573/751-6113 or 800/392-0272 (24/7).

### ***For More Information***

- General health information about hurricanes and other tropical storms:  
<https://www.cdc.gov/disasters/hurricanes/index.html>
- Information about Hurricane Maria:  
[https://www.cdc.gov/disasters/hurricanes/hurricane\\_maria.html](https://www.cdc.gov/disasters/hurricanes/hurricane_maria.html)
- Information for Travelers:
  - Travel notice for Hurricanes Irma and Maria in the Caribbean:  
<https://wwwnc.cdc.gov/travel/notices/alert/hurricane-irma-in-the-caribbean>
  - Health advice for travelers to Puerto Rico:  
[https://wwwnc.cdc.gov/travel/destinations/traveler/none/puerto-rico?s\\_cid=ncezid-dgmq-travel-single-001](https://wwwnc.cdc.gov/travel/destinations/traveler/none/puerto-rico?s_cid=ncezid-dgmq-travel-single-001)
  - Health advice for travelers to the U.S. Virgin Islands:  
[https://wwwnc.cdc.gov/travel/destinations/traveler/none/usvirgin-islands?s\\_cid=ncezid-dgmq-](https://wwwnc.cdc.gov/travel/destinations/traveler/none/usvirgin-islands?s_cid=ncezid-dgmq-)

[travel-leftnav-traveler](#)

- Resources from CDC Health Information for International Travel 2018 (the Yellow Book):
  - Humanitarian Aid Workers: <https://wwwnc.cdc.gov/travel/yellowbook/2018/advising-travelers-with-specific-needs/humanitarian-aid-workers>
- Post-travel Evaluation: <https://wwwnc.cdc.gov/travel/yellowbook/2018/post-travel-evaluation/general-approach-to-the-returned-traveler>
- Information about infectious diseases after a disaster: <https://www.cdc.gov/disasters/disease/infectious.html>
  - Dengue: <https://www.cdc.gov/dengue/index.html>
  - Hepatitis A: <https://www.cdc.gov/hepatitis/HAV/index.htm>
  - Leptospirosis: <https://www.cdc.gov/leptospirosis/>
  - Typhoid fever: <https://www.cdc.gov/typhoid-fever/index.html>
  - Vibriosis: <https://www.cdc.gov/vibrio/index.html>
- Information about other infectious diseases of concern:
  - Conjunctivitis: <https://www.cdc.gov/conjunctivitis/>
  - Influenza: <https://www.cdc.gov/flu/index.htm>
  - Scabies: <https://www.cdc.gov/parasites/scabies/index.html>
  - Tetanus and wound management: <https://www.cdc.gov/disasters/emergwoundhcp.html>
    - Tetanus in Areas Affected by a Hurricane: Guidelines for Clinicians <https://emergency.cdc.gov/coca/cocanow/2017/2017sept12.asp>