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**Region IV Public Health**  
Clark, Cowlitz, Skamania, Wahkiakum counties  
and Cowlitz Tribe

# Health Advisory

Please deliver a copy of the accompanying alert to each provider in your organization.

Thank you

**Questions regarding this alert may be directed to the office of:**

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Health Officer

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Deputy Health Officer

**Clark County Public Health  
Cowlitz County Health Department  
Skamania County Health Department  
Wahkiakum County Department of Health and Human Services  
(360) 397-8412  
Please Distribute**

Categories of Health Alert messages:

**Health Alert:** conveys the highest level of importance; warrants immediate action or attention.

**Health Advisory:** provides important information for specific incident for situation; may not require immediate action.

**Health Update:** provides updated information regarding an incident or situation; no immediate action necessary.



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## HEALTH ADVISORY

April 27, 2010

### Potential for Dengue Infection Among Relief Workers Returning from Haiti

*Summary: The Centers for Disease Control and Prevention (CDC) has received reports of dengue fever among relief workers returning from Haiti, where the disease is endemic. Health-care providers in the United States should consider dengue in the differential diagnosis of febrile illness in any person who has recently been in Haiti or other countries where dengue is being transmitted, and are encouraged to submit samples to the CDC for proper laboratory testing.*

#### Background

The January 12 earthquake in Haiti left many residents without proper shelter or access to important services such as electricity and water. Exposure to the elements and increased opportunities for mosquito breeding have likely increased the risk of contact with vectors that may spread diseases such as dengue. Since dengue is endemic in Haiti and relief workers responding to previous disasters in Haiti reported high rates of dengue infection, the CDC Dengue Branch and the Clark, Cowlitz, Skamania and Wahkiakum (Region IV) County Health Departments advise that physicians evaluate travelers returning from Haiti with a febrile illness (or a recent history of febrile illness) and report cases of suspected dengue. . .

#### Symptoms of Dengue Fever

Dengue fever (DF) is characterized by high fever plus two or more of the following: headache, retro-orbital pain, joint pain, muscle or bone pain, rash, mild hemorrhagic manifestations (e.g., nose or gum bleed, petechiae, or easy bruising), and leukopenia. The incubation period for DF ranges from 3 to 14 days but is typically about one week; therefore, illness may occur while the workers are stationed in Haiti or after they return to the US. Most dengue fever cases are self-limited and can be treated with bed rest, acetaminophen, and oral fluids.

A small proportion of patients develop dengue hemorrhagic fever (DHF), which is characterized by presence of resolving fever or a recent history of fever lasting 2–7 days, any hemorrhagic manifestation, thrombocytopenia (platelet count  $<100,000/\text{mm}^3$ ), and abnormal vascular permeability evidenced by hemoconcentration, hypoalbuminemia, or abdominal or pleural effusions. DHF can result in circulatory instability or shock, and the risk for these complications may be increased among persons with prior dengue infection. Adequate management of DHF patients generally requires timely hospitalization and judicious administration of intravascular fluids and close monitoring of vital signs and hemodynamic status.

#### Recommendations

Physicians seeing a patient who has illness consistent with dengue, as described above, and who has recently traveled to Haiti should seriously consider laboratory testing. Initiation of supportive care should not be delayed pending results of laboratory testing. Instead, laboratory results should be used

to inform primary prevention efforts within the patient’s household and community. The CDC Dengue Branch provides free diagnostic testing for physicians and confirmatory dengue testing for health department and private laboratories. While some commercial laboratories in the US offer diagnostic services for dengue, these commercial labs are not always able to provide results that can distinguish recent from past dengue infection.

Physicians should collect specimens from patients who have symptoms consistent with dengue infection and who have traveled to Haiti within the past 30 days and submit these specimens directly to the CDC Dengue Branch for dengue testing. A completed CDC Dengue Case Investigation Form with “Haiti Travel” printed on the heading of the form (<http://www.cdc.gov/Dengue/resources/caseformhaiti.pdf>) must accompany the specimens for each patient to be tested in the Dengue Branch. When submitting the specimen, physicians should also notify their local health department (Clark, Cowlitz, Skamania or Wahkiakum) at the Public Health reporting line below.

Whenever possible, physicians should submit paired acute and convalescent samples to facilitate optimal diagnostic testing.

Type of sample	Interval since onset of symptoms	Type of analysis
Acute	Until day 5	RT-PCR for dengue virus
Convalescent	6 to 30 days	ELISA for dengue IgM

2 cc. (ml) of centrifuged serum accompanied by a Dengue Case Investigation Form (<http://www.cdc.gov/Dengue/resources/caseformhaiti.pdf>) should be sent to:

Centers for Disease Control and Prevention  
 Dengue Branch  
 1324 Cañada Street  
 San Juan, Puerto Rico 00920  
 Tel: (787) 706-2399; fax (787) 706-2496

As of 2010, dengue virus infections, including dengue fever (DF) and dengue hemorrhagic fever (DHF), were added to the list of nationally notifiable conditions. Improved dengue surveillance, consistent with international public health reporting obligations under the revised International Health Regulations (IHR, 2005), will help detect and report dengue cases when they occur.

More information

- Criteria for the processing of dengue samples at the CDC Dengue Branch are available at: [http://www.cdc.gov/Dengue/resources/TestpolEng\\_2.pdf](http://www.cdc.gov/Dengue/resources/TestpolEng_2.pdf).
- Additional information about dengue is available at: <http://www.cdc.gov/dengue/>
- Call CDC’s toll-free information line, 800-CDC-INFO (800-232-4636) TTY: (888) 232-6348, which is available 24 hours a day, every day.
- Region IV Public Health reporting line (360) 397-8182