

Public Health Emergency Preparedness Training

Scenario

On August 9th, several athletes who had just competed in the M-115 endurance race, visited their doctors complaining of severe abdominal pain and nausea. They've had symptoms the past few days, but could work through the pain, thinking they just had a mild case of the flu. Because the pain was becoming worse for all four of the athletes, blood work and lab tests were conducted to identify the problem and other symptoms/risks that could arise.

Tests confirmed that each athlete has been infected with the leptospirosis bacteria, and so the health department is immediately notified about the cases.

Public Health Response

Because Leptospirosis is uncommon and there are multiple cases, further investigation and special attention by public health is needed. Therefore, the Health Officer activates the Incident Command System (ICS) to direct and control added responsibilities and functions applicable to this incident, and in preparation for additional cases and risks that come about.

Incident Management

The Health Department performs the following functions in response to this situation:

1. Surveillance and Investigation

- Staff learn about [Leptospirosis](#) through the Centers for Disease Control and under the Communicable Disease Manual
- After contacting and speaking with each athlete, it is determined that all four [swam across Maple Lake while participating in the endurance race](#).
- Leptospirosis is a [reportable disease](#) and CD staff reports this through the Michigan Disease Surveillance System (MDSS), in accordance to the BLDHD Policy on MDSS. Unless reports have already been entered into the system. Follow-up information on the specific cases are maintained in MDSS by nurses.
- Contact with the Region 7 Epidemiologist is made to coordinate further surveillance and investigative activities.

2. Information Sharing

- A MIHAN alert is sent out to local health departments, tribal, health providers, and hospitals in the area regarding the confirmed cases of Leptospirosis.
- Emergency management officials are notified of the reported cases for awareness purposes.

3. Lab Testing

- Based on the understanding that leptospirosis commonly is derived from contaminated water, environmental staff collect water samples and submit samples to the lab to determine if the source is truly from Maple Lake.
- Maple Lake tests positive for Leptospirosis bacteria.

4. Non-pharmaceutical interventions

- Based on the confirmation of contaminated lake water in Maple Lake, the Health Officer, [per Public Health Code Sec 333.15421](#), closes the public beaches around Maple Lake, and recommends that no one makes contact with the lake water. Also, all future endurance races that include Maple Lake are cancelled until water tests confirm there is no longer a health threat.

5. Public Information and Warning

- The Public Information Officer disseminates information to the public, requesting those who participated in the M-115 Endurance Race to call the Health Department immediately. This is done through the news media and social media.
- This task might be more effective with other PIOs in the region, i.e. NMPHEP CERC Team if athletes came across the region.

6. Community Preparedness

- Due to the abundance of phone calls received from the public, approximately 850 athletes were identified to have participated in the M-115 Endurance race and swam across Maple Lake.
- This concludes that 850, or more, are at risk to developing symptoms from the leptospirosis bacteria and having potential health risks if untreated.

Emergency Response

Because many people are at risk to the leptospirosis bacteria, the health department decides to activate Point of Dispensing operations to dispense [medical countermeasures](#) to the affected population (athletes) and others living who may become sick. The preferred medications to countermeasure and treat Leptospirosis symptoms are amoxicillin or doxycycline, at which both can be administered by tablet/capsule or liquid form.

1. Point of Dispensing (POD)

- Entails opening [a point of dispensing site, a.k.a Open POD Site](#) to the public or anyone who may have been in contact with the water in Maple Lake. The BLDHD Mass Dispensing and Distribution Plan guides this operation.
- Per the Plan, because the number affected is less than 1,000, dispensing can occur at the health department offices and may be in the parking lot as a drive-thru POD site with weather being warm.
- Depending on where people reside, other means of dispensing medications can be considered, i.e. via USPS or delivered through contract with partners.
- Medication to the 850 athletes will not come through the [federal Strategic National Stockpile](#), rather the health department has been able to locate the medications from local sources through contracts with pharmacies, hospitals, and healthcare providers. Therefore a local state of emergency is not declared.
- Athletes receiving medication through the POD are asked to bring insurance to pay for the cost of the medication.
- Amoxicillin or doxycycline can be dispensed to head of households.

2. State of Emergency

- Maple Lake is also a spring fed lake that serves as a non-community water source, that is treated through a system, for several campgrounds and restaurants located around the lake. If the lake remains contaminated, then a state of emergency may be declared to temporarily help supply alternate sources of water to the campgrounds and restaurants until the lake and treatment system can be corrected and water back to normal.

After completing this training, please email Jim at jreardon@bldhd.org indicating you have completed it. Please record the time taken to go through this on your timesheet as Bioterrorism or Emergency Preparedness.

Thank you!
Jim