

April 4, 2019

Dear Saginaw County Community,

Considering the emerging measles outbreaks across the U.S., and more recently, in Southeast Michigan, the Saginaw County Health Department (SCHD) would like to inform citizens and healthcare providers that we are following the outbreak closely. Looking back at the past 5 years—we have seen ZERO cases of measles in Saginaw County. Therefore, it is important that we maintain a high level of suspicion in our differential diagnosis to protect the public's health as it can mimic many viral illnesses.

As of April 2nd, 2019, there have been 34 confirmed cases of measles in Michigan, ranging in age from 8 months to 63 years (33 in Oakland County, 1 in Wayne County). Measles was eradicated in the U.S. in 2000, but we have seen a reemergence linked to travel-related cases. There were 372 confirmed cases of Measles in the U.S. in 2018. In just the first third of 2019, we have surpassed those numbers at 387.

Measles is an airborne disease that is spread from human to human. The virus can survive for up to 2 hours outside the human body. 90% of susceptible individuals that come into contact with an infected person will become ill—it is HIGHLY transmissible. Symptoms develop around 10-12 days after exposure—including a fever of 101 degrees or higher, cough, runny nose, conjunctivitis and Koplik spots (clustered white spots on oral mucosa). Rash will develop in ~14 days, starting from the head outward toward the torso and limbs. Individuals are most infectious 4 days before and 4 days after rash onset.

Complications include diarrhea, middle ear infections, pneumonia, encephalitis (rare but high death rate), seizures and panencephalitis that can emerge years later. Measles continues to be a fatal disease worldwide, with a likely underestimated 145,000 deaths in 2013.

The measles vaccine is recommended in a 2-dose series. The first dose at age 12-15 months, and the second between 4-6 years. A catch-up dose is recommended at 11-12 years, and if a second dose is needed, one should wait for 4 weeks. The vaccine provides 95% protection at 12 months and 98% by 15 months, with 99% achieving lifelong immunity. Those born before 1957 may also require a second dose. College students, healthcare workers and international travelers are considered high risk and should be assessed for immunity. Special circumstances will follow different recommendations, so it is important to contact your health care provider or SCHD if you need clarification.

In cases of an outbreak, Post-Exposure Prophylaxis for susceptible individuals include MMR vaccination that should be administered within 72 hours—otherwise immune globulin can be given to high risk individuals within 6 days (i.e., unvaccinated or unsure of vaccination history, pregnant women, weakened immune systems).

If you have any questions or concerns, please do not hesitate to contact our Communicable Disease Team at 989-758-3880 or visit our website www.saginawpublichealth.org and click on Measles under the Hot Topics section of the homepage.

FOR PROVIDERS:

IMMEDIATELY contact the Saginaw County Health Department if you have any suspected cases. We will assist in a thorough case investigation. Ensure droplet precautions and isolation of the individual(s), i.e. isolate them from the waiting room, etc.

The Clinical Case Definition to aid in diagnosis:

- 1) A generalized rash lasting at least three days **AND**
- 2) A temperature of 101 degrees Fahrenheit or higher **AND**
- 3) Cough **OR** Runny Nose **OR** Conjunctivitis

Laboratory Testing: COLLECT SERUM AND VIRAL SPECIMENS

- 1) **SEROLOGY:** Looks for measles-specific antibody
 - a. Collect 5mL of serum
 - b. Order IgM for measles and rubella (most preferred) **OR**
 - c. IgG at onset and 10 days later (run testing at the same time)
- 2) **VIROLOGY:** Specimen for PCR/viral isolation to assess geographic origin of virus
 - a. Respiratory Specimen: Throat swab or nasopharyngeal within 10 days
 - b. Urine: Ideal to obtain with respiratory specimen (50-100 mL) within 7 days

Cases are classified as Suspect, Probable or Confirmed—please contact us if you need any clarification:

- 1) **Suspect:** Rash with fever
- 2) **Probable:** Case Definition met without testing **OR** epidemiologic linkage to confirmed case
- 3) **Confirmed:** Laboratory confirmed case **OR** meeting the Case Definition **AND** epidemiologically linked to a confirmed case

Post-Exposure Prophylaxis for Susceptible Individuals:

- 1) **MMR Vaccination** within 72 hours
- 2) **Immune Globulin (Ig)** for high risk individuals (unvaccinated, unsure of vaccination, pregnant, immune compromised).

Sincerely,



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Health Officer



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