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TO: Ohio School Nurses

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While Ohio does not currently have any cases of measles, the Ohio Department of Health (ODH) is informing you that there are several measles outbreaks nationally. The Centers for Disease Control and Prevention (CDC) reports that 704 individual cases of measles have been confirmed in 22 states from January 1 to April 26, 2019 ([click here for more information](#)). These outbreaks have been linked to travelers who brought measles back from other countries such as Israel, Ukraine, and the Philippines, where large measles outbreaks are occurring.

Measles is an extremely contagious, vaccine-preventable disease. The measles, mumps and rubella (MMR) vaccine is highly effective at preventing transmission of measles. One dose of MMR vaccine is approximately 93% effective at preventing measles. Two doses are approximately 97% effective.

The following information is being provided to assist Ohio schools with understanding measles and what school nurses can do to protect their students and staff and educate parents and guardians. Information in this guidance was adapted from material developed by the CDC and the Immunization Action Coalition.

KEY ACTION POINT: *What school nurses should do now*

School nurses should review the immunization records of the students enrolled at their respective schools and identify those who are not up-to-date with their measles-mumps-rubella (MMR) vaccine. Two doses of MMR vaccine are recommended routinely by CDC for all children without medical contraindication, with the first dose at age 12 through 15 months and the second dose at ages four through six years (school entry). Schools in Ohio are required to ensure that children receive MMR unless the vaccine is not medically appropriate or the parent objects for reasons of religion or conscience. It is recommended that parents be contacted and advised to vaccinate their children if there is not a medical contraindication. Parents should be informed if a case of measles occurs in the school and unvaccinated children will be excluded until 21 days after rash onset in the last case of measles.

FREQUENTLY ASKED QUESTIONS ABOUT MEASLES:

What causes measles?

Measles is caused by a virus.

How does measles spread?

Measles is spread from person to person through the air by infectious droplets; it is highly contagious.

How long does it take to show signs of measles after being exposed?

It takes an average of 10-12 days from exposure to the first symptom, which is usually fever. The measles rash doesn't usually appear until approximately 14 days after exposure, 2-3 days after the fever begins.

What are the symptoms of measles?

Symptoms include fever, runny nose, cough, loss of appetite, conjunctivitis, and a rash. The rash usually lasts 5-6 days and begins at the hairline, moves to the face and upper neck, and proceeds down the body.

How serious is measles?

Measles can be a serious disease, with 30% of reported cases experiencing one or more complications. Death from measles occurs in 2 to 3 per 1,000 reported cases in the United States. Complications from measles are more common among very young children (younger than 5 years) and adults (older than 20 years).

What are potential complications of measles?

Diarrhea and ear infections are common complications of measles. More severe complications may also occur. As many as one out of every 20 children with measles gets pneumonia, the most common cause of death from measles in young children. About one child out of every 1,000 who get measles will develop encephalitis (swelling of the brain) that can lead to convulsions and can leave the child deaf or with intellectual disability. For every 1,000 children who get measles, one or two will die from it. Measles may cause pregnant woman to give birth prematurely or have a low-birth-weight baby.

How long is a person with measles contagious?

Measles is highly contagious and can be transmitted from four days before the rash becomes visible to four days after the rash appears.

What should be done if someone is exposed to measles?

Notification of the exposure should be communicated to a healthcare provider and the local health department. For help determining your local health department, click [here](#).

If the person has not been vaccinated, measles vaccine (MMR) may prevent disease if given within 72 hours of exposure. Immune globulin (a blood product containing antibodies to the measles virus) may prevent or lessen the severity of measles if given within six days of exposure.

What is recommended if a case of measles occurs among employees or students at a school?

- The school should exclude persons with suspected measles from school until 4 days have passed since rash onset (they can return on the fifth day after the day of rash onset) if not immunocompromised.
- All students and school staff born in or after 1957 who cannot provide adequate evidence of immunity should be vaccinated unless there is a valid contraindication. Exposed persons receiving their second MMR dose and previously unvaccinated persons receiving their first dose as part of the outbreak control program may be immediately readmitted to school or work. However, these individuals should be monitored for signs and symptoms of measles.
- If a person without evidence of measles immunity chooses not to be vaccinated or is unable to be vaccinated due to medical reasons, that individual should be excluded from school until 21 days after rash onset in the last case of measles.
- Daily active surveillance of all school contacts should be maintained by the local health department to assess for early signs and symptoms of rash illnesses compatible with measles for 21 days from the last

possible exposure in the school. Early symptoms of illness with measles include fever, cough, runny nose, and conjunctivitis.

Additional information on measles can be found [here](#).