

DATE:	12/14/2022
TO:	Health Alert Network
FROM:	Denise A. Johnson, M.D., FACOG, FACHE, Acting Secretary of Health
SUBJECT:	Measles Identification and Prevention in Pennsylvania
DISTRIBUTION:	Statewide
LOCATION:	Statewide
STREET ADDRESS:	n/a
COUNTY:	n/a
MUNICIPALITY:	n/a
ZIP CODE:	n/a

**This transmission is a “Health Advisory” and provides important information for a specific incident or situation; may not require immediate action.**

HOSPITALS: PLEASE SHARE WITH ALL MEDICAL, PEDIATRIC, INFECTION CONTROL, NURSING AND LABORATORY STAFF IN YOUR HOSPITAL; EMS COUNCILS: PLEASE DISTRIBUTE AS APPROPRIATE; FQHCs: PLEASE DISTRIBUTE

### **Summary:**

- Currently there is an ongoing measles outbreak in Columbus, Ohio. The first case was identified October 22, 2022, and as of December 12<sup>th</sup> there are 73 confirmed cases. There is concern that there will be spread into neighboring states including Pennsylvania.
- The measles outbreak in Ohio, combined with the predicted seasonal increase in internationally imported measles cases, is of special concern.
- Providers should consider measles in patients with a febrile rash illness lasting three days or more, a fever of 101°F (38.3°C) or higher, [and clinically compatible symptoms](#) (cough, coryza and/or conjunctivitis), particularly if the patient was potentially exposed to a case of measles or has recently traveled to an area with an on-going measles outbreak.
- Providers who are ordering [measles testing](#) must obtain samples from the following sites: throat/nasopharyngeal swab (rRT-PCR), urine (rRT-PCR), **and** serum (measles IgM and IgG). Timely measles testing is available at the Pennsylvania Department of Health’s Bureau of Laboratories after consultation with the local or state Department of Health.
- **The DOH reminds providers that measles is a reportable condition, and providers should immediately report suspected cases of measles to local public health authorities or to the DOH at 877-PA-HEALTH (877-724-3258).**

### **Background**

Currently there is an [outbreak of measles in Columbus, Ohio](#). The first measles case was identified October 22, 2022, and as of December 12<sup>th</sup> there are 73 confirmed cases with 26 hospitalizations and no deaths. Of the 73 confirmed cases of measles, 69 cases are in completely unvaccinated children. The other four cases are in partially vaccinated children

(having received only one dose of MMR in the two-dose series). All cases are in children under the age of 18 years. The current outbreak started with four unvaccinated children in a childcare facility and has spread to multiple [public locations](#) across Columbus, Franklin and Ross counties.

In the United States most cases of measles occur in people who have travelled abroad and import measles into the United States. Typically, the number of these cases increases from mid-winter through spring.

While most people are not at risk for contracting measles because they have been immunized or have had measles, the following groups of individuals are susceptible to becoming infected with measles:

- Anyone born since 1957 who has not received two doses of measles vaccine known as MMR, which would include infants too young to have been immunized; persons who were vaccinated with an inactivated vaccine, which was used from 1963 through 1967, and have not been re-vaccinated; and those who refused vaccination.
- Persons whose immune systems are compromised due to disease or medication.

There is concern that measles cases could occur in Pennsylvania due to a combination of spread from the Ohio outbreak, along with the seasonal importation of internationally acquired measles cases, and the recent decline of the timely administration of routine childhood immunizations, specifically the MMR, due to the COVID 19 pandemic.

### **When to suspect measles**

- Consider measles as a diagnosis in anyone, especially those who have recently traveled to an area with a [current measles outbreak](#), with the following [clinical presentation](#):
  - Febrile [maculopapular rash](#) illness lasting three days or more that starts on the face and then spreads throughout the body 3-7 days after symptom onset
  - Koplik spots, which may appear on the buccal mucosa within two or three days
  - Temperature of 101°F (38.3°C) or higher
  - Clinically compatible symptoms (cough, coryza and/or conjunctivitis)
  - Other symptoms may include anorexia, lymphadenopathy and diarrhea (especially in infants)
- The incubation period for measles from exposure to rash onset is usually 14 days (range, seven to 21 days)

### **Measles testing**

- If measles is suspected, the illness should be immediately reported to the local health department or the Department of Health at 877-724-3258 for consultation and to assist with diagnosis and testing.
- The following specimens must be obtained and sent to the PA DOH Bureau of Laboratories:
  - Throat or nasopharyngeal swab for rRT-PCR testing

- Send specimen in viral or universal transport media (VTM/UTM)
  - Ship on cold packs
- Urine for rRT-PCR testing
  - Collect minimum of 50 mL in sterile container
  - Ship on cold packs in leak-proof container
- Serum for measles IgM and IgG testing
  - Acute phase serum as soon as possible and convalescent serum 2-3 weeks later
  - Collect minimum of 5 mL of blood in a red-top or serum-separator tube (SST)
- If testing is being ordered to determine measles immunity, commercial IgG testing is recommended. Do **NOT** order measles IgM if the patient is asymptomatic or recently vaccinated with MMR.

### **Infection control considerations for suspected cases of measles**

- The DOH requests that all health care providers maintain a high index of suspicion for measles in persons with a febrile rash illness. Because measles is highly infectious and the virus can remain airborne up to two hours, providers should take precautions to minimize exposure if one of their patients is suspected of having measles:
  - Advise patients who call about a febrile rash illness to minimize exposure to others
  - Should a suspected case present for care, place a mask on patient and isolate immediately
  - Arrange for an exam in an isolated area. The exam room should not be used for at least 2 hours after the measles suspect leaves
  - Consider review of vaccine records or titer reports for your staff now, to ensure that only those with evidence of immunity to measles provide care to a suspected case of measles.
    - People presumed to be immune to measles are those:
      - Born in the US before 1957
        - This is insufficient for health care workers.
      - Have documentation of receipt of two doses of live measles-containing vaccine (MMR)
      - Have documentation of a positive measles IgG titer

### **Prevention of Measles**

- The best way to prevent measles is to remain up to date on all measles vaccinations especially when considering traveling abroad.
- The following [people should be vaccinated against measles](#):
  - All children over one year of age who have not yet been vaccinated
    - Children over 13 months of age who received a first dose of MMR at least 4 weeks ago at risk of measles exposure may receive a second dose
  - Children between 6 months and 1 year of age who will be traveling internationally or visiting a community with an [on-going measles outbreak](#) (This dose will not count toward the primary series and two additional doses after one year of age will still be required)
  - Adults who have not yet been vaccinated and were born after 1957 and not had laboratory confirmation of a previous measles infection.

- Adults of any age who will be traveling internationally or visiting a community with an on-going measles outbreak who have not previously received two doses of MMR

### **Post Exposure Prophylaxis for Those with a Known Exposure to a Measles Case**

- People exposed to measles who cannot readily show that they have evidence of immunity against measles should be offered post-exposure prophylaxis (PEP)
- PEP for measles consists of either of the following:
  - MMR vaccine within 72 hours of initial measles exposure, **or**
  - Immunoglobulin (IG) within six days of exposure.
- Do **not** administer MMR vaccine and IG simultaneously, as this practice invalidates the vaccine

**The DOH reminds providers to immediately report suspected cases of measles to local public health authorities or to the DOH at 877-PA-HEALTH (877-724-3258).**

Categories of Health Alert messages:

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

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

**Health Update:** provides updated information regarding an incident or situation; unlikely to require immediate action.

This information is current as of December 14, 2022 but may be modified in the future.