

Summary and Action Items

- 1.) Provide updated awareness about ongoing **measles** outbreaks occurring nationwide.
- 2.) Review current vaccine guidance for children, adults, and healthcare personnel
- 3.) Recommend that healthcare providers and facilities take steps to ensure that their patient populations are up to date on their vaccines.
- 4.) Remind providers to **immediately report to public health** any suspect cases at the time of clinical testing, and outline appropriate steps for diagnosis and isolation.
- 5.) Remind health-care facilities that all persons who work in their facilities should have presumptive evidence of immunity to measles.

Measles Update

From January 1 to May 10, 2019, 839 individual cases of measles have been confirmed in 23 states, with many states experiencing [outbreaks](#). This is the greatest number of cases reported in the U.S. since 1994 and since measles was declared eliminated in 2000. As reported recently, only 6% of the cases were internationally imported; the remaining cases are a result of secondary transmission within the US. The median age is 5 years, and 53% of cases have occurred among individuals between the ages of 16 months-19 years. Among all cases, 90% were either unvaccinated, or had unknown vaccine status. Roughly 9% of cases have required hospitalization (MMWR 2019; 68(17); 402-404).

Globally, many countries continue to face widespread transmission of measles. Measles is endemic or is causing epidemics in numerous countries, particularly Ukraine, Israel, and the Philippines.

In Illinois, there have been seven cases in 2019 to [date](#). Currently, there is no known ongoing transmission in Illinois.

Vaccine Recommendations

Health care providers should ensure all patients are up-to-date on MMR vaccine. **At this time, there are no changes to the national guidelines regarding MMR vaccine schedules.**

- 1) **Children:** Continue to give MMR vaccine at 12-15 months of age, and 4-6 years of age.
- 2) **Adults (non-high risk):** Adults born during or after 1957 should have at least one dose of the MMR vaccine, or presumptive evidence of immunity. At this time, booster doses are not recommended for the general adult population, and there is **no** recommendation to give 2nd doses for adults born before 1989.

There are additional recommendations for certain high risk populations:

- 1) Students at post-high school educational institutions: Should have two doses of MMR, spaced out by at least 28 days, or evidence of immunity.
- 2) For individuals who are traveling internationally:

- a) Infants 6 through 11 months of age should be given one dose of MMR vaccine. These children will still need their regularly scheduled MMR doses.
 - b) Individuals 12 months of age or older should have two doses of MMR, separated by at least 28 days
- 3) Healthcare personnel (HCP) (all paid and unpaid persons working in health-care settings): Should have presumptive evidence of immunity to measles. Presumptive evidence of immunity is defined as:
- a) written documentation of vaccination with 2 doses of live measles or MMR vaccine administered at least 28 days apart
 - b) laboratory evidence of immunity (positive serum IgG)
 - c) laboratory confirmation of disease, or
 - d) birth before 1957.

If an outbreak were to occur, two doses of MMR for HCP born before 1957 without other evidence of immunity would be recommended. Facilities can consider checking immunity status of those born before 1957 without evidence of immunity prior to an outbreak and recommend vaccine for those individuals.

Guidance regarding Serologic Immunity Assessment:

- 1) In general, checking serologies is not recommended prior to giving a dose of MMR.
- 2) If serologies are to be checked to assess for evidence of immunity, providers should attempt to order only a serum IgG, and not an IgM.

Enhanced Vaccine Efforts: Vaccine efforts should focus on on-time vaccination of children and high-risk infants and adults. Health care providers and facilities are encouraged to utilize strategies to enhance vaccine coverage. This can include, but is not limited to:

- 1) Using your electronic medical record or 'Immunizations Due' report in I-CARE to identify patients behind schedule and calling these patients to remind them to get vaccinated.
- 2) Establish standing orders for MMR vaccination. Examples of standing orders can be found at immunize.org.
- 3) Consider extending office hours or promoting vaccine-only visits to make vaccination more accessible for your patients.
- 4) Coordinate with your local health department and community partners to offer all possible opportunities for vaccination.

Diagnosis

Isolation/Initial management: Providers should assess patients for measles risk during initial phone calls. Measles immunity status should be determined. If patients arrive at your clinic or hospital without calling ahead, facilities should screen incoming patients for suspect measles and **promptly mask suspect measles cases and place them in airborne isolation away from other patients in waiting rooms or treatment areas.** If airborne isolation is not available, patients should be placed in a single patient room with the door closed. Any rooms where the patient was treated should remain empty for at least two hours after the patient has left. Any medical staff caring for a suspect case should be immune to measles and observe airborne precautions (regardless of immunity).

Diagnostic Testing: Consider measles in any patient with febrile rash illness and clinically compatible measles symptoms who: (please see the flowchart to assist in assessing [patients](#)):

- 1) has recently traveled internationally or to an area in the US experiencing an outbreak
- 2) has not been vaccinated, and/or
- 3) has had contact with someone with a febrile rash illness. (Immunocompromised people may not develop a rash or may exhibit an atypical rash.)

The preferred testing method is a nasopharyngeal or oropharyngeal specimen by PCR. **Health care providers and laboratories must first receive authorization** to send specimens for testing at the IDPH lab and an authorization number must be obtained by the local health department. Contact your [LHD](#) with more specific questions.

A serum IgM can also be used to diagnose acute measles. However, the IgM can be falsely negative early in disease, and can be falsely positive, either due to recent vaccination, concurrent viral illness, or low pre-test probability.

Summary points for diagnosis and early management:

- 1.) Health care providers should not wait for laboratory results before contacting their [local health department](#) during or after work hours. **These should be reported to your local health department at the time of testing.**
- 2.) Contact your LHD if guidance is needed in assessing the need for testing, determining which diagnostic test to use, and to assist with test authorization.
- 3.) Appropriately isolate all patients being tested for suspect measles.

Additional Resources

<https://www.cdc.gov/measles/hcp/index.html>

<http://www.dph.illinois.gov/topics-services/diseases-and-conditions/diseases-a-z-list/measles>

Target Audience

Local Health Departments, Infectious Disease Physicians, Hospital Emergency Departments, Infection Preventionists, Health Care Providers, and Laboratories

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