Kentucky Public Health
Prevent. Promote. Protect.

KENTUCKY HEALTH ALERT

Measles Outbreak Expands in Kentucky: Recommendations for Identification and Prevention

October 14, 2026

The Kentucky Department for Public Health (KDPH) is alerting providers that a measles outbreak in Kentucky remains ongoing in several close-knit communities with low vaccination coverage. A total of 153 cases of measles have been confirmed since July from the following counties: Bath (1), Barren (5), Caldwell (5), Carroll (5), Christian (45), Laurel (56), Lewis (2), Owen (2), Todd (1), Trigg (25), Trimble (1), and Washington (5). All but two cases have been unvaccinated and have had direct contact to under-vaccinated close-knit communities. There are likely more measles cases in these communities than have been reported to public health. Sporadic detections of measles virus in the wastewater (sewage) have also occurred in several parts of the state.

Key updates include:

- Total cases in 2026: 157
- Total cases with illness onset in past 2 weeks: 36
- Total outbreak counties: 12
- Total hospitalizations: 9

Of particular concern are 6 reported cases in unvaccinated pregnant women. Measles during pregnancy can have negative effects on both the birth parent and baby, with the most common fetal complications of maternal measles being pregnancy loss, premature delivery, and low birth weight. Susceptible pregnant women exposed to measles are recommended to receive IVIG as postexposure prophylaxis within 6 days of exposure. Additional resources are available from the American College for Obstetricians and Gynecologists on management of patients during a measles outbreak and from the American Academy of Pediatrics about clinical management of congenital measles.

These cases occur amidst the worst measles outbreak in more than three decades in the U.S., resulting in at least 4,080 confirmed cases this year, as of October 12. This includes a large ongoing outbreak in Pennsylvania primarily affecting members of under-vaccinated close-knit communities where six measles-associated deaths have been reported this year.

Kentucky Public Health
Prevent. Promote. Protect.

Measles, Mumps, and Rubella (MMR) Vaccine Recommendations

- **Infants younger than 6 months of age**: MMR vaccine is not recommended for infants <6 months of age. If an infant has a known or suspected measles exposure, contact the local health department promptly for post-exposure prophylaxis guidance.
- **Infants 6 through 11 months of age ("Dose Zero")**: In areas with active measles transmission or for infants traveling internationally or to areas with an active outbreak, an early MMR dose should be considered. Early MMR is not universally recommended for all infants in this age group at this time. This early dose is considered supplementary and does not count towards the routine 2-dose series. Infants that receive a "dose zero" need two additional age-valid MMR doses after 12 months of age, separated by at least 28 days. Use MMR, not measles, mumps, rubella, and varicella (MMRV), for infants younger than 12 months.
- **Children 12 months through 6 years ("Accelerated Dosing")**: Children older than 12 months who have not been vaccinated should receive one dose of MMR at the earliest opportunity. Children older than 12 months with one prior dose of MMR may receive an early second dose separated by at least 28 days. This is still considered a valid dose and this strategy can provide earlier protection for children. For an accelerated 28-day schedule, use MMR vaccine (not MMRV) for the initial dose. Children older than 4 years of age who have only received one dose of MMR should receive a second dose at the earliest opportunity.
- **School-aged Children and Adolescents ("Catch-Up Dosing")**: All children in kindergarten through 12th grade should have documentation of 2 doses of MMR vaccine or other evidence of immunity[1]. Two doses of MMR vaccine are required for kindergarten entry in Kentucky, unless a religious or medical exemption has been documented.
- **Adults ("Catch-Up Dosing"):** Adults born in 1957 or later without evidence of immunity[1] should receive a dose of MMR. Some adults need 2 doses of MMR, including health care personnel, those traveling internationally and those with contact to under-vaccinated close-knit communities. Adults who were vaccinated between 1963 and 1967 with an older, less-effective measles vaccine need to be

[1] Evidence of measles immunity includes written documentation of adequate vaccines for measles, laboratory confirmation of disease, or laboratory evidence of detectable measles-specific IgG antibody. Serologic screening for measles immunity before vaccination is not necessary and not recommended if a person has evidence of immunity. Documented age-appropriate vaccination supersedes the results of subsequent serologic testing for measles.

revaccinated with at least one MMR dose to ensure they are protected. Adults born before 1957 are generally considered immune, however health care personnel without laboratory evidence of immunity or disease should consider vaccination with a 2-dose series separated by at least 28 days.

MMR vaccine is contraindicated in the following populations:

- Pregnant women
- Immunocompromised individuals (e.g., HIV with CD4 count ≤ 200 cells/μL, recipients of high-dose immunosuppressive therapy, solid organ or recent bone marrow transplant recipients)
- People with a history of severe allergic reaction (anaphylaxis) to a vaccine component or a prior dose of MMR.

If a susceptible pregnant or severely immunocompromised person has a known or suspected measles exposure, contact the local health department promptly for post-exposure prophylaxis guidance.

Be Prepared for Measles

- **Be prepared for measles** by reviewing the Kentucky Measles Response Guide for healthcare providers and local health departments.
- **Be alert for signs and symptoms of measles**, particularly among people who have not received two doses of measles-containing vaccine and people who reside in close-knit communities that are commonly under-vaccinated. Healthcare providers should also consider outreach to patients who are eligible for MMR vaccination to encourage routine immunization in accordance with the American Academy of Pediatrics (AAP).
- **Collect risk factor information to assess possible exposures to measles** for patients with febrile rash illness, including detailed travel history (international or to areas of the U.S. with ongoing measles outbreaks) and contact to members of under-vaccinated close-knit communities.
- **Measles is a reportable disease requiring *urgent* notification**. **Do not wait for a positive result to initiate contact with public health.** If measles is suspected, healthcare facilities should implement appropriate infection prevention and control measures and report any case, suspected case or positive laboratory result via telephone to the local public health department jurisdiction in which the patient resides within 24 hours. If the local health department cannot be reached, contact 888-9-REPORT to reach the epidemiologist on-call at KDPH.

- **Measles virus testing is available at the KDPH Division of Laboratory Services (DLS)** for eligible clinical specimens upon approval. KDPH requests that providers contact KDPH or their local health department to discuss PCR testing at DLS for ***all*** suspect measles cases, rather than sending directly to a commercial lab, to avoid significant delays in public health response measures. KDPH Division of Epidemiology & Health Planning approval is required prior to specimen submission.
- **Routinely assess all patients for MMR vaccination needs.** Providers can use the Kentucky Immunization Registry to access and document patient immunization information, including "dose zero" administration.
- **Measles resources for healthcare providers and the public** can be found on the KDPH measles website.

Kentucky Public Health
Prevent. Promote. Protect.

Background

Measles is a highly contagious viral respiratory illness. The virus is transmitted through airborne spread of droplet nuclei or direct contact with nasal or throat secretions of infected persons; infectious droplets can remain suspended in the air for up to two hours. The average incubation period for measles is 14 days, with a range of 7 to 21 days.

Measles is a vaccine-preventable disease. The measles vaccine is highly protective; one dose of MMR vaccine provides 93% protection against measles, and two doses provide 97% protection. KDPH encourages providers to recommend routine MMR vaccination in accordance with the AAP recommended schedule.

Two doses of MMR vaccine are required for kindergarten entry in Kentucky, unless a religious or medical exemption has been documented. Recent estimates indicate that MMR vaccine rates among kindergarten children in Kentucky have increased but remain among the lowest in the nation at only 91%. Under-vaccinated populations are often grouped geographically or socially, which can facilitate rapid spread through frequent contact with other under-vaccinated individuals.

Clinical Recognition

Measles is characterized by an initial prodrome that typically includes high fever, cough, coryza, and conjunctivitis, followed by the appearance of a maculopapular rash three to five days after symptoms begin. Communicability is greatest from four days *before* the onset of rash until four days *after* the onset of rash. The day of rash onset is considered day 0 when determining the infectious period.

Given known community exposures, suspicion for measles should be heightened among patients with clinically compatible measles symptoms who have not yet received measles-containing vaccine, including those who may have postponed or missed doses. For additional clinical information for healthcare providers, please refer to the measles chapter of the AAP Red Book.

Diagnostic Testing

The preferred confirmatory testing for measles is detection of RNA by real-time PCR (RT-PCR) in a respiratory specimen (throat or nasopharyngeal swabs). Clinical specimens for RT-PCR and virus isolation should be collected at the same time as samples for serologic testing. Detection of measles RNA by RT-PCR is most successful when samples are collected on the first day of rash through the 3 days following onset of rash but may be successful as late as 10 to14 days post rash onset. When possible, urine specimens should also be collected for RT-PCR testing in addition to respiratory swabs. If a patient is

suspicious for measles, contact the local health department or KDPH (888-9REPORT) to submit specimens to KDPH DLS for testing.

Serologic testing for presence of measles IgM antibodies is available at many commercial laboratories and is also an acceptable mode of testing when paired with RT-PCR. However, **turnaround times for results may be delayed**.

Measles IgM tests are often positive on the day of rash onset. However, up to 20% of tests for IgM may give false-negative results in the first 72 hours of rash onset. Therefore, IgM tests that are negative in the first 72 hours after rash onset should be repeated when there is a high clinical index of suspicion for measles. IgM is detectable for at least 28 days after rash onset. Measles IgM testing should not be performed in persons who do not have clinical suspicion for measles due to the possibility of a false-positive result. **Healthcare providers should report suspected cases of measles to their local health department at the time they see the patient.**

Infection Prevention and Control

Persons with suspected or confirmed measles infection should be isolated for four days following the day of rash onset. Contacts who might be susceptible should be immunized with measles vaccine as soon as possible after exposure. Measles vaccine given within 72 hours after exposure may prevent or reduce the severity of disease. Immune globulin administered intramuscularly (IGIM) or intravenously (IGIV) can prevent or modify measles in a susceptible person if given within six days of exposure. IG may be especially indicated for susceptible household contacts under one year of age, pregnant women and immunocompromised persons, for whom the risk of complications is increased. The most common complications of measles include vomiting and diarrhea that lead to dehydration and sometimes necessitate hospitalization. The most serious complications include pneumonia, encephalitis/brain disfunction and pregnancy complications. Some serious complications of measles can occur over 10 years after recovery from acute illness.

To minimize the risk of measles transmission:

1. **Ask patients seeking care for febrile illnesses about potential exposure to measles.** Consider posted signage with instructions for patients to inform staff if they are concerned they have been exposed to measles. If possible, instruct patients to call ahead before entering the facility.
2. **Query patients with a febrile rash illness** about vaccination status, international travel, contact with international travelers, transit through an airport that receives international flights or possible exposure to a person with measles or a similar rash illness in the three weeks prior to symptom onset. Measles

should be considered for patients with such a history and symptoms consistent with measles, particularly in un- or under-immunized persons.

3. **Immediately isolate and provide a mask to patients with suspected measles.** Do not allow patients with suspected measles to remain in the waiting room or other common areas; isolate patients with suspected measles immediately in an airborne infection isolation room if one is available. If such a room is not available, place the patient in a private room with the door closed. Follow AAP recommendations for infection control measures for measles. If possible, allow only healthcare personnel and facility staff with documentation of two MMR vaccines or laboratory evidence of immunity to measles (i.e., measles IgG positive) to enter the patient's room.
4. **Wear an N95** or higher-level respirator regardless of presumptive evidence of immunity. A user seal check should be performed each time the respirator is worn.
5. **Do not use the examination room for at least two hours** after the infectious patient leaves. Increase air flow to exposed areas, where possible.
6. If possible, **schedule patients with suspected measles at the end of the day**.
7. **Notify the local health department** in the jurisdiction the patient resides immediately by telephone about any patients with suspected measles. If the local health department cannot be reached, contact 888-9-REPORT to reach the Epidemiologist On-Call at KDPH.
8. **Notify any location where the patient is being referred** for additional clinical evaluation or laboratory testing about the patient's suspected measles status and do not refer patients with suspected measles to other locations unless appropriate infection control measures can be implemented at those locations and during transport. The patient must wear a mask, if feasible.
9. **Instruct patients with suspected measles to inform all healthcare providers of the possibility of measles** prior to entering a healthcare facility so appropriate infection control precautions can be implemented.
10. **Make note of the staff and other patients who were in the area during the time the patient with suspected measles was in the facility** and for two hours after they left. If measles is confirmed, exposed people will need to be assessed for measles immunity.

Health care personnel with general questions about measles during regular business hours (Monday through Friday, 8:00 AM to 4:30 PM ET) should contact the KDPH Immunization Branch at (502) 564-4478.