

Delaware Health Advisory #514: Increase in Global and Domestic Measles Cases:

Ensure Delaware Children and Persons Traveling Internationally are Current on MMR Vaccination and protected against measles.

The Delaware Division of Public Health (DPH) is sending this health advisory to advise clinicians and health care partners of the need to ensure Delaware children and those traveling internationally are current on their Measles Mumps Rubella (MMR) vaccination.

Summary

The Centers for Disease Control and Prevention (CDC) immunization schedules currently recommend routine vaccination with two doses of MMR vaccine, with the first dose at 12 to 15 months of age, and the second dose at 4 to 6 years of age. However, the recommendations are different for persons travelling internationally. All individuals 6 months and older who are planning to travel internationally and who have not been fully vaccinated against measles should receive an MMR vaccine at least one month before departure. Infants ages 6 to 11 months who receive one dose of MMR vaccine pre-travel, will need two more doses of MMR vaccine later in life, the first of which should be administered when the child is at 12 through 15 months old and the second at least 28 days later. Children aged 12 months or older should receive two doses of MMR vaccine, separated by at least 28 days. Teenagers and adults without evidence of measles immunity (or history of being fully vaccinated against measles) should receive two doses of MMR vaccine separated by at least 28 days.

Background

The CDC has noted a significant increase in measles cases across the country. Measles is a highly contagious viral illness and can cause severe health complications, including pneumonia, encephalitis (inflammation of the brain), and death, especially in unvaccinated persons. Additionally, even after recovering from initial infection, severe neurologic complications of measles have been known to occur up to a decade after the initial illness. Measles typically begins with a prodrome of fever, cough, coryza (runny nose), and conjunctivitis (pink eye), two to four days before rash onset. The incubation period for measles from exposure to fever is usually about 10 days (range seven to 12 days), while rash onset is typically visible around 14 days (range seven to 21 days) after initial exposure. The virus is transmitted through direct contact with infectious droplets or by airborne spread when an infected person breathes, coughs, or sneezes, and can remain infectious in the air and on surfaces for up to two hours after an infected person leaves an area. Individuals infected with measles are contagious from four days before the rash starts through four days afterward.

As of March 28, 2024, the CDC reports 97 total United States measles cases so far for the current calendar year. This has already drastically surpassed the 58 United States measles cases reported in all of 2023. The reason for this increase is primarily due to declines in measles

vaccination rates globally and in the United States, which have increased the risk of measles outbreaks. Although the U.S. declared measles eliminated in 2000, measles cases continue to be brought into the United States by travelers who are infected while in other countries. Of the total 97 cases, 59% of cases are unvaccinated, and children under 5 years old made up 52% of all cases.

Measles is almost entirely preventable through vaccination. MMR vaccines are safe and highly effective, with one dose being 93% effective and two doses being 97% effective against measles.

Reporting

Measles is a reportable disease in Delaware. It is imperative that measles cases are reported in a timely manner because of the need for time-sensitive administration of post-exposure prophylaxis (PEP) to those exposed. All confirmed and suspected measles cases should be reported to the Delaware Office of Infectious Disease Epidemiology at 302-744-4990 (Monday to Friday, 8:00 a.m. to 4:30 p.m.), 1-888-295- 5156 (24/7) or at email at reportdisease@delaware.gov.

Recommendations for Health Care Providers

- Schools, early childhood education providers, and health care providers should work to ensure students are current with MMR vaccine.
 - o Children who are not traveling internationally should receive their first dose of MMR at age 12 to 15 months and their second dose at 4 to 6 years.
- All U.S. residents older than 6 months without evidence of immunity who are planning to travel internationally should receive MMR vaccine prior to departure. Specifically
 - o Infants aged 6 to 11 months should receive one dose of MMR vaccine before departure. Infants who receive a dose of MMR vaccine before their first birthday should receive two more doses of MMR vaccine, the first of which should be administered when the child is age 12 to 15 months and the second at least 28 days later.
 - o Children aged 12 months or older should receive two doses of MMR vaccine, separated by at least 28 days.
 - o Teenagers and adults should receive two doses of MMR vaccine separated by at least 28 days.
- Having at least one of the following is considered evidence of measles immunity for international travelers: 1) birth before 1957, 2) documented administration of two doses of live measles virus vaccine (MMR, MMRV, or other measles-containing vaccine), or 3) laboratory (serologic) proof of immunity or laboratory confirmation of disease.
- Consider measles as in the differential diagnosis for anyone with a compatible syndrome including fever ($\geq 101^{\circ}\text{F}$ or 38.3°C) with a generalized maculopapular rash with cough, coryza, or conjunctivitis. If measles is suspected, do the following:

o **Isolate:** Do not allow patients with suspected measles to remain in the waiting room or other common areas of a health care facility; isolate patients with suspected measles immediately, ideally in a single-patient airborne infection isolation room (AIIR) if available, or in a private room with a closed door until an AIIR is available. Health care providers should be adequately protected against measles and should adhere to standard and airborne precautions when evaluating suspect cases, regardless of their vaccination status.

Health care providers without evidence of measles immunity should be excluded from work from day 5 after the first exposure until day 21 following their last exposure.

o **Notify:** Immediately notify DPH's Office of Infectious Disease Epidemiology (OIDE) about any suspected case of measles to ensure rapid testing and investigation. To notify OIDE, call 302-744-4541 during normal business hours (preferred), at 1-888-295-5156 after normal business hours, or email <mailto:reportdisease@delaware.gov>

o **Test:** Follow CDC's testing recommendations and collect either a nasopharyngeal swab, throat swab, and/or urine for polymerase chain reaction (PCR) testing and a blood specimen for serology from all patients with clinical features compatible with measles. PCR is available at the Delaware Public Health Laboratory (DPHL) with authorization need from OIDE. Additional information on testing for measles may be found here:

[Measles Lab Tools | CDC](#)

o **Manage:** In coordination with the OIDE, provide appropriate measles post-exposure prophylaxis (PEP) as soon as possible after exposure to close contacts without evidence of immunity, either with MMR (within 72 hours) or immunoglobulin (within six days). The choice of PEP is based on elapsed time from exposure or medical contraindications to vaccination. Additional information on diagnosing and managing measles and measles exposures (including post-exposure prophylaxis) may be found here: [For Healthcare Professionals - Diagnosing and Treating Measles | CDC](#)

- MMR is a live vaccine and is contraindicated in persons who are pregnant and those with certain severely immunocompromising conditions. For additional information on the MMR vaccine including contraindications, see: [Routine MMR Vaccination Recommendations: For Providers | CDC](#)