

Measles Recommendations for Healthcare Providers in North Dakota

The [North Dakota Department of Health and Human Services \(HHS\)](#) has confirmed 24 cases of measles with four hospitalizations so far in 2026. The majority of cases have been in Pembina County.

The [United States](#) has confirmed 1,281 cases in 2026, with a majority of cases in South Carolina. [Manitoba, Canada](#) is currently reporting an outbreak of measles. Globally, increased measles cases are being reported in many countries.

Vaccination rates have declined in North Dakota with [80%](#) of children age 19-35 months and [89%](#) of North Dakota kindergarteners up-to-date with measles vaccination recommendations. Local rates vary greatly, with some areas more susceptible to outbreaks. Experts believe measles immunization coverage needs to be above 95% to prevent outbreaks of disease.

Healthcare providers should maintain a high awareness for measles among febrile patients with rash, especially in those without two documented doses of measles, mumps and rubella (MMR) vaccine. If healthcare providers suspect measles, the case should be isolated following airborne precautions and reported to the ND HHS immediately at 1-800-472-2180 or 701-328-2378. **Do not wait for laboratory results to report suspected cases of measles.** Additional information regarding measles testing can be found on the ND HHS measles website.

Diagnosis:

Measles is an acute disease typically beginning with fever, cough, coryza and conjunctivitis. Three to five days later, a maculopapular rash develops lasting more than three days. The rash begins on the face at the hairline and spreads downward to the rest

of the body. Patients presenting clinical symptoms compatible with measles should be asked about recent travel to areas with outbreaks in North Dakota, in the United States, as well as Canada and abroad, and about any contact with returning travelers. Measles cases have been initially misdiagnosed as Kawasaki disease, dengue and scarlet fever, among other conditions, so health care providers should consider measles in the differential diagnosis of these diseases.

The clinical case definition for measles is:

- A generalized, maculopapular rash lasting $\geq$ three days,
- A temperature $\geq 101^{\circ}\text{F}$, and
- Cough, coryza or conjunctivitis (the three Cs).

Transmission and Patient Management:

If measles is suspected, airborne infection control precautions should be followed stringently. Suspected measles patients (i.e., people with febrile rash illness) should be removed from emergency departments and clinic waiting areas as soon as they are identified and placed in a negative pressure room if one is available. If one is not available, the patient should be placed in a private room with the door closed and asked to wear a surgical mask. If possible, they should not be sent to other parts of the building for examination or testing purposes. Additionally, they should leave via a separate exit, if possible.

Measles transmission is primarily person to person via large respiratory droplets, but airborne transmission can occur. Respiratory droplets can remain infectious for approximately two hours in the environment. The incubation period for measles is usually eight to 12 days, although symptoms may occur as early as seven or late as 21 days after exposure. Infected individuals can spread measles from four days before through four days after the rash appears. They should be instructed to exclude themselves from any public settings during this time.

Because of the severity of the disease, people with measles commonly present to a physician's office or emergency room and pose a risk of transmission to other patients and healthcare personnel. Transmission risks can be minimized by ensuring that all healthcare personnel have evidence of measles immunity and that appropriate infection control practices are followed. Evidence of natural measles infection, measles immunity or receipt of two doses of measles vaccine should be documented for all healthcare workers. Healthcare facilities should recommend a dose of MMR vaccine for

unvaccinated workers born before 1957 who are at risk for occupational exposure to measles, and who do not have a history of measles disease or laboratory evidence of measles immunity.

Healthcare facilities are encouraged to establish protocols for managing patients with measles and preventing healthcare-associated transmission. Facilities should also develop procedures for notifying staff and other individuals who may have been exposed to a measles case.

Laboratory Testing:

Providers should order PCR and IgM tests on patients for whom measles is suspected. While throat or nasal pharyngeal (NP) are preferred sites for specimen collection, the virus can also be detected in urine via NAAT testing. To ensure the most accurate results, urine should only be used as a supplemental source alongside the respiratory swab. [Collecting urine specimens might improve diagnosis, especially in vaccinated individuals](#). Given the potential for long turnaround times at commercial laboratories for measles, providers are recommended to submit specimens to [ND HHS Division of Laboratory Services](#).

Treatment:

There is no antiviral treatment currently available for measles. Antibiotics may be used in cases that have developed secondary bacterial infections. Supportive care can be offered to measles patients, and resources often demand that families care for measles patients at home. In some cases, measles cases will require hospitalization. Approximately 1 in 5 individuals diagnosed with measles will be hospitalized.

Vaccination:

One dose of MMR vaccine is approximately 93% effective at preventing disease and 97% effective for two doses. MMR vaccine is routinely recommended at 12-15 months of age with a second dose at 4-6 years of age.

Pembina County, North Dakota is currently considered an outbreak, so early and accelerated recommendations outlined below apply.

Infants younger than 6 months old:

Infants younger than 6 months are not recommended to receive MMR vaccine.

Infants age 6 through 11 months:

Those who reside in or are traveling to areas experiencing outbreaks or internationally are recommended to receive an early dose of MMR vaccine. Measles, Mumps, Rubella, and Varicella (MMRV) vaccine should not be utilized in infants under 12 months of age. Children who receive a dose of MMR prior to 12 months should still receive two age-appropriate doses of MMR vaccine at least 28 days apart after their first birthday.

Children 12 months – 17 years:

Any child 12 months – 17 years old who has not previously received any dose of MMR vaccine is recommended to be vaccinated immediately, regardless of travel or residence.

For children 12 months – 17 years of age residing in or traveling to areas experiencing outbreaks or internationally, a second dose of MMR vaccine is recommended to be administered at least 28 days after receipt of the first dose of MMR vaccine. No additional or booster doses of MMR are recommended for children ages 12 months – 17 years who have received two doses of MMR after 12 months old.

Adults:

All adults born before 1957 were likely exposed to measles as a child and are considered immune to measles. Unless these individuals work in health care, there are no recommendations for these individuals to receive MMR vaccine.

Adults born between 1957 and 1968 who have no documented doses of MMR vaccine or who received doses of inactivated MMR vaccine and reside in or are traveling to areas experiencing outbreaks or internationally should receive the first dose of MMR vaccine immediately followed by a second dose at least 28 days later. Adults born in this age group who have one dose of live-attenuated MMR vaccine and reside in or are traveling to areas experiencing outbreaks or internationally should receive a second dose of MMR vaccine. There are no booster or additional doses recommended after an individual has received two doses of MMR vaccine.

Adults born after 1968 residing in or traveling to areas experiencing measles outbreaks, or who are traveling internationally who have one documented dose of MMR vaccine should receive a second dose of MMR vaccine. There are no booster or additional doses recommended after an individual has received two doses of MMR vaccine.

Most adults born after 1968 who do not reside in or are traveling to outbreak areas or internationally only need one dose of MMR vaccine to be considered up to date. Exceptions to this include college students and healthcare workers.

Unknown Vaccination Status:

Anyone who does not know their vaccination status or is unable to find their record may receive a dose of MMR.

Reporting:

Healthcare providers should heighten their suspicion of measles and report any suspect cases of measles immediately to the ND HHS. Do not wait for laboratory results to report suspected cases of measles. Timely reporting of suspected measles cases will allow the ND HHS to investigate cases and contacts and make recommendations to reduce transmission in the community. As mandated by North Dakota law, any incidence of measles must immediately be reported to the ND HHS by phone at 701.328.2378 or toll-free at 800.472.2180.

Access to Immunization Records:

Immunization records for North Dakota residents can be accessed at hhs.nd.gov/IRR or by contacting a healthcare provider.

Measles Antibody Testing:

CDC does not recommend measles antibody testing after MMR vaccination to verify the patient's immune response to vaccination. Appropriately documented doses of MMR vaccine should be considered as proof for evidence of immunity.

For more information about measles in North Dakota, please visit the North Dakota Immunization Unit website at <https://www.hhs.nd.gov/immunizations/measles>.