Mitigating measles: Managing the reemergence (Print)

A highly infectious virus, measles, has reemerged in the United States in recent years after being thought eradicated in 2000.

Measles can spread through respiratory droplets (like when you cough and sneeze), and it only takes a small amount of the virus to cause infection in others.

"It can remain in an area for an hour or two after the infected person has left the area. The difference: in a setting that you have many people in a convalescent center, social center or shelter, you'd be concerned about exposure to the unvaccinated people," says Doug Kasper, MD, an infectious disease specialist with OSF HealthCare.

The World Health Organization (WHO) calls measles a "serious airborne disease," reporting 107,500 measles deaths globally in 2023. Most deaths were in children under the age of five. The WHO partially blames the COVID-19 pandemic for the reemergence of measles globally, saying immunization rates and surveillance declined because of it. In 2023, 10.3 million measles cases were reported worldwide, a 20% increase from 2022.

In 2024, the Centers for Disease Control and Prevention (CDC) reports 280 measles cases have been reported in the United States from 32 jurisdictions, including Washington D.C.

Sixteen outbreaks have been reported this year, compared to four in 2023. Outbreaks are when there are three or more related cases. The CDC adds that 40% of the reported 280 cases ended up in the people being hospitalized.

Who is most at risk?

"The particular populations that we are most concerned about if they were to become exposed to measles are pregnant women or children under the age of five. They can have more severe clinical outcomes," Dr. Kasper says. "We are not seeing any concern for measles in Central Illinois. There has been sporadic reporting of cases by the Illinois Department of Public Health out of Chicago. But the unique details of those cases have not been shared so far. Where did the people travel from? Had they been previously vaccinated? Or were there exposures in the household? We await some guidance if there is a unifying feature among them."

Measles outbreaks in Illinois

This fall, the Pan American Health Organization, the WHO'S branch in the Americas Region, issued an epidemiological alert for measles cases in the Americas, with the U.S. accounting for the most cases.

Illinois and Minnesota have reported the most measles cases in the U.S. this year.

In March, the Chicago Department of Public Health (CDPH) reported a measles outbreak in a migrant shelter in the city's Pilsen neighborhood, located in the Lower West Side. The CDPH considered the outbreak "contained" in late May, crediting a rapid vaccination response.

Vaccine mitigation

One dose of the measles, mumps and rubella (MMR) vaccine is 93% effective, while two doses jump to 97% effective. If you've been vaccinated against measles, you're unlikely to have any symptoms at all. The measles vaccine is given alone or often combined with vaccines for mumps, rubella and/or varicella.

"Fortunately, we have widespread vaccination as a standard part of medical care in the United States. As children we receive two shots of the measles, mumps and rubella (MMR) vaccine starting at age one. The second shot will be before entering school at age four or five. The vaccine is highly effective at preventing measles. So,

while measles is highly infectious, we have a nationwide response to prevent outbreaks of infection," Dr. Kasper says.

The recommendation is to complete your childhood vaccine series, which Dr. Kasper calls "very safe, durable and long-lasting."

Measles symptoms

Symptoms for unvaccinated people:

- Upper respiratory infections (resulting in a cough or runny nose)
- Followed by fever or rash – fever can be very high (103-104 degrees)
- Blue spots in the mouth or along the gumline (seen a week into infection)
- Red and watery eyes
- Small white spots inside the cheeks
- Illness can lead to meningitis or encephalitis

Because of the potential lead to meningitis or encephalitis, Dr. Kasper says getting vaccine protection is the definitive recommended option instead of developing natural immunity. He adds neurological effects down the road are also a concern.

If families with children under one year of age plan to travel outside the country or to a large metropolitan area in the U.S. with low or no measles vaccination rates, parents should speak to their child's pediatrician. The child's doctor may recommend starting the measles vaccinations as early as 6 months of age. Currently, Dr. Kasper says there is no concern for widespread measles activity in schools, senior living communities or the general public.