



Health Alert



City of Chicago
Brandon Johnson, Mayor

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Chicago Department of Public Health
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Increase in Varicella in Chicago Primarily among People Living in New Arrivals Shelters

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Summary and Action Items

- CDPH has detected a large increase in varicella during 2023, esp. in the past four weeks.
- Most cases have been in people newly arrived from the U.S. Southern Border living in shelters.
- Use every opportunity to make sure patients are up to date on vaccinations, including varicella.
- All susceptible persons exposed to varicella should be offered post-exposure prophylaxis. Certain high-risk individuals with varicella infection should be offered antiviral treatment.
- Report all varicella cases to the Chicago Department of Public Health within 24 hours.

BACKGROUND

Chicago Department of Public Health (CDPH) has identified nearly 400 cases of varicella (chickenpox) among Chicago residents since January 1, 2023. This is by far the largest number of varicella cases detected by CDPH in any year since 2005 when CDPH began performing case-based varicella surveillance. During 2005–2022, the median annual number of varicella cases was 53 (range = 22–78). Nearly 38% of total cases in 2023 have been reported to CDPH since November 1 (Figure). Most (81%) cases reported in 2023 have occurred in people who have recently arrived in Chicago from the U.S. Southern Border and who are living in congregate settings such as shelters or other respite centers. Among cases reported in 2023, 80 (20%) have been seen in an emergency department, and 19 (4.8%) have been hospitalized for their infection; none have died.

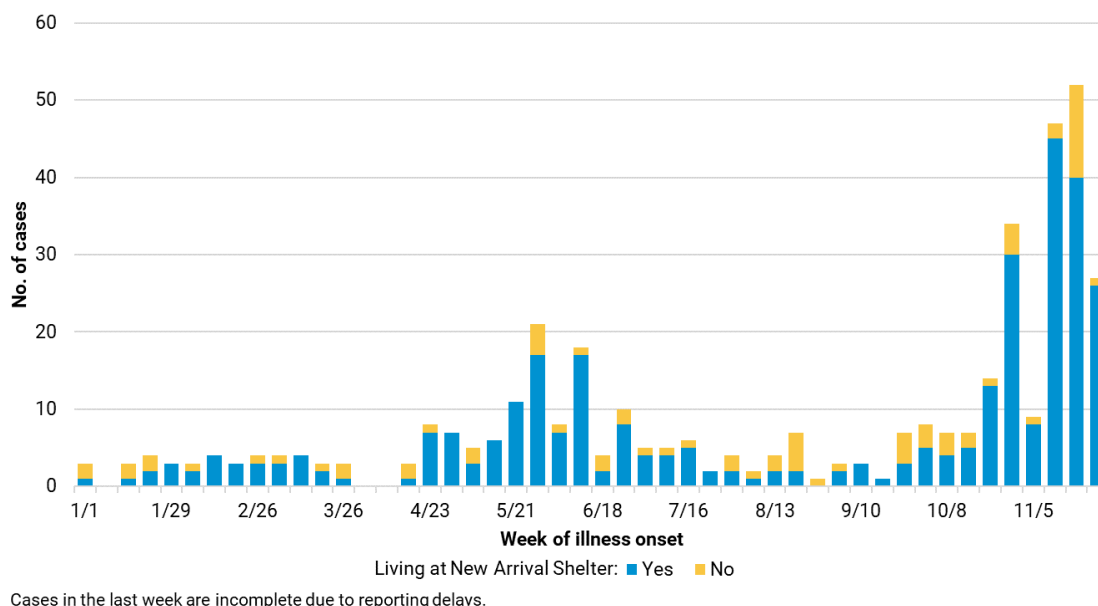


Figure: Varicella cases reported in 2023 by new arrival shelter status.

Among 322 cases identified in people staying in new arrival shelters, 90% have occurred among completely unvaccinated individuals. Median elapsed time between shelter intake and rash onset is greater than one incubation period (21 days), indicating that exposures and viral transmission are occurring after arrival in Chicago. Cases in this population have occurred among both children and adults; median age at rash onset is 17 years (IQR = 9–26), and nearly half of cases have occurred among adults 18 years and older. Of cases in new arrivals with known country of origin, 88% have been among people who have emigrated from Venezuela, where there is no universal varicella vaccination program.

CLINICAL INFORMATION

Varicella is highly contagious, especially within congregate settings. Symptoms of varicella classically include fatigue, fever, and a diffuse itchy maculopapular rash that progresses to a vesicular rash before crusting over into scabs.

Varicella is often mild and self-resolving in young healthy children. However, certain groups are at higher risk for severe disease, including infants, adults, immunocompromised individuals, and pregnant persons. The most common complications are bacterial infections of the skin and soft tissue (in children) and pneumonia (in adults). Other complications include encephalitis, sepsis, and hemorrhagic conditions. If a pregnant person gets varicella in the first or early second trimester, their baby has a 0.4–2.0% risk of being born with congenital varicella syndrome.

Vaccination is the most effective way to prevent varicella. Healthcare providers should use every medical encounter to make sure their patients are up to date with age- and season-appropriate vaccines, including varicella. The current varicella vaccines approved for use in the U.S. contain live, attenuated varicella-zoster virus and are approved for people 12 months of age and older. Varicella vaccines have been proven both safe and highly effective: just 1 dose is 82% effective at preventing any form of varicella and almost 100% effective against development of severe disease. A 2-dose series is 92% effective at preventing all forms of varicella.

Most Chicagoans are protected from varicella through routine childhood vaccination. Maintaining high vaccination coverage among the population will ensure that vaccine-preventable diseases continue to be rare in the U.S. See [New Arrivals Information For Chicago Health Care Providers](#) for additional guidance related to immunizations for new arrivals.

Polymerase chain reaction (PCR) testing is the preferred method to confirm varicella infection. Laboratory-confirmation is especially important for patients presenting with mild or atypical symptoms, and when confirming breakthrough infections.

Antiviral treatment with acyclovir or valacyclovir is recommended for certain individuals with varicella infection at risk for moderate or severe disease. For maximum benefit, antiviral therapy should be given within the first 24 hours after the varicella rash starts. Groups at increased risk include:

- Healthy people older than 12 years of age
- People with chronic cutaneous or pulmonary disorders
- People receiving long-term salicylate therapy
- People receiving short, intermittent, or aerosolized courses of corticosteroids

Intravenous antiviral therapy is recommended for severe diseases and for varicella in immunocompromised hosts. Some experts also recommend antiviral therapy for pregnant women with varicella, especially during the second and third trimesters.

Post-exposure prophylaxis should be offered to all exposed persons without evidence of immunity:

- Immunocompetent individuals 12 months and older without contraindications for varicella vaccine should be offered varicella vaccine as soon as possible and ideally within 5 days of exposure.
- People who are at high risk for severe varicella and complications and for whom varicella vaccine is contraindicated (i.e., pregnant persons, immunocompromised persons, and certain infants) should receive VariZIG within 10 days of exposure.

Isolation of patients with varicella is important to prevent transmission to others. Patients with varicella are considered contagious from 1–2 days before rash onset until all their lesions have fully crusted; they should avoid contact with others, especially those at increased risk of severe diseases, during this time. Vaccinated people might develop lesions that do not crust. These people are considered contagious until no new lesions have appeared for 24 hours. In healthcare settings, remove patients from waiting rooms and other public areas as soon as possible and place them in a negative air-flow room if available. Providers should follow standard precautions plus airborne and contact precautions until lesions are dry and crusted. Children are required to be excluded from school and childcare settings until all lesions have fully crusted or 5 days since rash onset, whichever is later.

If you are a healthcare provider who has diagnosed someone living in a congregate setting (i.e., shelter) with varicella, contact the EOC Health/Medical Team to coordinate isolation at (773) 519-2920.

Report suspected or confirmed cases of varicella to CDPH within 24 hours; do not wait for laboratory confirmation. If you have access to I-NEDSS (Illinois Notifiable Electronic Disease Surveillance System), please report via that electronic system. For all others, use the [Online Case Reporting Form](#) (preferred) or contact the CDPH Disease Reporting Hotline at 312-743-9000.

Resources:

CDPH: Varicella (Chickenpox): <https://www.chicagohan.org/diseases-and-conditions/varicella>

CDC: Varicella Overview: <https://www.cdc.gov/chickenpox/about/index.html>

CDC: Varicella Information for Healthcare Professionals:
<https://www.cdc.gov/vaccines/vpd/varicella/hcp/index.html>

CDC: Catch up Immunization Schedule for Children 18 years and younger:
<https://www.cdc.gov/vaccines/schedules/hcp/imz/catchup.html>

Immunize.org: Varicella Resources: <https://www.immunize.org/vaccines/a-z/varicella/>