Health Officer Report 11/14/22

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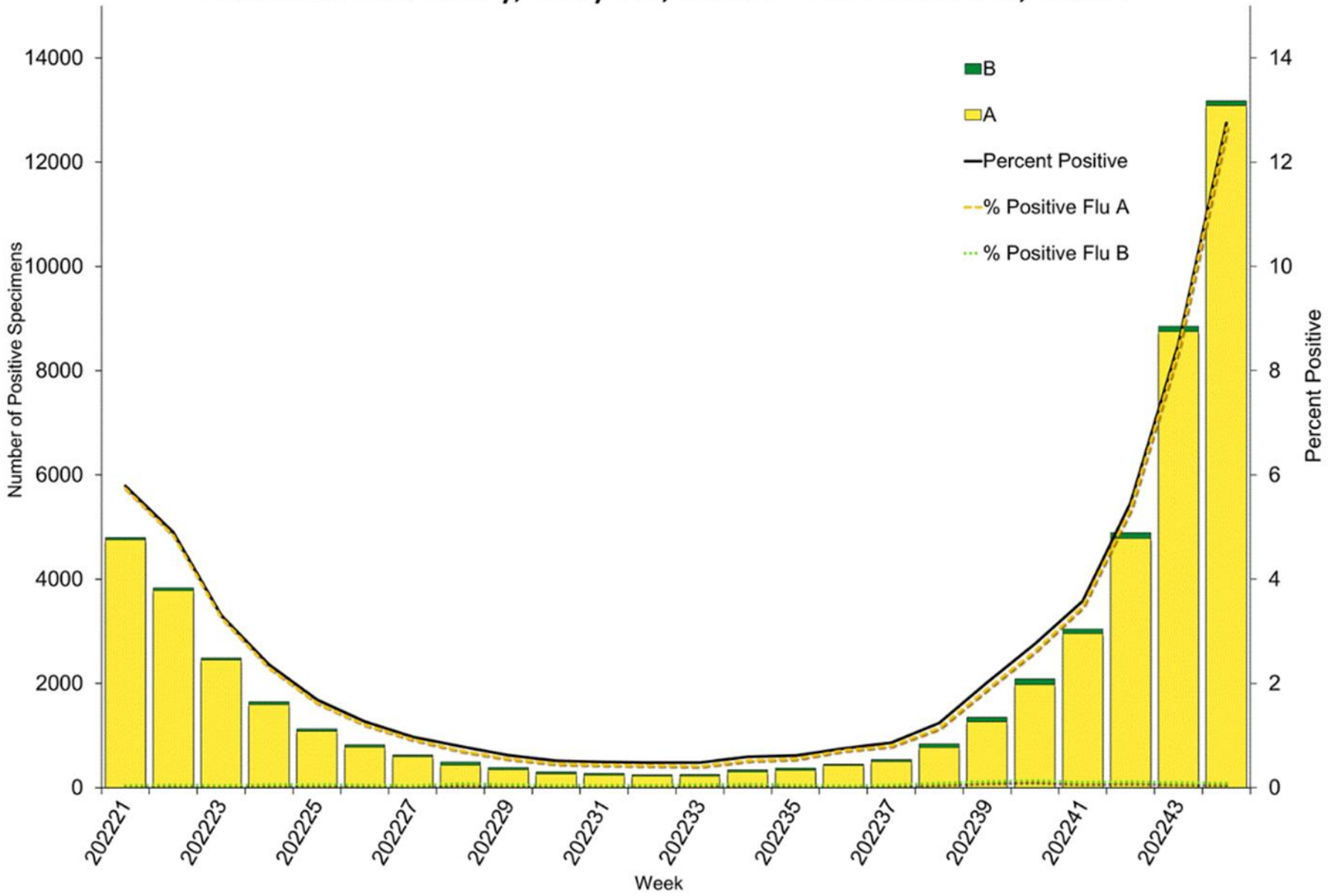
Fargo Cass Public Health

Influenza Rates Rising

- CDC reports continued early increases in seasonal flu activity nationwide
- Highest levels reported in Southeast and Southcentral parts of U.S., followed by Mid-Atlantic and Southcentral West Coast areas
- 3 new pediatric deaths reported for Week 44 (ending Nov 5)
- From flu, thus far this season, CDC estimates:
  - 2.8 million illness
  - 23,000 hospitalizations
  - 1300 deaths

Influenza Positive Tests Reported to CDC by U.S. Clinical Laboratories, National Summary, May 22, 2022 – November 5, 2022



Influenza Rates Rising

Cumulative flu hospitalization rates higher than previous seasons during the same time

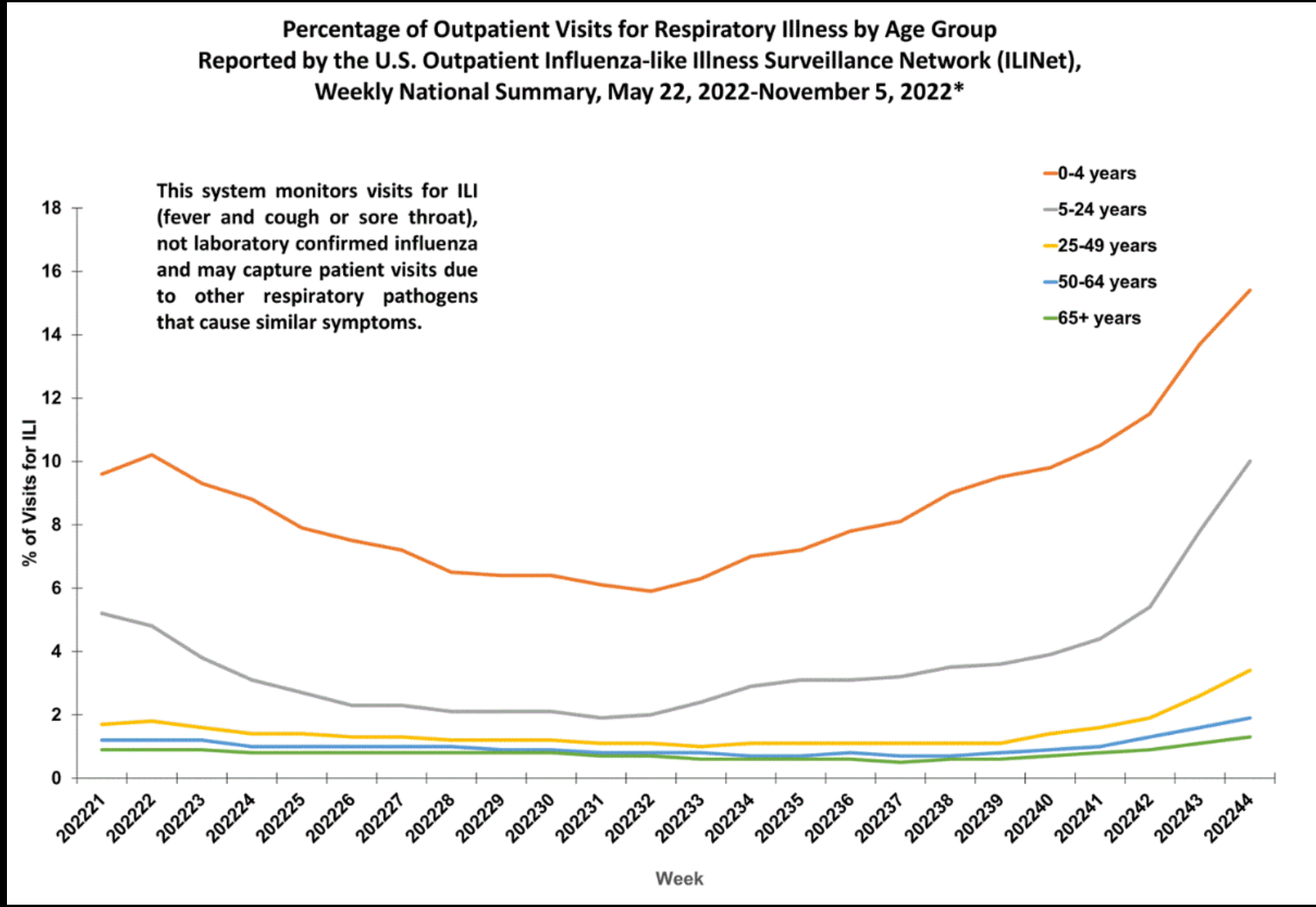
- Highest rates seen in Week 44 since 2010-11 season

The best way to protect against influenza = annual flu vaccine

- Everyone 6 months and older recommended to receive
- Vaccination helps prevent infection and significantly lessens risk of serious disease outcomes

Prescription antiviral flu medications can be helpful to populations who qualify and when started as early as possible

Young children being hit hardest with respiratory illnesses

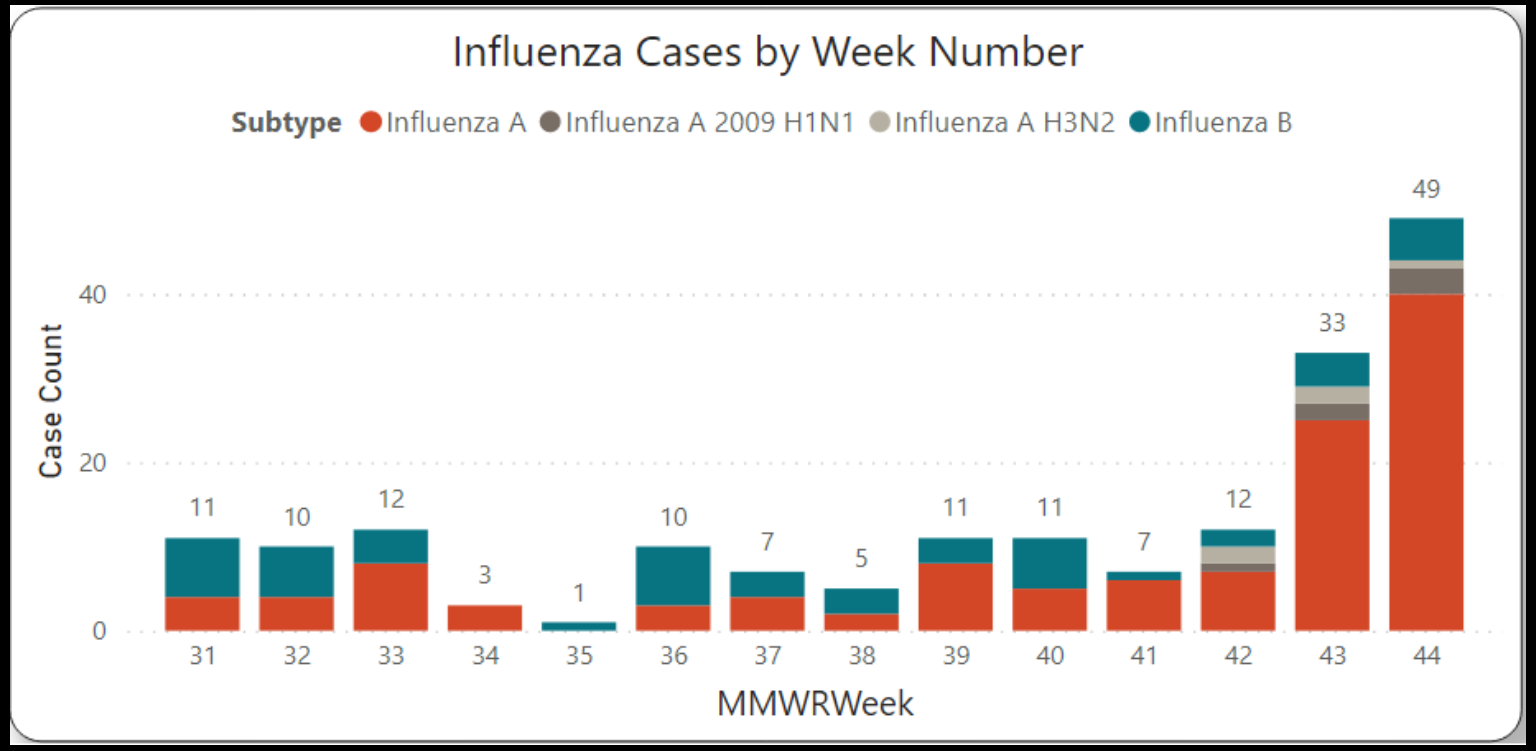


Influenza in North Dakota

- Flu activity continues to rise, increasing from previous week
- Other markers (outpatient ILI and school absenteeism) also climbing
- NDDHS reports increasing influenza hospitalization
- Overall, respiratory disease from flu, COVID-19, RSV remains elevated

	Last Week	Season Total
New Influenza Cases:	0	182
Outpatient Visits for Influenza-like Illness:	0.00%	2.45%
Laboratory Specimens Positive for Influenza:	0.00%	0.90%
Percentage of Students Absent from School:	0.00%	11.94%
New Hospitalizations due to Influenza:	0	4
New Deaths due to Influenza:	0	0

Influenza in North Dakota

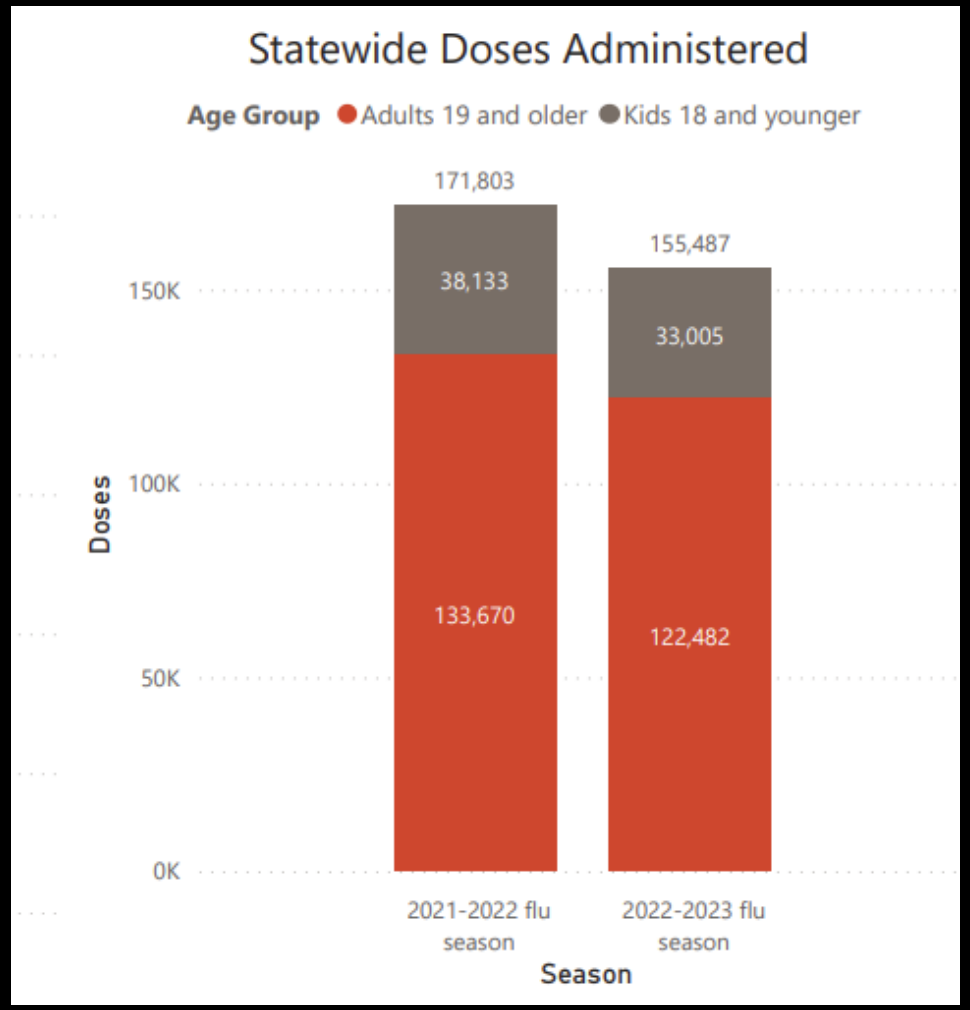


For info on how and where to get a flu vaccine, please visit:

Immunizations | Department of Health (nd.gov) or

Vaccines.gov - Search for flu vaccine locations

Meanwhile, N.D. Reports Declining Flu Vaccination Rates



- Seasonal flu vaccination rates drastically lower the past few flu seasons
- N.D. currently administering thousands of doses less than previous seasons’
- Vaccination of the population is vital before outbreaks occur in our state

Public Health Success Story: 25 Years of Varicella Vaccination Program

1995: U.S. first country to include varicella vaccine as part of routine childhood immunizations

Since then, chickenpox morbidity and mortality substantially improved

Continued vigilance necessary to ensure vaccine coverage remains high, nationwide and in N.D.

Chickenpox Disease Burden

Chickenpox previously important medical and societal health burden

Before vaccine, almost universal childhood illness

Prior to Vaccine in the U.S. each year there were:

4 million cases	10,5000 – 13,500 hospitalizations	100 – 150 deaths	Children > 90% cases, 2/3 hospitalizations, ½ deaths

Chicken pox
Varicella

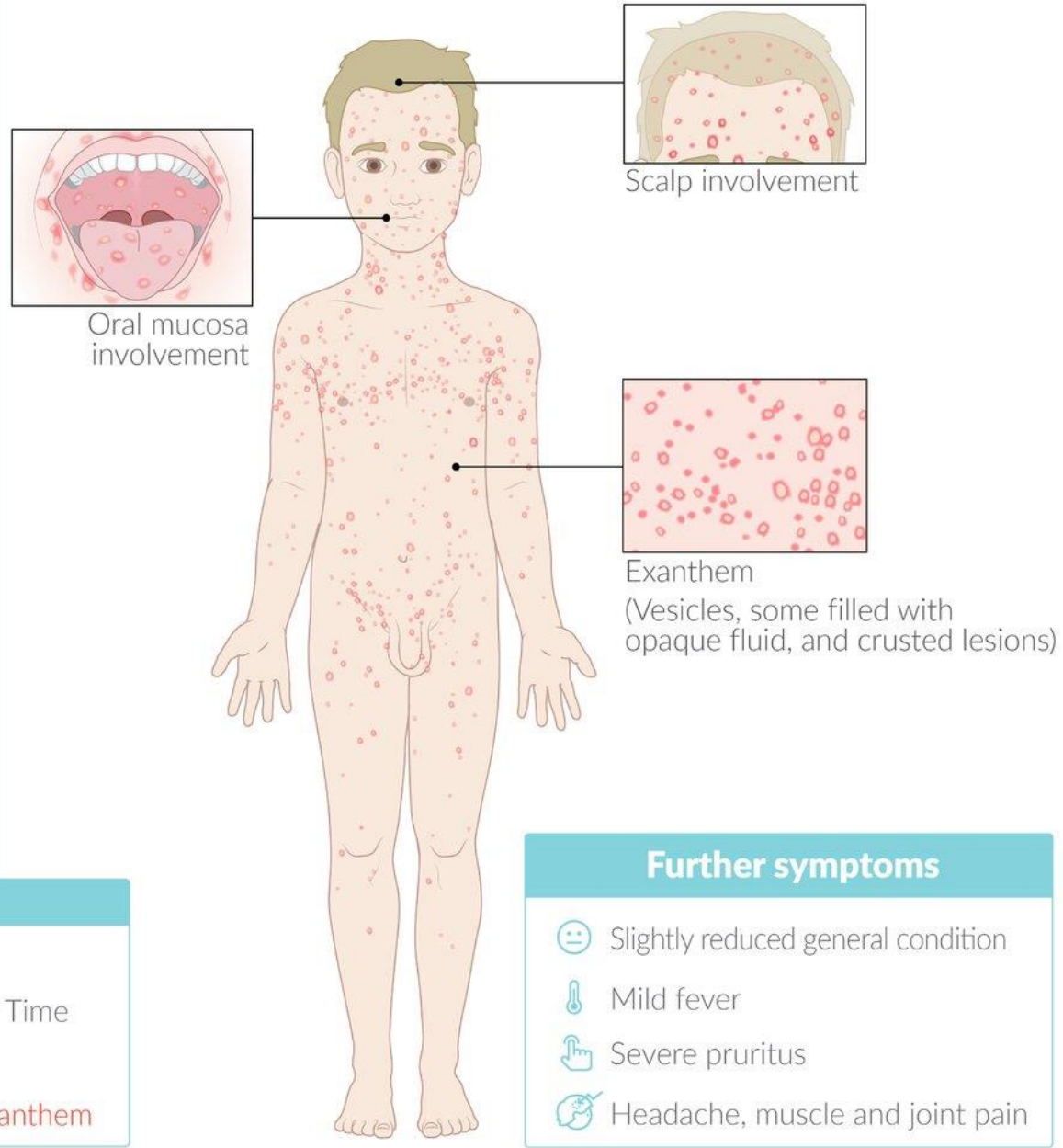
Pathogen
Varicella-zoster virus

Course
Widespread vesicular rash with lesions beginning as macules and rapidly becoming papules
Simultaneous occurrence of various rash stages
Remission of exanthem after 8 days

Complications
Bacterial superinfection
Meningitis, acute cerebellar ataxia, encephalitis
Herpes zoster (Shingles) from virus reactivation
Congenital varicella syndrome

Treatment
Symptomatic

Vaccine
Yes

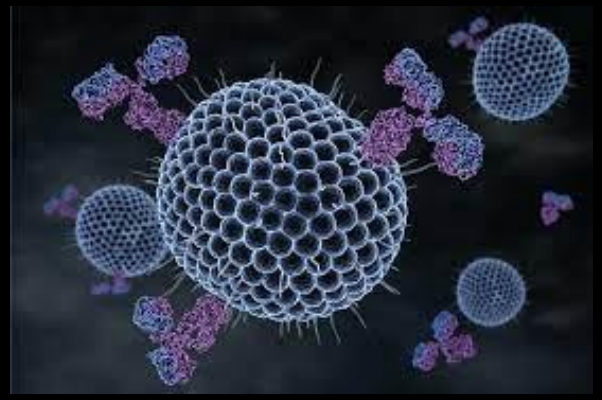


Course of disease

Further symptoms

- Slightly reduced general condition
- Mild fever
- Severe pruritus
- Headache, muscle and joint pain

Varicella Complications



Varicella infection during first half of pregnancy can lead to congenital varicella syndrome (severe birth defects)

Varicella-zoster virus stays dormant in body and reactivates causing zoster or shingles in 1:3 older people

Secondary complications of varicella:

*These risks especially important for immunosuppressed

- Invasive group A streptococcus
- Pneumonia
- Neurologic sequalae (encephalitis, cerebella ataxia)
- Bleeding problems
- Sepsis

Effects of Vaccination Program

From 1995 – 2019, steepest disease reduction seen in people < 21 years

- 97% decrease in hospitalizations
- 99% decline in varicella deaths

Shingles risk lower in both healthy and immunocompromised kids

- 80% lower in healthy vaccinated vs unvaccinated

Childhood varicella vaccine anticipated to protect against shingles later in life

Breakthrough Cases

- 2 doses of vaccine > 90% effective at preventing varicella
- Break through cases do occur; symptoms much milder and may be clinically confused with other vesicular or maculopapular rashes

Importance of Vaccination

Illness is disruptive: puts vulnerable in society at risk; families miss school and work; loss of income; risk of shingles later in life

Antiviral treatment effective only if given early, expensive, and recommended only for high-risk patients

Vaccination is primary means of disease control and high coverage critical in reducing varicella burden

COVID-19 pandemic created delays in many routine immunizations, including varicella, across the U.S. and in N.D.

Public health must continue to ensure high rates of this safe and effective vaccine to carry on this public health victory

Resources

- Weekly U.S. Influenza Surveillance Report | CDC
- Influenza | Department of Health (nd.gov)
- Public health success story: 25 years of varicella vaccination program | AAP News | American Academy of Pediatrics