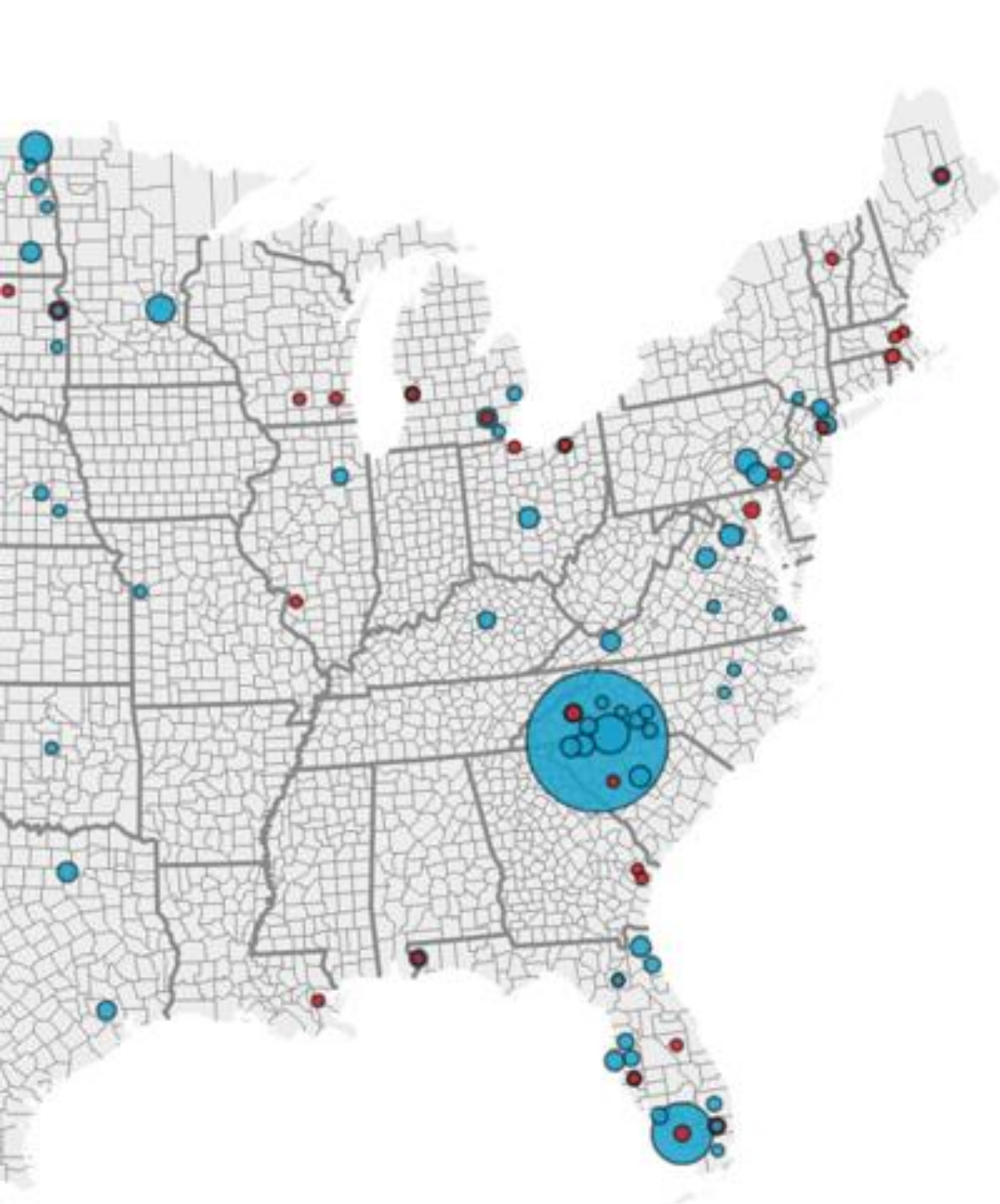




Measles Surveillance in Wisconsin

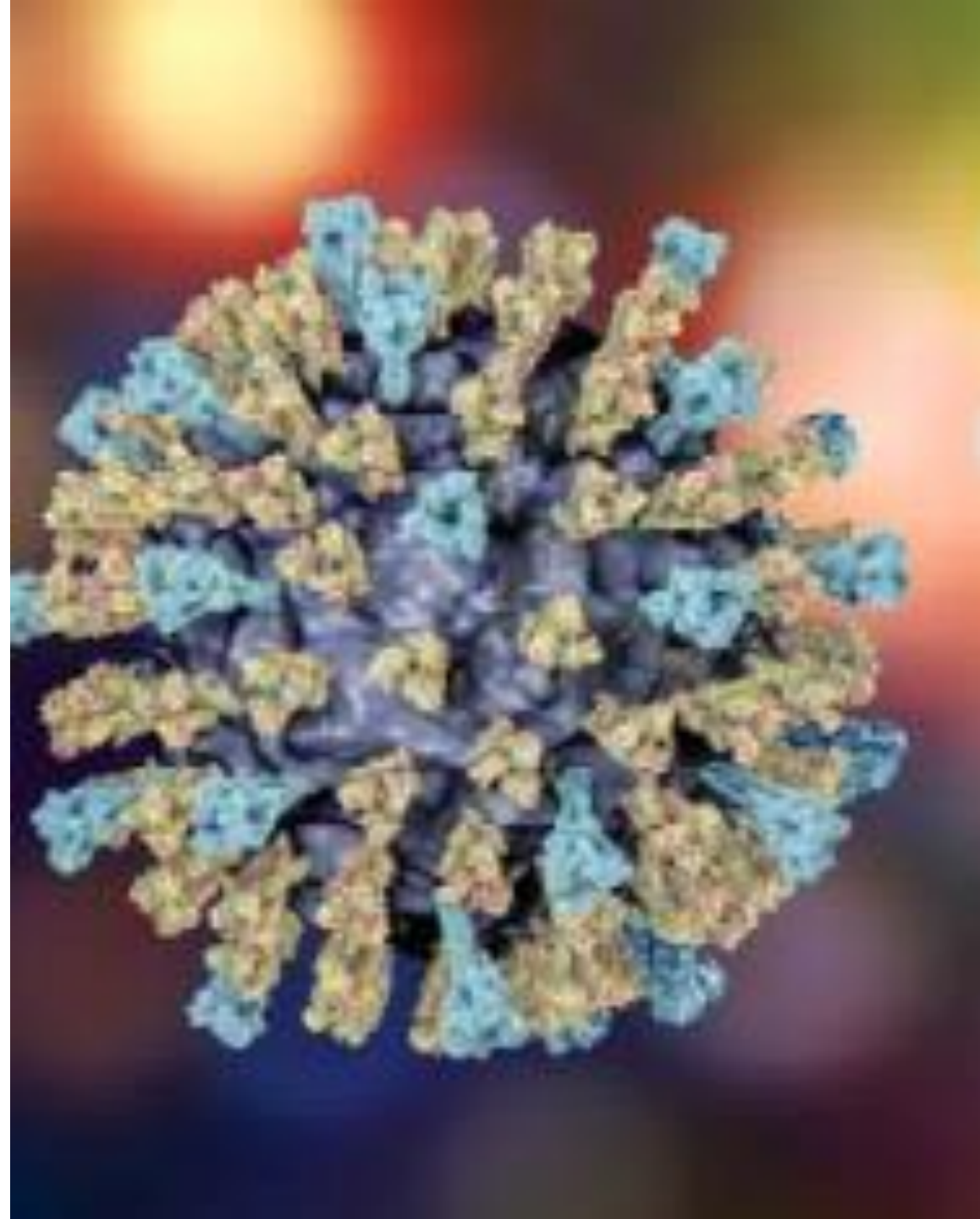
Stephanie Schauer, Ph.D.
DHS Immunization Program Director

WSLH Virology Conference, Madison, WI
May 28, 2026

Division of Public Health

Agenda

- Background
- National Situation
- Wisconsin Cases
- Response
- Monitoring
- Wastewater Monitoring

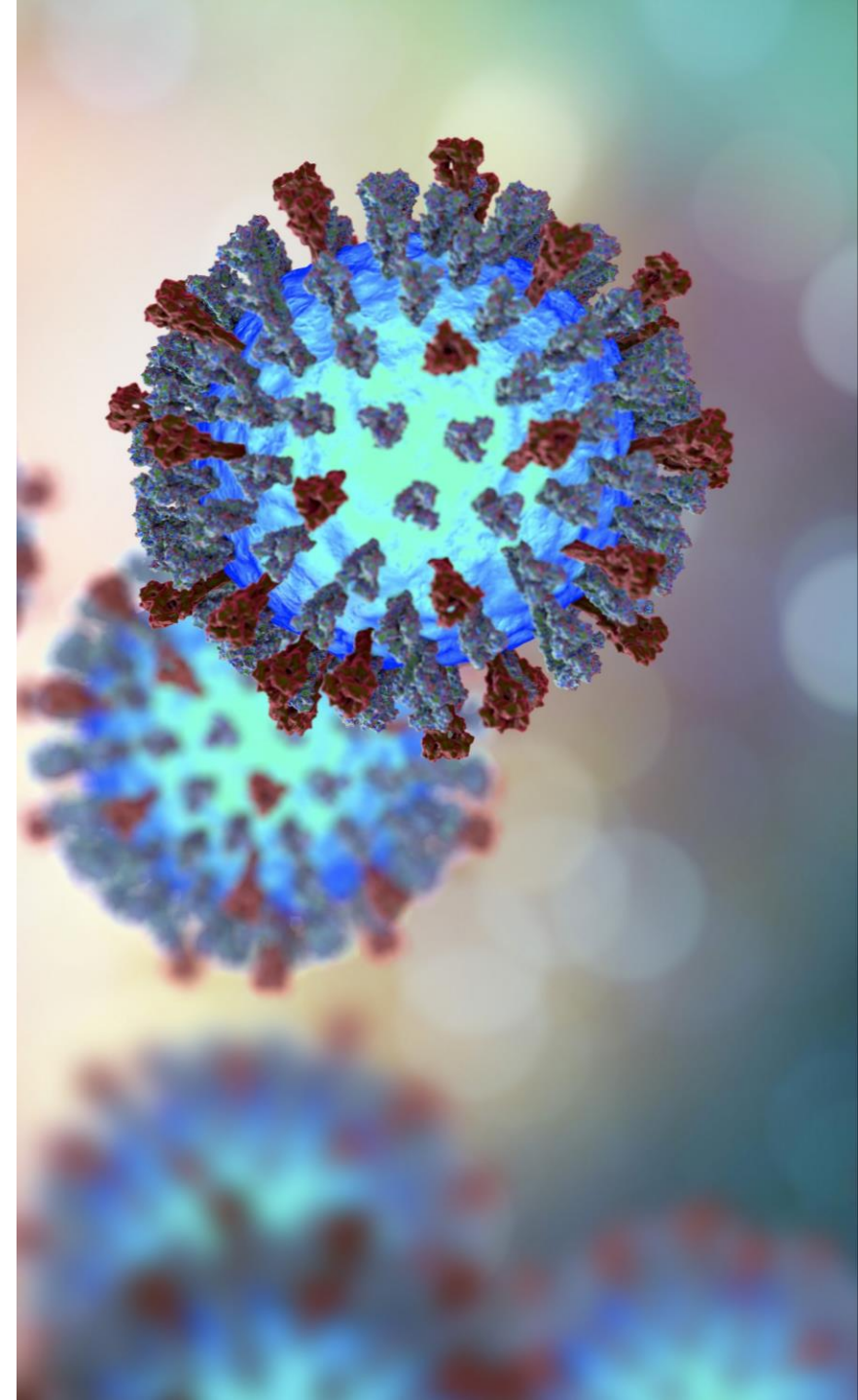


Background



The Measles Virus

- Paramyxovirus
- Single stranded negative sense RNA
- Highly contagious—more than a 90% secondary attack rate among susceptible individuals in close-contact settings



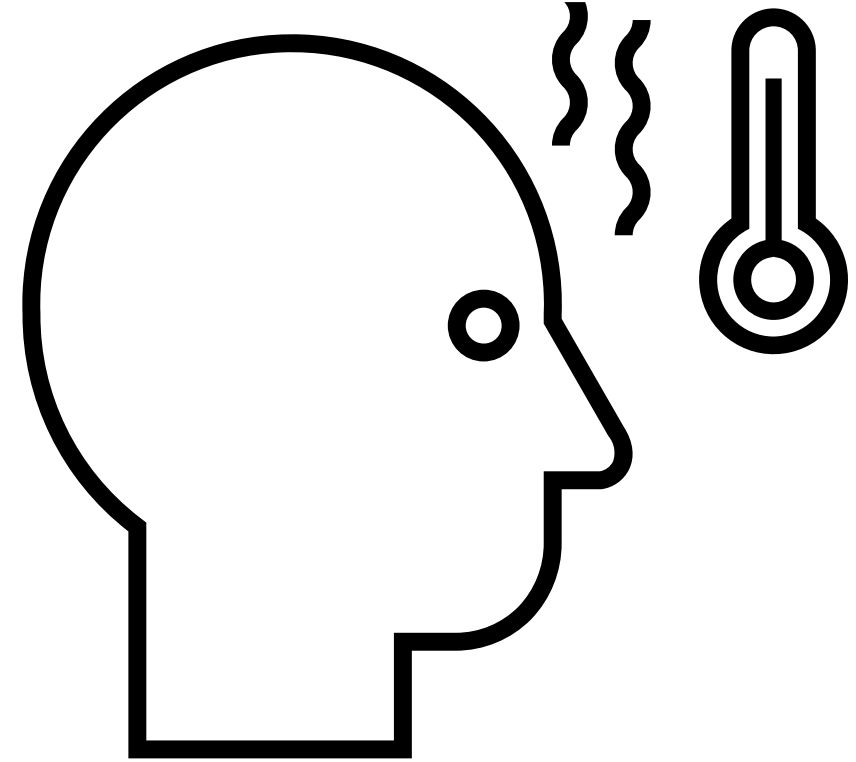
Clinical Picture

- Incubation period is 10–14 days.
- Starts with a prodrome characterized by fever (increases stepwise, peaking as high as 103 to 105 F), cough, runny nose, and conjunctivitis.
- The rash is maculopapular, starting at the hairline and working its way down the entire body.
- Infectious from 4 days before the rash to 4 days after.



Complications

- Diarrhea
- Ear infections
- Pneumonia
- Encephalitis
- Immune amnesia
- Subacute Sclerosing Pan Encephalitis (SSPE)
- Death



Impact of Measles

- In the pre-vaccine era, infection was nearly universal.
- More than 90% of individuals were immune due to past infection by 15 years.
- Before widespread vaccination, major epidemics occurred every 2–3 years and caused an estimated 2.6 million deaths each year.
- Estimated 95,000 people (worldwide) died from measles in 2024 and most were children under the age of 5 years.

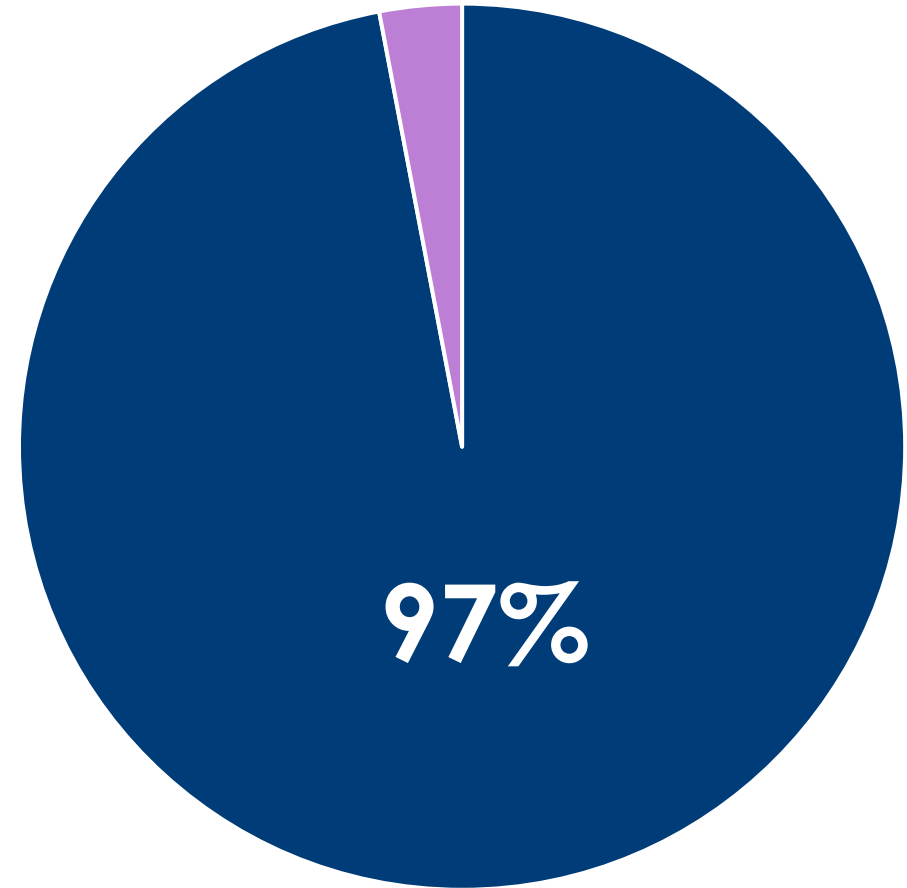
Measles Vaccine

- First live attenuated vaccine licensed in 1963.
- In 1971 combined with mumps and rubella for MMR vaccine.
- The combination vaccine has been used for over 50 years.
- Over 575 million doses administered worldwide.

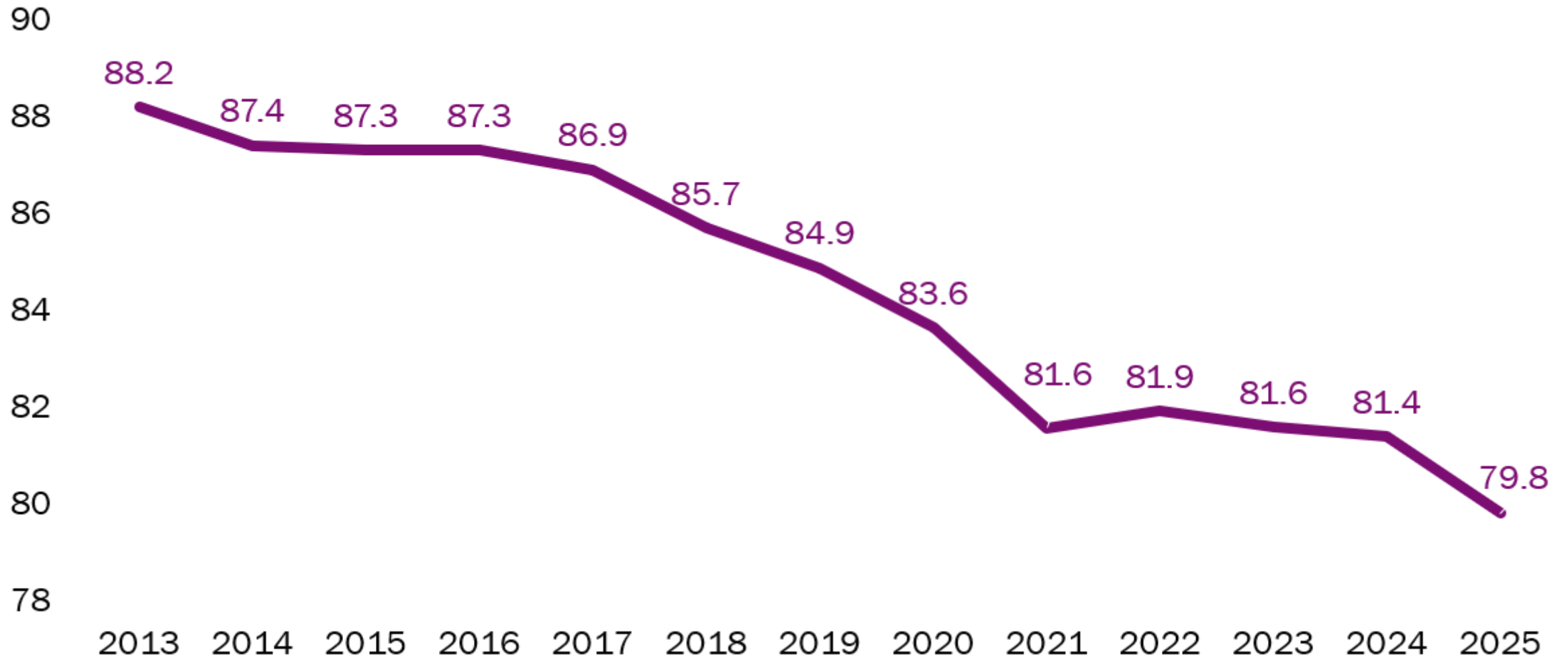


Measles Vaccine

Two doses are **97%** effective and generally provide life-long immunity.



MMR Vaccination Coverage by 24 Months, 2013–2025



2025 MMR Vaccination Rates-WI

79.8%

of **2-year-olds**
received at least 1
dose.



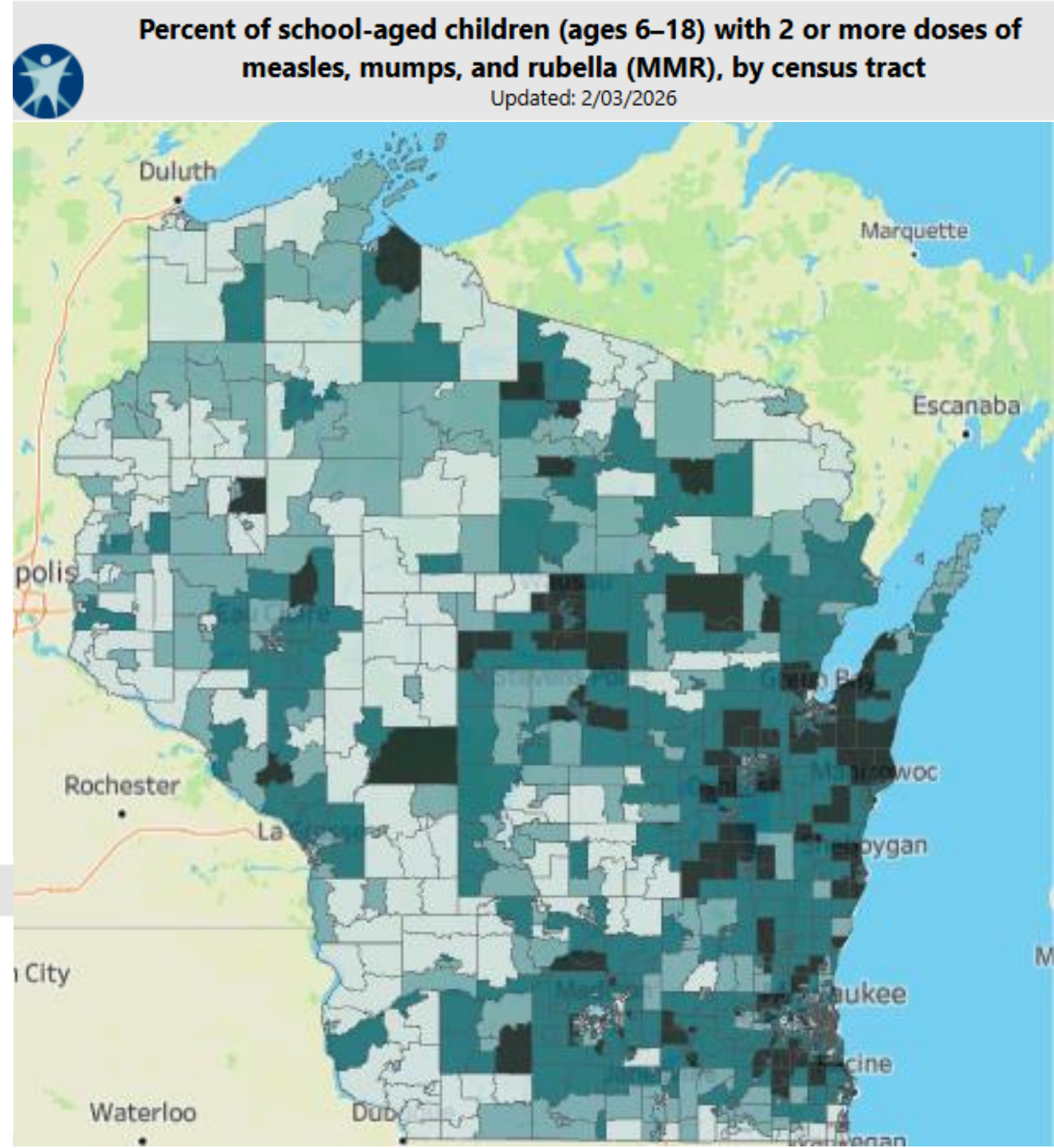
83.7%

Of **6–18-year-olds** had
received at least 2
doses.



- 22% of census tracts have coverage less than 80%.
- 12 census tracts have coverage less than 50%.

Percent 2 doses MMR



National Situation

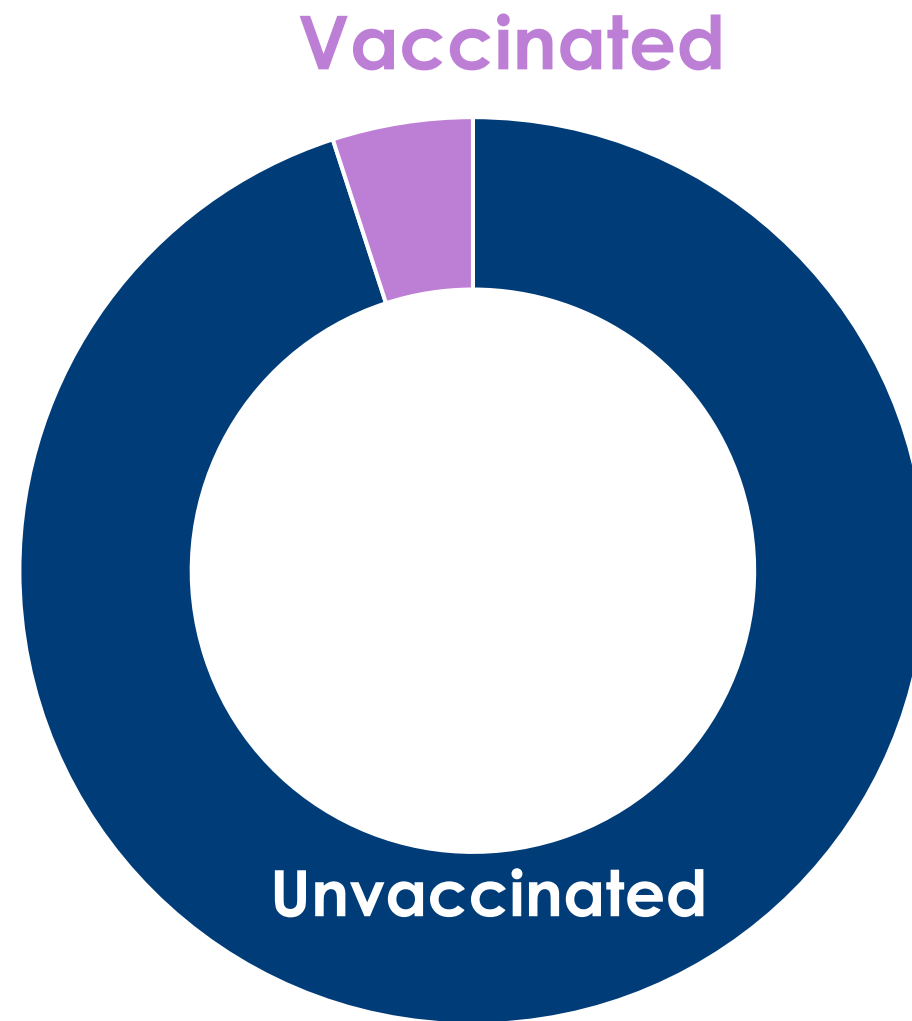


National Situation

- In 2025, there were 2,288 cases of measles reported by 45 jurisdictions.
- In 2026, 1,893 cases have been reported by 40 jurisdictions.
- 21% of cases are under 5 years of age and 51% are school-aged children (5–19 years).

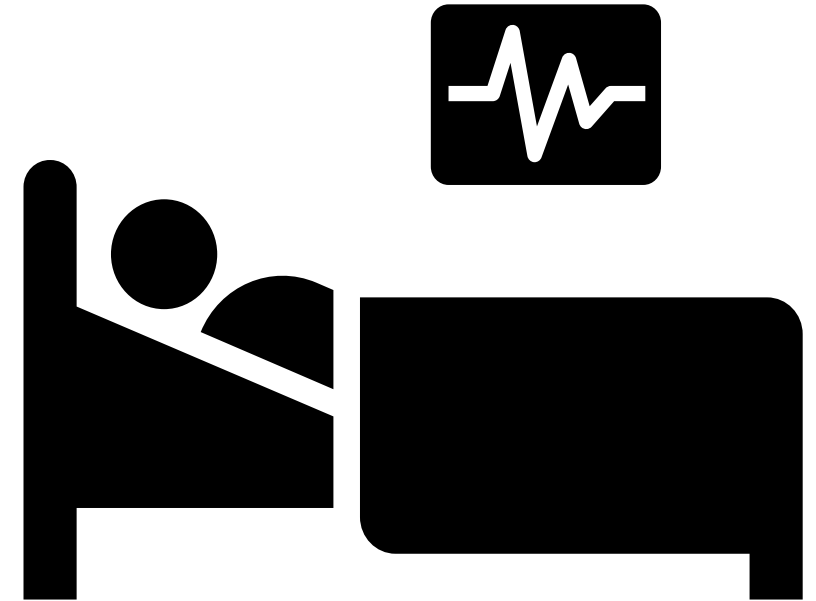
U.S. Cases Vaccination Status

92%
are unvaccinated



U.S. Hospitalization Status–2026

- 6% of cases have been hospitalized.
- 10% of cases less than 5 years of age have been hospitalized.



Wisconsin Cases



2025 Measles Oconto Outbreak

36 total cases (15 adults, 21 children)

0 were vaccinated

5 with complications (all adults)

2 hospitalizations

0 deaths





Measles in Wisconsin

Updated 10/7/2025

[Data by Week](#)[Data by Age](#)[Data by County](#)

Case Count Total

36

Unvaccinated

36 (100%)

Hospitalizations

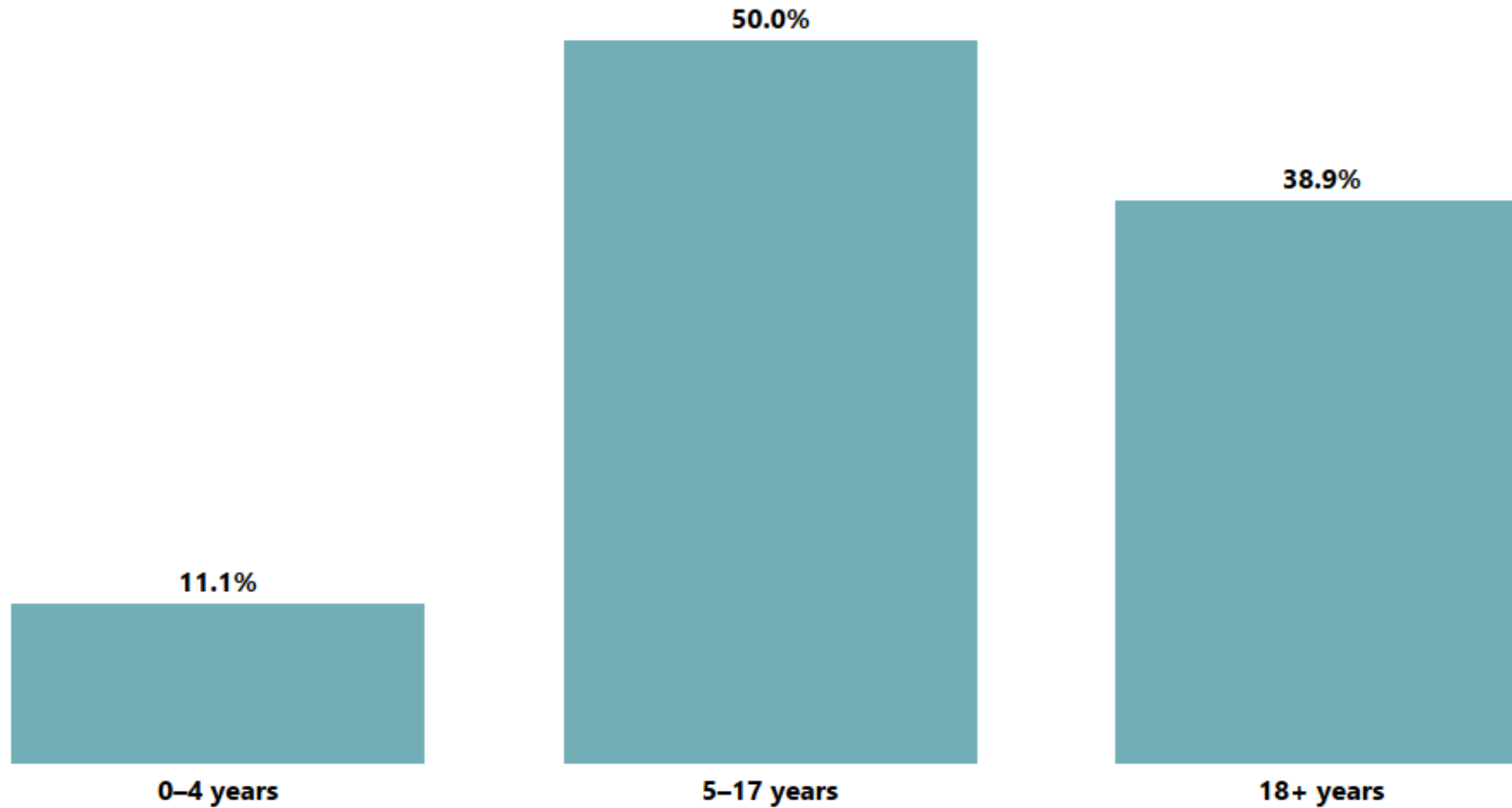
2 (5.6%)

Deaths

0

Measles Case Count by Age

The **blue** bars represent case counts for each age group.



2025 Measles–Oconto Outbreak



Onsets between July
15, 2025–September
7, 2025



Five were laboratory
confirmed

2026 Measles Cases

- Two unrelated cases so far this year
 - Waukesha county
 - Dane county
- Both due to exposures outside the U.S.
- Onsets in late January
- No additional cases identified

Response

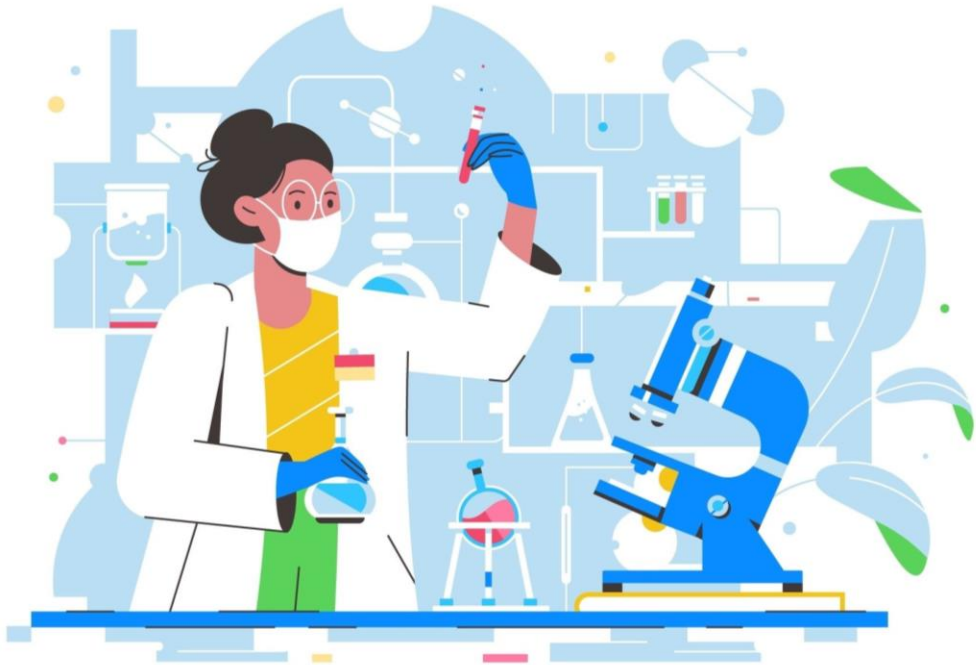


Response Background

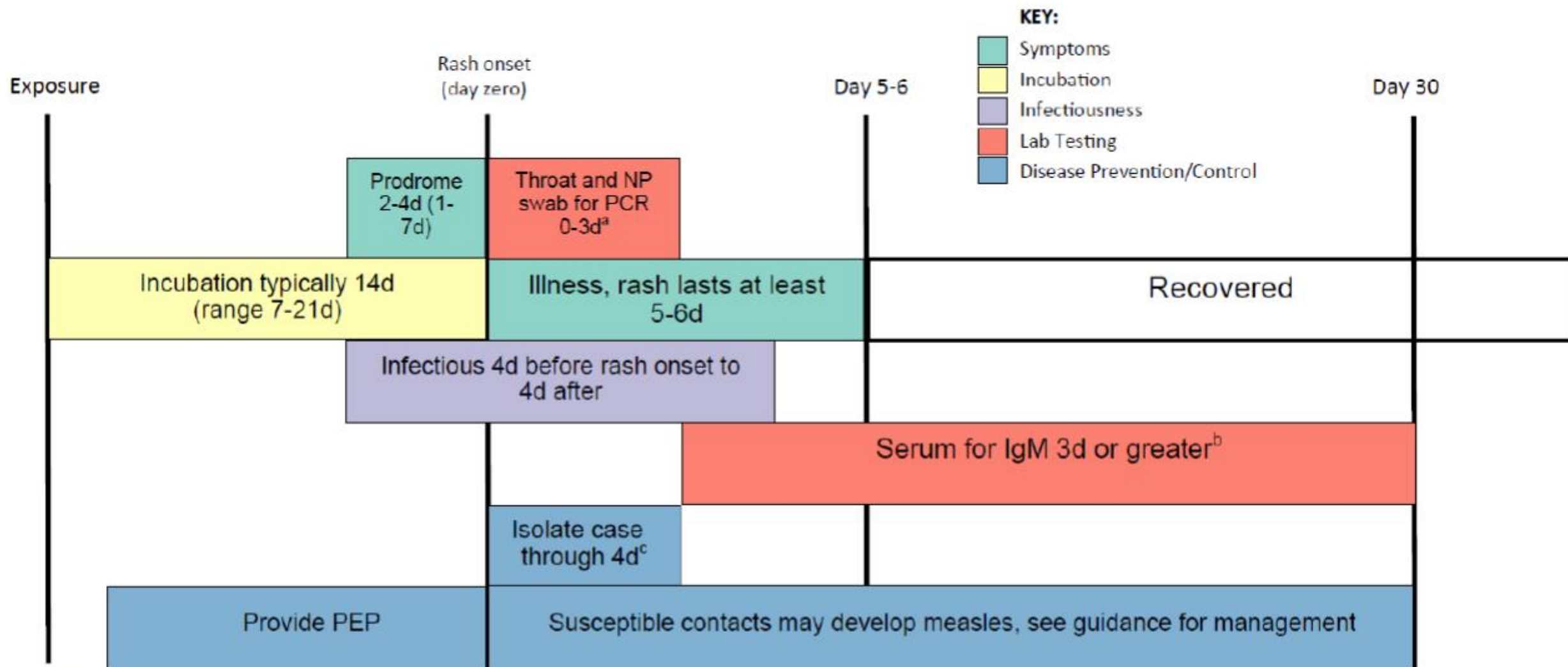
- Measles is a Category 1 Reportable Disease (DHS 145.04).
- Health care providers are required to immediately report by telephone the suspected case to the local or Tribal health department (LTHD) in which the patient resides.



Testing Coordination



The LTHD coordinates with DHS regarding logistics of transport and testing at the Wisconsin State Laboratory of Hygiene (WSLH).



Footnotes:

- Preferred timing for collecting throat and np swab is 0-3 days after rash onset but no later than 10 days. Urine can also be collected for PCR.
- IgM collected prior to day 3 may result in a false negative. Serum for IgG can be obtained ASAP after onset but is not helpful if a convalescent is not obtained 10-30 days after the initial.
- Count the day of rash onset as day zero. May return to normal activities on day 5.

Roles and Responsibilities

DPH

- Facilitate key partner calls
- Provide technical assistance and guidance
 - Case investigation
 - Infection control
 - Contact management
 - Testing
- Facilitate testing at WSLH
- Communication coordination
- Out of jurisdiction notification

LTHD

- Case investigation
- Contact tracing
- Coordination with local partners/affected businesses/organizations
- Local communication

Laboratory/WLSH

- Testing/confirmation of disease

Key Stakeholder Connection

DPH

- DPH leadership
- Immunization
- Infection Prevention
- Communication
- Preparedness
- WIR
- Wastewater

LTHD

- Health Officer
- Nurses
- Contact Tracers
- Communications

Other partners

- WSLH
- Affected community partners (for example: university, health care)

Local Health Departments

WI HEALTH DEPARTMENT LEVELS

LEVEL
01



Community Health Strategist

is defined as an engaged change leader or group of leaders who build community coalitions that investigate and take action to make meaningful progress on a community health issue.

LEVEL
02



LEVEL
03



- 84 LHDs in Wisconsin
- 65 county LHDs
- 12 city LHDs
- 7 serve multi-jurisdictions

Communication with Key Partners

- Health Alert Network (HAN)
- Government email list serve (GovD)
- Webinars—health care providers, LTHDs
- Partners—Immunize Wisconsin, WI chapter of American Academy of Pediatrics (AAP), American Academy of Family Physicians (AAFP), WSLH and others
- Mass and social media



Lessons Learned

- Due to timing, the administration of MMR for post-exposure prophylaxis often does not happen.
- Even one case can result in many exposures and contact investigations.
- Identified contacts reside around the state—many LHDs become involved in contact management.
- Quarantine orders present financial hardships for many.
- Coordination of communications is key.

Lessons Learned

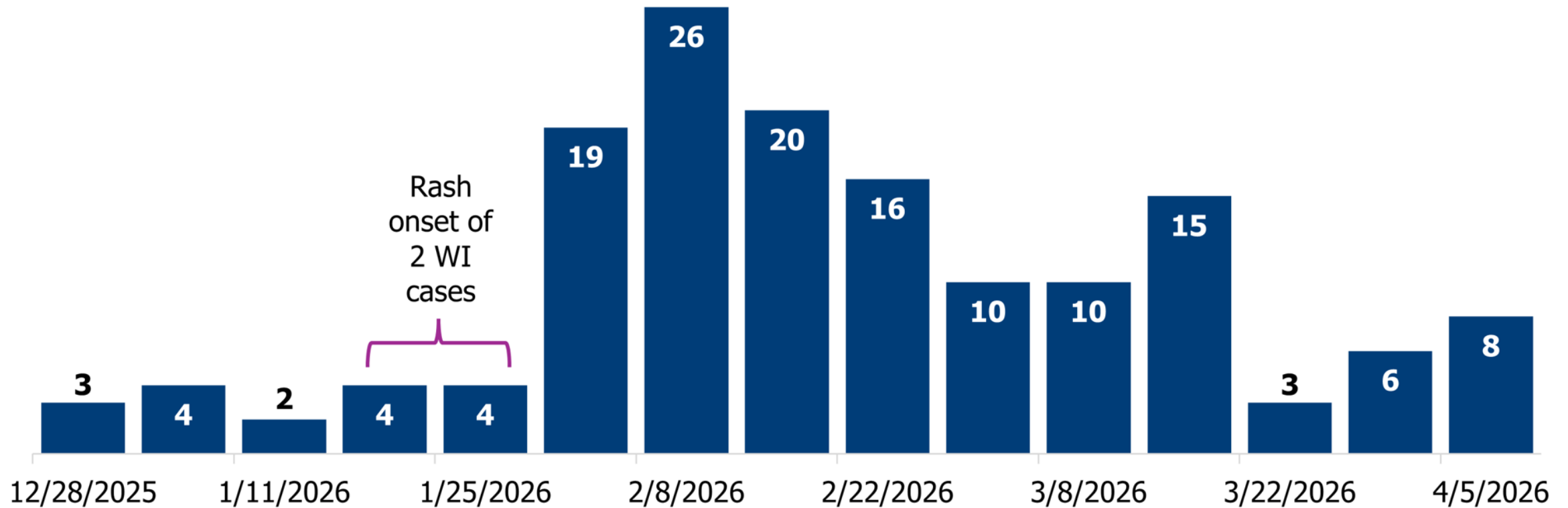
- Need for multiple language capacity—interviews, communication.
- Appropriate, timely testing can be a challenge.
- Coordination of serologic testing for those without documented history can be time consuming, but necessary.
- General awareness of measles increases testing throughout the state.

Monitoring

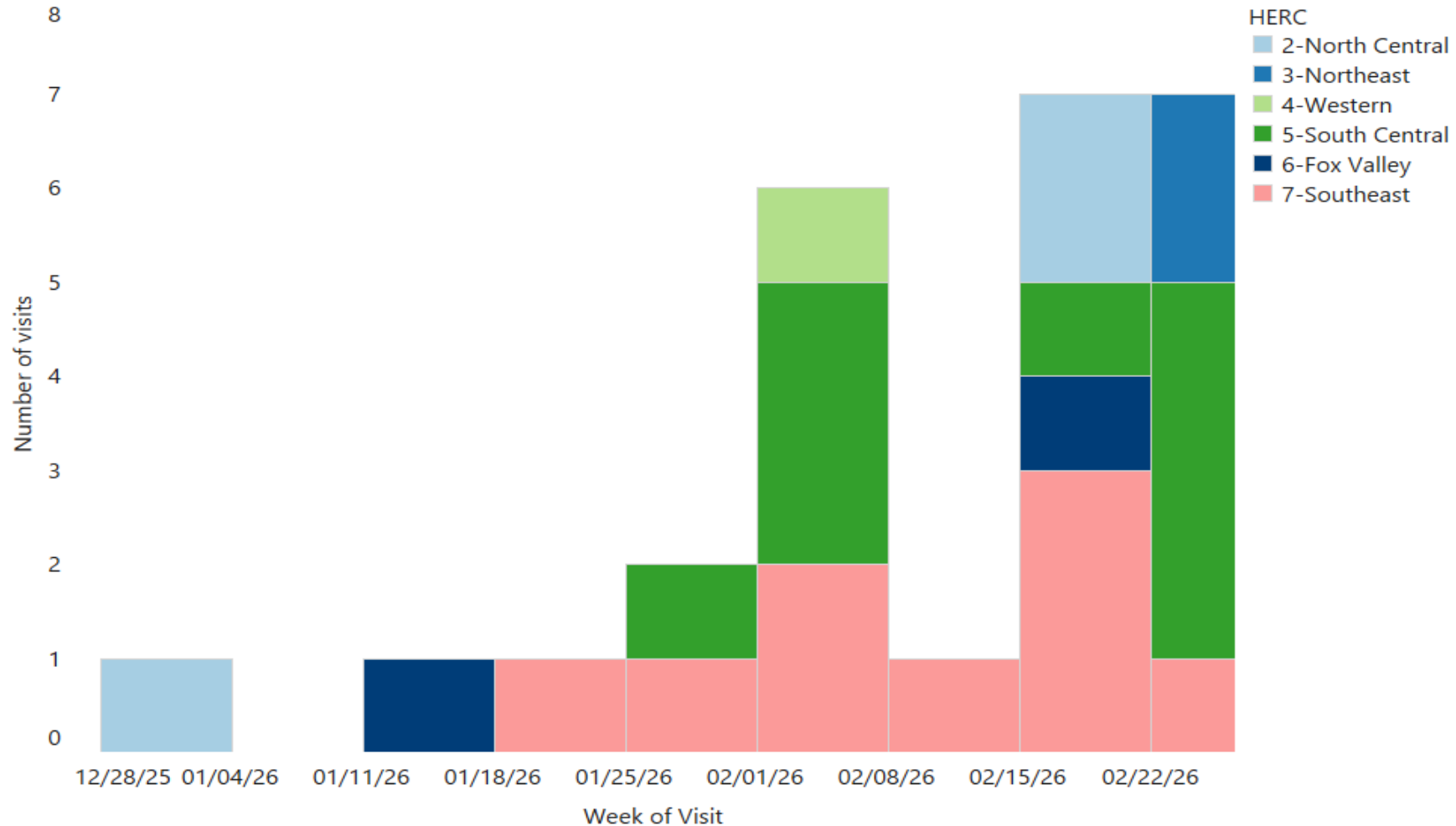


Measles Testing by Week

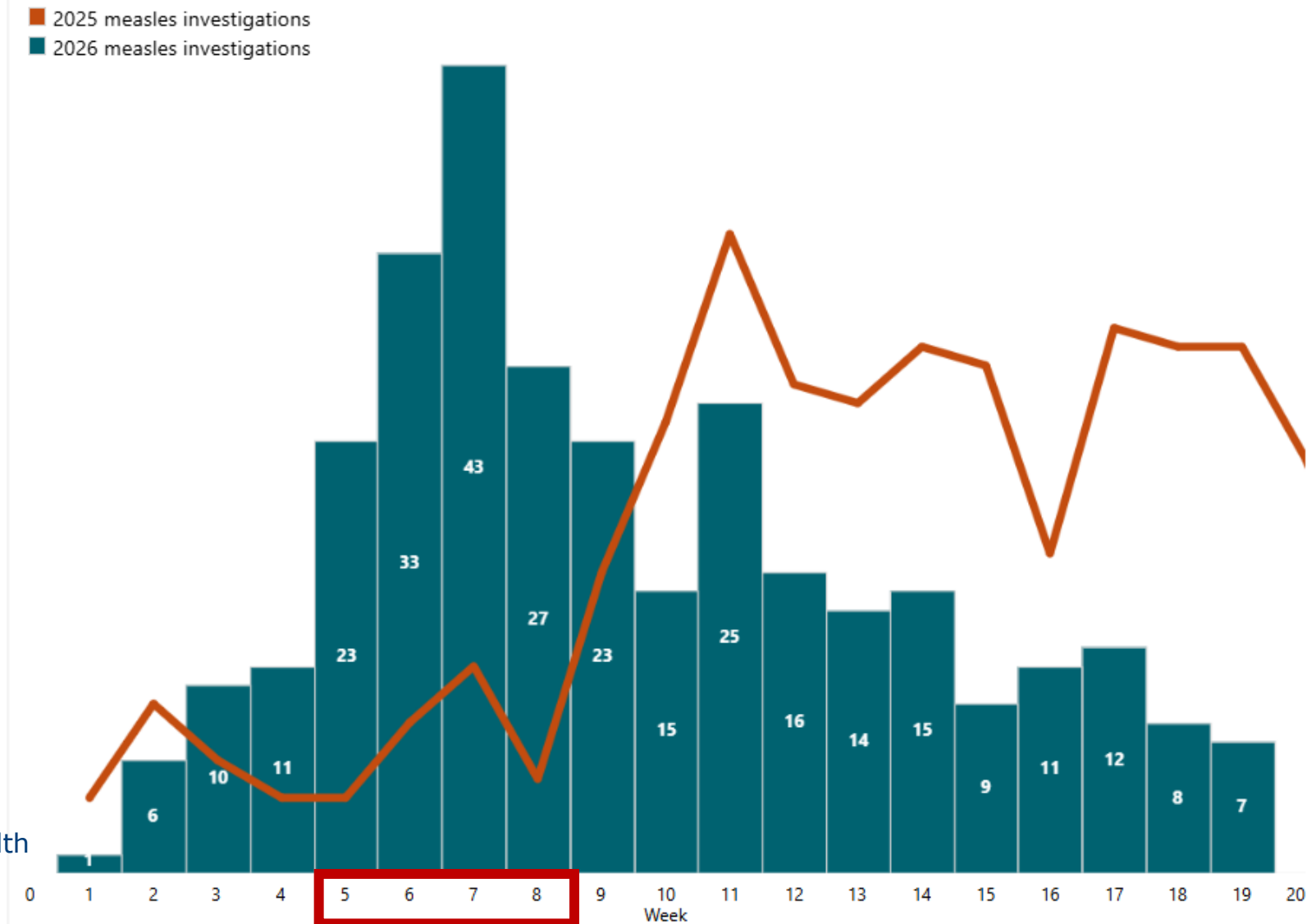
Sum of Measles PCR Tested at WSLH by Week, 12/28/2025–4/11/2026



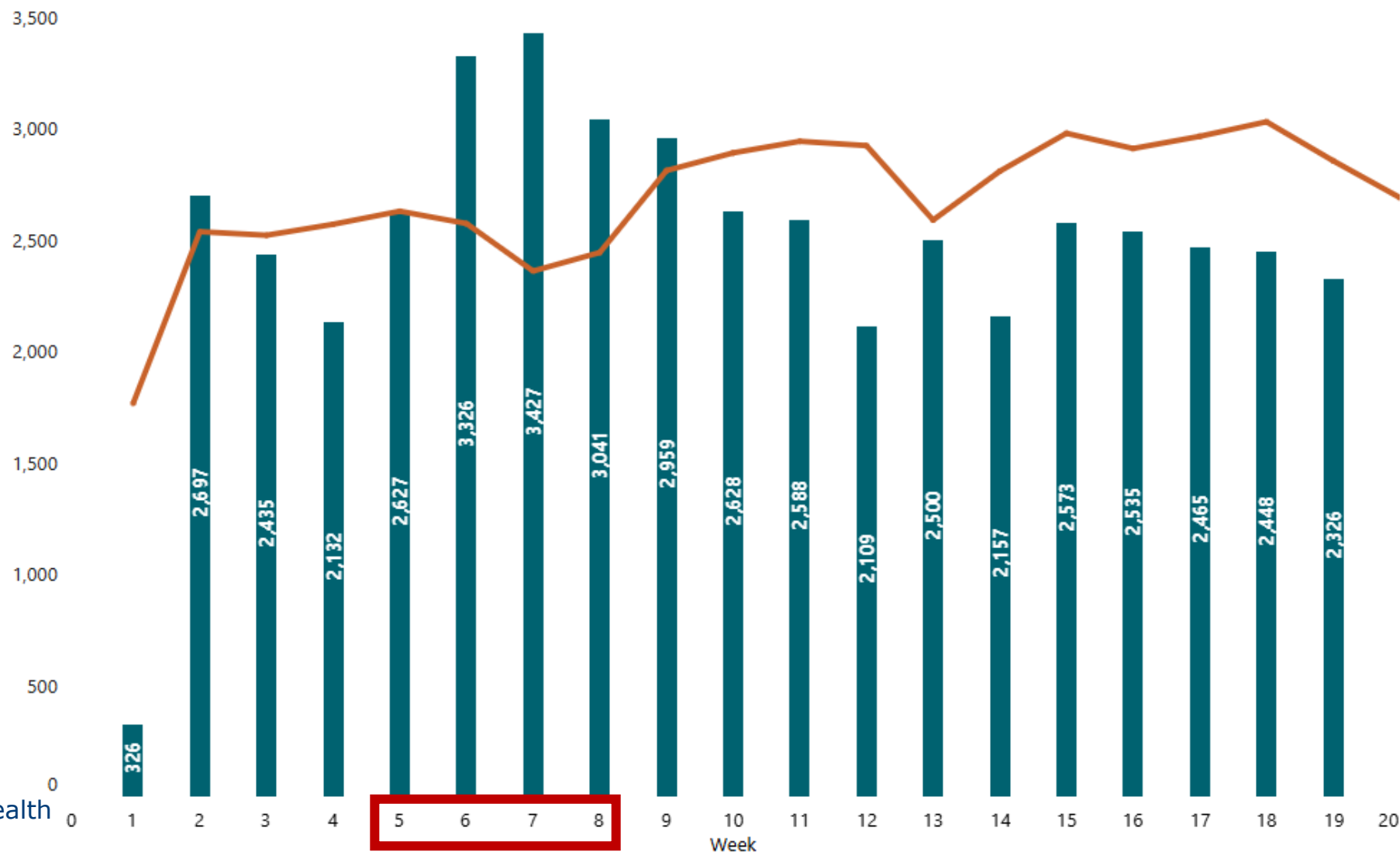
Number of ED Visits for Measles Testing by HERC



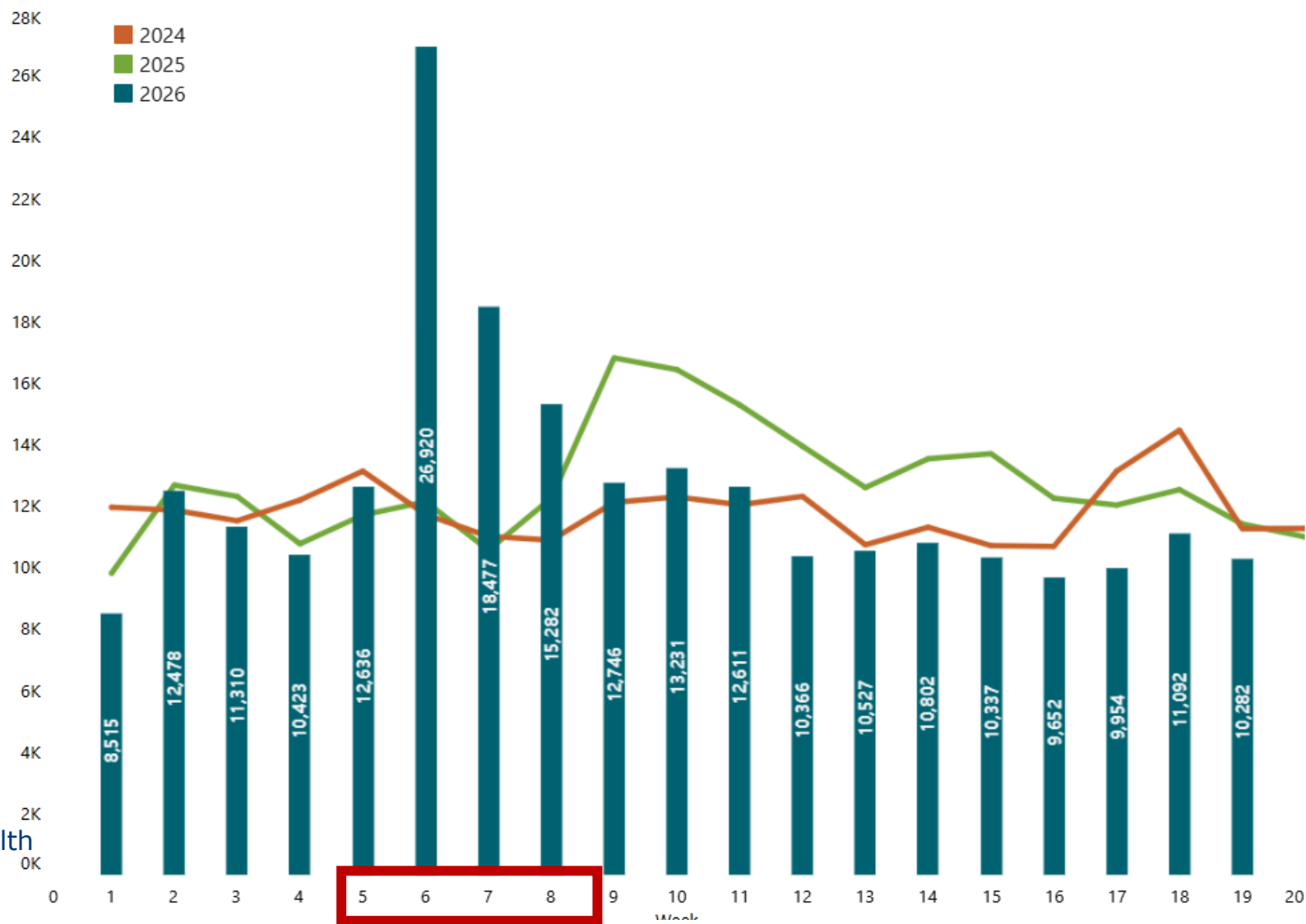
Measles Investigations by Week



MMR Vaccine Administration by Week



Consumer Access to WIR



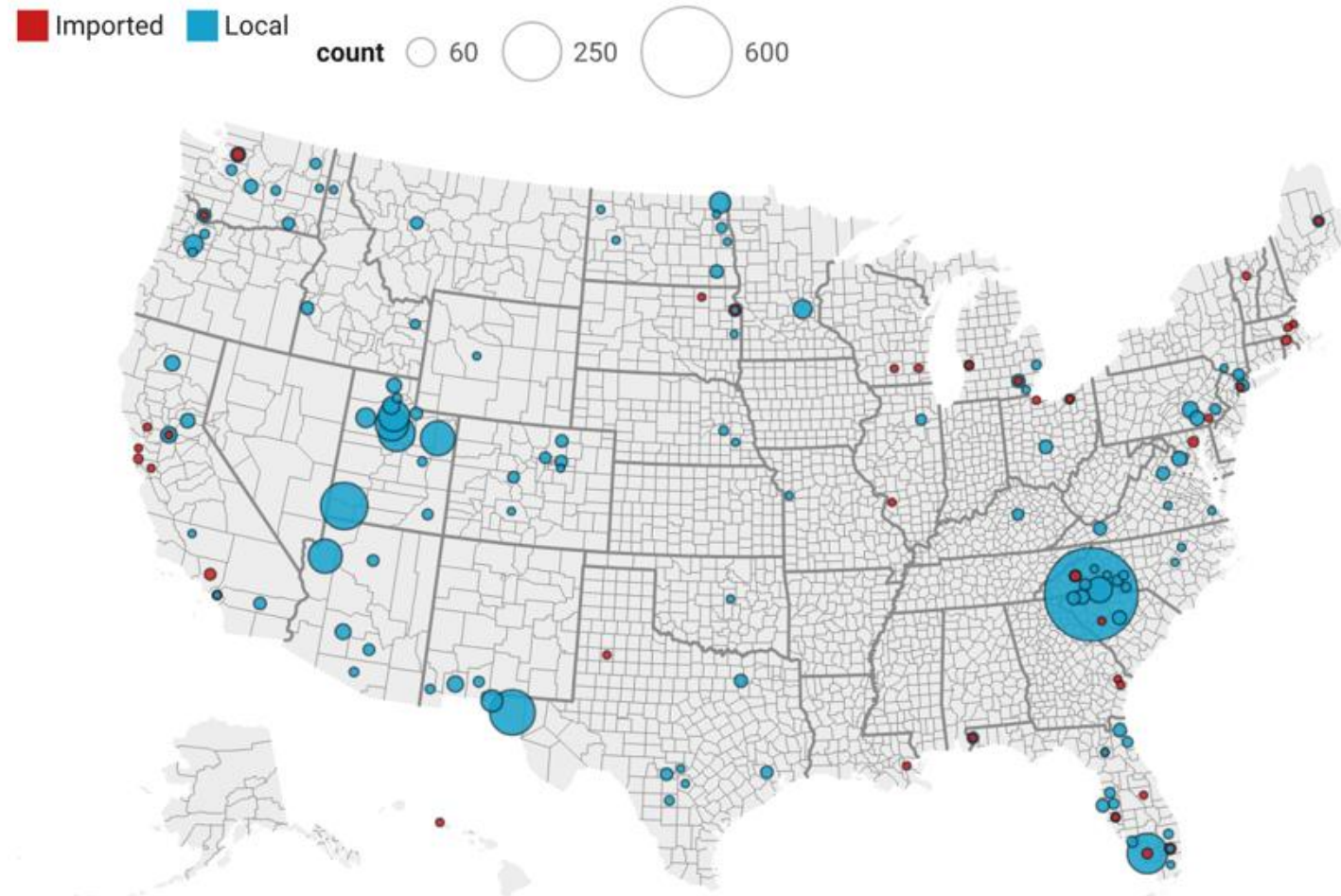
Wastewater Monitoring

Division of Public Health



New Data Sources

Measles cases reported in the United States (2026)



The Cost

- The initial costs incurred at the beginning of an outbreak are estimated to be \$244,480 with an incremental cost of \$16,197 for each additional case.
- An outbreak of 50 measles cases estimated to cost over \$1 million.



The Cost

A dose of MMR: \$95





WISCONSIN DEPARTMENT
of HEALTH SERVICES

Thank You!

Stephanie Schauer

Stephanie.Schauer@dhs.wisconsin.gov

Division of Public Health

A young girl with blonde hair in pigtails is looking at the camera. Her face is covered in colorful paint (yellow, red, blue). She is holding a green marker in her right hand. The background is a blurred indoor setting.

She thinks
“Measles”
are used for drawing
in art class.

**Childhood vaccinations
keep it that way**

