Measles Outbreak
South Carolina 2025-2026

MEASLES OVERVIEW

- Measles is caused by a highly contagious virus
- Spreads from person to person by respiratory droplets and airspaces
- People are contagious before the rash appears; it can be spread unknowingly

COMPLICATIONS

Most people recover; however, measles can lead to:

- Hospitalization - ~ 1 in 5
- Pneumonia - 1 in 20 children
- Encephalitis - 1 in 1,000 => convulsions, hearing loss, permanent disabilities
- Weakens immune system by destroying immune memory cells.
- Death - 1 to 3 of 1,000 children from respiratory or neurologic complications.
- Subacute Sclerosing Panencephalitis (SSPE) a rare, progressive and fatal CNS disease occurring 7 – 10 years after recovery

High-Risk Groups for Complications

- Children < 5 years of age
- Adults > 20 years of age
- Pregnant women
- People with weakened immune systems

Measles Key Facts

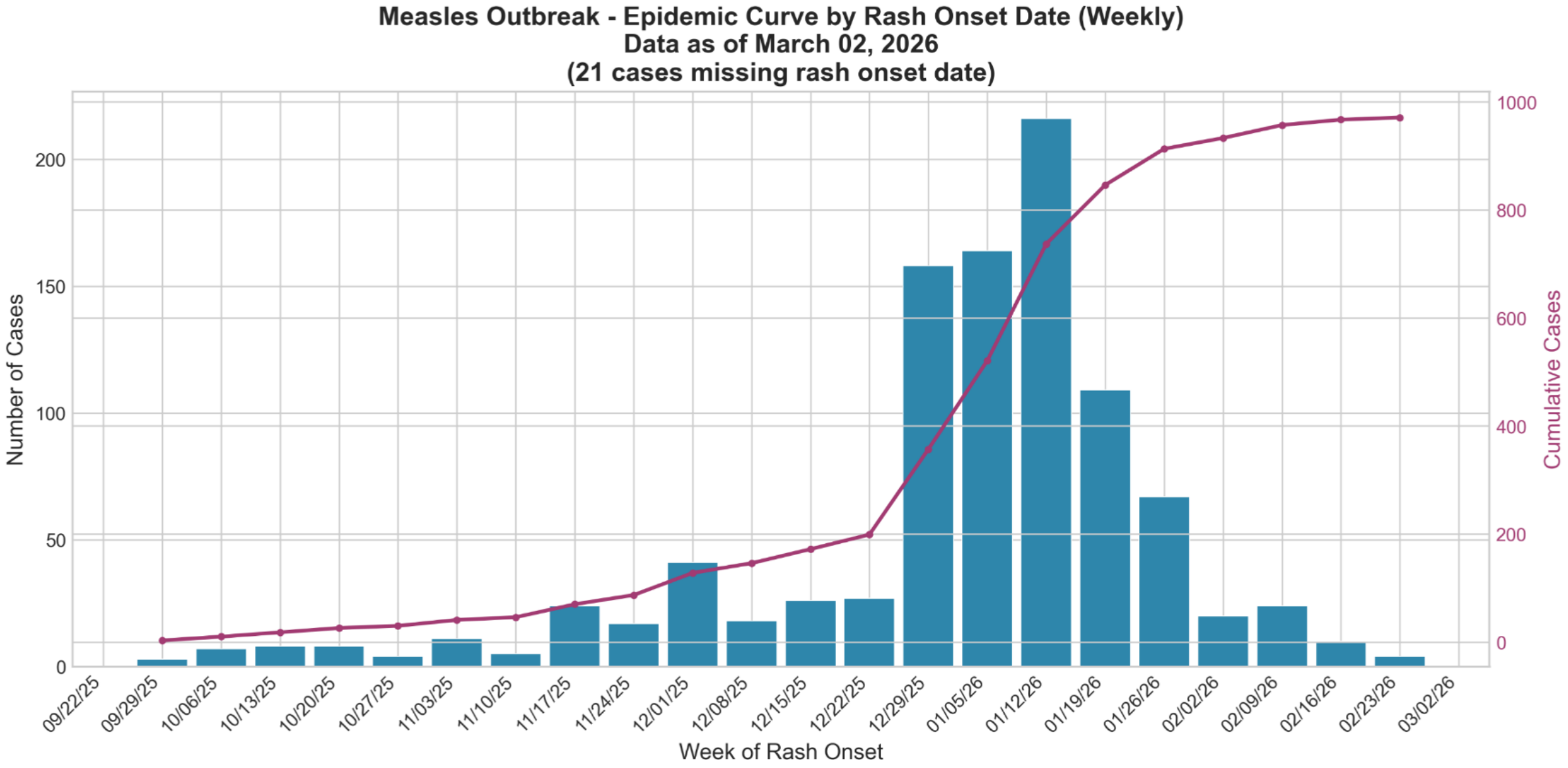
- Population-level immunity is decreasing as vaccination coverage decreases
- **One infected person can transmit the disease to an average of 12 to 18 non-immune contacts**.
- About 90% of susceptible close contacts become infected.
- Close-knit communities with lower vaccination coverage are at risk and outbreaks among them can spread widely.
- Most large recent U.S. outbreaks in the last several years occurred in these communities.

South Carolina Outbreak Background

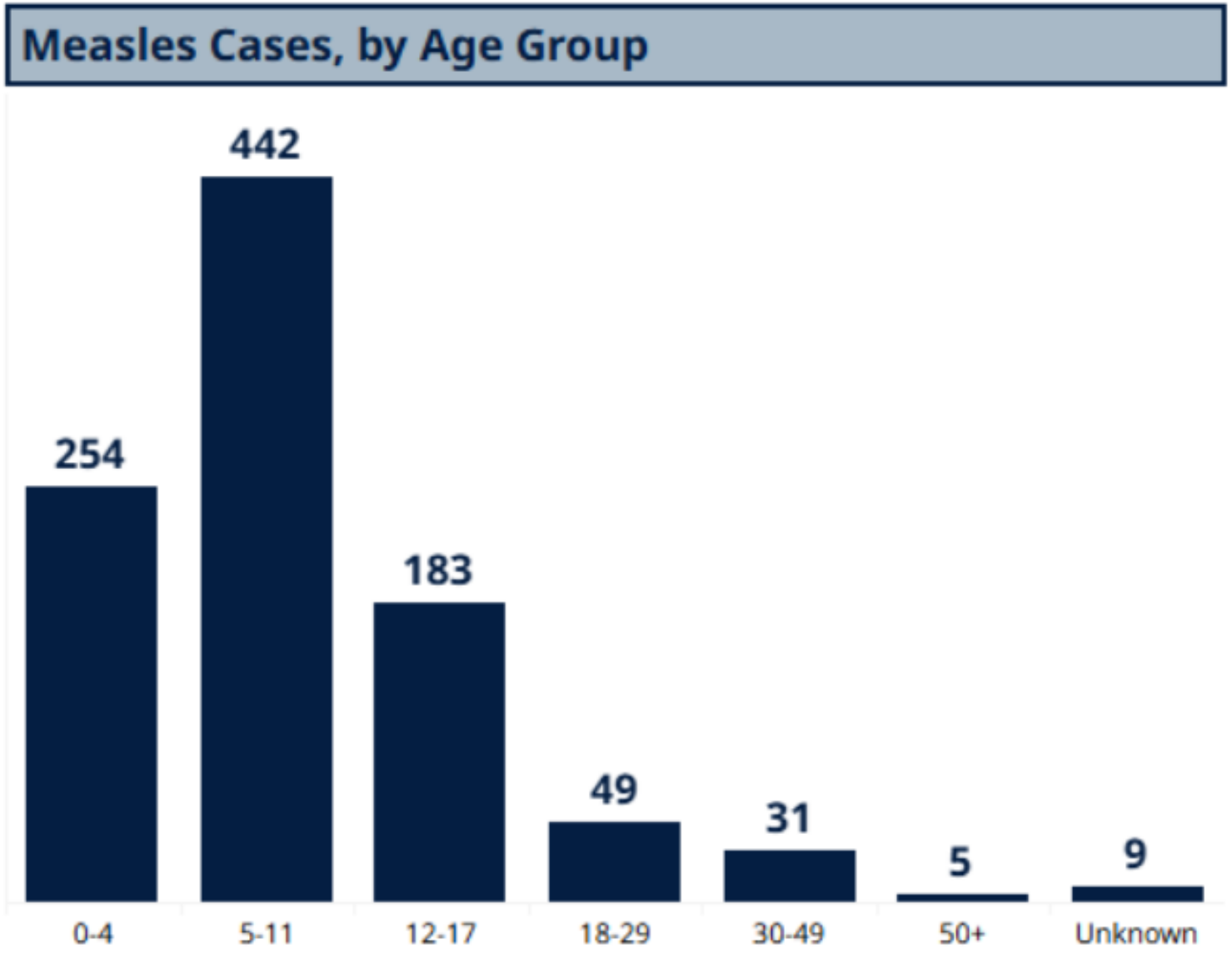
- On Oct. 2, 2025, DPH identified five, non-travel associated measles cases in Spartanburg County in one week and declared an outbreak.
- All cases were unvaccinated.
- Lower coverage in many Spartanburg County schools raised concerns for the risk for rapid spread of measles in the Upstate.
- On Oct. 8, 2025, DPH activated an Incident Management Team (IMT) to manage the state's response to the measles outbreak.

South Carolina Measles Outbreak Overview

- As of Mar 2, 2026, 989 cases reported representing the fastest growing and largest single U.S. outbreak in over 20 years.
- Cases predominantly in Spartanburg County among members of a close-knit community.
- 32 schools affected, most with <95% vaccination coverage (one school with 21% vaccination rate).
- 21 hospitalizations reported



Nowcasting – New cases are declining – sooner than predicted



Of 968 cases with known vaccination status, 923 (95%) are unvaccinated. (*Case totals in graph as of Feb 22, 2026)*

Prevention is Effective

- MMR vaccine is safe
- Two doses of MMR vaccine provides life-long protection for ~97%
  - Measles was eliminated from the U.S. in 2000 with the vaccine currently in use.
- Vaccination coverage of 95% brings herd immunity, prevents outbreaks, and protects those who cannot be vaccinated.
- Of 2,219 people quarantined, 496 (22%) had onset of illness while in quarantine, preventing exposure to others.
- Rapid isolation and quarantine limits spread
  - Estimate at least twice as many cases without quarantine

Increasing MMR Vaccine Uptake

Feb 2026 MMR vaccine uptake increased compared to Feb 2025

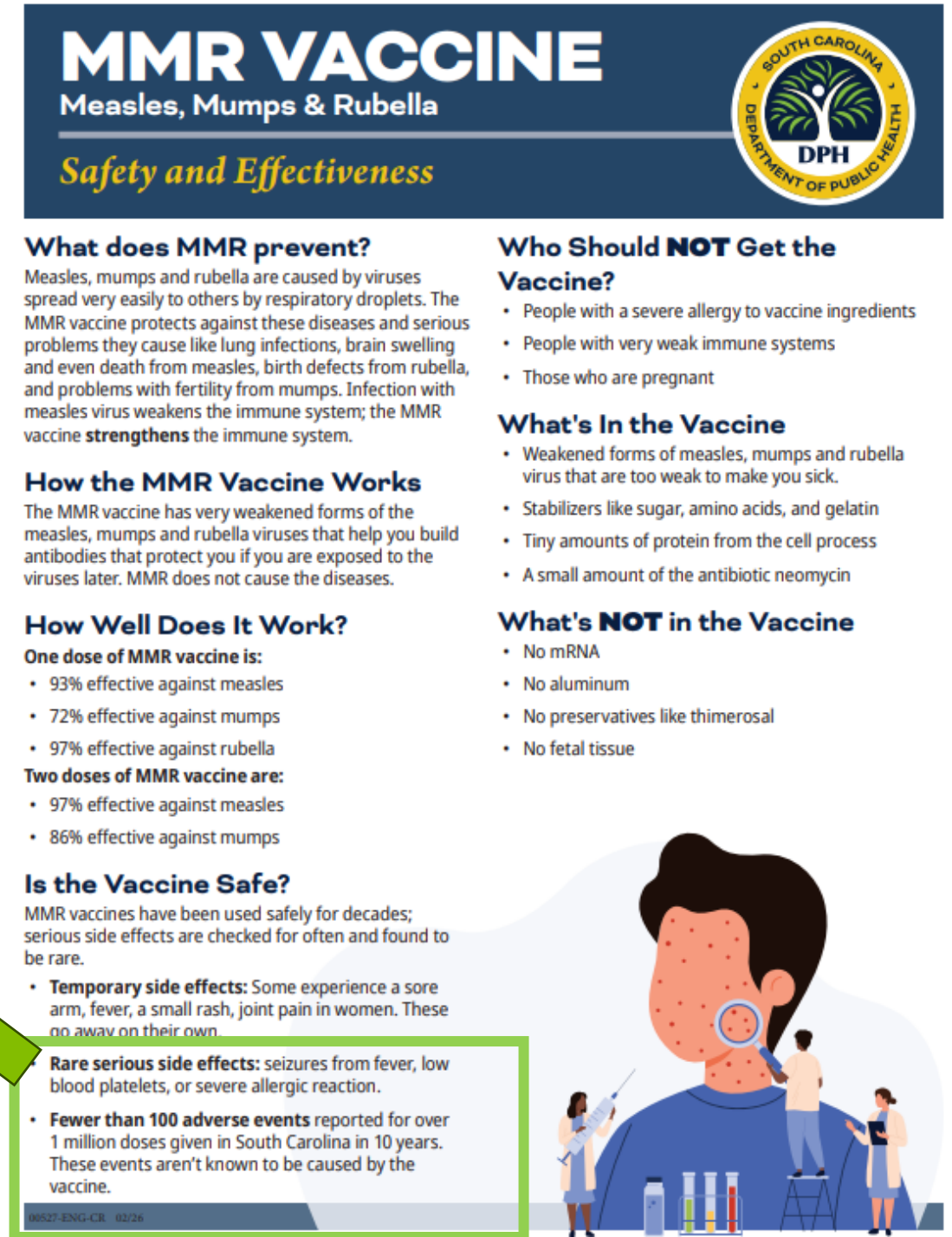
- Statewide ~7,000 doses (70%)
- Upstate ~4,100 doses (139%)
- Spartanburg County ~900 doses (133%)

1,380 of the doses were given to infants age 6-11 months to provide early protection for this population at high risk for measles complications.

Evidence-based messaging for public education

- MMR vaccine does not cause autism

- **Rare serious side effects:** seizures from fever, low blood platelets, or severe allergic reaction.
- **Fewer than 100 adverse events** reported for over 1 million doses given in South Carolina in 10 years. These events aren't known to be caused by the vaccine.



MMR VACCINE

Measles, Mumps & Rubella

Safety and Effectiveness

SOUTH CAROLINA DEPARTMENT OF PUBLIC HEALTH — DPH

What does MMR prevent?

Measles, mumps and rubella are caused by viruses spread very easily to others by respiratory droplets. The MMR vaccine protects against these diseases and serious problems they cause like lung infections, brain swelling and even death from measles, birth defects from rubella, and problems with fertility from mumps. Infection with measles virus weakens the immune system; the MMR vaccine **strengthens** the immune system.

How the MMR Vaccine Works

The MMR vaccine has very weakened forms of the measles, mumps and rubella viruses that help you build antibodies that protect you if you are exposed to the viruses later. MMR does not cause the diseases.

How Well Does It Work?

One dose of MMR vaccine is:

- 93% effective against measles
- 72% effective against mumps
- 97% effective against rubella

Two doses of MMR vaccine are:

- 97% effective against measles
- 86% effective against mumps

Is the Vaccine Safe?

MMR vaccines have been used safely for decades; serious side effects are checked for often and found to be rare.

- **Temporary side effects:** Some experience a sore arm, fever, a small rash, joint pain in women. These go away on their own.
- **Rare serious side effects:** seizures from fever, low blood platelets, or severe allergic reaction.
- **Fewer than 100 adverse events** reported for over 1 million doses given in South Carolina in 10 years. These events aren't known to be caused by the vaccine.

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Who Should **NOT** Get the Vaccine?

- People with a severe allergy to vaccine ingredients
- People with very weak immune systems
- Those who are pregnant

What's In the Vaccine

- Weakened forms of measles, mumps and rubella virus that are too weak to make you sick.
- Stabilizers like sugar, amino acids, and gelatin
- Tiny amounts of protein from the cell process
- A small amount of the antibiotic neomycin

What's **NOT** in the Vaccine

- No mRNA
- No aluminum
- No preservatives like thimerosal
- No fetal tissue

Measles Outbreaks Are Demanding

- DPH realigned staff to surge response teams
  - Significant just-in-time training provided; no measles response for decades
- At maximum ~90 DPH staff supported the IMT
- Each case investigated to identify exposures and trace contacts
- All contacts educated about quarantine and symptom monitoring
- Conducted coordination with schools, healthcare, churches, and businesses
- CDC support: Subject matter experts, funding, lab testing, wastewater surveillance, vaccines, modeling and forecasting projections
- CDC Foundation has provided access to 12 additional staff

What does success look like?

- Mitigate cases and spread to continue downward trend
- Maintain awareness through education and public notification
- Communities protected with minimal disruption to schools, businesses, and social life
- Strong vaccination coverage as achieved for 30+ years
- End the outbreak (i.e. no new cases found for 42 days)

For more information:
dph.sc.gov/measles

ICS Public Health Objectives

- Mitigate the impact of the outbreak to the greatest degree possible with case investigation and contact tracing
- Closely collaborate with schools, health care systems and community members to rapidly implement effective disease control and prevention measures
- Ensure timely and accurate information, guidance and resources
- Enhance access to immunization services

Response Activities

- Isolation of infectious cases; quarantine contacts during incubation period
- Symptom monitoring for hundreds in quarantine
- Briefing elected officials, Governor’s Office
- Close work with schools; briefing school superintendents and school nurses

Vaccination Efforts

- MMR vaccine availability publicized via media, website, and social media from clinics, pharmacies and provider offices
- DPH mobile health units deployed in impacted area providing MMR vaccine at no cost had limited success.
- Encouraging early (6 months – 1 year) vaccination in outbreak area

Community Outreach Efforts

- Wide-ranging outreach efforts in the Upstate
  - Schools, CBOs, community leaders, churches, medical community, other organizations
- Groundwork to decipher and respond to vaccine hesitancy
- Evidence-based messaging
- Using existing social relationships and building new partnerships

Public Communication Efforts

- Dedicated measles outbreak webpage and dashboard
  - Updated biweekly with latest data
- Issue biweekly news releases
  - Features latest case counts, public and school exposure notifications, vaccine clinics
- Weekly media briefings with Incident Commander (State Epidemiologist)
- Provider education (Health Alert Network messaging), many of whom had never seen a case of measles before this outbreak