

# Lessons Learned from a Measles Outbreak in a Pediatric Population in Ohio

Payal M. Patel<sup>1</sup> MPH, CIC, Tammie Hull<sup>1</sup> MA, BSN, RN, CIC, Matthew Washam<sup>1</sup> MD, MPH

<sup>1</sup>Department of Epidemiology and Infection Prevention at Nationwide Children's Hospital

## Background

The Centers for Disease Control (CDC) has recognized the increased risk for outbreaks due to vaccine hesitancy. Lack of access, cultural influences, and misinformation can contribute to inadequately vaccinated populations. Measles has been linked to insufficient vaccination and four global genotypes have been identified – B3, D4, D8, D11. The purpose of this outbreak investigation is to describe a cluster of measles in a population in the Midwestern United States.

## Methods

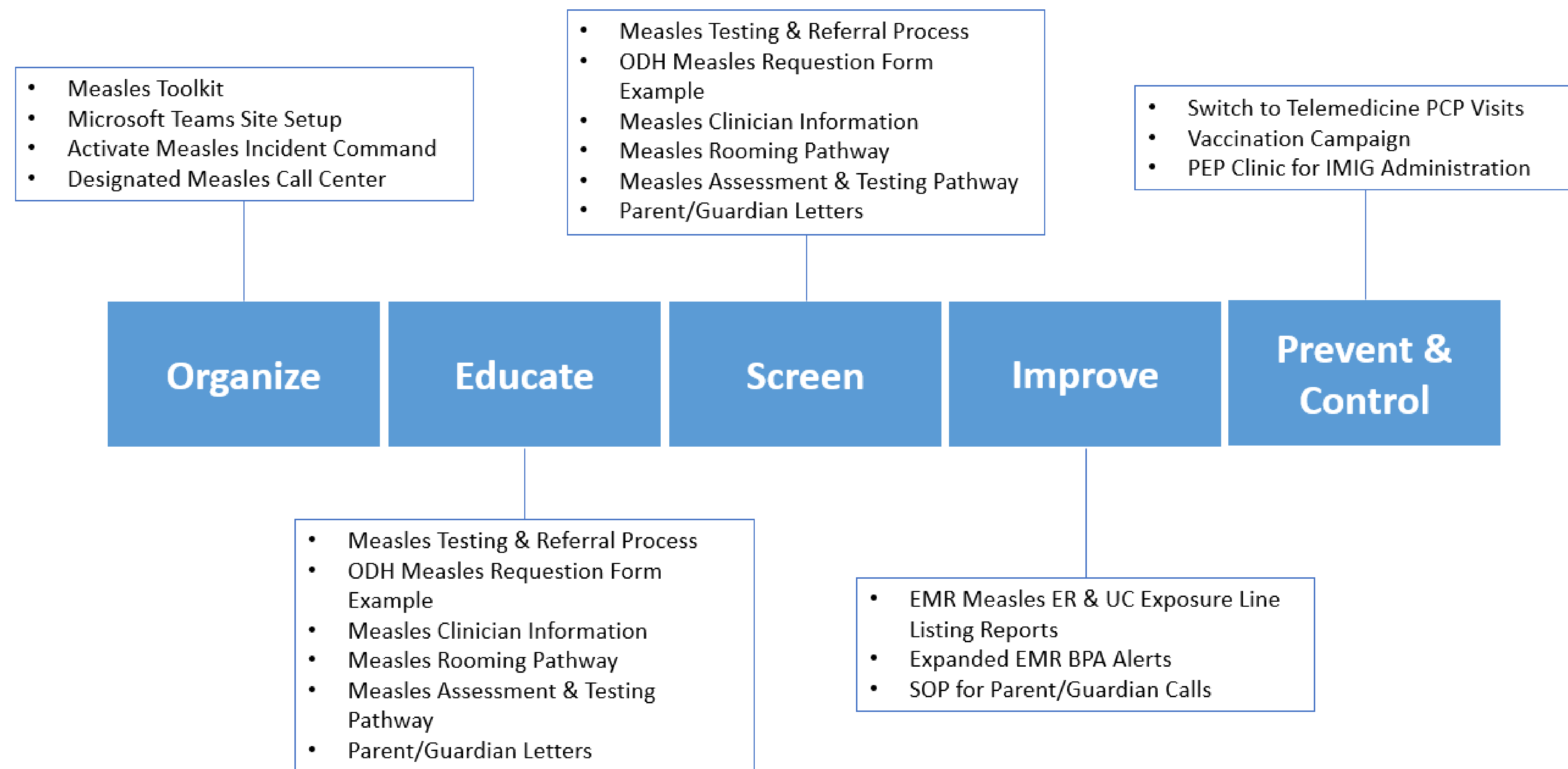
This was a retrospective cohort investigation. Measles cases were identified using electronic medical and immunization records, diagnostic testing, line listing of exposed persons, and classified as a presumptive case based on local health department criteria.

**Figure 1. Visual signage translated into multiple languages to match patient populations**

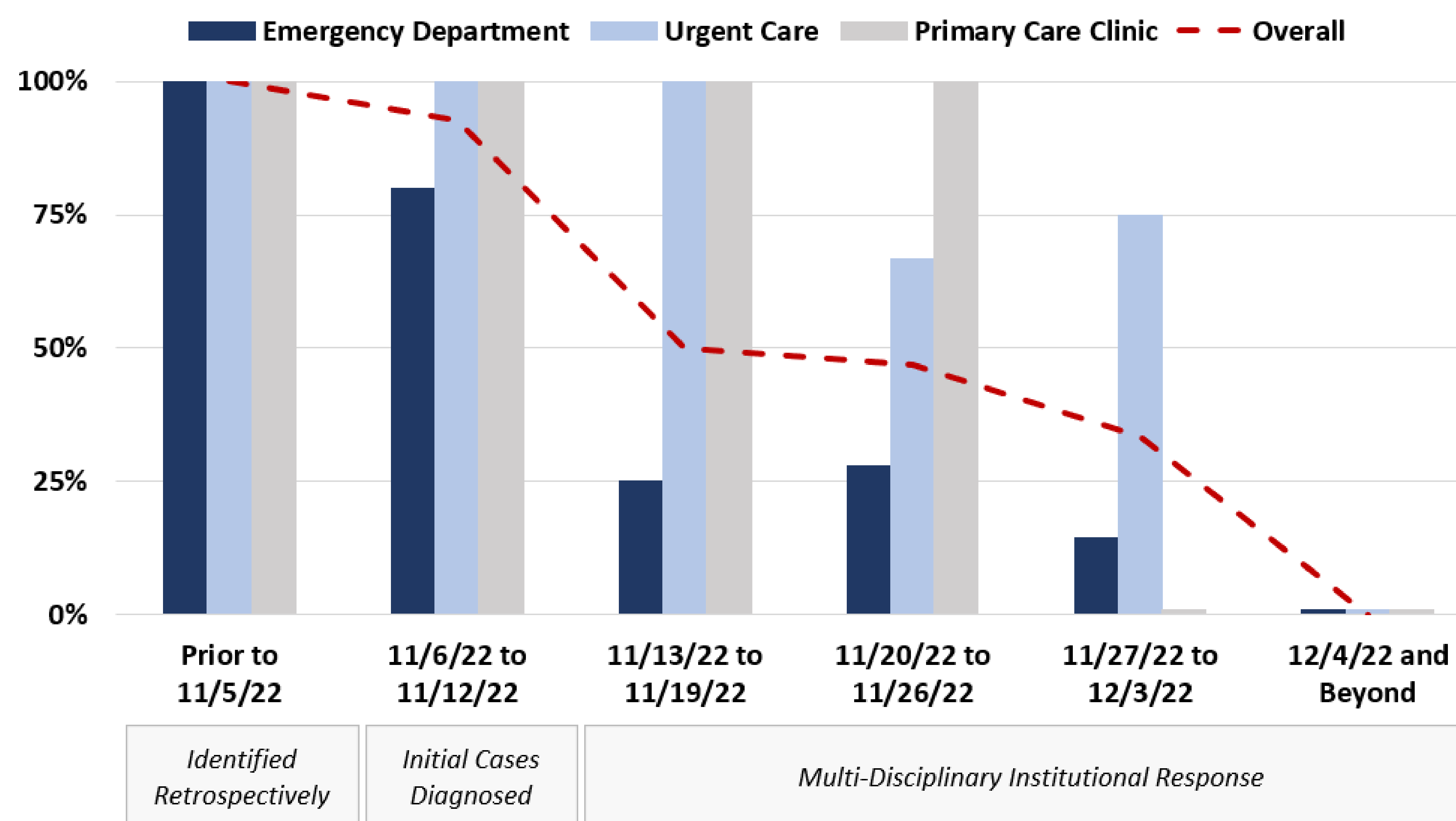


If you think your child may be sick due to a **measles exposure**, please tell a staff member right away.

**Figure 2. Key Interventions**



**Figure 3. Percentage of Measles Ambulatory Encounters Resulting in Exposures**



## Results

The outbreak contained 85 confirmed measles cases with onset dates from October 22<sup>nd</sup>, 2022, to December 24<sup>th</sup>, 2022. The children ranged in age from 6 months to 15 years with a median age of 1 year. Childcare attendees accounted for 58% of all cases. B3 was the prominent genotype identified in all positive cases. A summary of key interventions implemented to reduce healthcare exposures are displayed in Figures 1 & 2. Over the course of the outbreak, overall healthcare exposures decreased (Figure 3).

## Conclusion

This large-scale measles outbreak shows the impact of eligible children not being vaccinated and potential for widespread transmission. High-risk populations require additional education, enhanced access, and outreach to encourage Measles, Mumps, Rubella (MMR) vaccination. The downstream implications can result in risk of disease transmission to unvaccinated children and can pose a particular burden on healthcare systems and public health departments.

## Acknowledgements

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