



If It's Not One Thing It's Another

A Multi-Source Respiratory Outbreak at a Private School in
Virginia, October – November, 2025

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Learning Objectives

- Summarize the importance of clinical testing in identifying etiological agents in respiratory outbreaks
- Explain the value of community partner and health department collaboration during a respiratory outbreak response
- Describe respiratory illness infection control best practices for boarding schools

The Start

Initial Call

LFHD received a phone call on October 14th, 2025 from a local hospital reporting 3 students were seen in the ED for multi focal pneumonia

- All had symptom onsets within the last week
- None had a history of smoking/vaping/drug use
- All 3 students were from a local private school

Prompted follow up call with the school nurses

The School

- Private school for boarding and day students
 - 205 students
 - 136 Boarding
 - 69 Day
 - 88 Staff
- Grades 8 – 12 and post-grad year
- Separate dorms for boys and girls



The Response

Case Definition

- **Case definition:** Any student or staff member of Private School A with respiratory symptoms on or after October 3, 2025
- Initial suspect etiologic agent hypotheses



#1

Invasive Group A
Strep



#2

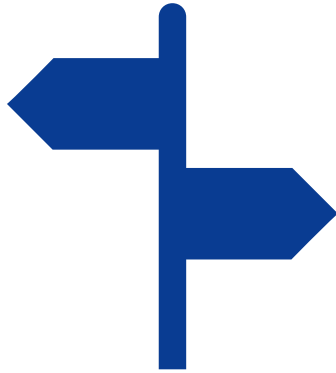
Atypical
pneumonia
(Legionellosis
or
Mycoplasma)



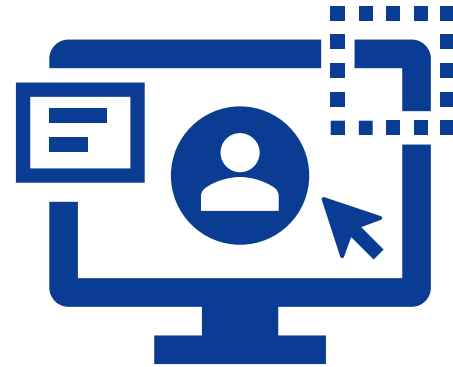
#3

Multi Source
Outbreak

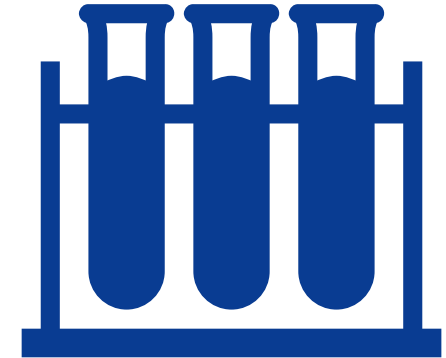
Public Health Actions



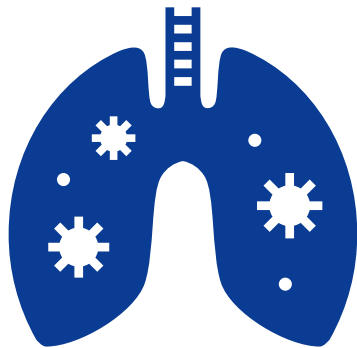
IPC Guidance



Medical Record Review



DCLS Testing



Testing Recommendations



Reactive Site Visit



Provided Resources

Recommended Infection Control Measures



Source Control



Hand & Respiratory
Hygiene



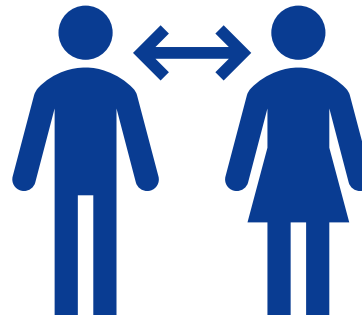
Notification to
Parents



Cancelled
Group Activities



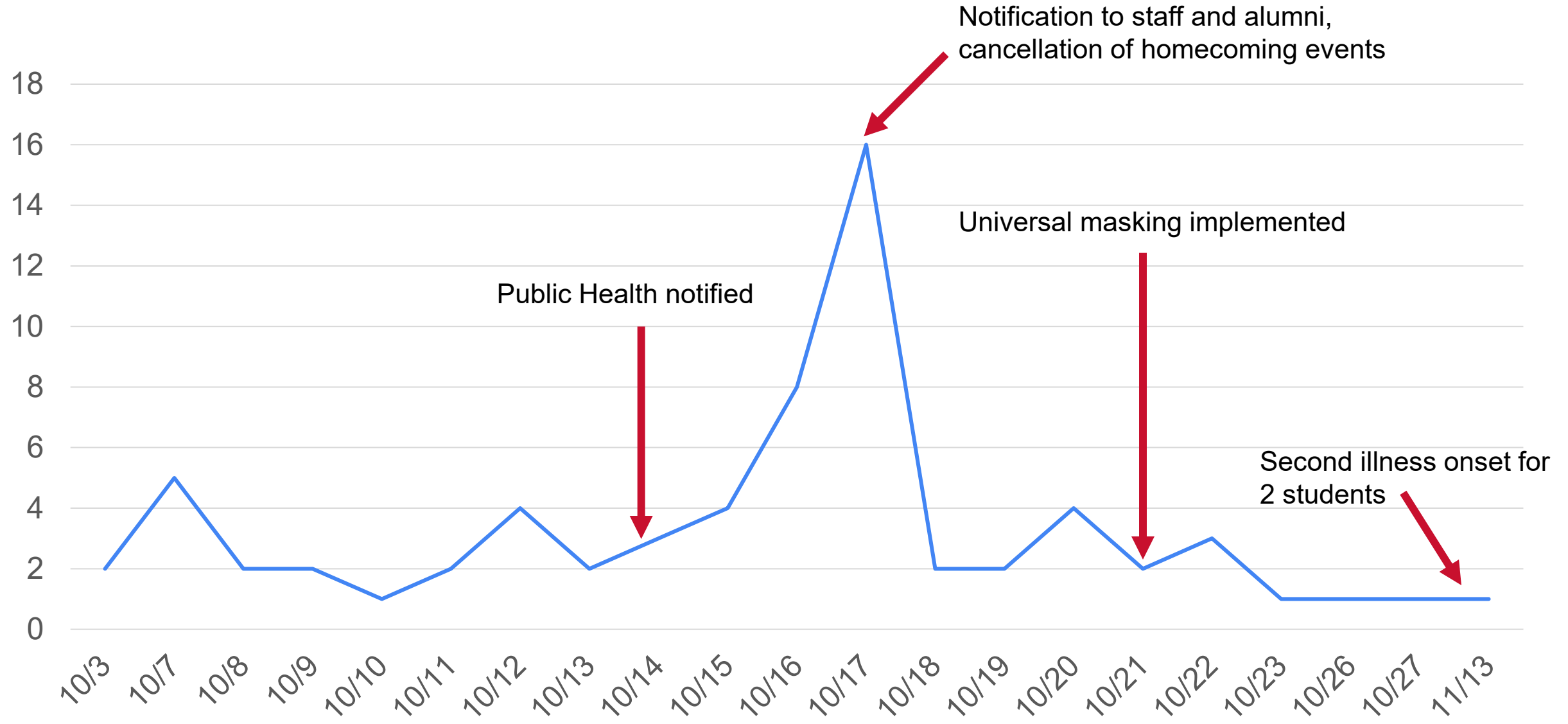
Increased Cleaning



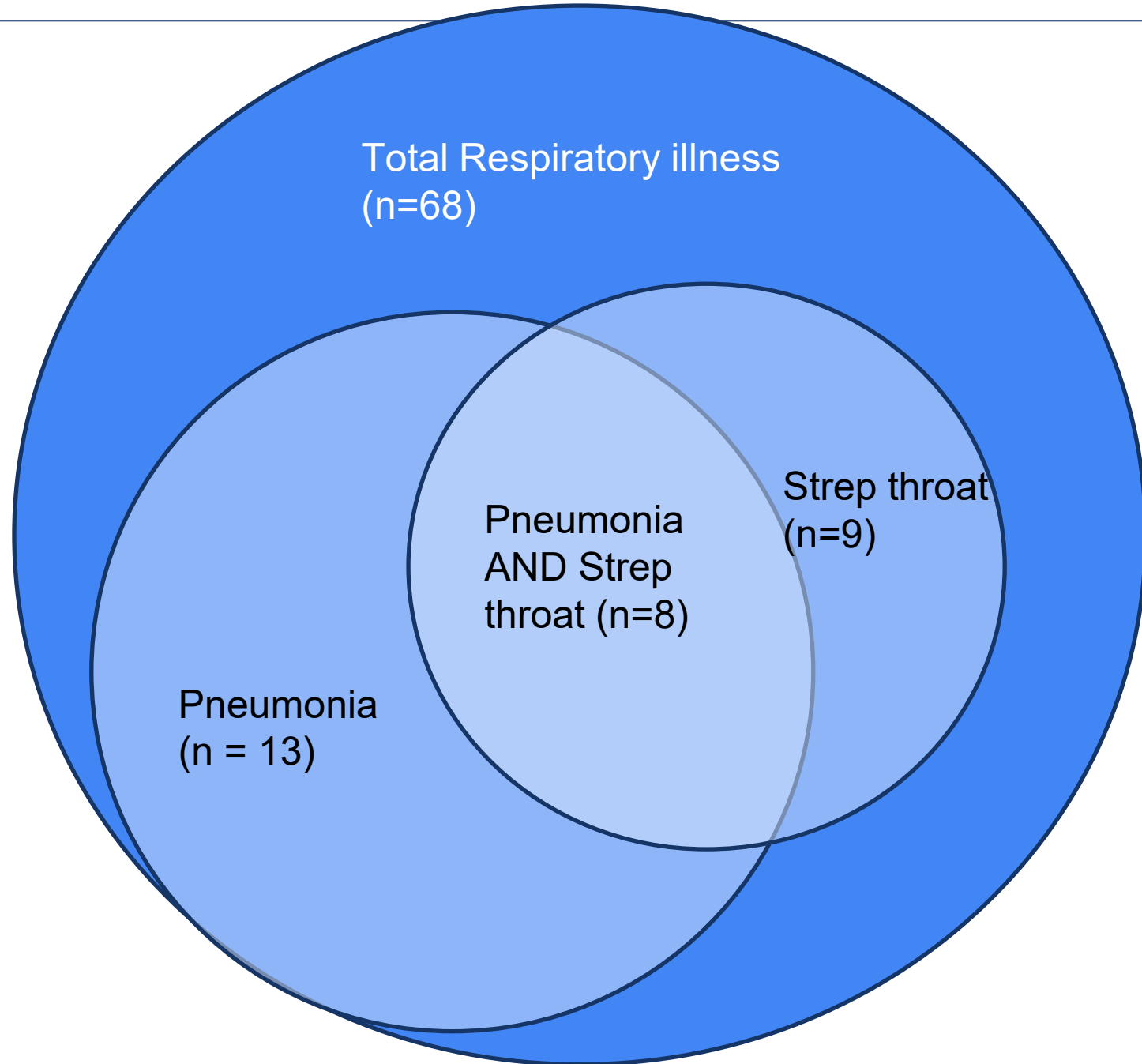
Social Distancing



Restricted Travel



Summary



Summary

Student Cases	
Total	64*
Age range	12 - 19
Median age	16
Reported as day students (%)	18 (28.6)
Cases with chest imaging (# with abnormal chest imaging)	24 (13)
Cases diagnosed with PNA	20
Of cases diagnosed with PNA, # with abnormal chest imaging	12
Hospitalizations	4
ED visits	20
Treated with antibiotics	32

Staff Cases	
Total	4
Age Range	31 - 66
Median age	31.5
Cases with chest imaging (# with abnormal chest imaging)	3 (2)
Cases diagnosed with PNA	1
Of cases diagnosed with PNA, # with abnormal chest imaging	1
Hospitalizations	1
ED Visits	2
Treated with antibiotics	2

*2 students had 2 illness onsets during the outbreak and are counted twice

Testing Criteria

- Students with respiratory symptoms were tested at the school clinic with a rapid strep test
- Those with low oxygen or other serious symptoms were sent to the hospital for evaluation where a Respiratory Viral Panel and *M. pneumoniae* PCR test were performed through a commercial laboratory
- For students not ill enough to go to the hospital, a specimen for the Respiratory Viral Panel was collected and tested through DCLS

All Tests Performed

Test	Negative/ No Growth	Positive	Results
COVID	23	0	
Flu A and B	23	0	
RSV (PCR)	17	0	
Rapid Strep	20	17	
<i>Legionella</i> ag, urine	4	0	
State Lab Resp. Panel	9	7	3 Human rhino./entero. 2 <i>M. pneumoniae</i> 2 Parainfluenza 2
Commercial Resp. Viral Panel	14	2	1 Parainfluenza 2 1 Rhinovirus
<i>M. pneumoniae</i> Ab	0	1	1 IgM
<i>M. pneumoniae</i> DNA, PCR	10	5	
<i>C. psitaci</i> Ab	2	0	
Throat Cx	4	0	
Resp. or Sputum Cx	1	0	
Blood CX	1	0	
MRSA DNA, nares	2	0	
<i>Strep. pneumoniae</i> Ag, urine	2	0	
Histoplasma galactomannan Ag, urine	1	0	
TOTAL	133	32	

Positive Test Results

Test	Total Positive
Rapid Strep	17
M. pneumoniae DNA, PCR	7
Human rhinovirus/enterovirus*	3
Parainfluenza 2	3
M. pneumoniae IgM	1
Rhinovirus only	1
TOTAL	32

*Test does not differentiate

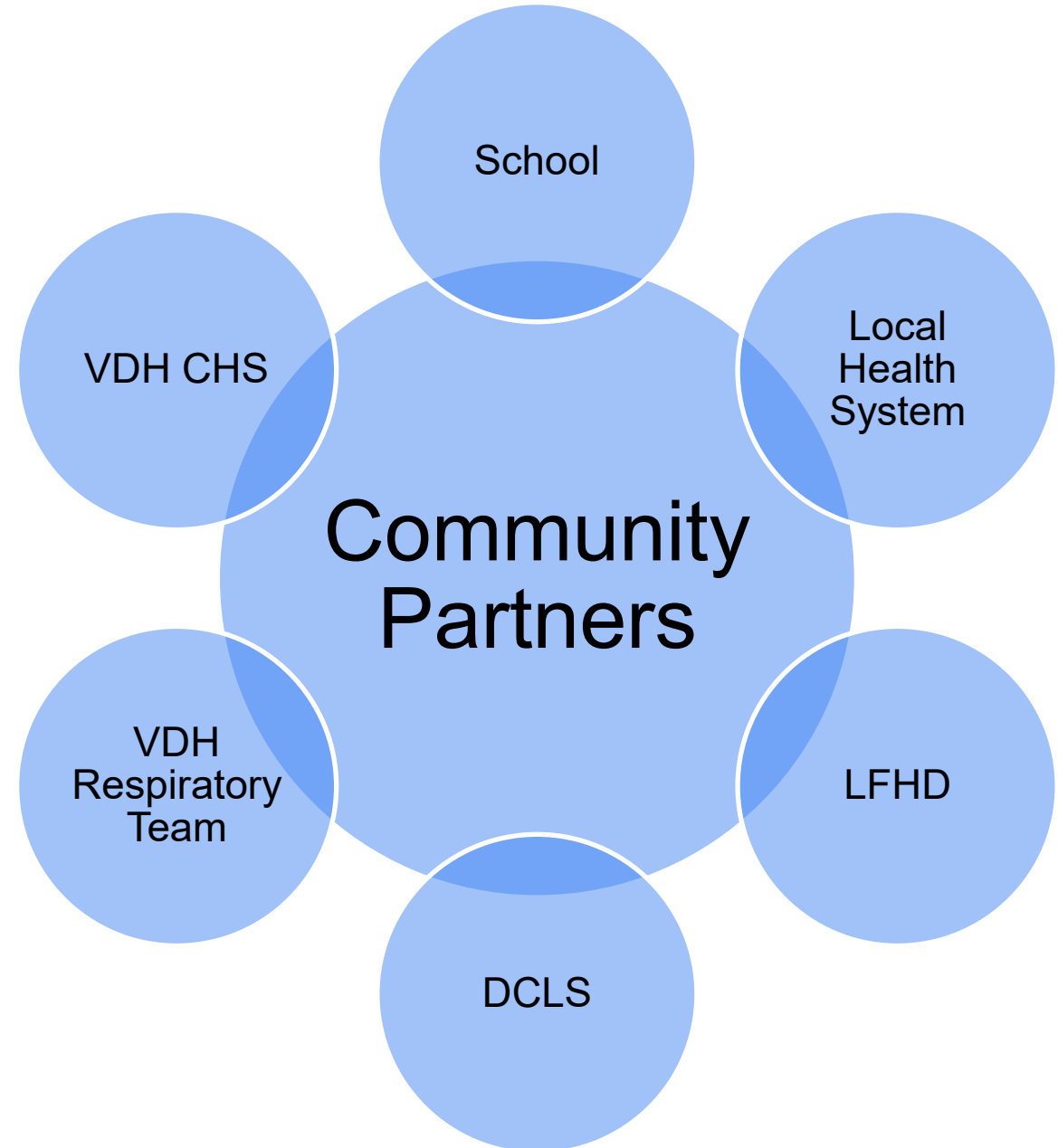
4 cases (all students) tested positive for more than 1 pathogen

Test 1	Test 2
Rapid strep	M. pneumoniae PCR
Rapid strep	M. pneumoniae PCR
Rapid strep	Parainfluenza 2 PCR
Human rhinovirus/enterovirus	M. pneumoniae PCR

In Conclusion

What Went Well

- The hospital's initial report of the cluster of pneumonia cases
- The school's implementation of infection control measures
- Testing through DCLS and the hospital following our testing recommendations



Challenges

- Having to communicate to each individual provider or unit at all healthcare facilities involved
- School had homecoming festivities scheduled for the weekend after the initial report
- 1 student with positive QuantiFERON test during outbreak

Thank you!!

- Clarissa Bonnefond, MPH, CIC
- Paula Mills, PHN
- Alice Romero, PHN
- Respiratory Disease Team – Lisa, Ta’Kindra, Elena
- Partners at the Local Health System
- Dr. Williams, Dr. Adekoya, Dr. Baraco, and Dr. Gomadan
- Nurses and Administration at Private School A

Questions?

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