

# Testing for coccidioidomycosis in emergency departments in Arizona

Public Health Satellite Meeting  
Coccidioidomycosis Study Group  
April 13th, 2018

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ARIZONA DEPARTMENT  
OF HEALTH SERVICES

*Health and Wellness for all Arizonans*

# Samples

1. Patients tested for cocci in EDs
2. Community-acquired pneumonia (CAP) patients that presented in EDs

# Sample 1

Patients tested for  
cocci in EDs



# Methods



## Patients tested for cocci in EDs

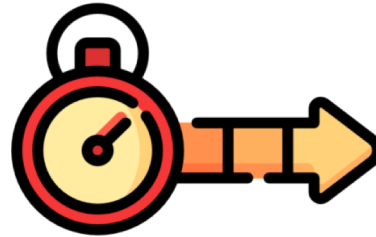
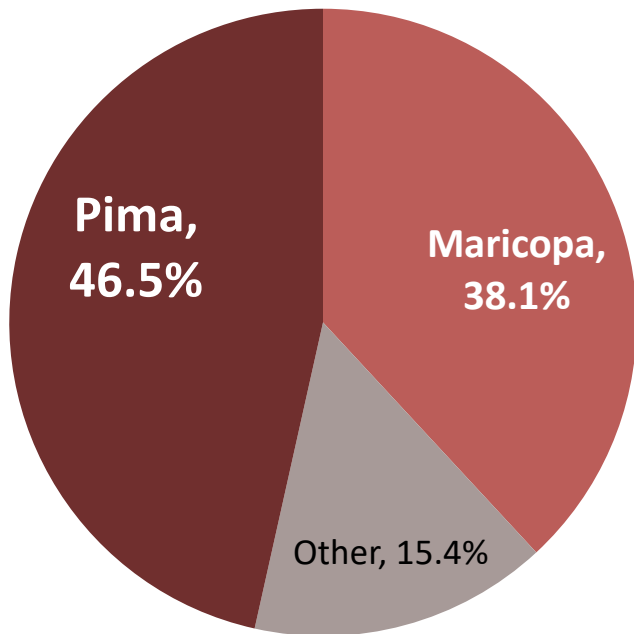
- Hospital Discharge Database (HDD)
  - ED visit records
    - Admission dates between 1/1/2014 and 12/31/2014
    - Arizona residents
    - 18 years or older
    - Current Procedural Terminology (CPT) codes for cocci testing
  - Testing provider and facility information

# Results

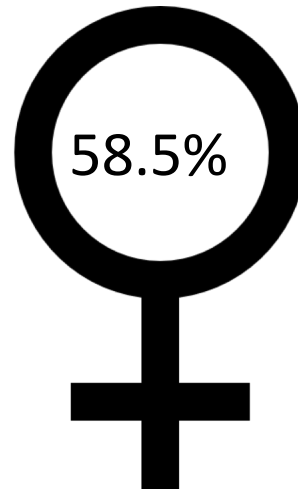


2,672 ED visits with a CPT code for cocci testing

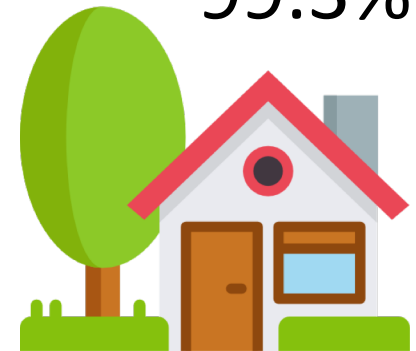
County Residence



45 years



58.5%

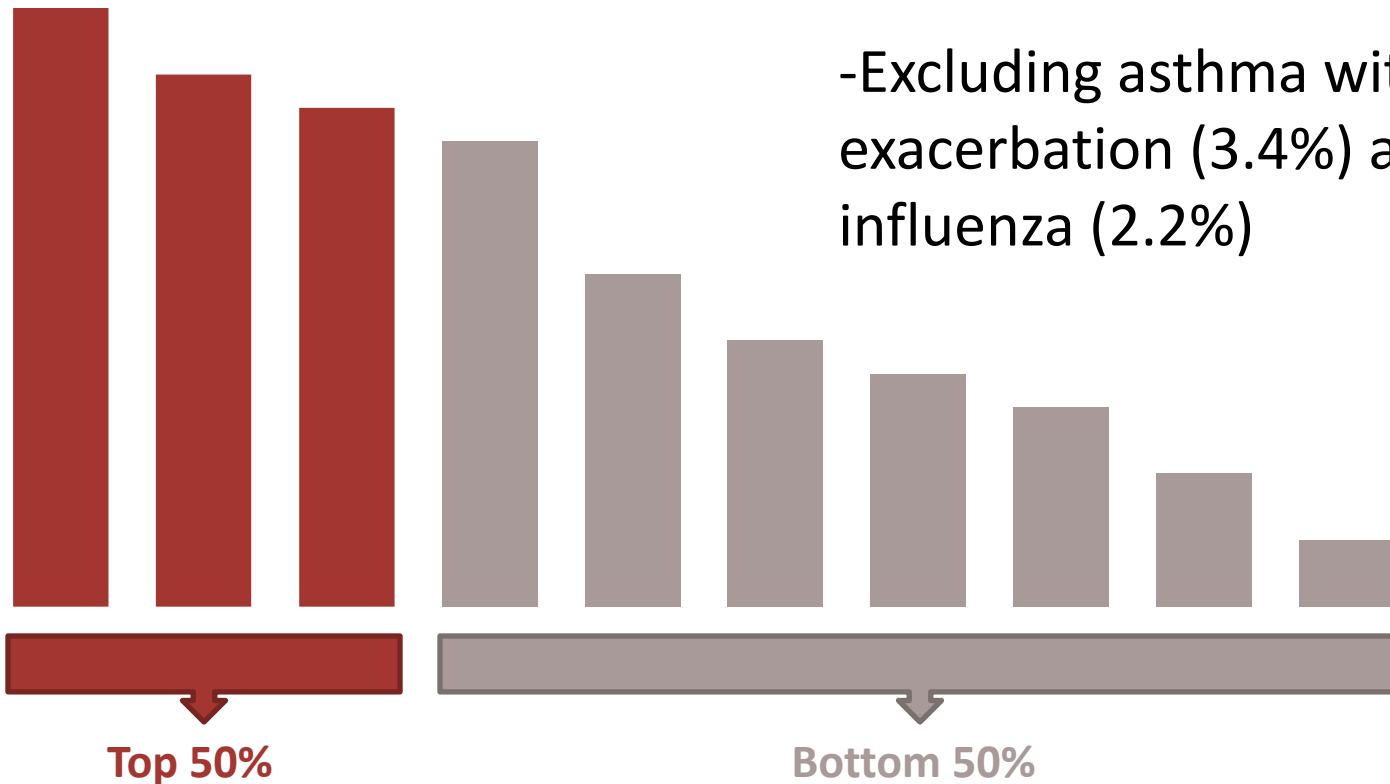


99.3%

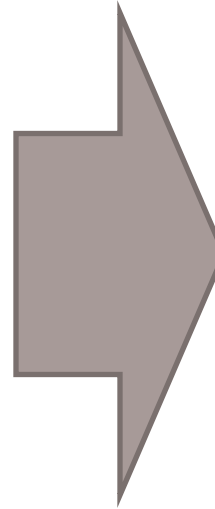
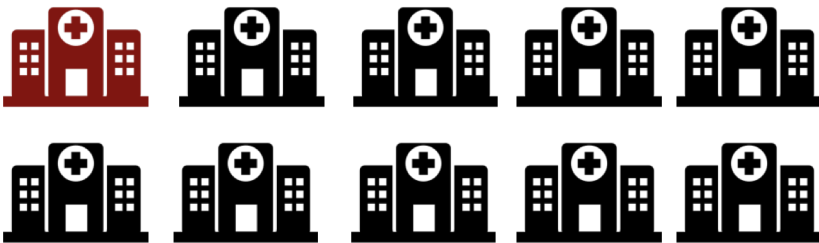
# Results



**Top 50%** of principal discharge diagnoses consistent with primary pulmonary cocci



# Results



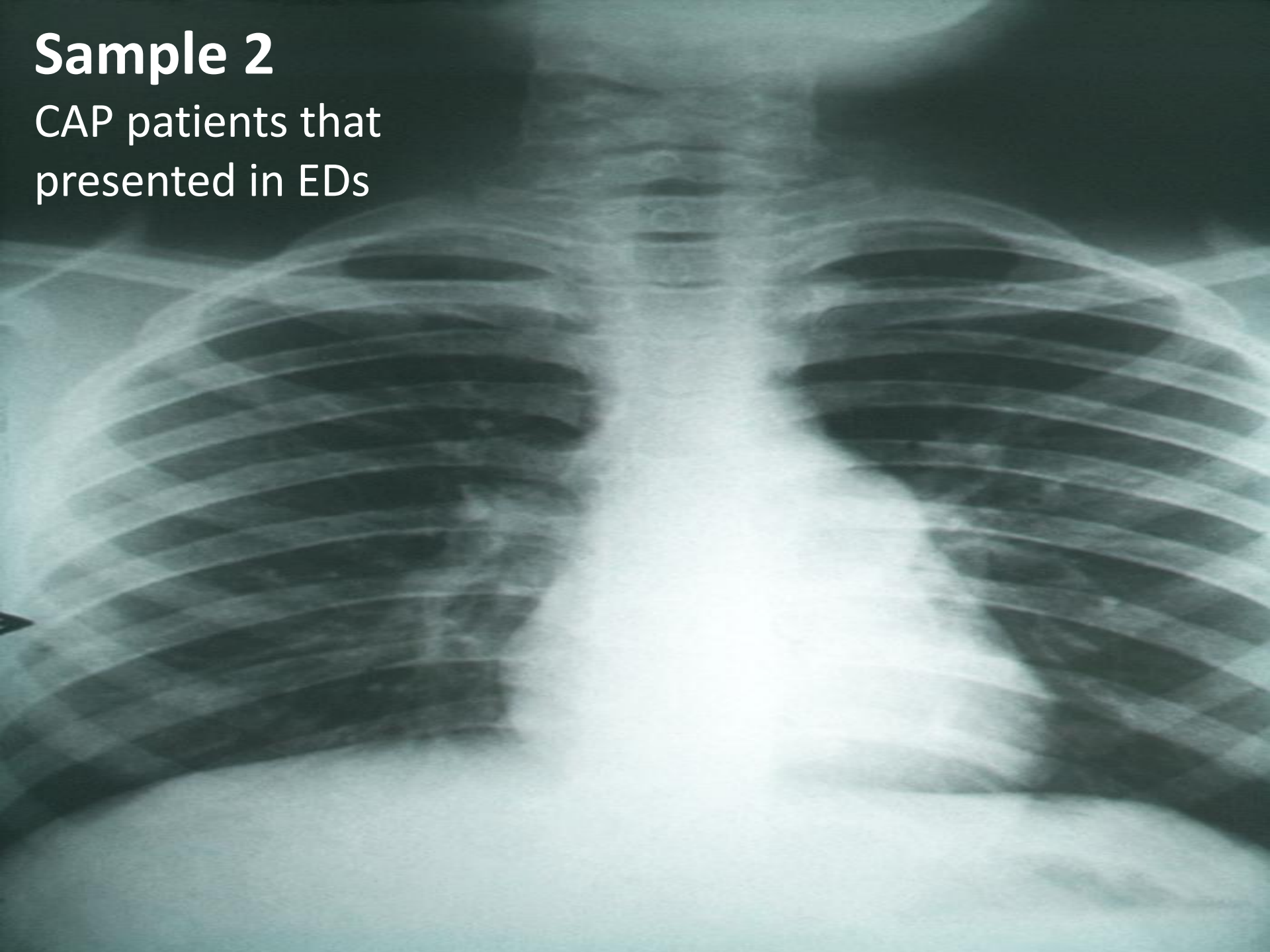
Patients tested for cocci





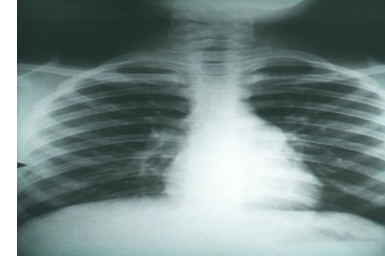
## Sample 2

CAP patients that  
presented in EDs





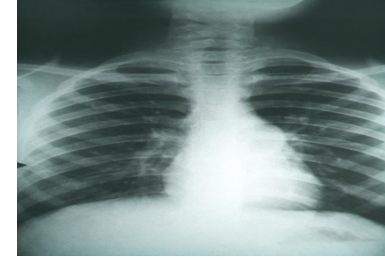
# Methods



## **CAP patients that presented in the ED**

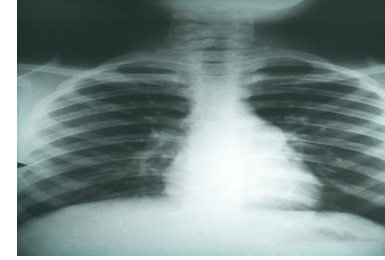
- HDD
  - ED visit records associated with CAP
    - Admission dates between 1/1/2014 and 12/31/2014
    - Arizona residents
    - 18 years or older
    - ICD-9-CM codes for pneumonia due to infection

# Methods



- Excluded:
  - Patients not admitted from the community
  - Hospitalized 90 days prior to ED visit
  - Previously reported cocci cases

# Methods



- Only earliest ED visit included if multiple visits during study period
- Only records with CPT codes for chest x-ray were included

# Results



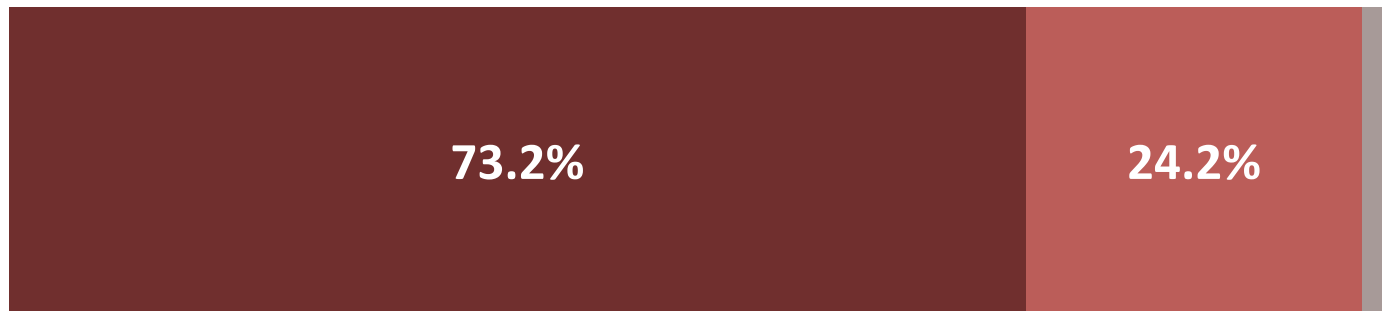
13,294 ED visits associated with CAP

Most common CAP-defining ICD-9-CM codes:

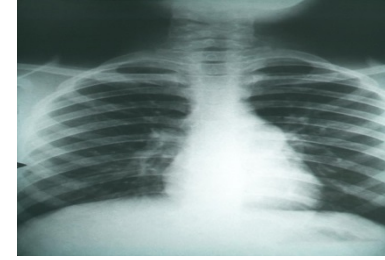
**Pneumonia, organism unspecified**

**Influenza**

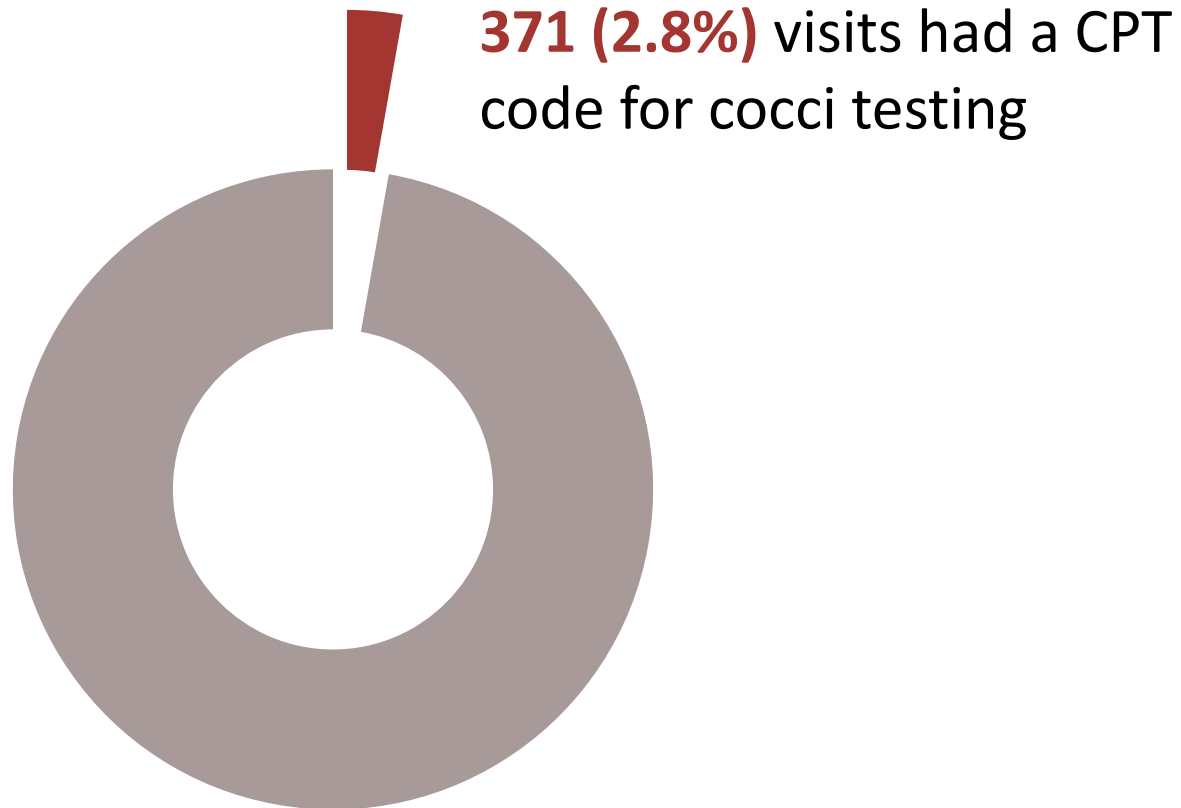
**Other**



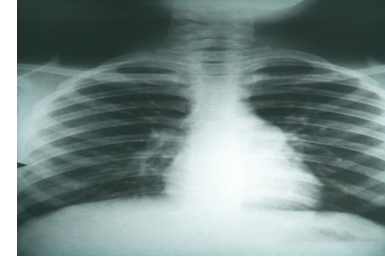
# Results



13,294 ED visits associated with CAP



# Results

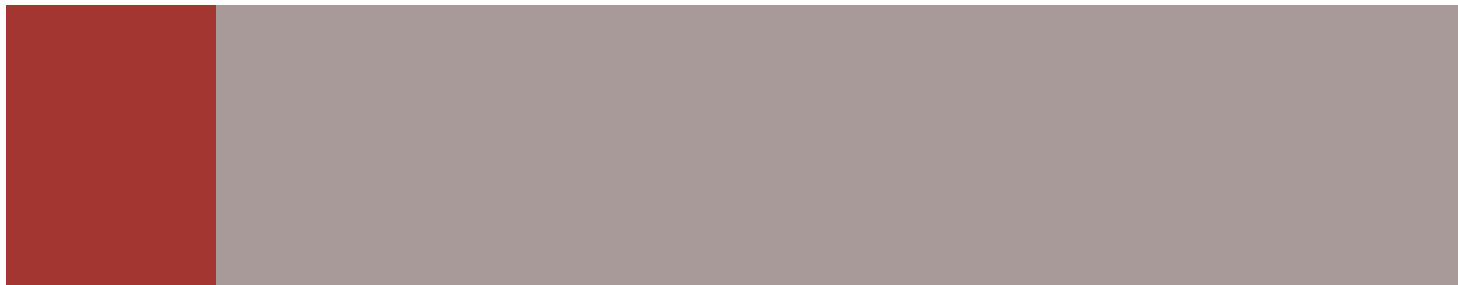


18

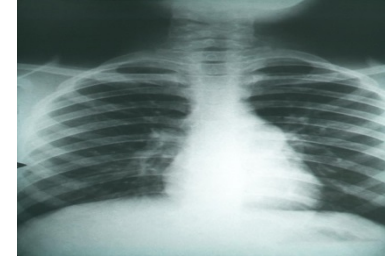
Facilities where **cocci testing was never ordered** for CAP patients in the ED

1,903  
(14.3%)

CAP patients who sought care at these facilities



# Results



**69%**

Providers who saw 10 or more CAP patients  
**never ordered cocci testing**

**7,293**  
**(54.9%)**

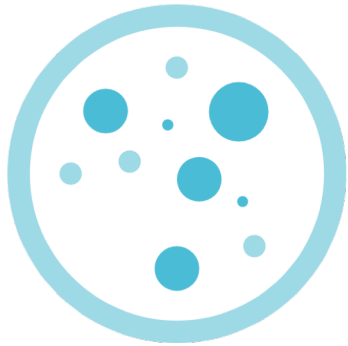
CAP patients were seen by these providers





# Discharge Record Limitations

1.



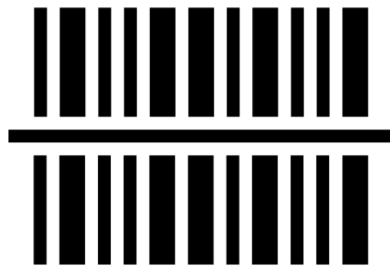
2.



CPT codes

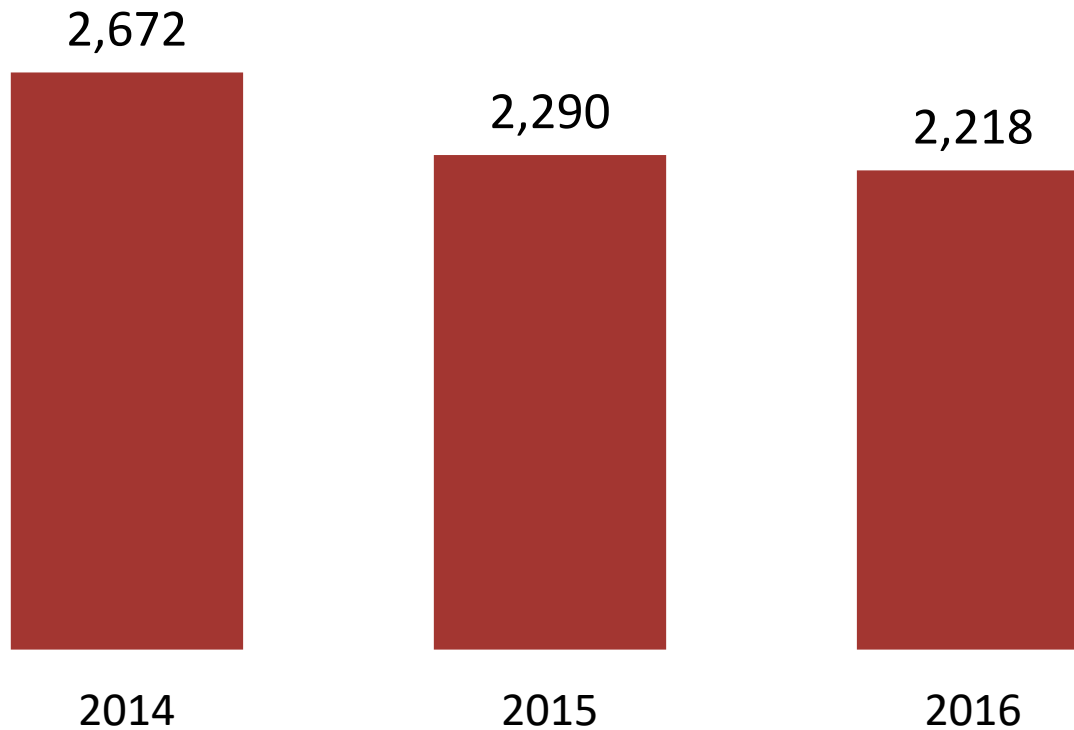
ICD-9-CM codes

3.



# Update

Patients tested for cocci in EDs over time



# Conclusion


- Cocci testing in EDs is uncommon
- Testing varies substantially by facility and provider
- A small number of facilities and providers accounted for a disproportionate number of tested patients
- More insight into clinical decision making regarding cocci testing in EDs is needed

# THANK YOU

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