



# Protecting Alabama's Citizens from Tuberculosis

The Wellness Coalition  
Annual Board Meeting  
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State Health Officer



# TB Worldwide

- One third (2 billion people ) of the world's population is **infected** with the TB bacterium
- In 2014, 9.6 million people **developed** TB **disease**
- In 2014, 1.5 million people **died** from TB (4100 daily)
- 95 percent of deaths are in low- and middle-income countries

# TB

## TB incidence per 100,000 Dominican Republic, Haiti and USA



- Dominican Republic
  - 2011 – 65
  - 2012 – 62
  - 2013 – 60
  - 2014 – 60



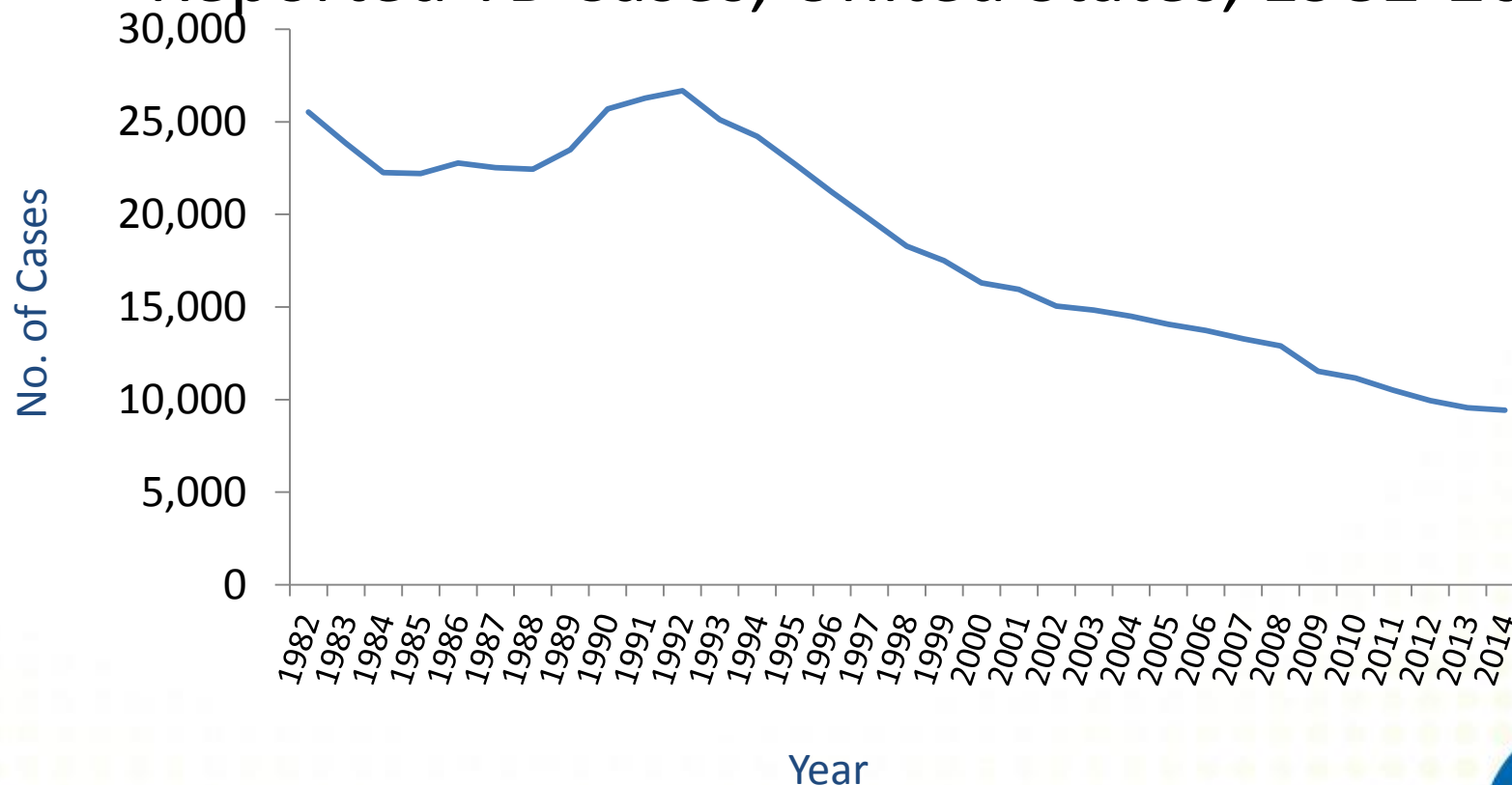
- Haiti
  - 2011 – 220
  - 2012 – 213
  - 2013 – 206
  - 2014 – 200



- United States
  - 2011 – 4
  - 2012 – 4
  - 2013 – 3
  - 2014 – 3

# TB

## Reported TB Cases, United States, 1982-2014



## Perry County, Alabama

- Perry County
  - Population 10,020 (2013)
- County seat - Marion
  - Population 3,546 (2013)



# Summary: Perry County Outbreak 2014-2015

- Twenty five cases of tuberculosis from 2014-2015
- Includes four pediatric patients treated for TB disease (2014)
- Two adult patients died (2015) with TB disease

# TB

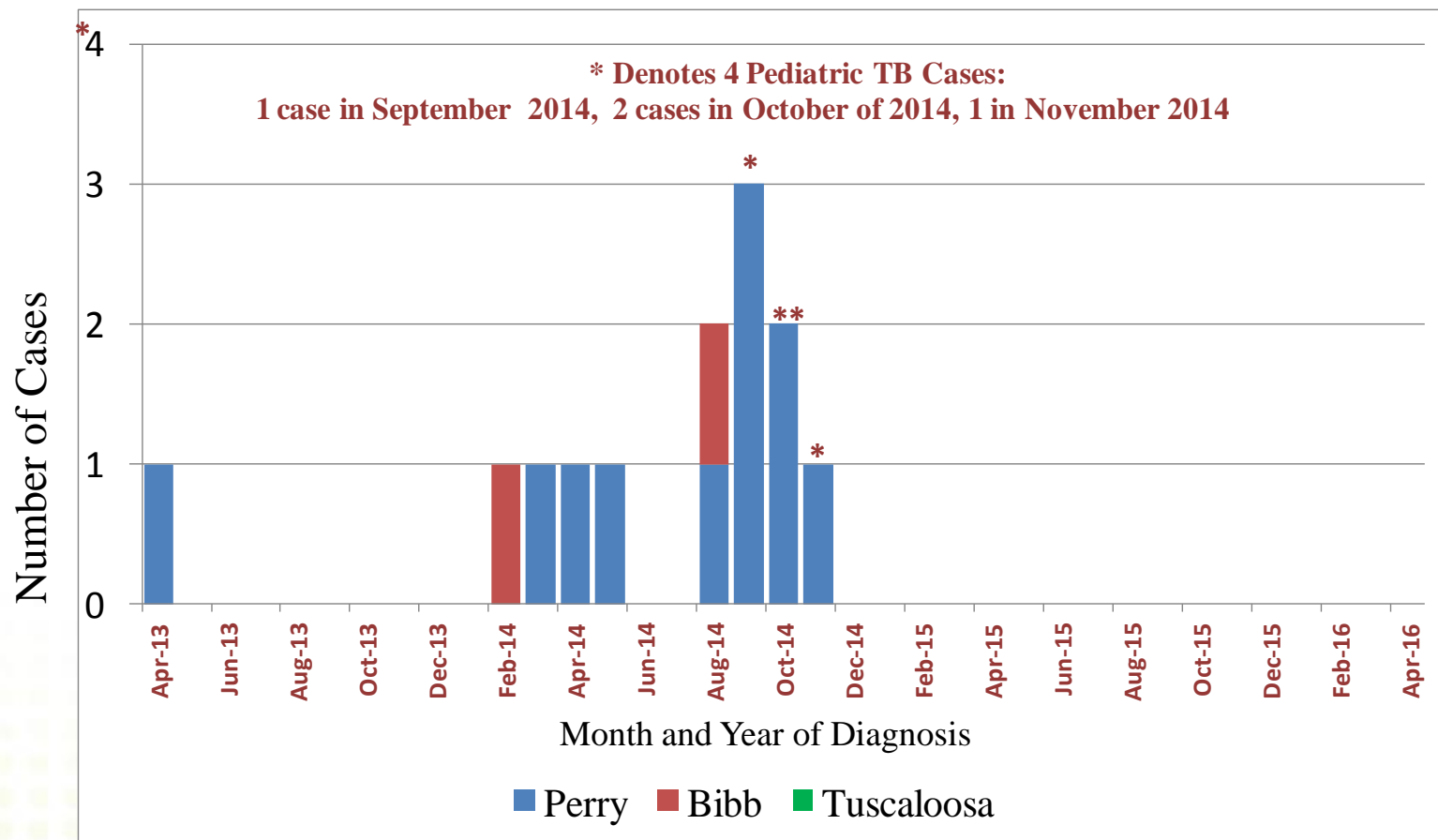
## Overall Case Rates: 2013 - 2015

Year	State Of Alabama		Perry County		Town of Marion	
	Number of Cases	Case Rate *	Number of Cases	Case Rate *	Number of Cases	Case Rate *
2013	108	2.2	1	9.8	1	28.2
2014	133	2.8	10	99.8	10	282.0
2015	119	2.5	9	91.6	9	253.8

\* Case Rate Per 100,000 Population

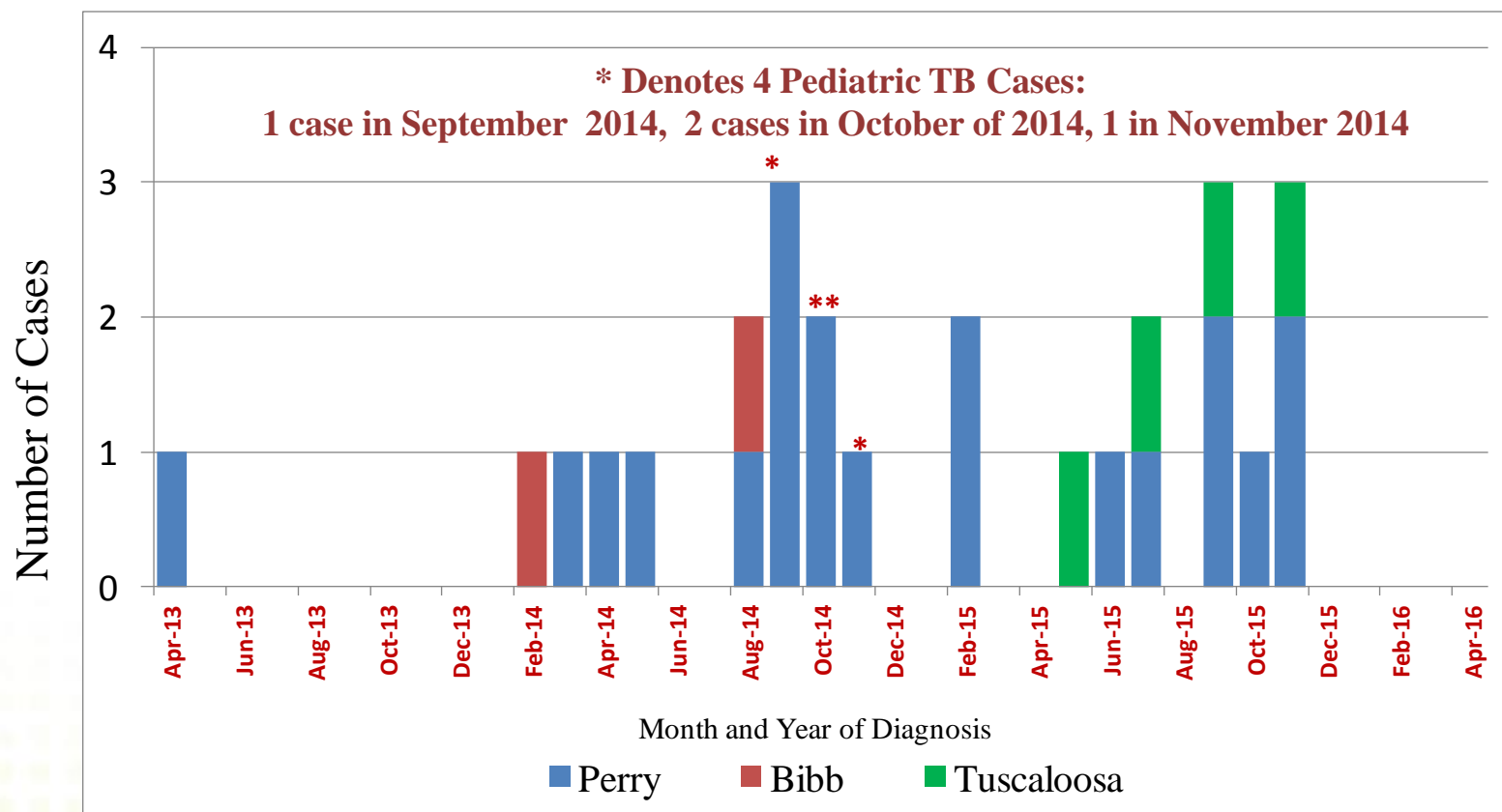
# TB

## Cases of Active TB Associated with Outbreak in Perry County by Month of Diagnosis and County of Residence – adding 2014 Cases



# TB

## Cases of Active TB Associated with Outbreak in Perry County by Month of Diagnosis and County of Residence – adding 2015 Cases



# So What Are We Going To Do Now?

- Growing frustration
- Morbidity continuing unabated
- “Tip of the Iceberg” concerns
- No end in sight...

**TB**

# “Show me the Money”



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## Incentivized TB Testing Outcomes by Test Type

Results as of: 03/15/2016

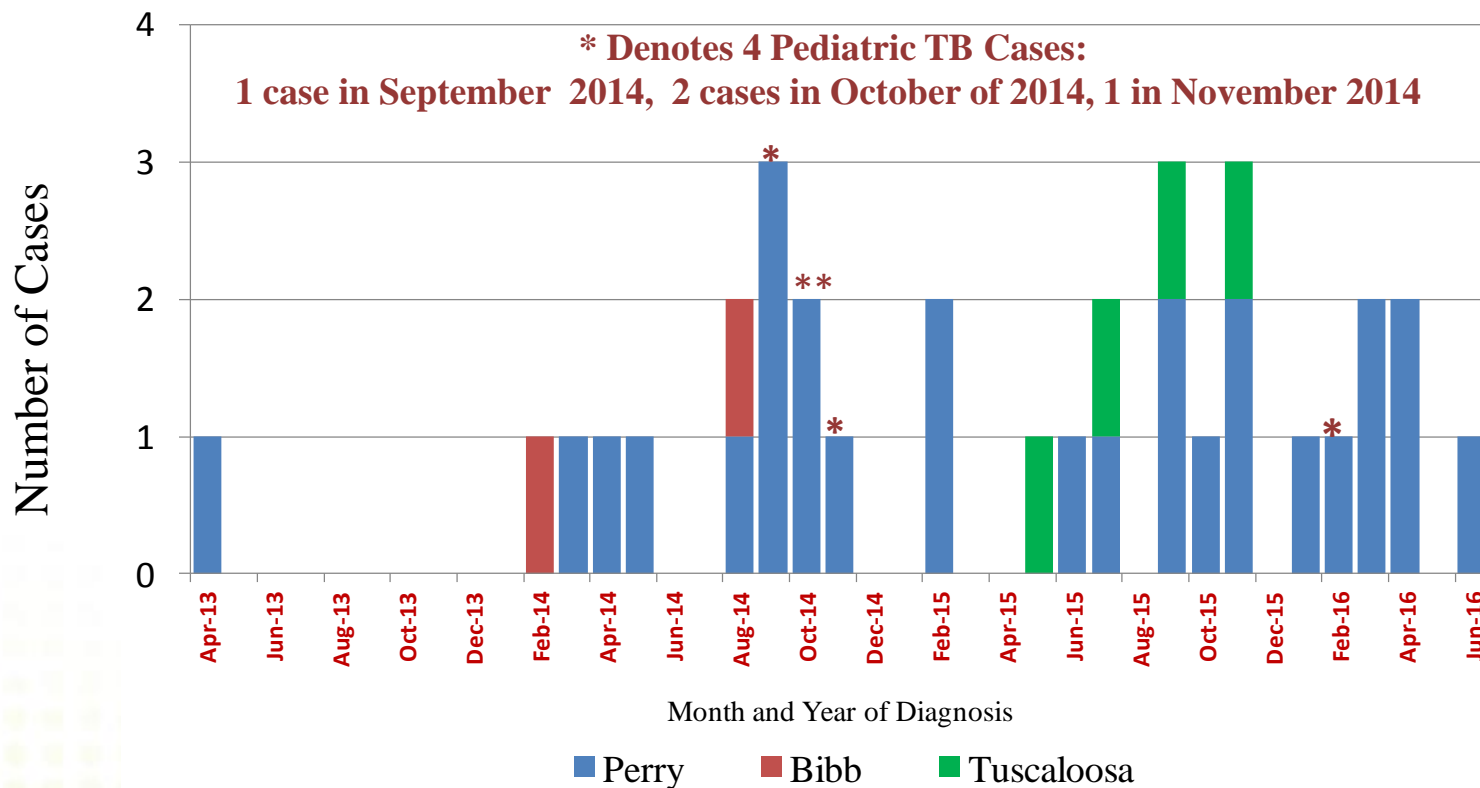
Test Type	Number Tested	Number Positive	Percent
IGRA (TSPOT)	1848	143	7.7%
TST (Skin Test)	409*	27	6.6%
Totals	2257	170	7.5%

\*39 persons did not return for TST reading



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## Cases of Active TB Associated with Outbreak in Perry County by Month of Diagnosis and County of Residence – adding 2016



# TB

## Summary: Perry County Outbreak 2016

- Six adult cases growing M. TB
- One adult case meeting clinical case definition
- One child under 15 years of age meeting clinical case definition
- Eight total cases of TB disease so far in 2016



## Latent TB Infection (LTBI)

- LTBI is the presence of *M. tuberculosis* organisms (tubercle bacilli) ***without***:
  - Signs and symptoms
  - Radiographic evidence of TB disease, i.e., CXR
  - Bacteriologic evidence of TB disease, i.e., positive sputum culture

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## Progression of TB Infection to Disease in Adults

- About 10% of adults with LTBI will develop tuberculosis
  - In the United States, about 5% will develop TB within the first 2 years after infection
  - Additional 5% risk over lifetime
  - The remaining 90% will always be infected but will not develop disease



**TB**

# Basketball



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## Take Aways Regarding Public Health's “Patient” - Perry County

- Any of the 133 cases statewide in 2014 (119 in 2015) could be a Perry County type outbreak if similar local conditions and if Public Health not aggressively working each case
- TB “travels”, the Perry County Outbreak was not limited to Perry County, involved two additional counties
- TB can be deadly





Thank You

