

EPIDEMIOLOGY OF TUBERCULOSIS

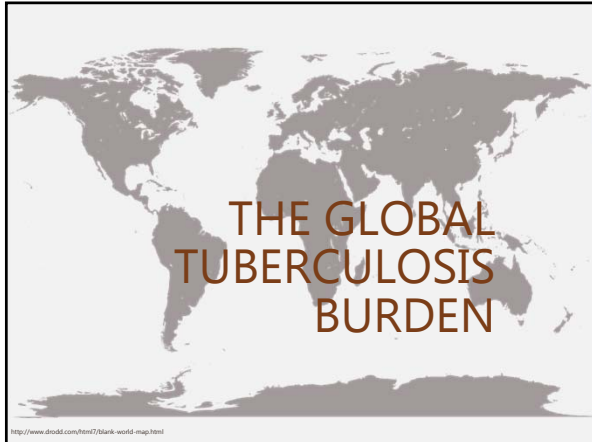
*Shona Smith, MPH
Epidemiologist
MDHHS TB Control Unit*

Disclosures

- None of the speakers or planners involved in this activity has any relevant conflict of interest.
- The use of trade names and commercial sources during this presentation is for identification only, and does not imply endorsement.
- No commercial support has been received for this program.

Objectives

- Identify trends in global, national, and Michigan TB epidemiology that have contributed to the number of TB cases in 2016
- Identify important risk-factors that have contributed to the number of TB cases in 2016



How many new cases of TB were reported globally to WHO in 2015?

A. 8.4 Million
 B. 6.3 Million
 C. 6.1 Million
 D. 12.4 Million

Status of the Global TB Epidemic –
Global Tuberculosis Report 2016

WHO GLOBAL TB REPORT 2016
 Actions and investments to End TB fall far short
 Tuberculosis among top 10 causes of death worldwide last year
More on the epidemic from 2015

10.4 million people FELL ILL FROM TB
That's 28,500 people every day

1.8 million people DIED FROM TB including 400,000 WITH HIV + TB
That's over 4,000 people every day

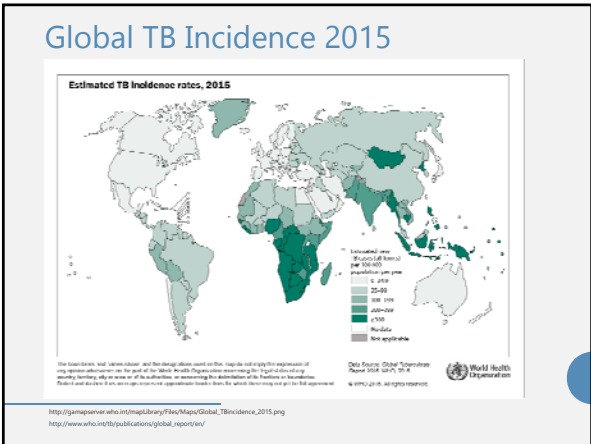
60% of TB cases worldwide occurred in just SIX COUNTRIES
 CHINA INDIA INDONESIA NIGERIA PHILIPPINES SOUTH AFRICA

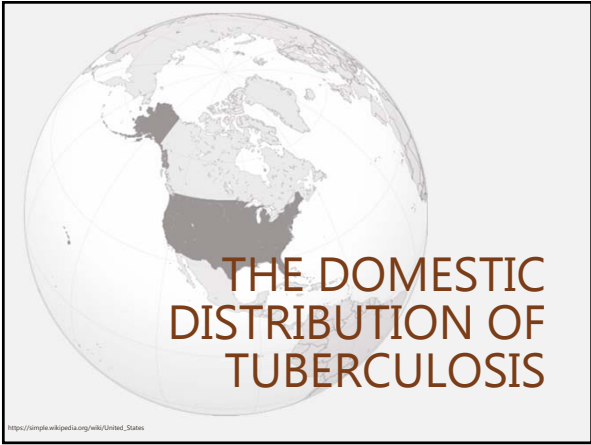
More action and investment in these countries will drive down the TB burden
3 MILLION LIVES WERE SAVED BY THE GLOBAL TB RESPONSE IN 2015

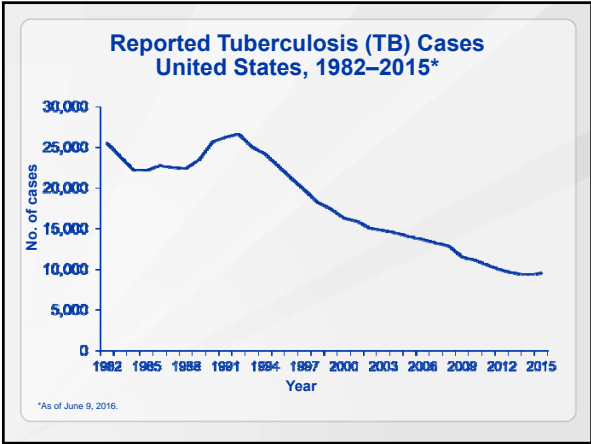
ACCESS TO CARE
6.1 million people had ACCESS TO QUALITY TB CARE
4.3 million people MISSED OUT
Better reporting, diagnosis and access to care will close this gap

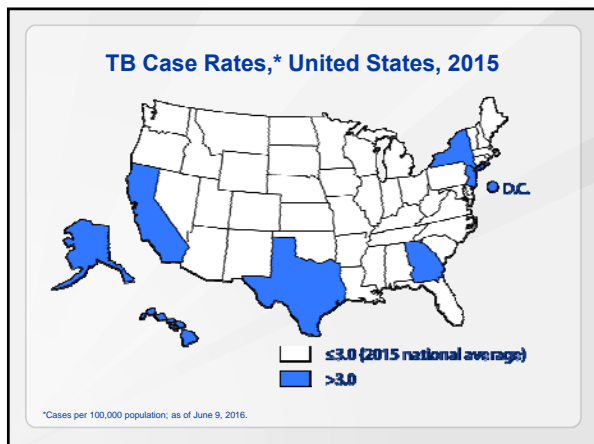
DRUG RESISTANCE
More than 10% of people receiving treatment for multidrug-resistant TB in 2015
ACTUALLY RECEIVED IT
Only half of those who started MDR-TB treatment WERE CURED
Better detection, prevention and care will address the crisis of multidrug-resistant TB

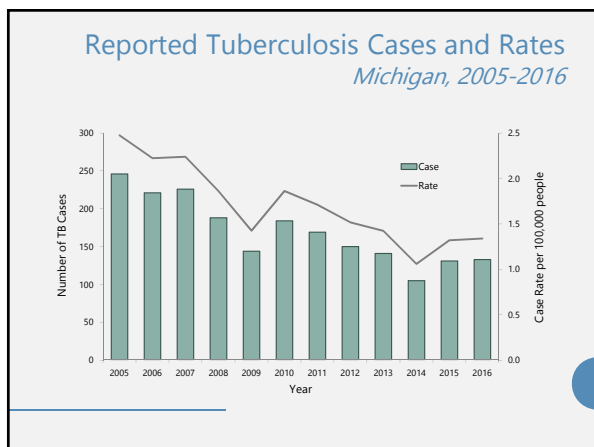
http://www.who.int/tb/global-tb-report-infographic.pdf?ua=1





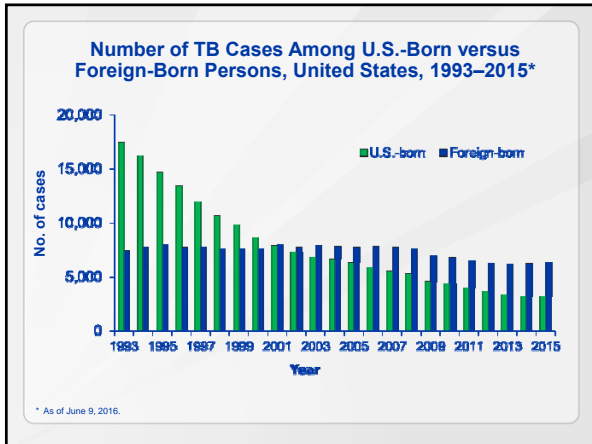


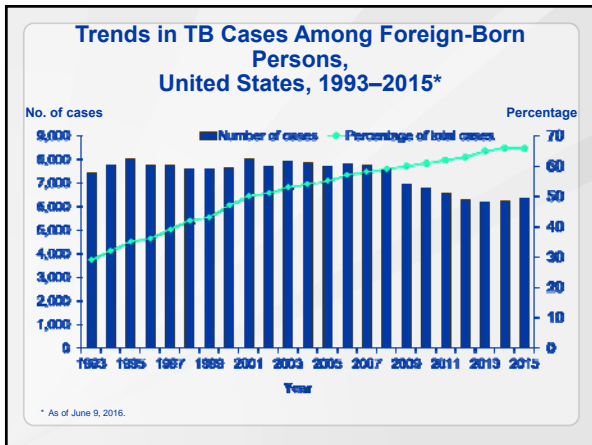


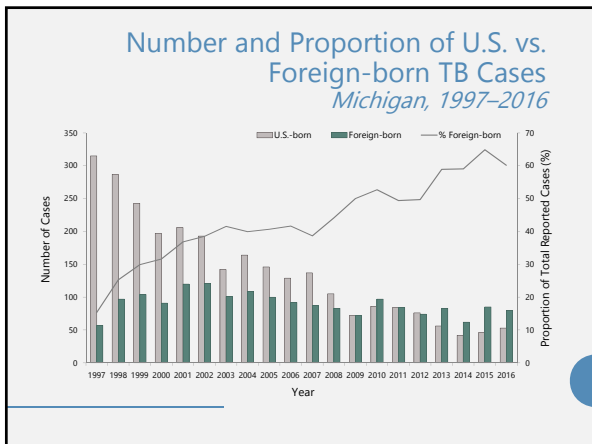


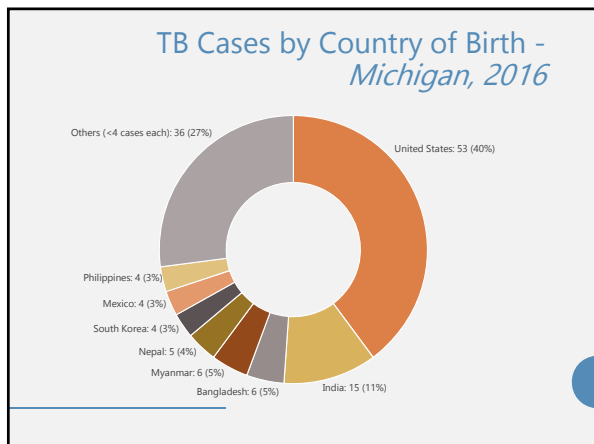
Clinical Characteristics of TB Cases - Michigan, 2016

- Site of TB Disease:
 - 51% Pulmonary
 - 41% Extrapulmonary
 - 46% Ocular
 - 8% Concurrent
 - 9% Ocular
- Verification Criteria:
 - 52% Culture Positive
 - 4% NAAT Positive (no culture)
 - 41% Clinical
 - 3% Provider Diagnosed
- 100% of culture positive cases were genotyped
- 16% in a genotype cluster

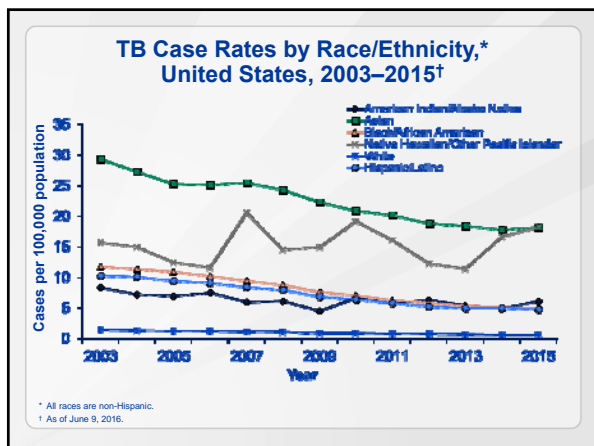


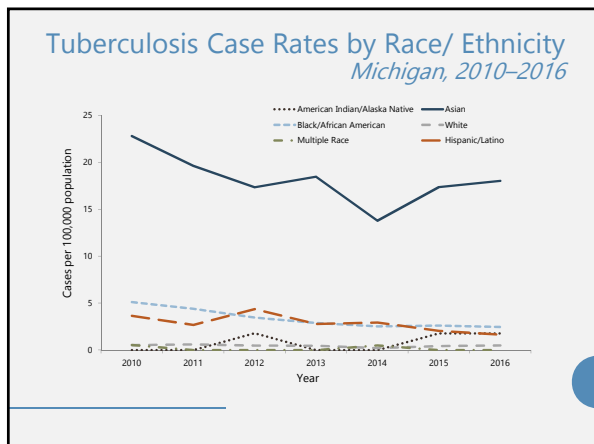


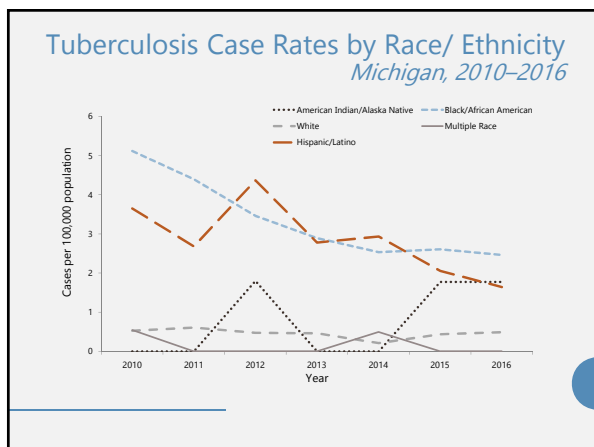


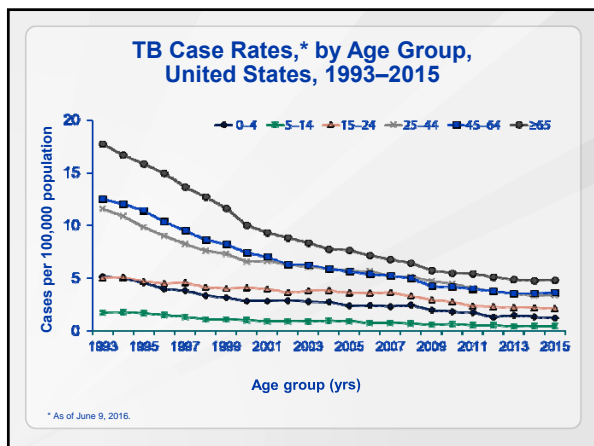


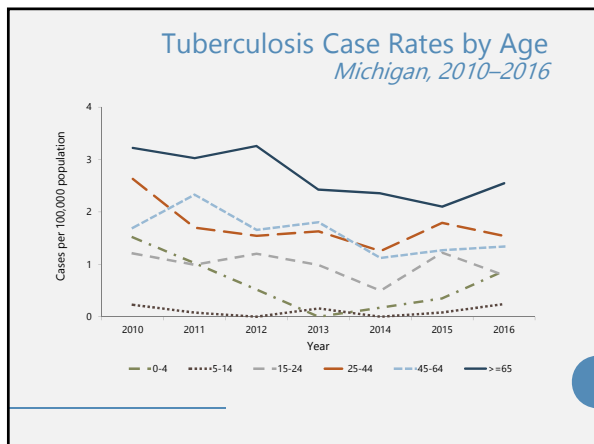


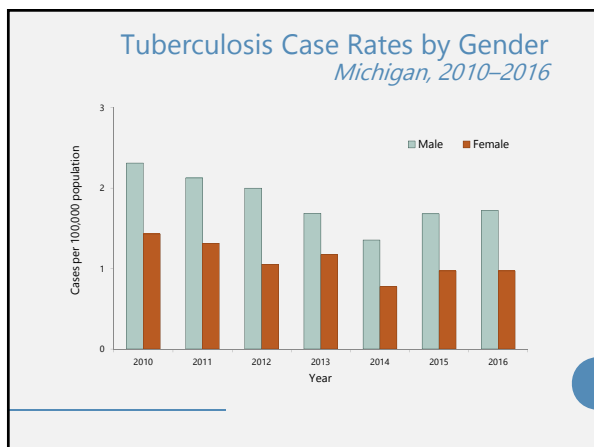


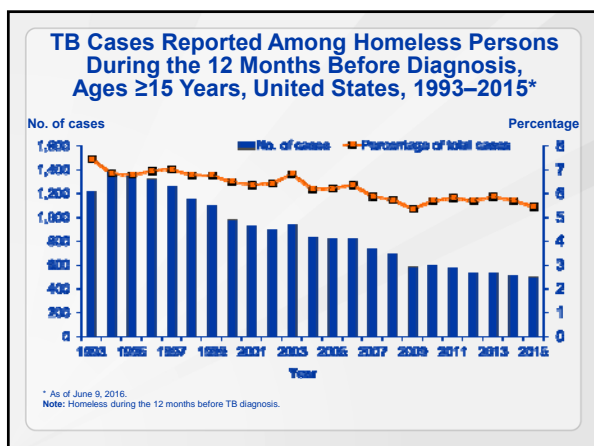


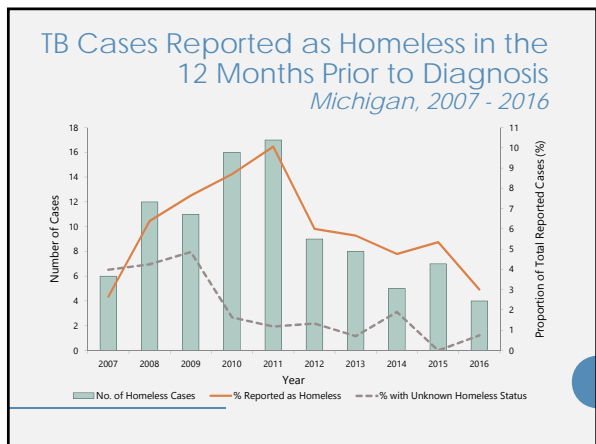


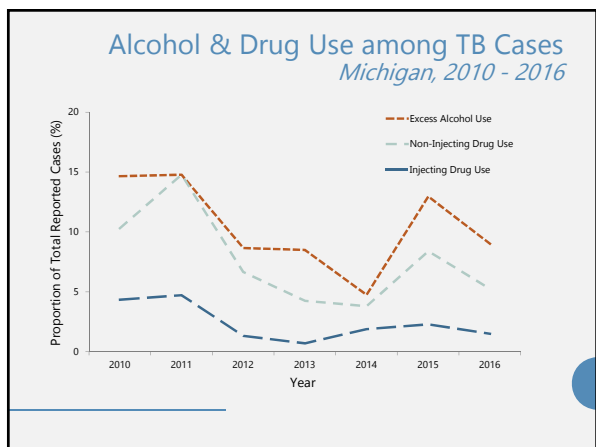


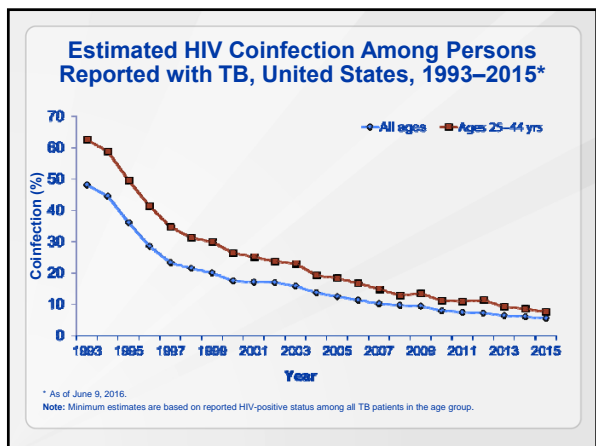


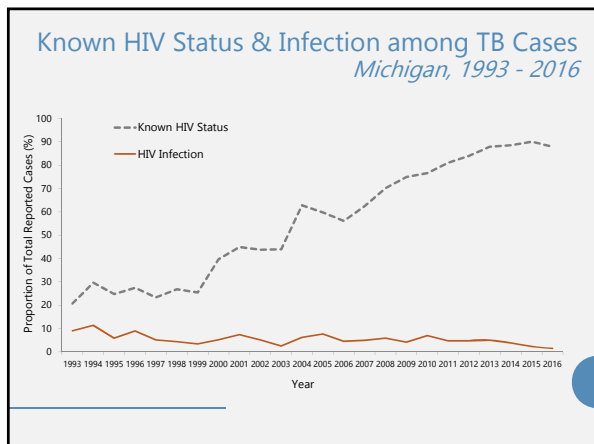


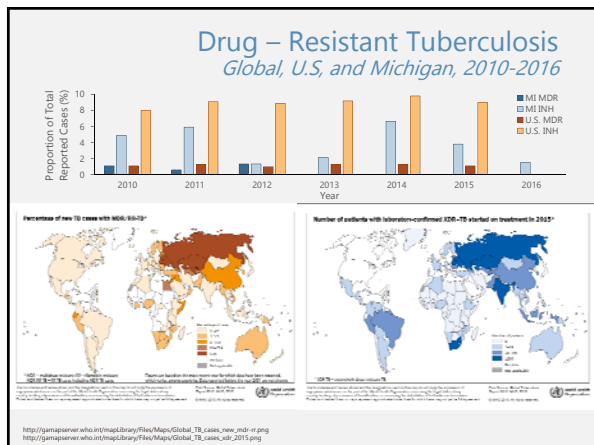












Thank you!

Acknowledgements:

- Local Health Jurisdiction, Tuberculosis/Communicable Disease Nurses and Staff
- MDHHS, Tuberculosis Control Unit
- CDC, Division of Tuberculosis Elimination (DTBE)

Contact Information:
smiths79@michigan.gov

References:

- World Health Organization. Global tuberculosis report 2016. Geneva, Switzerland: World Health Organization; 2016. <http://apps.who.int/iris/bitstream/10665/250441/1/9789241565394-eng.pdf?ua=1>
- CDC. Reported tuberculosis in the United States, 2015. Atlanta, GA: US Department of Health and Human Services, CDC; 2016. <http://www.cdc.gov/tb/statistics/reports/2015/default.htm>
- Salinas JL, Mindra G, Haddad MB, Pratt R, Price SF, Langer AJ. Leveling of Tuberculosis Incidence – United States, 2013–2015. MMWR Morb Mortal Wkly Rep 2016;65:273–278. DOI: <http://dx.doi.org/10.15585/mmwr.mm6511a2>
- US Census Bureau. Current estimates data. Washington, DC: US Census Bureau; 2015. <http://www.census.gov/popest/data/state/srh/2015/index.html>
