Tuberculosis Epidemiology

Global, USA and Michigan

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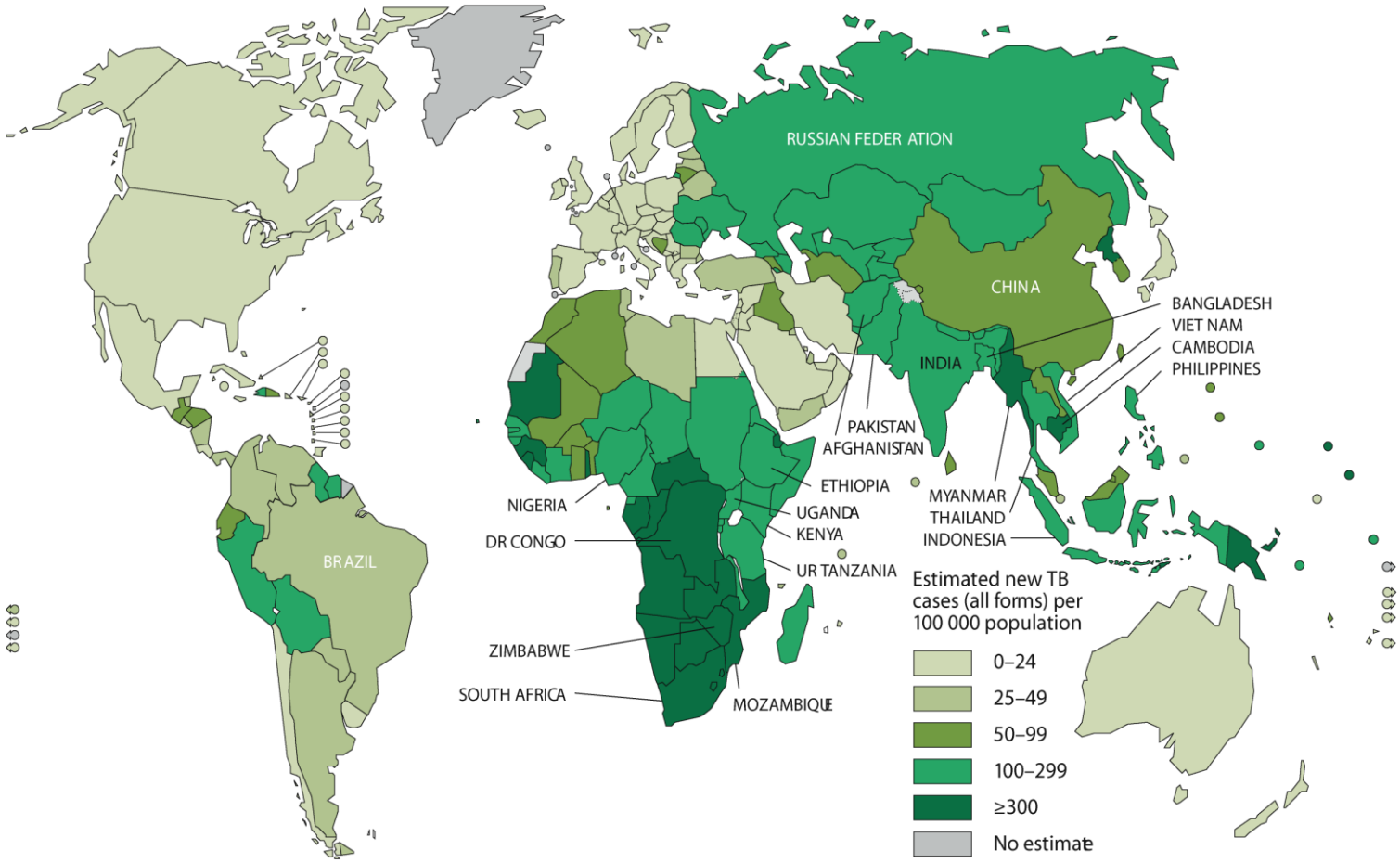
TB around the World (2010)

- **There were 8.8 million new TB cases**
- **1.1 million people died from TB, including 350,000 people with HIV**
- **Absolute number of cases has been falling since 2006**

* Source: WHO

Estimated TB incidence rates, 2010



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Source: *Global Tuberculosis Control 2011*. WHO, 2011.

World Health Organization

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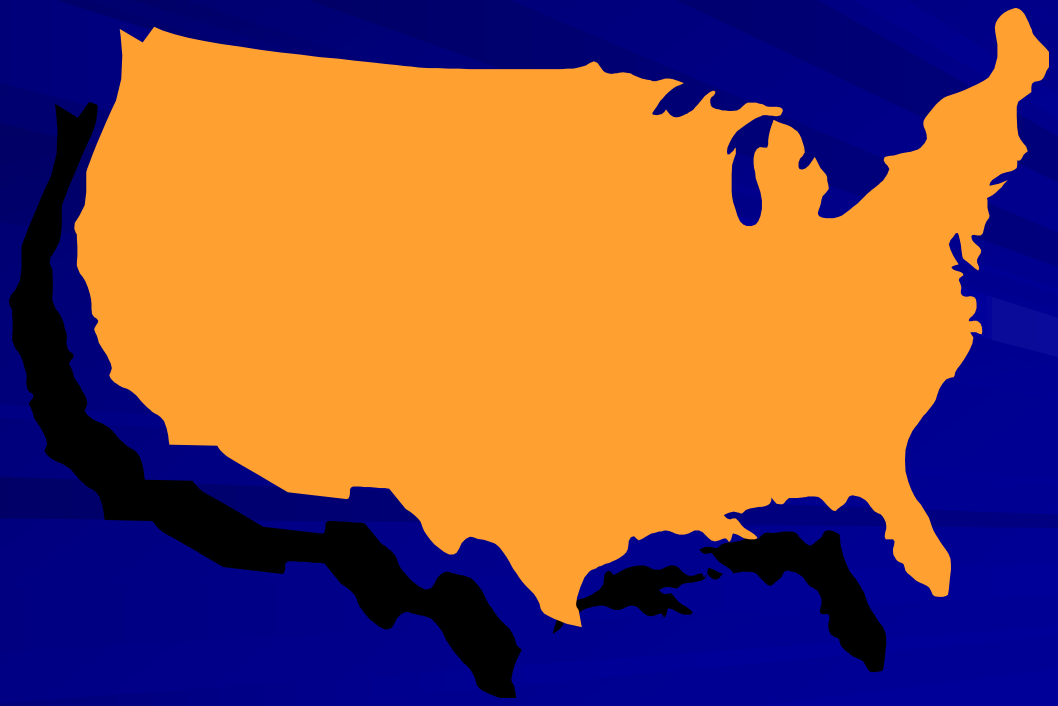
High Burden Countries (WHO)

- Afghanistan
- Bangladesh
- Brazil
- Cambodia
- China
- Democratic Republic of the Congo
- Ethiopia
- India
- Indonesia
- Kenya
- Mozambique
- Myanmar
- Nigeria
- Pakistan
- Philippines
- Russian Federation
- South Africa
- Thailand
- Uganda
- United Republic of Tanzania
- Viet Nam
- Zimbabwe

Tuberculosis in the USA



Reported TB Cases
United States, 1982–2010*

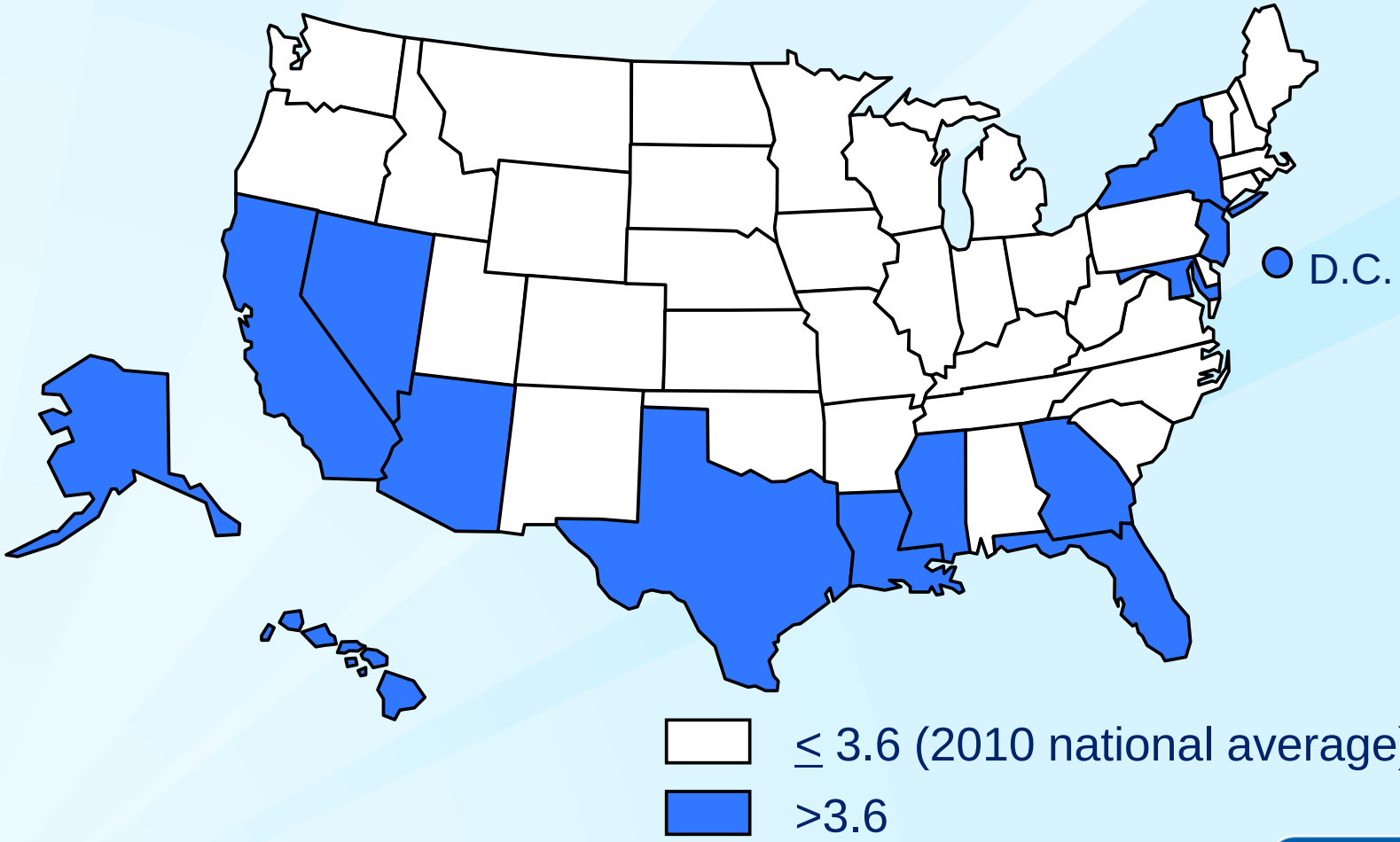
*Updated as of July 21, 2011

TB Morbidity
United States, 2005–2010

Year	No.	Rate*
2005	14,068	4.8
2006	13,732	4.6
2007	13,286	4.4
2008	12,905	4.2
2009	11,537	3.8
2010	11,182	3.6

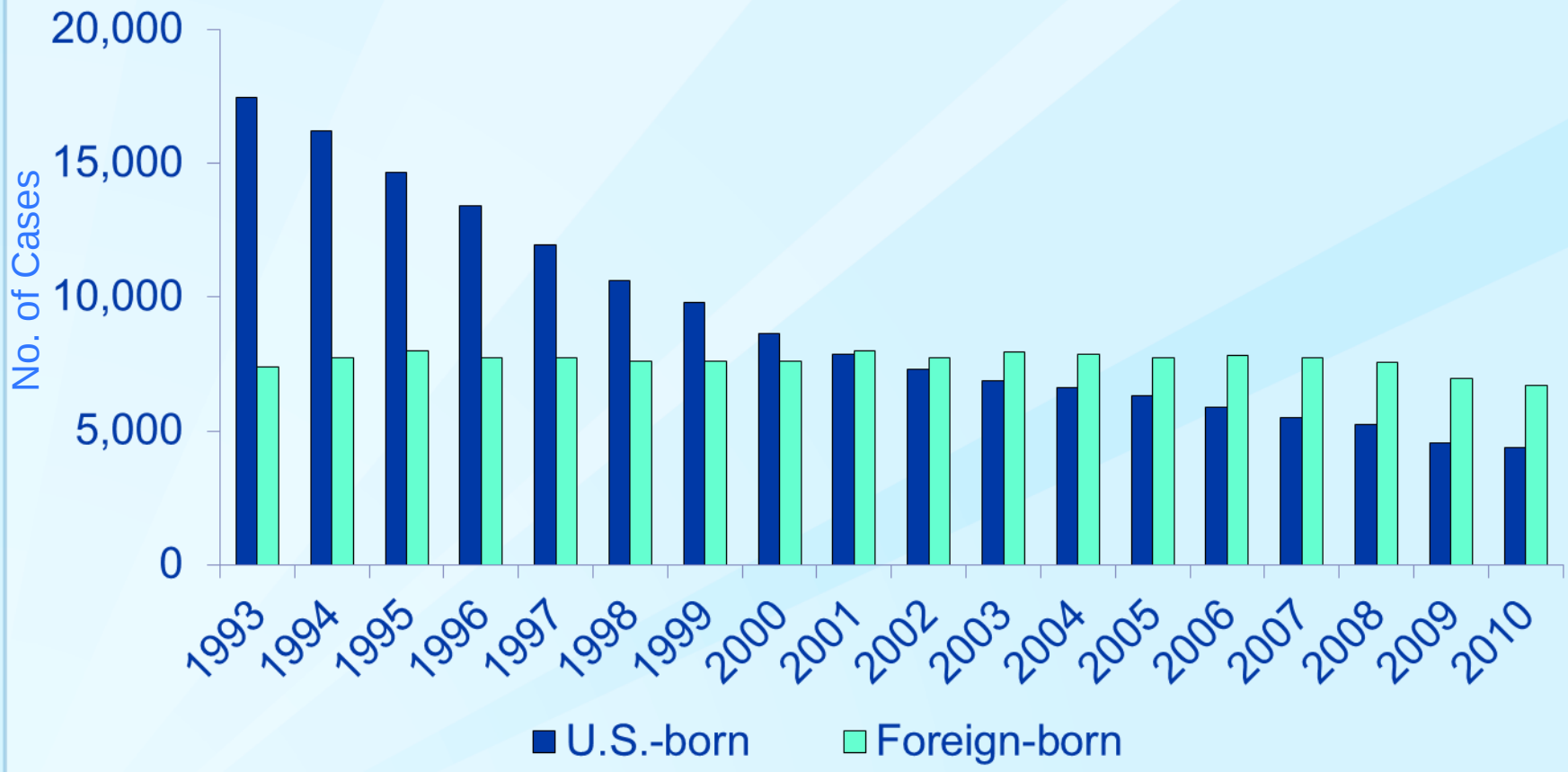
*Cases per 100,000. Updated as of July 21, 2011

TB Case Rates,* United States, 2010



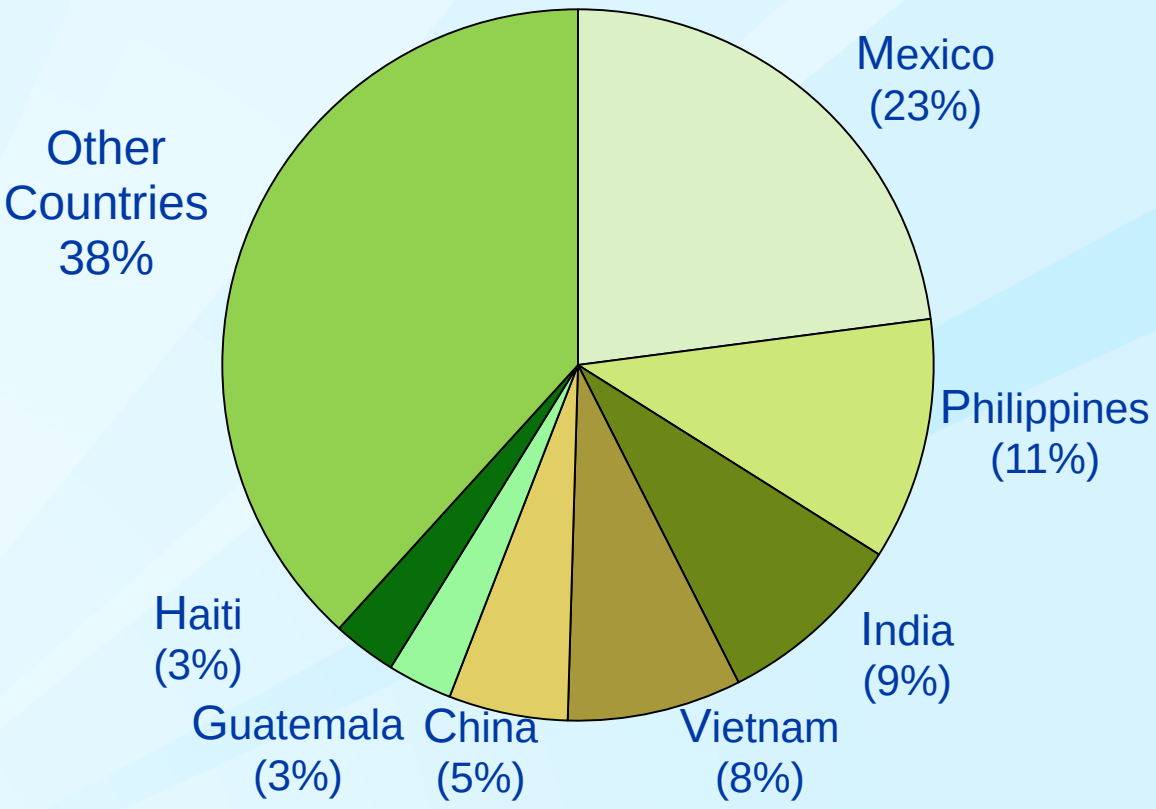
*Cases per 100,000.

Number of TB Cases in U.S.-born vs. Foreign-born Persons United States, 1993–2010*

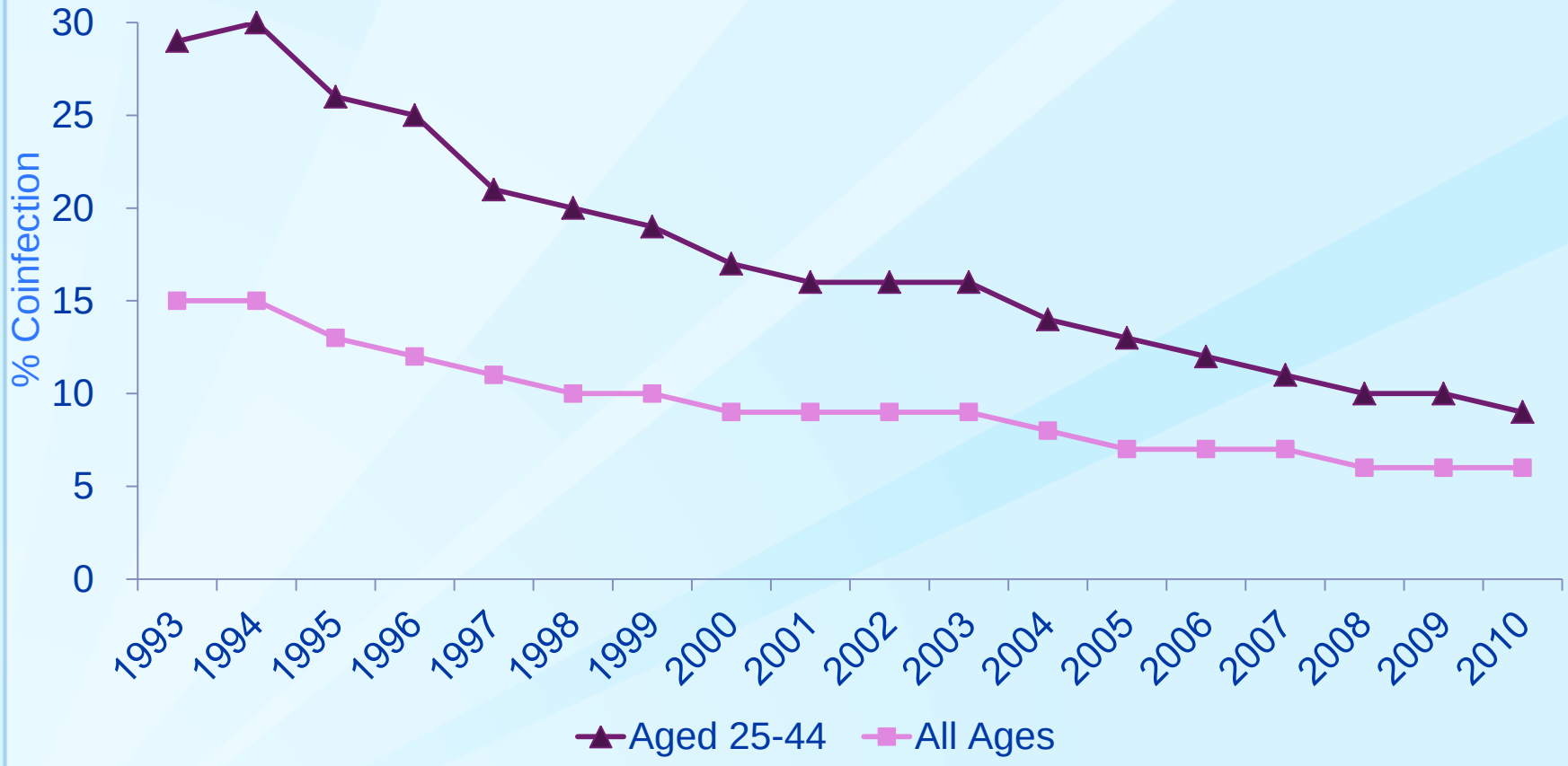


*Updated as of July 21, 2011

Countries of Birth of Foreign-born Persons Reported with TB, United States, 2010



Estimated HIV Coinfection in Persons Reported with TB, United States, 1993 – 2010*



*Updated as of July 21, 2011

Note: Minimum estimates based on reported HIV-positive status among all TB cases in the age group

Michigan

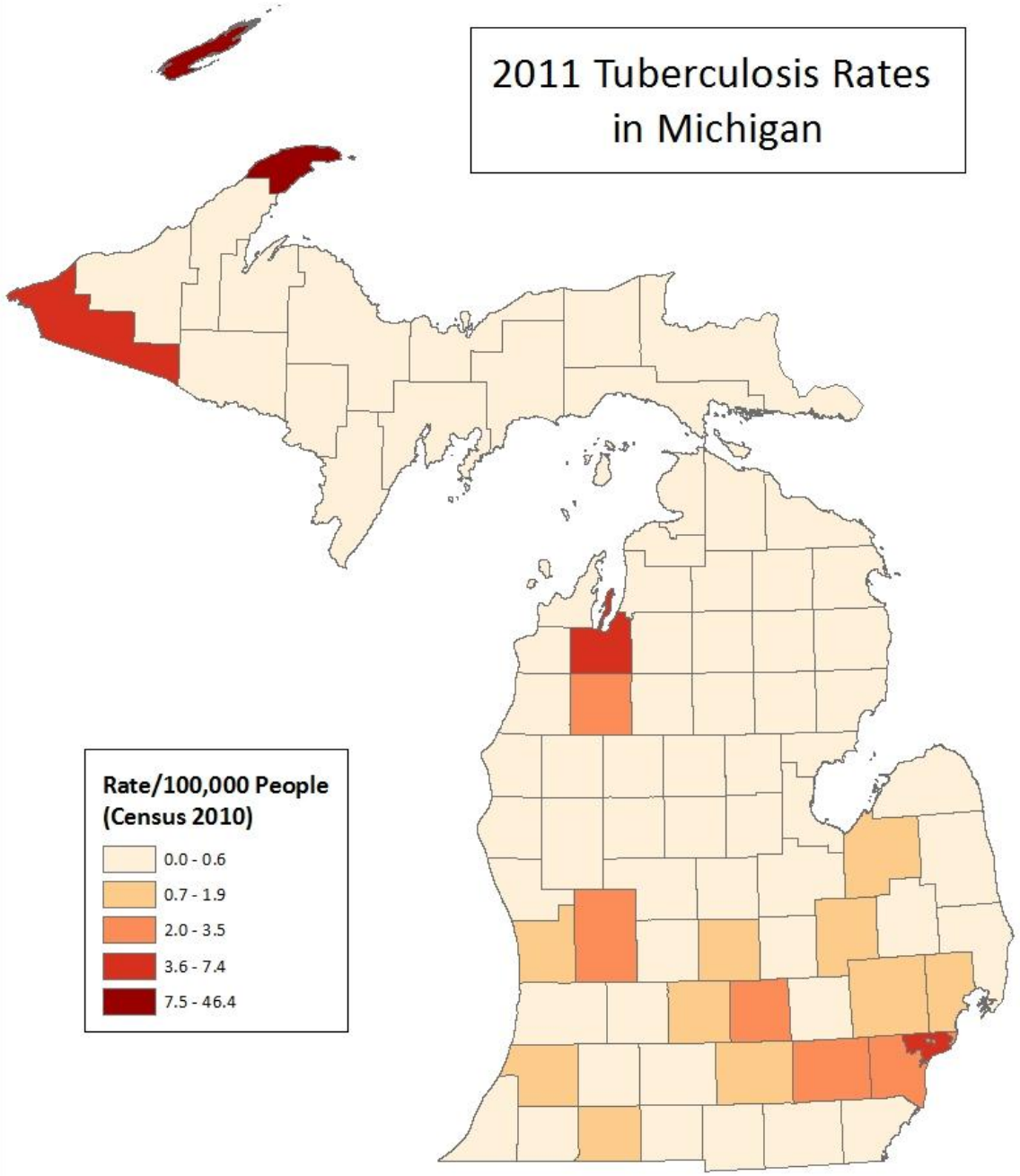
Tuberculosis in Michigan- 2011

- 170 cases reported → rate of 1.7/100,000
  - 7.6% decrease from 2010 (rate=1.9/100,000)
- Foreign-born cases decreased to 50% from 58.3% in 2010
- 76.5% of cases are located in Metro Detroit - Wayne (including Detroit), Oakland and Macomb
- 1 case of MDR TB
- 10% were homeless within the last year
- 22.4% abused alcohol, injection or non-injection drugs within the last year

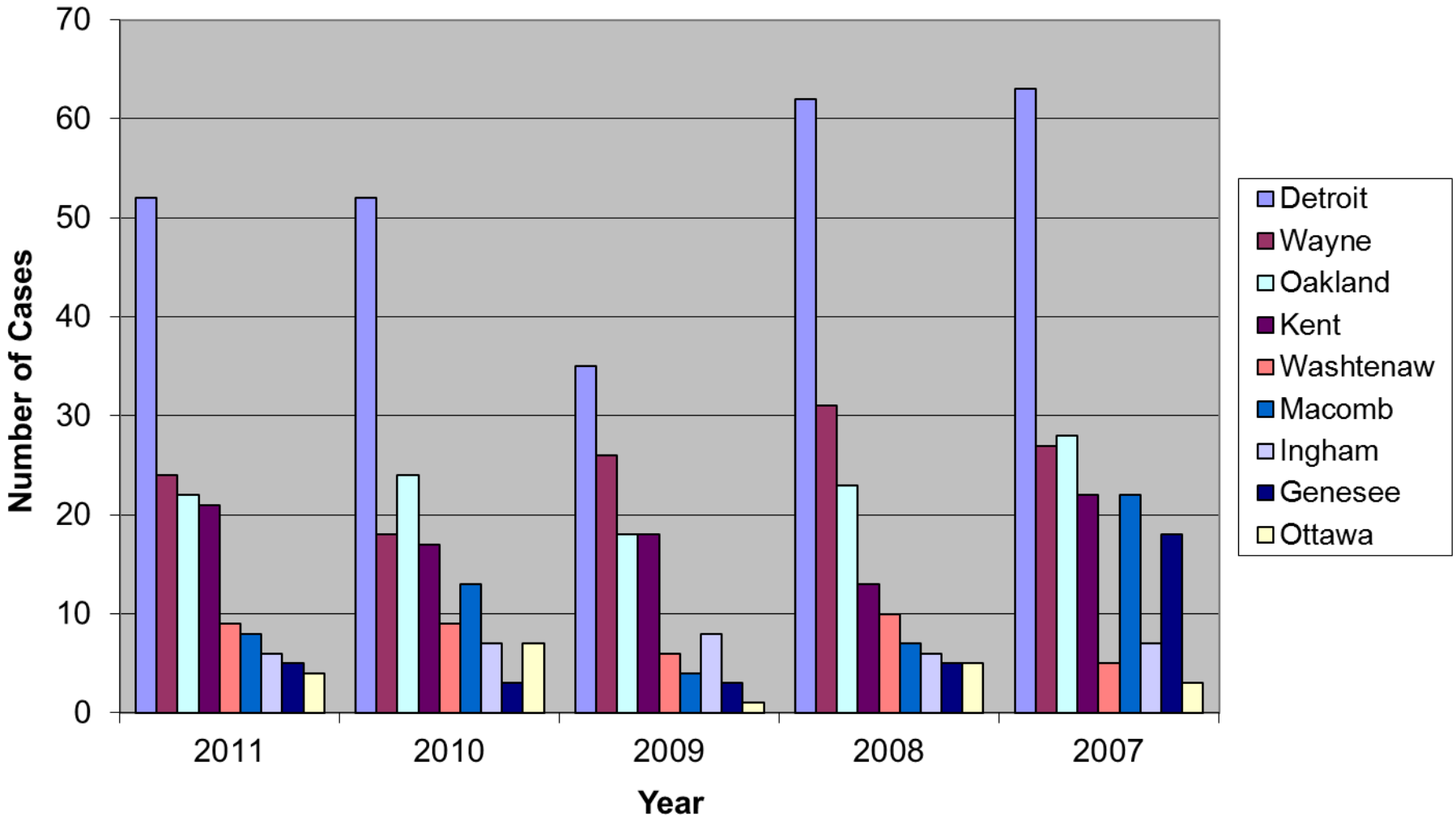
5 year summary on TB cases and incidence rates* for the State of Michigan (2007-2011)

Year	2007	2008	2009	2010	2011	5 year average
Number of cases	226	188	144	184	170	182
Incident rates	2.3	1.9	1.4	1.9	1.7	1.8

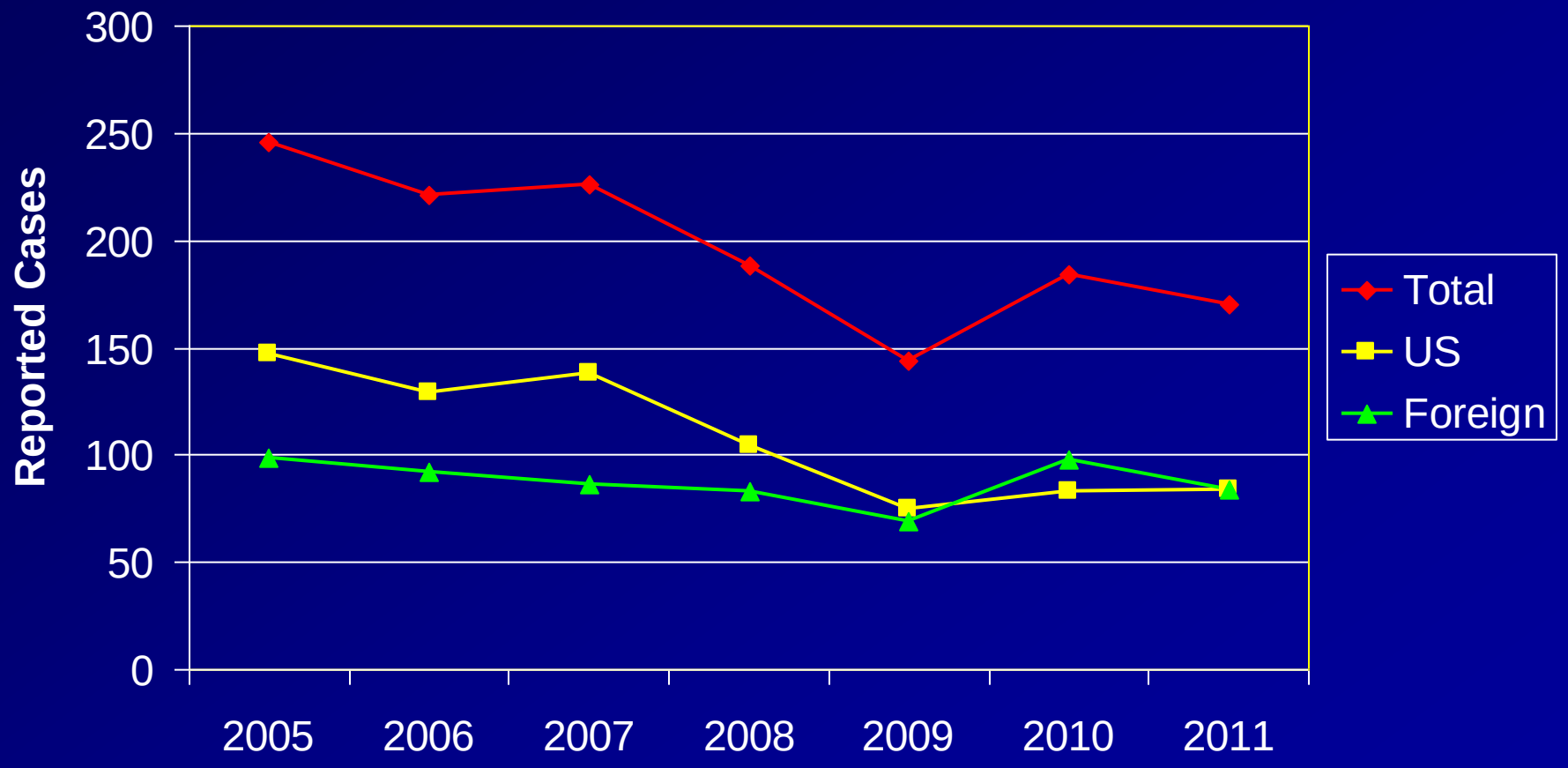
*Rate per 100,000 population


2011 Tuberculosis Rates in Michigan
Rate/100,000 People (Census 2010)
0.0 - 0.6
0.7 - 1.9
2.0 - 3.5
3.6 - 7.4
7.5 - 46.4

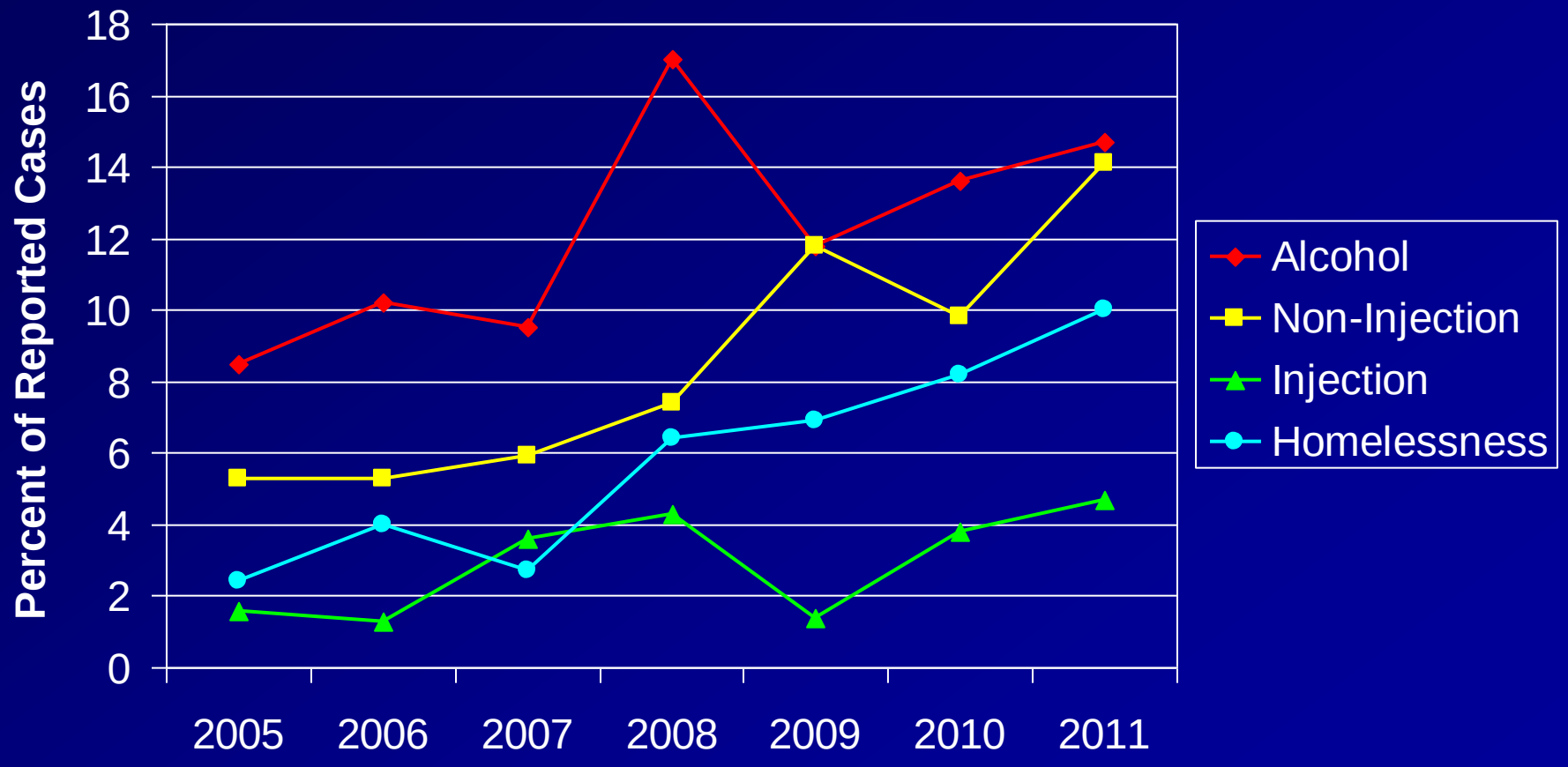
High-Burden Areas in Michigan, 2006-2011



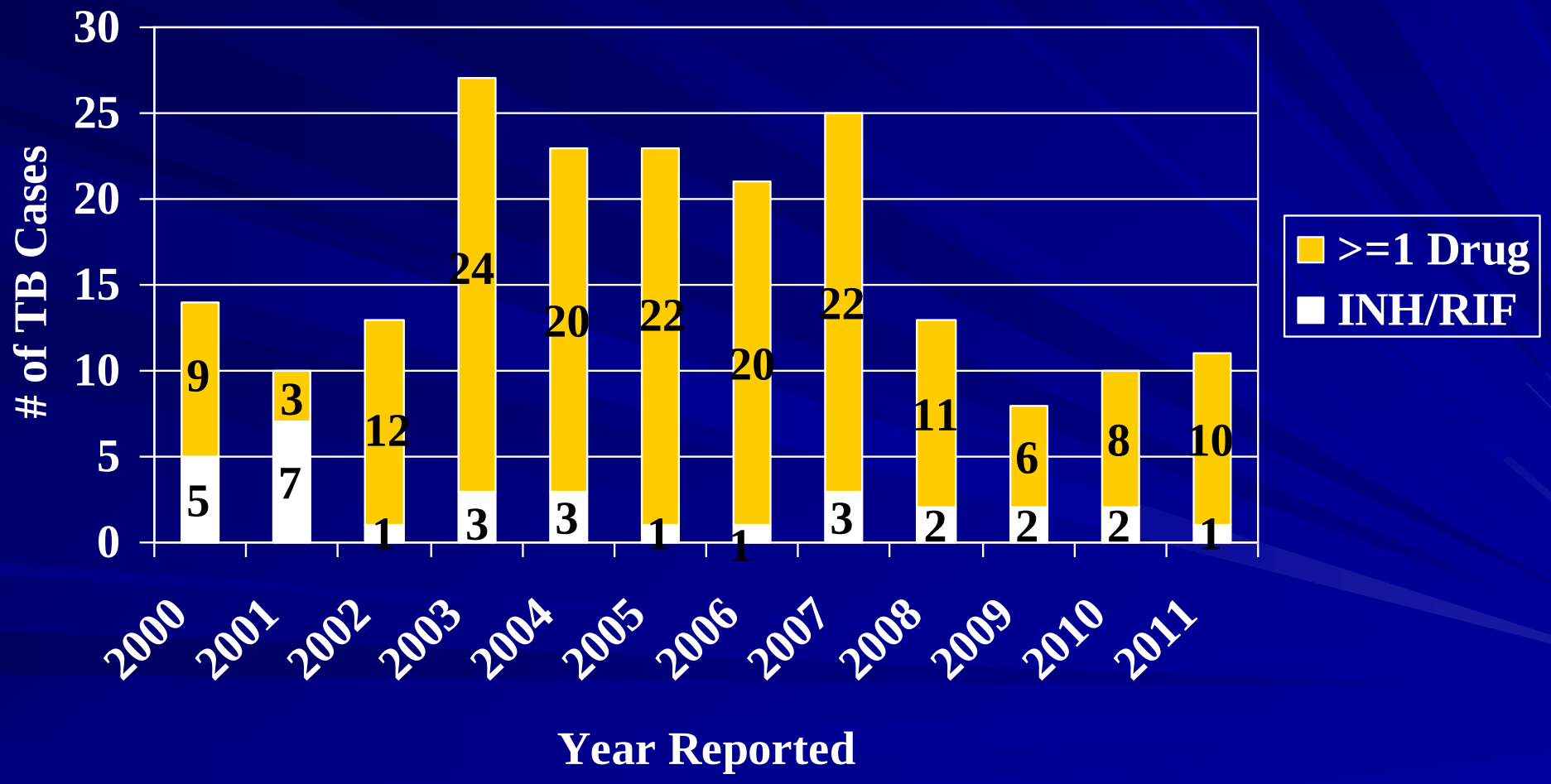
Reported TB Cases Among US-born vs. Foreign-Born Persons, Michigan, 2005 - 2011



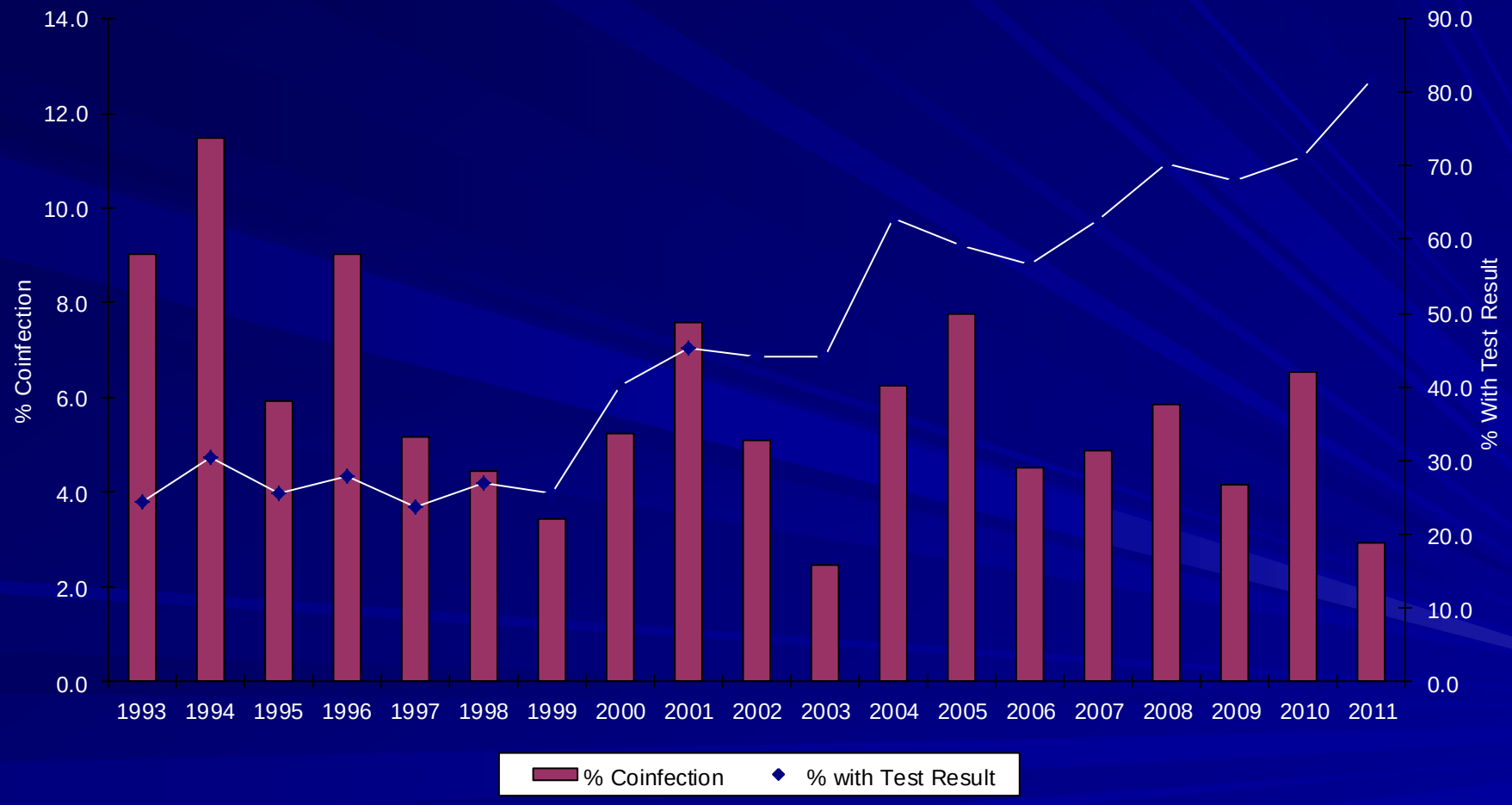
Substance Abuse and Homelessness Among Reported TB Cases, Michigan, 2005 – 2011



TB Drug Resistant Trends, Michigan, 2000 – 2011



Trends in HIV-TB Coinfection, Michigan, 1993-2011



Questions?

Thank you!

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