



# Wisconsin Tuberculosis (TB) Program Update

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Wisconsin TB Program

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Madison, WI

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# Outline

- TB statistics, globally and nationally
- TB in Wisconsin
  - Epidemiology
  - Demographics
- WI partnerships for TB patient management
- WI TB Program Updates



# GLOBAL TB STATISTICS



# The Global Burden of TB, 2014

	Estimated number of cases	Estimated number of deaths
All forms of TB	9.6 million	1.5 million (16%)*
HIV-associated TB	1.2 million (12%)	390,000 (33%)
Multi-drug resistant TB	480,000 (5%)	190,000 (40%)

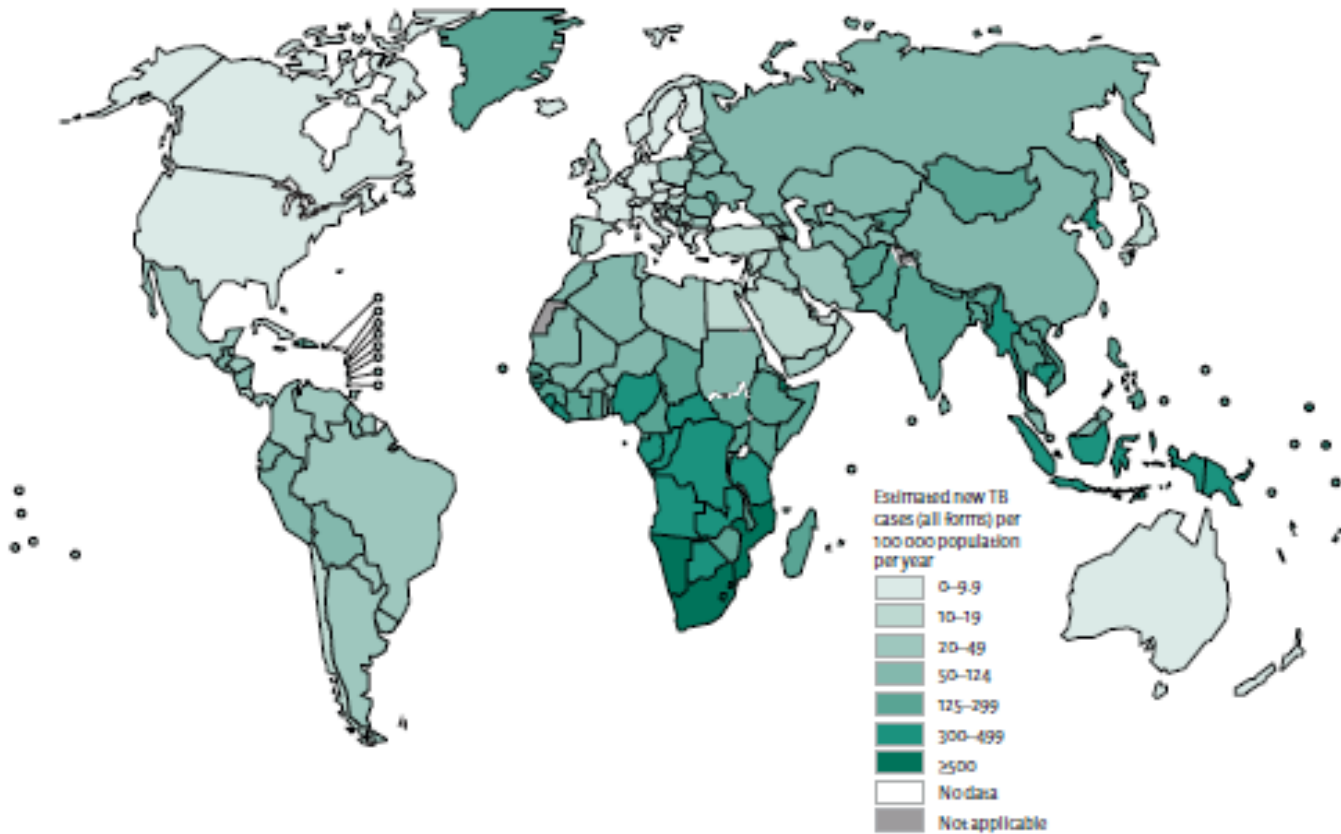
Source: WHO Global Tuberculosis Report 2015

\* Including deaths attributed to HIV/TB



# Estimated TB Incidence Rates, 2014

Estimated TB incidence rates, 2014





# 2015 World Health Organization Statistics

- TB remained one of the top 10 causes of death worldwide
- Although there was a 1.5% decrease in the overall number of TB cases worldwide from 2014 to 2015, this decrease was too small to meet the first milestone of the 2020 End TB Strategy.

*Source: WHO Global Tuberculosis Report 2015*



# TB IN THE UNITED STATES



# 2015 CDC US Statistics

- In 2015, total of 9,563 TB cases were reported in the US based on preliminary data from the CDC National TB Surveillance System.
- This represents an increase of 157 cases from the 9,406 case reported in 2014.
- This is the first time since 1991 that the annual number of reported TB cases in the US has increased from one year to the next.

[www.cdc.gov/tb](http://www.cdc.gov/tb)





# TB IN WISCONSIN



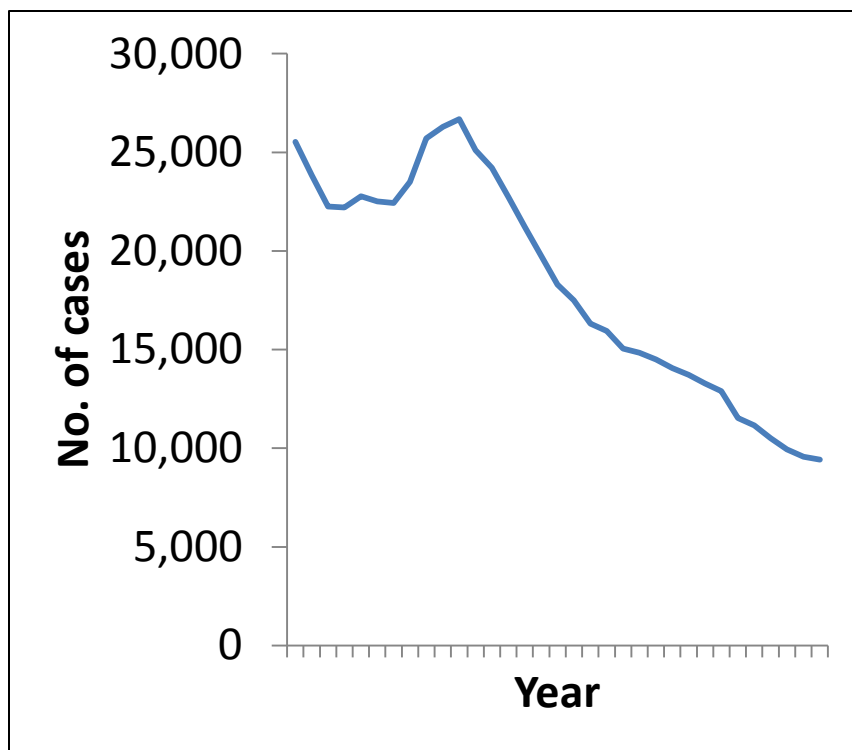
# Wisconsin TB Case Numbers

- In 2015 Wisconsin had 69 TB cases which is above the average of 59 cases for the previous 5 years.
- In 2016, 33 cases so far this year, which is very low for November

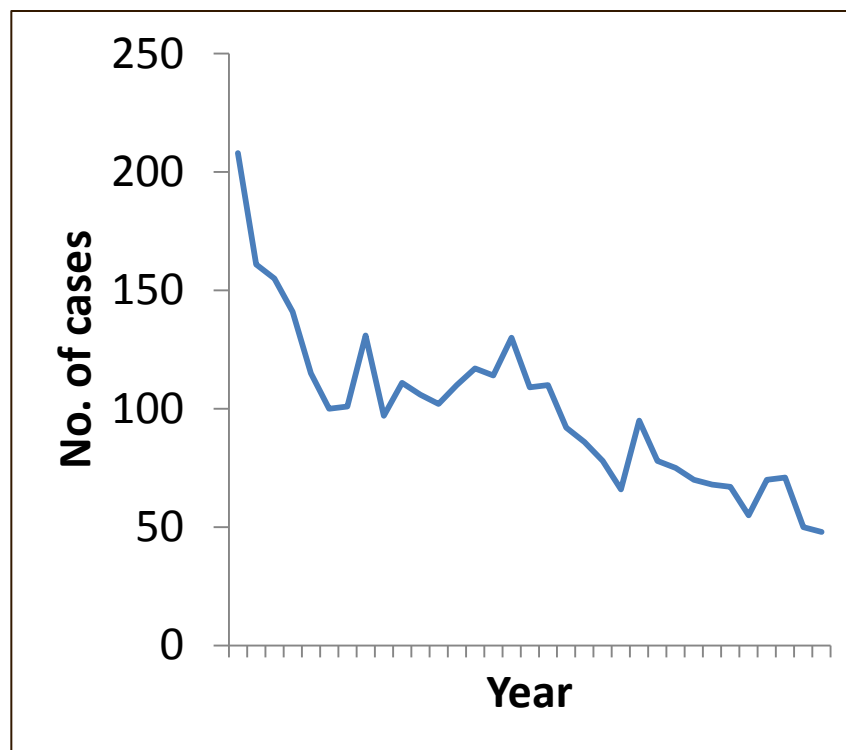


# Reported TB Cases

## United States, 1982–2014

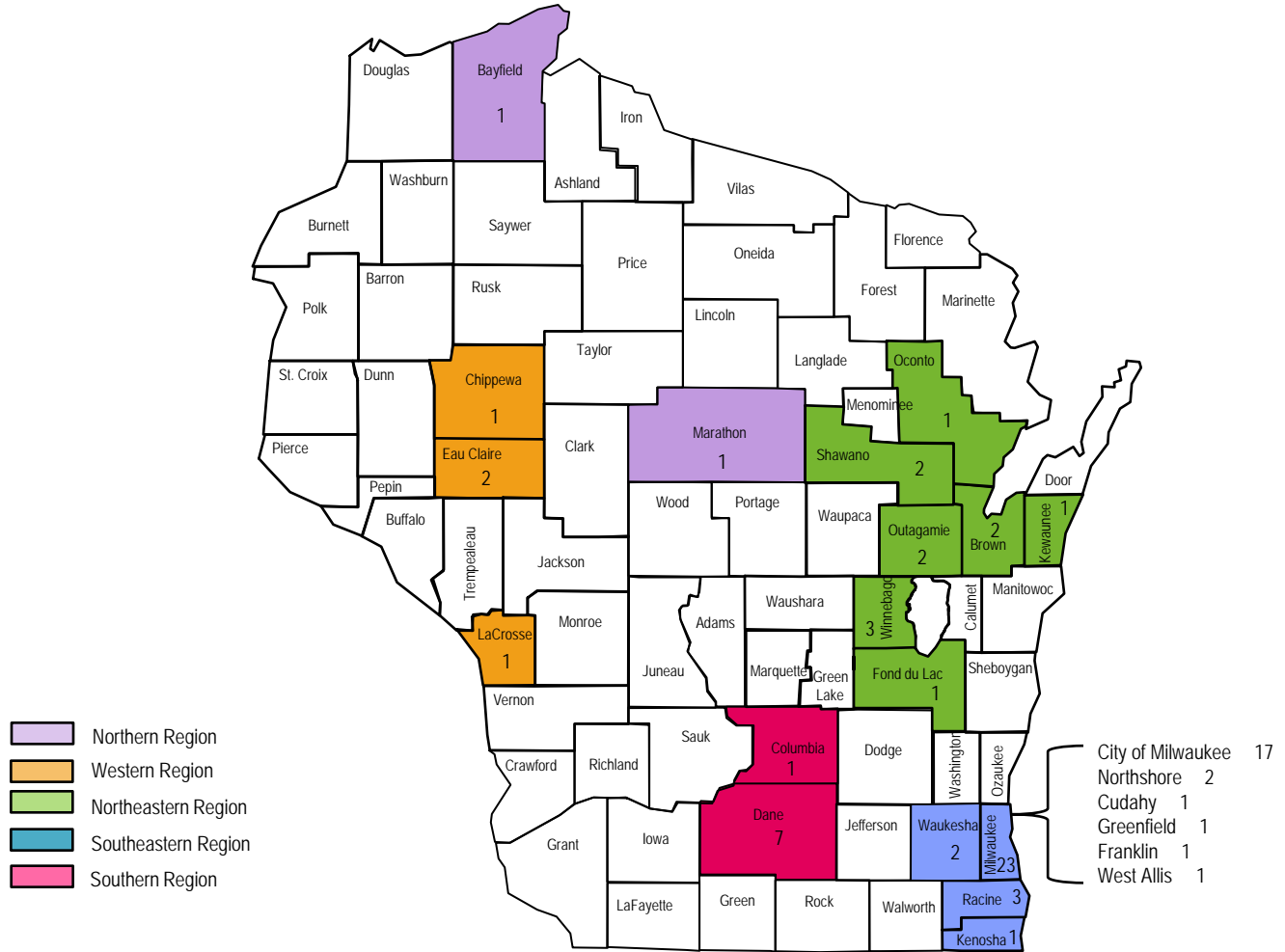


## Wisconsin, 1982–2014





# 2015 TB Cases by Region

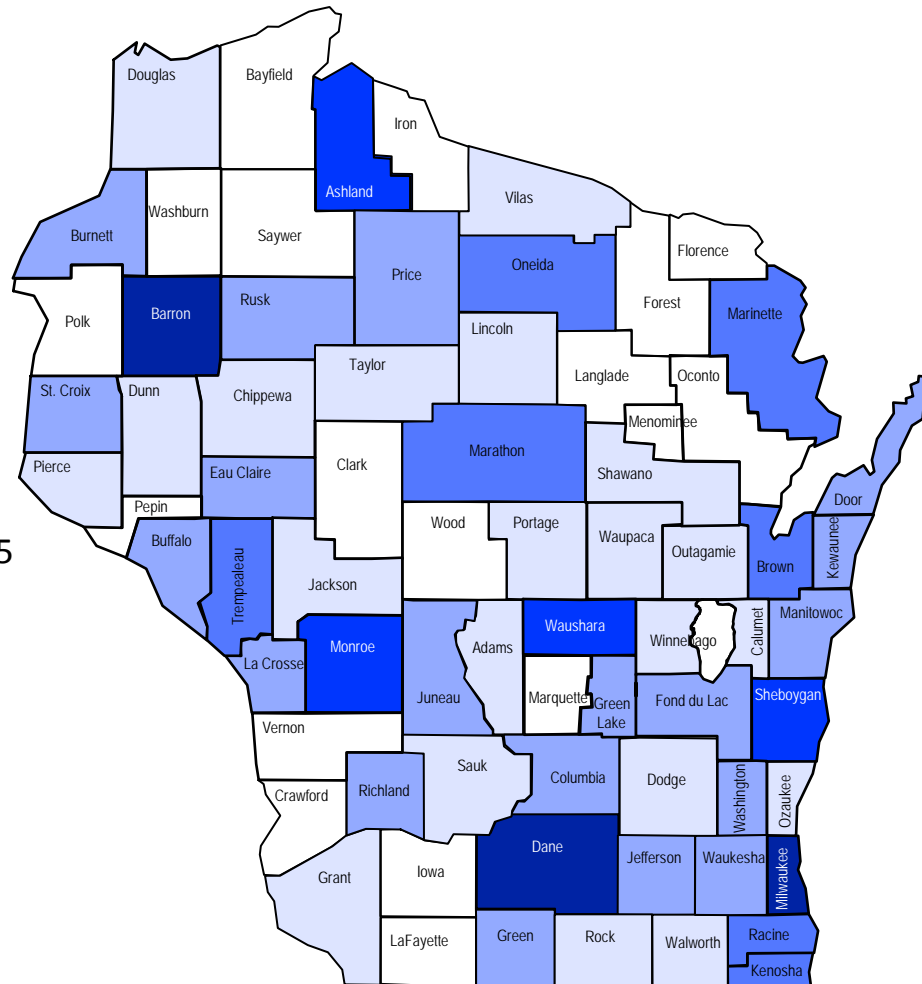
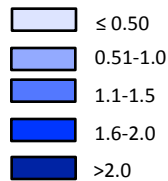


\*Preliminary as of November 1, 2015. WI TB Program.



# TB Case Rates,\* Wisconsin, 2005-2014

10 year average TB rates 2005-2015

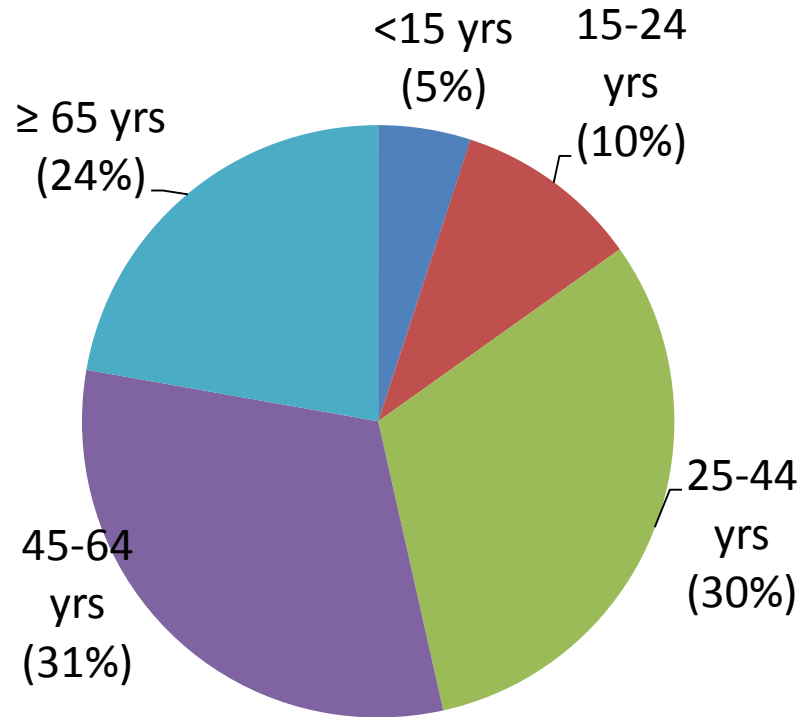


\*rate = number of cases per 100,000

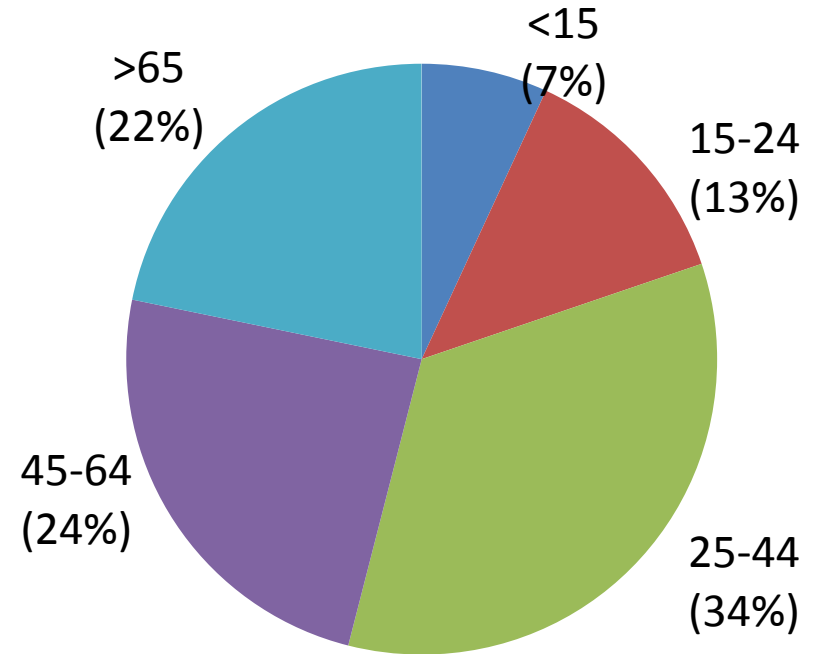


# Reported TB Cases by Age Group

## United States, 2014



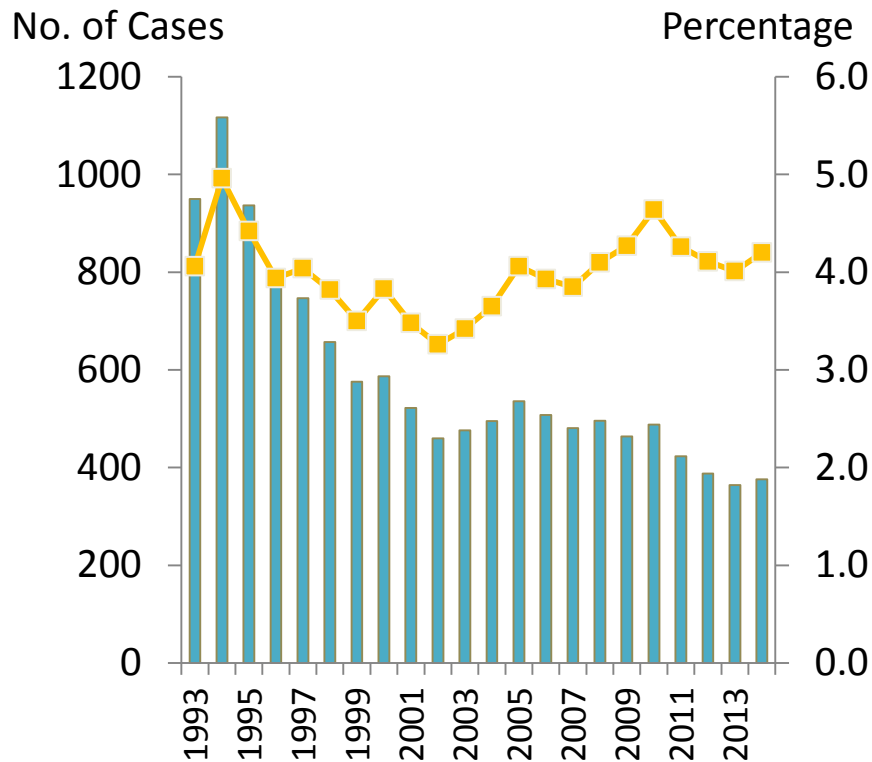
## Wisconsin, 2005-2014



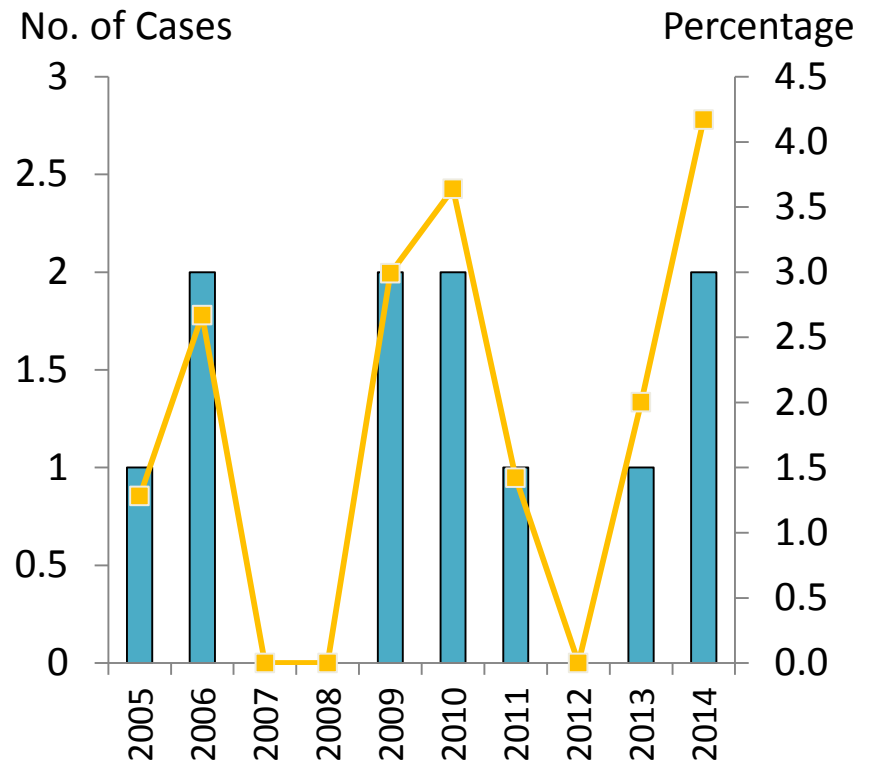


# TB Cases by Residence in Correctional Facilities, Age ≥15

## United States, 1993-2014



## Wisconsin, 2005-2014

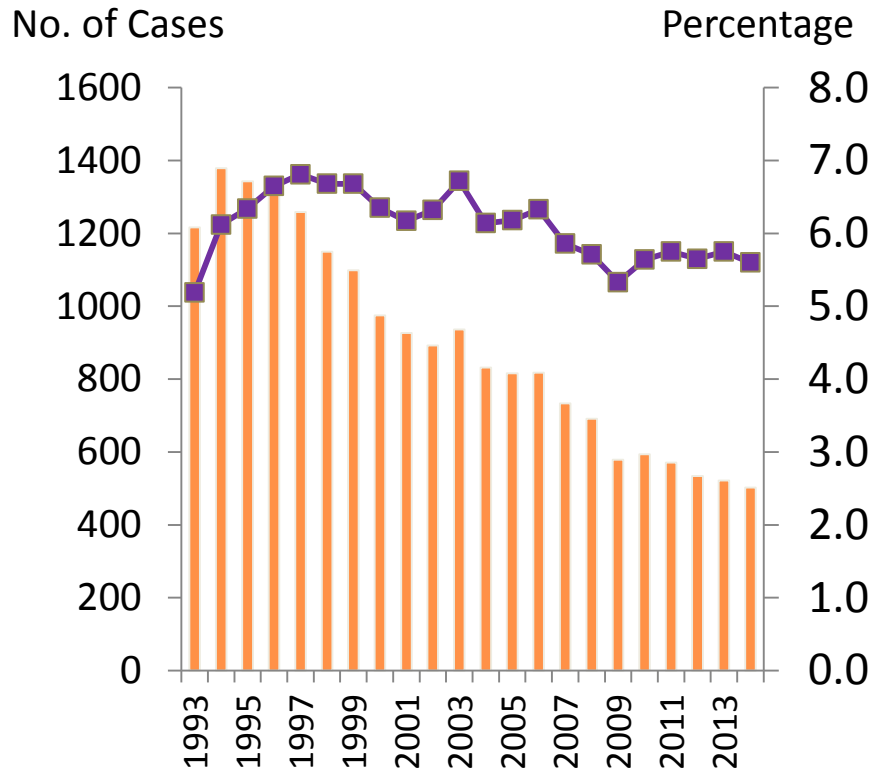


■ No. of Cases    
 —■— Percent of Total Cases

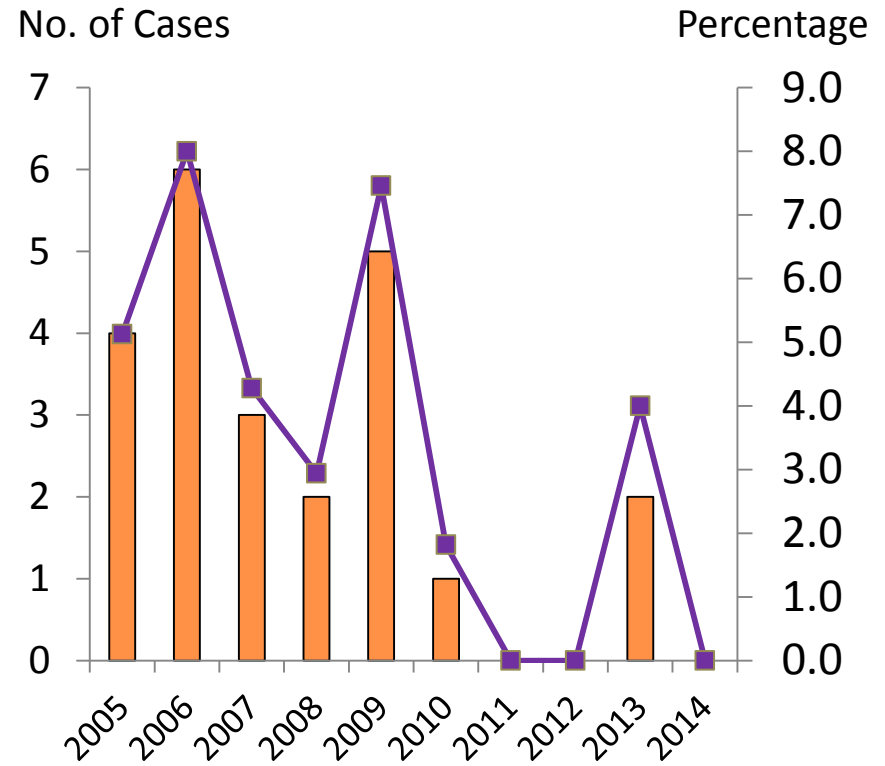


# TB Cases Reported as Homeless in the 12 Months Prior to Diagnosis, Age ≥15

## United States, 1993-2014



## Wisconsin, 2005-2014



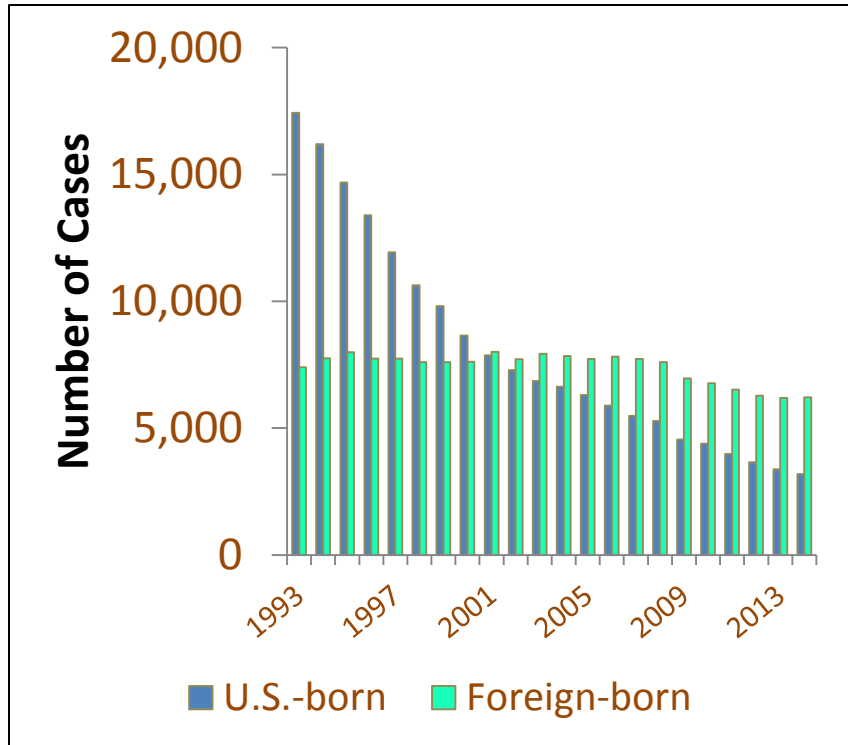
■ No. of Cases    
 ■ Percent of Total Cases



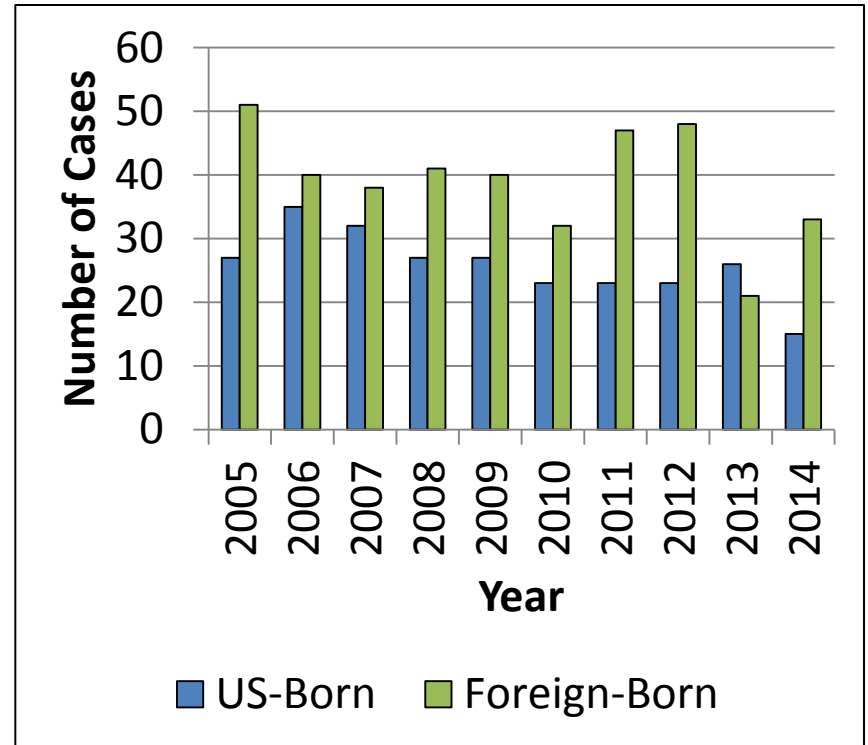


# Number of TB Cases in U.S.-born vs. Foreign-born Persons

## United States, 1993-2014



## Wisconsin, 2005-2014





# Countries of Birth of Foreign-born Persons Reported with TB

## United States, 2014

- Mexico (21%)
- Philippines (12%)
- India (8%)
- Vietnam (8%)
- China (7%)
- Guatemala (3%)
- Haiti (3%)
- Other countries (39%)

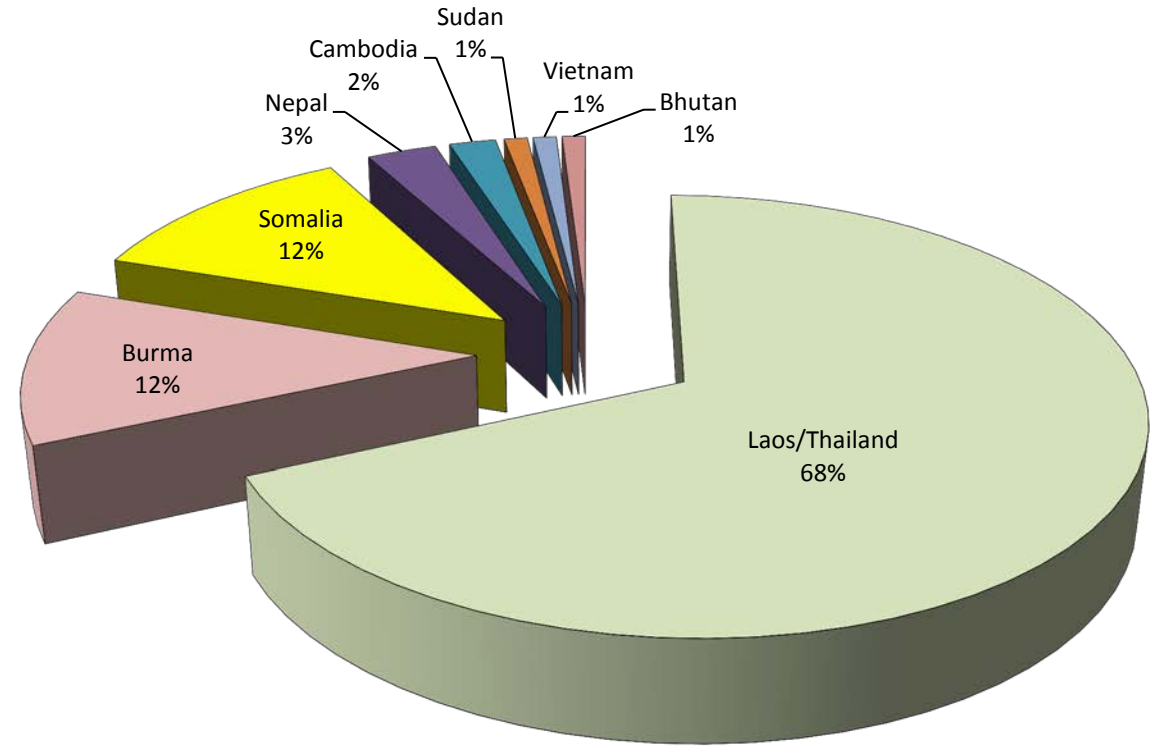
## Wisconsin, 2005-2014

- Mexico (27%)
- **Hmong (Laos/Thai) (18%)**
- India (14%)
- Philippines (5%)
- China (5%)
- **Burma (3%)**
- **Somalia (3%)**
- Other counties (25%)



# TB in Wisconsin Refugee Population 2005-2014

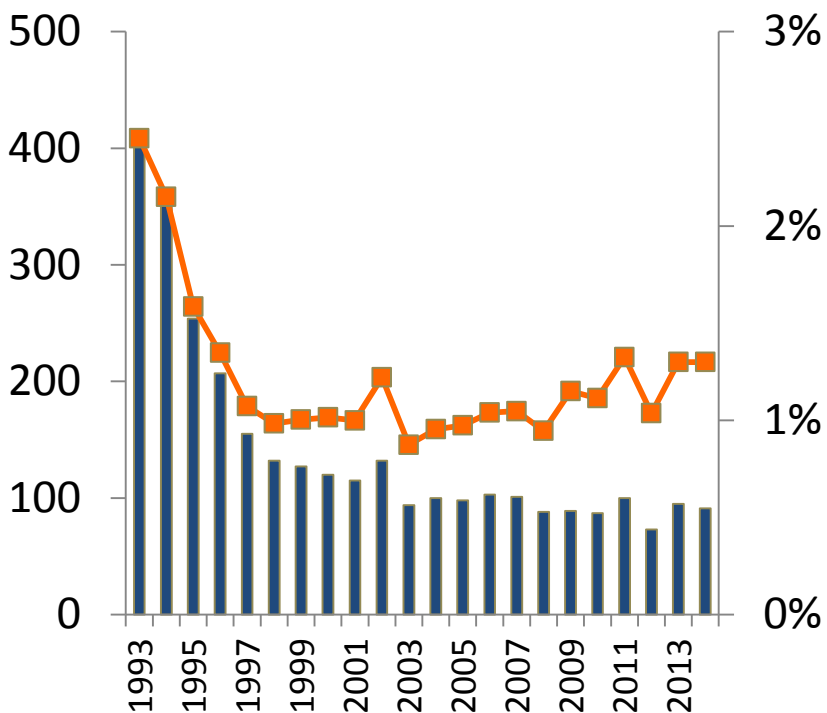
Refugee population by country of origin



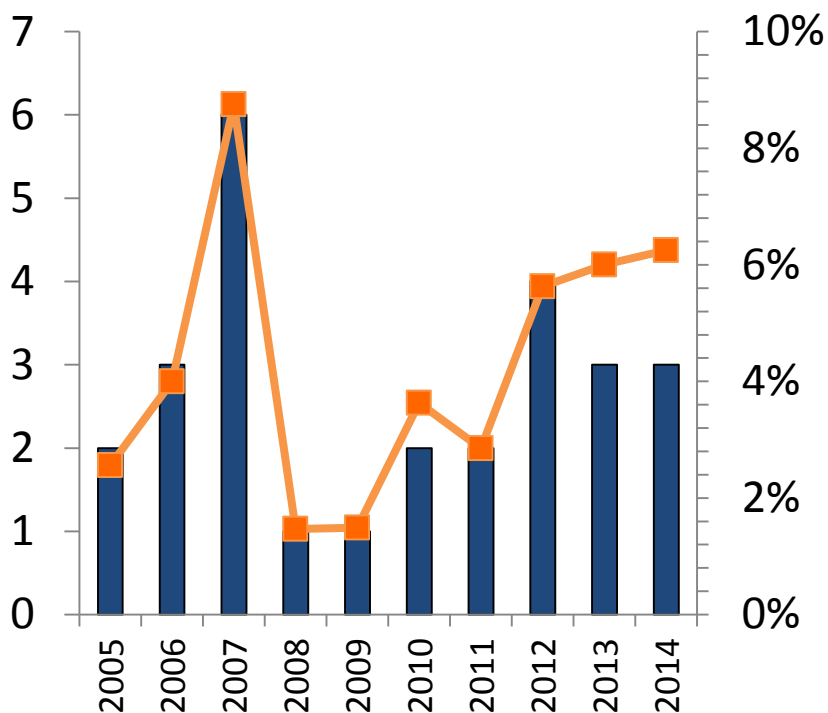


# Primary MDR TB

## United States, 1993-2014



## Wisconsin, 2005-2014



■ No. of Cases    ■ Percentage



# 2014 vs 2015 WI TB Data

	2014 Total case = 48		2015 Total case = 69	
	%	#	%	#
<b>Pulmonary only</b>	60%	29	59%	41
<b>Extra-pulmonary</b>	23%	11	32%	22
<b>Both pulmonary &amp; extra-pulmonary</b>	17%	8	9%	6
<b>Children &lt;15 yo</b>	0%	0	1%	1
<b>Foreign-born</b>	69%	33	71%	49
<b>US-born</b>	31%	15	29%	20
<b>MDR-TB cases</b>	6%	3	6%	4
<b>Deaths</b>	6%	3	10%	7



# TB Summary and Challenges

- Two most common factors associated with TB Disease in Wisconsin:
  - foreign-born
  - known contact with someone with active TB disease
- Challenges
  - Loss of TB expertise in healthcare
  - Diagnosis and treatment of TB in high-risk foreign-born populations
  - Complex case management/patients with co-morbidities (diabetes, HIV, alcohol/drug use, smoking)



# **PARTNERSHIPS FOR TB PATIENT MANAGEMENT**



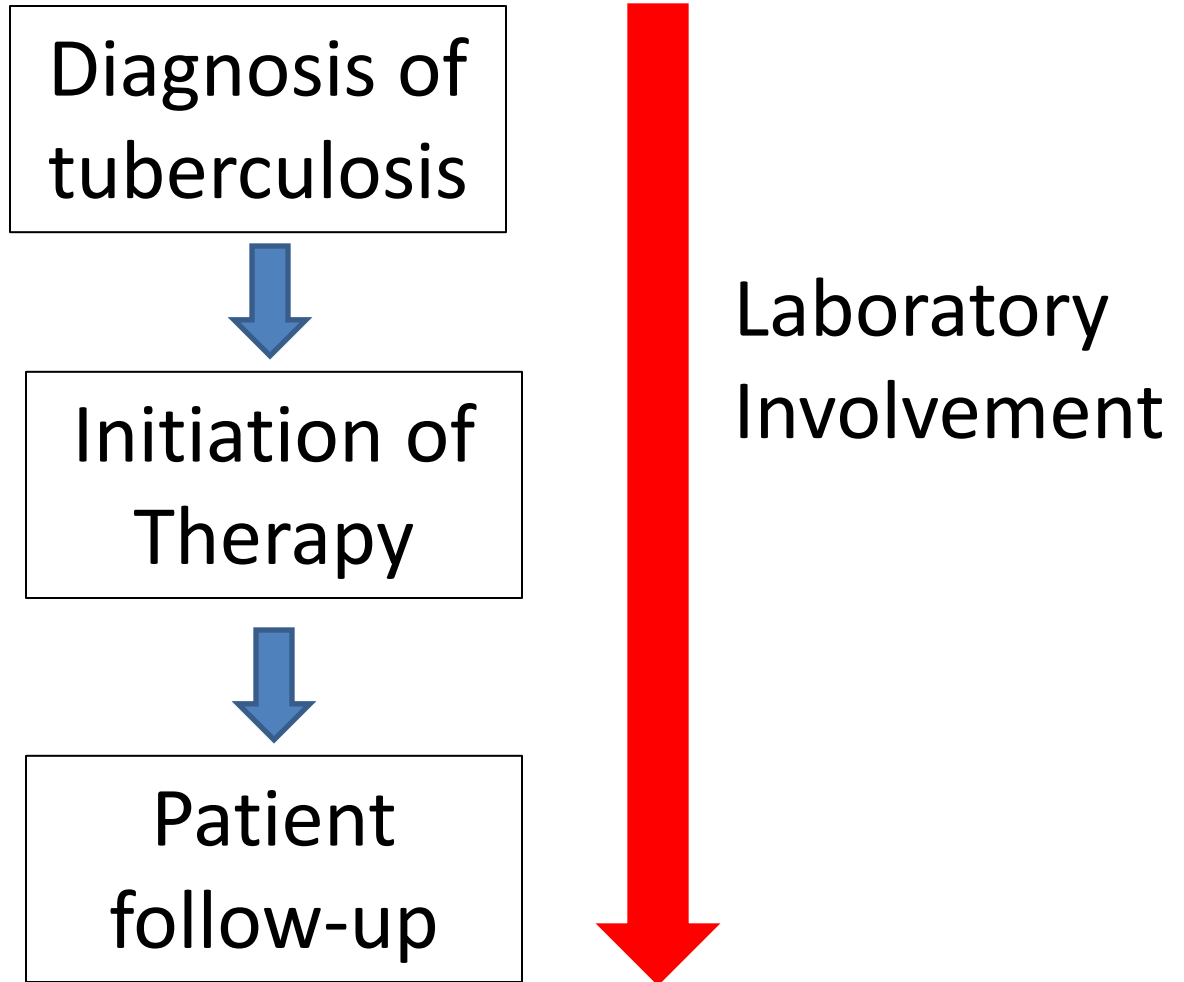
# Wisconsin Partnerships for TB Case Management

- Wisconsin State Laboratory of Hygiene (WSLH)
- Wisconsin Mycobacteriology Laboratories (31)
- Reference Laboratories
- CDC
- Health care providers and infection preventionists
- Local public health departments
- National TB Controller's Association (NTCA)
- Association of Public Health Laboratories (APHL)





# TB Case Management





# Laboratory Involvement in TB case Management

- Specimen collection and transport for diagnostic and follow-up testing
- Diagnostic testing
- Report and interpretation of test results
- Referral of specimens or cultures
  - Molecular detection of drug resistance
  - Culture-based drug susceptibility testing (DST)
  - genotyping



# The Laboratory is Essential

- Laboratory is a critical partner in the diagnosis of TB
- Rapid, reliable results are essential for early detection of MTBC to prevent ongoing transmission
- Drug susceptibility test results identify drug resistance and help guide the clinician in providing appropriate treatment
- Laboratory results important for monitoring patient response to therapy



# WISCONSIN TB PROGRAM UPDATES



# TB Program Staffing

Role	Name	Phone
<b>TB Program Director</b>	Julie Tans-Kersten	608-261-6387
<b>TB Nurse Consultants</b>	Judy Rabinowitz	608-266-7338
	Marjorie Wall	608-266-9452
	Lorna Will	608-266-3729
<b>Office Associates for Dispensary</b>	Joey Janz	608-266-9692
	Brandon Rufer	608-266-7473



# WI TB Program website:

<https://www.dhs.wisconsin.gov/tb>

The screenshot shows the Wisconsin Department of Health Services website. At the top left is the DHS logo and name. To the right is a search bar labeled "Search Wisconsin DHS". Below this is a navigation bar with categories: About DHS, Data & Statistics, Diseases & Conditions, Health Care & Coverage, Long Term Care & Support, Prevention & Healthy Living, Partners & Providers, and Certification, Licenses & Permits. Underneath is a "Topics A-Z" menu with letters A through Z. The breadcrumb trail shows "Home" > "Diseases & Conditions" > "Wisconsin Tuberculosis Program". On the left is a sidebar menu with "TB Program Home" (highlighted with a green arrow), "TB Program Overview", "National Resources", "Patient Resources", "Provider Resources", "Forms", and "Statistics". The main content area has the heading "Wisconsin Tuberculosis Program" with a "Print" button. The text below explains that TB is caused by Mycobacterium tuberculosis and describes its symptoms and treatment. At the bottom, it says "Learn more about the Wisconsin TB Program or choose any of the links found on this page."



## Wisconsin TB Program

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Madison, Wisconsin 53701-2659

608-261-6319 (Office)

608-266-0049 (Fax)

**THANK YOU!**  
**QUESTIONS?**