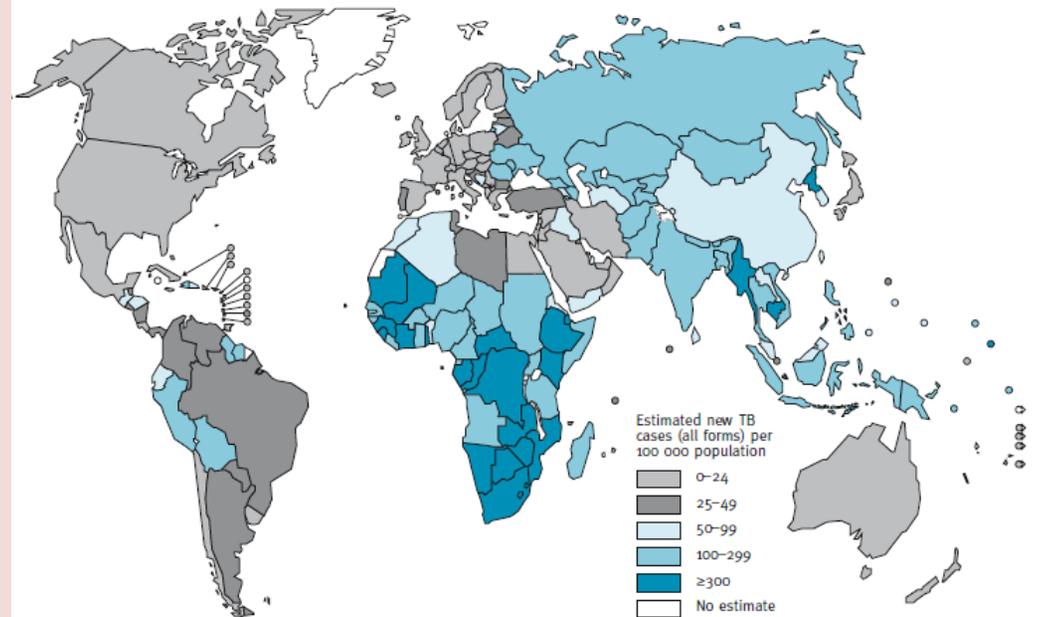# TUBERCULOSIS
& DIABETES

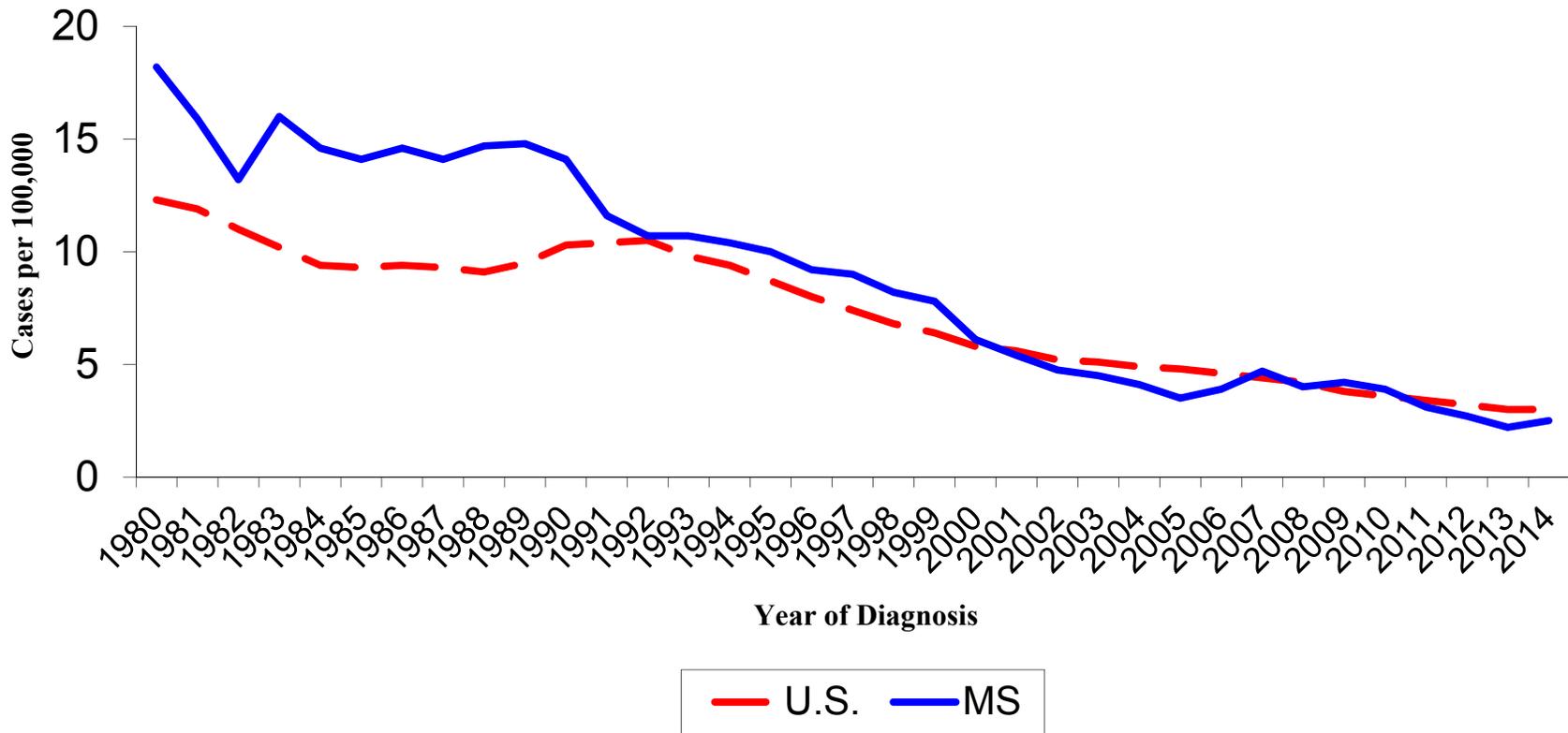COLLABORATIVE FRAMEWORK FOR CARE AND CONTROL OF TUBERCULOSIS AND DIABETES

TUBERCULOSIS FACTS:

 • Every second someone becomes infected with TB, that is more than 31,500,000 people every year

• More than 9 million people develop tuberculosis (TB) disease every year

• Over 1.5 million die from TB disease every year, with the vast majority of deaths in the developing world

• One in three people in the world is infected with TB. People infected with TB have a lifelong risk of developing and falling sick with TB disease – that is more than 2 billion people

Estimated new TB cases (all forms) per 100 000 population

0–24
25–49
50–99
100–299
≥300
No estimate

Mississippi & U.S
TB Case Rates, 1981-2014

	2013	2014
U.S. =	3.0	3.0
MS =	2.2	2.5

Cases per 100,000

Year of Diagnosis

— U.S.   — MS

Five-Year Case Rate Average per 100,000:

2010 -2014

White - 0

Green - .01 - 2.5

Blue: 2.6 - 3.0

Red: 3.1 - 5.9

Yellow: 6+

- A new case of tuberculosis disease is diagnosed in the US approximately every 64 minutes

- A new case of tuberculosis is diagnosed in Mississippi approximately every 5 days.
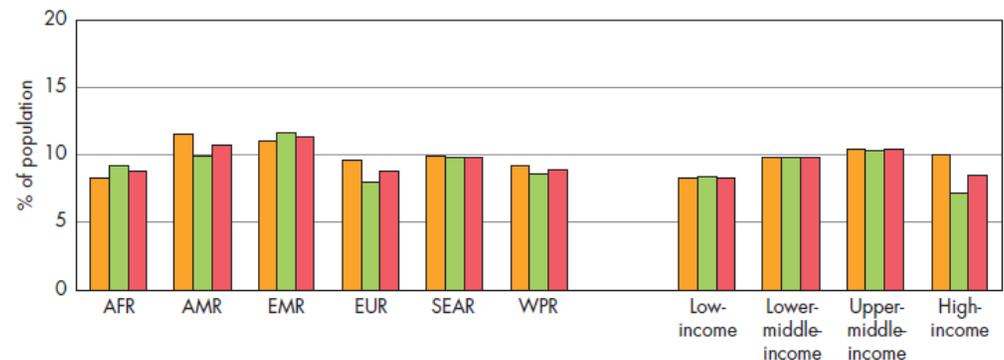
DIABETES FACTS:

• 382 million people have diabetes
• Diabetes prevalence is similar in both high- and low-income Countries
• Over 80% of diabetes deaths occur in low- and middle income Countries
• It is predicted that global diabetes prevalence will increase by 50% by 2030

THE LINKS BETWEEN TUBERCULOSIS AND DIABETES

People with a weak immune system, as a result of chronic diseases such as diabetes, are at a higher risk of progressing from TB infection to TB disease.

People with diabetes have a 2-3 times higher risk of TB compared to people without diabetes.

About 10% of TB cases globally are linked to diabetes.

A large proportion of people with diabetes as well as TB are not diagnosed, or are diagnosed too late.

Early detection can help improve care and control of both.

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All people with TB should be screened for diabetes.

Screening for TB in people with diabetes should be considered, particularly in settings with high TB prevalence.

People with diabetes who are diagnosed with TB have a higher risk of death during TB treatment and of TB relapse after treatment. WHO-recommended treatments should be rigorously implemented for people with TB/diabetes.

Diabetes is complicated by the presence of infectious diseases, including TB. It is important that proper care for diabetes is provided to those that are suffering from TB/diabetes

For more information: www.who.int/tb

Research from the University of Texas School of Public Health Brownsville Regional Campus (UTSPH).

- Type 2 diabetes, especially Type 2 diabetes involving chronic high [blood sugar](), is associated with altered immune response to TB, and this was particularly marked in patients with chronically high blood sugar.

- Patients with diabetes and TB take longer to respond to anti-TB treatment.

- Patients with active tuberculosis and Type 2 diabetes are more likely to have multi-drug resistant TB.

TUBERCULOSIS and DIABETES

- Today, 26 million of the 382 million people with diabetes live in the United States. By 2035, nearly 600 million people in the world will have diabetes, and by 2050 so will a third of all Americans, according to the International Diabetes Federation and the CDC.

- Ignoring this new threat could result in a reversal of the decline in TB

THREE ACTION AREAS FOR A COLLABORATIVE FRAMEWORK

A	ESTABLISH MECHANISMS FOR COLLABORATION
1	Set up a means of coordinating diabetes and TB activities
2	Conduct surveillance of TB disease prevalence among people with diabetes in medium and high-TB burden areas
3	Conduct surveillance of diabetes prevalence in TB patients
4	Conduct monitoring and evaluation of collaborate diabetes and TB activities

B	DETECT AND MANAGE TB IN PATIENTS WITH DIABETES
1	Intensify detection of TB among people with diabetes
2	Ensure TB infection control in health-care settings where diabetes is managed
3	Ensure high-quality TB treatment and management in people with diabetes

C	DETECT AND MANAGE TB IN PATIENTS WITH DIABETES
1	Screen TB patients for diabetes
2	Ensure high-quality diabetes management among TB patients