



# Trends in Tuberculosis— United States, 2008

## ***U.S. Tuberculosis Cases Continue to Decline, but Health Disparities Persist***

The latest national surveillance data show that tuberculosis (TB) rates reached an all-time low in the United States in 2008. Data also show that racial and ethnic minorities and foreign-born individuals continue to bear a disproportionate burden of TB disease in this country.

New national data on trends in TB and the impact of drug-resistant TB in the United States are published in the March 20, 2009, issue of CDC's *Morbidity and Mortality Weekly Report (MMWR)*. The report summarizes provisional 2008 data from the National Tuberculosis Surveillance System.

## **TB Rate Declines Nationwide, but Progress Has Slowed**

A total of 12,898 TB cases were reported in the United States in 2008, down from 13,288 cases in 2007. The 2008 national TB case rate — 4.2 cases per 100,000 persons — was the lowest since reporting began in 1953, reflecting a 3.8 percent decline from the 2007 TB rate of 4.4 cases per 100,000 persons. However, progress toward eliminating TB has continued to slow.<sup>1</sup> Overall, the average annual percentage decline in the national TB rate was 7.3 percent per year in the period 1993-2000 compared to 3.8 percent per year in the period 2000–2008.

## **TB Continues to Affect Racial/Ethnic Minorities Disproportionately**

From 2007 to 2008, TB rates declined for all racial and ethnic minorities, yet TB persists as a public health concern within these groups. TB rates among Asians, blacks, and Hispanics were 23.4, 8.1, and 7.5 times higher than that of non-Hispanic whites, respectively. Asians had the highest TB case rate of any racial/ethnic group (25.1 per 100,000).

Another population that continues to be severely affected is those living with human immunodeficiency virus (HIV), who are at high risk for rapid progression to TB disease once infected and more likely to die during treatment. In 2008, among 7,652 persons with TB with a known HIV test result, 802 (10.5%) were infected with HIV.

## **Addressing the Impact of TB among Foreign-Born Individuals**

TB continues to exact its most severe toll among foreign-born individuals in the United States. In 2008, the TB rate among foreign-born individuals living in the United States was ten times higher than the rate for those born in the United States (20.2 and 2.0 per 100,000 population, respectively). CDC is engaged in several strategies to address the higher rate of TB among the foreign-born population in the United States, including issuing revised technical instructions for TB screening and treatment for applicants for U.S. immigration, and working with officials and partners in other countries to improve TB control.



## Drug-Resistant TB Remains a Serious Challenge

The proportion of TB cases that were multidrug-resistant (MDR) — defined as TB that is resistant to at least two first-line therapies (isoniazid and rifampin) — remained stable in the United States from 2006 to 2007, the most recent years for which complete resistance data are available. MDR TB, which is difficult and costly to treat and can be fatal, accounted for 1.2 percent (125 cases) of all TB cases for which drug-susceptibility data are available in 2007.

MDR TB, especially extensively drug-resistant TB (XDR TB), poses a serious threat to the ability to treat and control TB. XDR TB is defined as TB that is resistant to at least isoniazid and rifampin among the first-line anti-TB drugs (MDR TB) and, among second-line drugs, is resistant to any fluoroquinolone and at least one of three injectable drugs.<sup>2</sup> XDR TB renders patients virtually untreatable with available drugs, particularly in areas of the world with limited access to the full range of effective drugs.

Four XDR TB cases were reported in the United States in 2006, and two in 2007. Based on available data, four XDR TB cases have been reported in the United States in 2008. Between 1993 and 2007, there were 52 cases of XDR TB (based on initial testing) reported in the United States. XDR TB continues to be widely distributed geographically, both in the United States and abroad, causing public health concern. The risk of XDR TB currently appears to be relatively low in the United States. However, due to the ease with which TB can spread, XDR TB will continue to pose a serious risk to this country, as long as it exists anywhere.

## Addressing the Threat of TB Drug Resistance Worldwide

TB is a serious threat both in the United States and abroad. Globally, approximately one-third of the world's population is infected with the bacteria that cause TB. Approximately 9.2 million people became ill with the disease and an estimated 1.7 million persons died of TB in 2006.<sup>3</sup> The ability of the disease to develop resistance to treatments and travel easily across borders makes worldwide TB control efforts critical.

CDC is working with partners around the world to ensure that adequate resources and tools are in place to prevent the further development and spread of drug resistance. These efforts include strengthening national TB programs and surveillance; building the capacity of health care professionals to diagnose and treat TB, including drug-resistant TB; developing global policy recommendations; improving standards for second-line drug resistance testing; designing new treatment regimens; and improving tests to diagnose the disease.

**World TB Day is March 24, 2009. For more information about CDC's TB elimination program or World TB Day activities, visit <http://www.cdc.gov/tb/WorldTBDay>.**

### References

- 1 CDC. Trends in Tuberculosis — United States, 2008. *MMWR* 2009; 58: 249-253.
- 2 CDC. Revised Definition of Extensively Drug-Resistant Tuberculosis. *MMWR* 2006;55:1176.
- 3 World Health Organization. Global tuberculosis control 2008: surveillance, planning, financing. Geneva: World Health Organization; 2008. (WHO publication; no. WHO/HTM/TB/2008.393).