



**Trends in Tuberculosis
Morbidity and Mortality**

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INTRODUCTION

Tuberculosis (TB) is an airborne infection caused by the organism *Mycobacterium tuberculosis*. Although TB primarily affects the lungs, other organs and tissues may be affected as well. Although current TB rates are the lowest recorded since national reporting began in 1953, the decline has slowed from an average of 7.3% per year (1993-2000) to an average of 3.8% per year (2000-2008).¹ In addition, diverse and foreign-born populations currently bear a disproportionate share of the TB burden; according to 2008 data, over 80% of cases occurred among races and ethnicities other than non-Hispanic whites and almost 58% of cases occurred among foreign-born persons.² The slowing decline of TB rates in the United States along with the widespread emergence of drug-resistant strains of the disease highlight the need to maintain focus on eradicating TB through surveillance, treatment and prevention.

The following document delineates the available information on TB incidence and mortality trends in the United States. Data are also provided for states and Metropolitan Statistical Areas (MSAs). TB incidence and mortality worldwide is also discussed.

MORTALITY IN THE U.S.¹

Table 1 documents the trends in TB mortality between 1953 and 2006. Starting with 1999 data, the tenth revision of the International Classification of Disease (ICD-10) replaced the ninth revision of the International Classification of Disease (ICD-9) leading to disruptions in the time series of mortality statistics. The codes for TB in the ICD-10 revision incorporate all of the same conditions seen in ICD-9 TB codes with two exceptions: lupus (not otherwise specified) and pneumoconiosis. Due to the coding change, the number of deaths classified as TB has decreased by 15%. In 2006, there were 644 deaths attributed to TB, a death rate of 0.2 per 100,000 people.³

In addition to the ICD code revision, the standard population used to calculate age-adjusted death rates changed from the 1940 to the 2000 U.S. population. The new standard places more weight on death rates at older ages and less weight on death rates at younger ages. **Figure 1** delineates the trend in age-adjusted rates for both the 1940 and 2000 standard population from 1979-2006. Age-adjusted death rates are approximately 1.7 times greater using the 2000 standard population than those based on the 1940 standard population.⁴

MORBIDITY IN THE U.S.¹

Table 2 documents the trends in TB morbidity between 1953 and 2008. The incidence of TB in the

¹ Reports of TB cases are submitted to the CDC Division of TB Elimination (DTBE) by 60 reporting areas (50 states, District of Columbia, New York City and Puerto Rico, as well as the U.S. dependencies and possessions). In January 1993, DTBE in conjunction with state and local health departments implemented an expanded TB surveillance system. For each reported TB case, the expanded system collects additional information needed to monitor the trends in the U.S. and the emergence of multidrug-resistant TB.

U.S. had been decreasing until 1985 when the trend reversed and the rate began to climb. It is estimated that approximately 64,000 excess cases of TB occurred in the U.S. between 1985 and 1993.⁵ The number of TB cases dropped 74%, from 84,304 in 1953 to 22,201 in 1985, an average annual decline of 2.3%. From 1985 through 1992, the number of cases increased 20% to 26,673.⁶

Data for 2008 reports that between 1992 and 2008, the number of reported cases dropped 42% to 12,904, a case rate of 4.2 per 100,000; both of these were record lows.⁷ In part, this decline reflects the impact of federal resources to assist state and local TB-control efforts, wider screening, and preventive therapy for those at high-risk and growing support for TB prevention programs among HIV-infected persons.

In 2008, a total of 32 states and DC reported a decline in TB rates from 2007 and 16 states reported an increase in TB rates. According to published 2008 data, thirty states had TB rates at or below 3.5 per 100,000. Four states (CA, FL, NY and TX) reported more than 500 cases each in 2008; combined, these states accounted for 6,350 cases, or 49% of the national case total.⁸

DEMOGRAPHICS

A comparison of the 1993 and 2008 final data on reported TB cases and case rates by sex, age, race/ethnicity, and country of origin are shown in **Table 3**. **Table 4** delineates the TB cases by age and race/ethnicity in U.S.-born persons for 1993 and 2008. Comparisons with 1993 are used as this is the year after TB cases and rates peaked and began to decrease and expanded TB surveillance was implemented. As such, it provides a useful benchmark against which to measure current progress on multiple indices.

AGE

Between 1993 and 2008, TB case rates have declined by more than 50% in all age groups with the exception of those 15-24 years of age. The highest age-specific case rate occurred in the population over the age of 65 (6.4 per 100,000). TB case rates generally decreased as age decreased; the 0-14 age group had the lowest case rate at 1.3 per 100,000 in 2008.⁹ **Table 3** displays this data.

SEX

TB case rates by sex from 1982 through 2008 are displayed in **Figure 2**. Males are afflicted more often than females; the TB rate for males in 2008 was 66% higher than that in females. In 2008, the TB incidence rates per 100,000 were 5.3 in males and 3.2 in females. However, the decrease in the number of cases and the case rate between 1992 and 2008 was greater among males than females.¹⁰

RACE/ETHNICITY

In 2008, data reported that racial and ethnic groups other than non-Hispanic whites accounted for over 80% of TB cases. The rate of TB per 100,000 was 23 times greater in Asians (25.6), 14 times greater in non-Hispanic Native Hawaiians or other Pacific Islanders (15.9), 8 times greater in non-

Hispanic Blacks (8.8), 7 times greater in Hispanics (8.1), and 5 times greater in American Indians /Alaska Natives (6.0) than in non-Hispanic Whites (1.1).¹¹

The percentage of TB cases by race/ethnicity in 2008 are displayed in **Figure 3**. In 2008, for the fifth consecutive year, the largest percentage of cases occurred in Hispanics (29.4%). This year the first year in which Asians surpassed non-Hispanic blacks for the second-highest percentage of TB cases (26.3%).¹²

From 1993 through 2008, TB case rates declined by 50% or more in all racial and ethnic groups; however, non-Hispanic whites had the greatest decline among all groups with a 69.4% decrease during this period. Non-Hispanic blacks were a close second with a 69.1% decrease.¹³ **Table 3** shows this decline.

FOREIGN-BORN PERSONS

According to data from 2008, TB cases reported among foreign-born persons in the United States accounted for 58.6% (7,563) of all TB cases compared with 29.5% of reported cases in 1993. This is the eighth consecutive year that 50% or more of the TB cases in the United States occurred in the foreign-born population. The TB case rate among foreign-born persons was 10.2 times greater than that for U.S.-born persons in 2008.¹⁴

Between 1993 and 2008 the number of cases in U.S.-born persons decreased by 69.7%, while the number of cases in foreign-born persons increased by 2.2%. Half of the foreign-born cases in 2008 were reported in persons from Mexico (1,752), the Philippines (855), India (596), and Vietnam (582).¹⁵ **Figure 4** displays reported TB cases by country of origin in the U.S. in 2008.

RACE/ETHNICITY AND AGE IN U.S.-BORN PERSONS

Between 1993 and 2008, the number of TB cases decreased in all U.S.-born racial and ethnic groups and among all age groups except one – Asians aged 15-24. The decreases seen among U.S.-born non-Hispanic whites ranged from a decline of 56.7% in those aged 45-64 to a decline of 92.7% in those aged 5-14. In U.S.-born non-Hispanic blacks, the greatest decrease was seen among those aged 25-44 (84.5%) while the smallest decrease was seen in the 15-24 age group (56.3%). Among U.S.-born Hispanics, the greatest decrease was seen in those aged 25-44 (78.5%) while the smallest decline was seen in the 5-14 age group (21%). In U.S.-born persons, non-Hispanic whites aged 5-14 had the greatest decline (92.7%) and Asians aged 5-14 had the smallest decline (11.8%).¹⁶ This is shown in Table 4.

In 2003, the Asian/Pacific Islander group was separated into two newly developed racial categories: Asians and Native Hawaiians/Pacific Islanders. Over 25% of TB cases among U.S.-born Asians in 2008 were in those 15-24 years of age. The majority of cases for U.S.-born Native Hawaiians and other Pacific Islanders occurred among the 25-44 age group (30%).¹⁷

BY STATE

Table 5 shows the number of TB cases by state. Between 1992 and 2008, five states exhibited increases in the number of TB cases. Increases ranged from 1.8% in Kansas to 17.9% in Nebraska. Overall, the number of cases declined by 51.6% from 1992 to 2008. The greatest decrease in the number of TB cases was seen in Kentucky (74.9%). Between 2007 and 2008, eighteen states reported increases in the number of TB cases, ranging from 1.1% in Georgia to 150% in Wyoming (from 2 cases in 2007 to 5 cases in 2008). The greatest decrease in the number of TB cases between 2007 and 2008 was seen in North Dakota (57.1%). California (2,695), Texas (1,501), New York (1,200) and Florida (954) had the highest number of cases in 2008.¹⁸

Table 6 shows TB case rates per 100,000 population by state. Between 1992 and 2008, two states exhibited increases in TB case rates. These states were Nebraska (11.8%), Minnesota (8.1%). Decreases ranged from 5.9% in Iowa to 77.6% in Kentucky. Between 2007 and 2008, the TB case rate in Wyoming increased 125%, while it decreased 54.5% in North Dakota. In 2008, Hawaii had the highest TB case rate (9.6 per 100,000) while North Dakota had the lowest (0.5 per 100,000).¹⁹

Figure 5 shows states, color-coded according to their respective 2008 case rates.

Table 7 delineates the number of cases by age and state in 2008. Overall, the greatest number of new cases occurred among those aged 25-44 (33% of the national total). The smallest number of new cases occurred among the 5-14 age group (2% of total). California, by far, reported the greatest number of new cases in children under 5, with 87 (18% of all cases in those under 5 years of age).²⁰

Table 8 delineates race-specific data on the number of TB cases by state in 2008. Eight states reported the greatest number of TB cases in non-Hispanic whites. Fifteen states and DC reported more cases in non-Hispanic blacks. Nine states reported the greatest number of cases in the Hispanic population. Thirteen states reported the greatest number of cases in the Asian population. Alaska and Montana saw the greatest number of cases among American Indians/Alaska Natives. Wyoming, North Dakota and South Dakota all had ties between two or more racial/ethnic groups.²¹

Table 9 delineates the number and percentage of TB cases that are either U.S.-born or foreign-born by state in 2008. Twenty-nine states and DC saw at least 50% of their TB cases in the foreign-born population. Fourteen states (CA, CO, CT, MN, MD, MA, NH, NJ, NY, OR, RI, VA and WA) had at least 70% of their reported TB cases in the foreign-born population.²²

BY METROPOLITAN STATISTICAL AREA (MSA)^{II}

TB is more common in large cities or metropolitan areas than in rural areas. In the United States, TB case rates are highest in Metropolitan Statistical Areas (MSAs) with populations greater than 500,000, intermediate in smaller cities and lowest in rural areas and towns with populations less

^{II} As defined by the Bureau of the Census. In 2006, MSAs were renamed and some were merged changing the total number of MSAs in the CDC's Reported Tuberculosis in the United States report from 109 in 2005 to 97 in 2006.

than 100,000.

Table 10 shows the number of TB cases and case rates by MSA with populations greater than 500,000 persons between 1998 and 2008. In 2008, almost 79% of TB cases occurred in cities of this size. New York-Northern New Jersey-Long Island, NY-NJ-PA reported 1,446 cases, the most of any MSA. McAllen-Edinburgh-Mission, TX had the highest incidence rate with 12.4 per 100,000. The only other MSAs with rates above 10 per 100,000 were Honolulu, HI (11.2 per 100,000) and San Jose-Sunnyvale-Santa Clara, CA (10.9 per 100,000). Akron, OH (0.7), Albany-Schenectady-Troy, NY (0.5), Boise City-Nampa, ID (1.0), Des Moines-West Des Moines, IA (1.3), Madison, WI (1.4), Ogden-Clearfield, UT (0.8), Portland-South Portland-Biddeford, ME (0.8), Provo-Orem, UT (0.2), Springfield, MA (0.9), Toledo, OH (1.2), and Youngstown-Warren-Boardman, OH-PA (1.1) had less than 10 cases each and the lowest case rates. The 2008 case rate in MSAs of this size was 5.1 per 100,000, which was 3.8% lower than the 2007 rate of 5.3 per 100,000 population.²³

Table 11 reports TB cases by Metropolitan Statistical Areas with populations greater than 500,000 persons and race/ethnicity in 2008. The greatest number of cases in MSAs of this size were reported in Asians (3,042), followed by Hispanics (2,966), non-Hispanic blacks (2,601), non-Hispanic whites (1,419), Native Hawaiian/Pacific Islanders (55) and American Indians/Alaska Natives (37). Nearly 90% of TB cases in Asians occurred in these MSAs, versus 78% in Hispanics, 79% in non-Hispanic Blacks, 80% in Native Hawaiian/Pacific Islanders, 66% in non-Hispanic whites and 27% in American Indians/Alaska Natives.²⁴

EXPANDED TB SURVEILLANCE

Beginning in January 1993, TB surveillance was expanded to collect additional information concerning each case, including results of HIV virus antibody testing and drug susceptibility testing for initial and final TB isolates from patients with positive cultures, and administration of and completion of therapy. Information on occupation, history of substance abuse and homelessness was also collected. Results of this expanded surveillance are shown in **Table 12**.

In 2008, 83.3% of TB cases had been prescribed the initial four-drug regimen recommended by the American Thoracic Society and the Centers for Disease Control and Prevention (isoniazid [INH], rifampin [RIF], pyrazinamide [PZA], and either ethambutol or streptomycin), 3.5% of patients had been prescribed INH, RIF and PZA, and 0.9 percent of patients had been prescribed INH and RIF. Use of illegal drugs and alcohol among patients was reported at 1.8% for those injecting drugs, 7.3% for non-injecting drug users, and 13.1% among those with excessive alcohol use. Over 52% of patients were unemployed, 5.7% were homeless, 4.1% resided in correctional institutions, and 2.1% resided in long-term care facilities.²⁵

In 2006, over half of all TB cases (57.5%) participated in directly observed therapy (DOT) compared to 30.4% that combined directly observed therapy and self-administered therapy. In 2003 (the latest data available), 22.9% of patients self-administered their medication. In 2006, 92.5% of TB patients completed therapy, of which 83.5% completed observed therapy within one year.²⁶

DRUG RESISTANCE

Pockets of drug resistance to TB medication began to appear in the mid 1970s. Drug resistance is problematic since it indicates that a strain of bacteria has developed the ability to withstand antibiotic treatment and is relaying that ability to their progeny. Inconsistent or partial treatment for a given individual remains the prominent cause of drug resistance. Since 1993, at least 45 states and the District of Columbia have reported at least one instance of multiple drug resistance (MDR-TB^{III}).²⁷ The proportion of cases with primary MDR-TB remained approximately 1% in 2007.²⁸

In 2007, drug susceptibility results were reported for 97.8% of all culture positive cases for the 50 states, New York City, and the District of Columbia.²⁹ Among those with no previous history of TB, 8.2% of cases were resistant to at least INH and 1.0% were resistant to INH and RIF.³⁰

Instances of primary MDR-TB have decreased from 2.4% in 1993 to 1.2% in 2007. However, the proportion of MDR-TB cases among foreign-born persons has increased from 25.3% in 1993 to 81.6% in 2007.³¹

Over half (56%) of all MDR-TB cases occur in India, China and the Russian Federation. This form of the disease threatens global TB control efforts. While drug-resistant TB is treatable, it requires extensive chemotherapy that is often prohibitively expensive (often more than 100 times more expensive than treatment for drug-susceptible TB). With such a hefty price tag, low and middle-income countries may have trouble treating those with TB. The World Health Organization (WHO) estimates that up to 50 million persons worldwide may be infected with drug-resistant strains of TB.³² There were 0.5 million cases of MDR-TB worldwide in 2007.³³

A new strain of TB called extensively drug-resistant tuberculosis (XDR-TB) is a strain with extensive resistance to second-line drugs. XDR-TB has emerged worldwide as a threat to public health and TB control, raising concerns of a future epidemic of virtually untreatable TB. Between 1993 and 2002, patients with XDR-TB were 64% more likely to die or have treatment failure.³⁴ A March 2006 report by the CDC and WHO documented the presence of XDR-TB in 17 countries. Compliance to treatment must be maximized in order to prevent the emergence of further drug resistance and halt its' progression.³⁵ From 1993 to 2006, 49 cases of XDR-TB were reported in the US, spread across nine states and one city. New York City accounted for 19 of these cases, followed by California (11), New York (excluding New York City; 8), New Jersey (3), Nevada (2), Texas (2), and one case each in Illinois, Michigan, Ohio and Virginia.³⁶ In the United States, 4 cases of XDR-TB were diagnosed in 2006, 2 cases in 2007, and 4 provisional cases in 2008.³⁷

Treatment for MDR-TB is expensive and involves drug therapy over many months or years. Even with the longer course of treatment, the cure rate for MDR-TB is approximately 50%, compared to over 90% for non-resistant strains of TB. XDR-TB treatment is successful approximately 30% of the time for patients without compromised immune systems; it is even lower for those with

^{III} Multidrug-Resistant TB (MDR-TB): resistance to at least isoniazid and rifampin.

compromised immune systems (such as those with HIV/AIDS).³⁸

ECONOMIC COSTS OF TB

TB takes a heavy toll on the U.S. economy, with \$703.1 million in direct health care costs per year. Direct health care costs include \$423.8 million for inpatient care, \$182.3 million for outpatient care, \$72.1 million for screening, \$3.4 million for contact investigations, \$17.9 million for preventive therapy and \$3.6 million for surveillance and outbreak investigations. Additionally, in the U.S., \$351 million in indirect costs is attributed to TB, bringing the total for direct and indirect costs to \$1.054 billion.³⁹ The total direct cost of TB control in 2009 worldwide^{IV} was estimated at \$2.5 billion.⁴⁰

TB WORLDWIDE

The magnitude of the global TB problem is enormous. According to the WHO, there were 9.3 million new TB cases and approximately 1.8 million deaths in 2007 (including those with HIV). TB continues to claim more lives in Africa where the TB epidemic is still driven by the spread of HIV, which increases the likelihood of dying from the disease. However, the incidence of TB is increasing more slowly in Africa as it runs parallel with the change in HIV prevalence in that region.⁴¹ **Table 13** shows the estimated number of TB deaths by WHO region for 1990-2008.

Figure 6 displays the estimated number of TB cases in 1990, 1995, 2000, 2005 and 2008 by WHO region. TB rates are falling in every WHO region except for Europe, where they are approximately stable. The total number of cases is predicted to increase as a result of population growth.⁴²

The internationally recommended strategy for TB control by WHO is directly observed therapy short-course (DOTS). DOTS combines five elements: political commitment, microscopy services, drug supplies, surveillance and monitoring systems and use of highly efficacious regimes with direct observation of treatment. Since DOTS was introduced on a global scale, millions of infectious patients have received effective treatment. DOTS produces cure rates of up to 95% even in the poorest of countries. Costing \$11 per patient for a six-month drug supply in some countries, the World Bank has ranked the strategy as one of the most cost-effective of all health interventions. By 2006, 184 (out of 212) countries had implemented DOTS strategy (at least in part). This includes the 22 high-burden countries, which bear 80% of the estimated new cases each year.⁴³

TB and HIV

The human immunodeficiency virus (HIV) is a major risk factor for the development of TB. AIDS robs the body of its natural ability to fight infection, making people with AIDS more likely to develop TB. Because HIV-infected individuals have weakened immune systems, they have a much greater chance of developing active TB disease.^V TB is a leading cause of death among people who

^{IV} Includes 74 countries that provided financial data.

^V Person has symptoms of TB and is infectious. Bacteria are active.

are HIV positive, accounting for 23% of HIV deaths worldwide.⁴⁴ Among people infected with TB, those who are also HIV positive are up to 50 times more likely to develop active TB in a given year than those who are HIV negative.⁴⁵ In Africa, HIV is the single most important determinant of the increased incidence of TB since 1990.⁴⁶ In the United States, 6% of TB cases (820 cases) were also infected with HIV during 2008. Among 25-44 year olds, that percentage was almost doubled (10%, 411 cases). The percentage of co-infection has declined since 1993 overall and for 25-44 year olds.⁴⁷ **Table 14** displays the number and percentage of reported TB cases with HIV-positive test results in the U.S. from 1993 to 2008.

SUMMARY

Between 1985 and 1992, the number of TB cases reported annually in the United States increased 20%. Factors associated with the resurgence of TB include the HIV/AIDS epidemic, immigration of persons from countries where TB incidence rates are 10-30 times higher than in the U.S., transmission of TB among persons residing in congregate settings such as hospitals, prisons and homeless shelters, and a decline in resources for TB control. From 1992 through 2008, the number of TB cases reported decreased 51.6%, in part reflecting the impact of federal resources to assist state and local TB-control efforts, including support for programs to prevent TB among HIV-infected persons, tuberculin screening, and preventive therapy for persons at high risk for TB infection.⁴⁸

In recent years, the number and proportion of foreign-born persons with TB have increased substantially; approximately 17% of these persons were in the U.S. less than one year before diagnosis. Detection and treatment of TB among immigrants and refugees require improved screening efforts and prompt reporting to state and local public health authorities. Maintaining the decline in TB morbidity and reaching the goal of eliminating TB in the U.S. will require sustained prevention and control efforts, especially rapid diagnosis, ensured completion of treatment, and prompt and complete reporting. In addition, tuberculin-screening programs that target persons at highest risk ensure the most effective use of resources and appropriate use of preventive therapy.⁴⁹

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TABLE 1: TUBERCULOSIS DEATHS AND DEATH RATES, 1953-2006 ⁽¹⁾

YEAR	DEATHS		PERCENT CHANGE ⁽²⁾	
	NUMBER	RATE	NUMBER	RATE
1953	19,707	12.4	---	---
1954	16,527	10.2	-16.1	-17.7
1955	15,016	9.1	-9.1	-10.8
1956	14,137	8.4	-5.9	-7.7
1957	13,390	7.8	-5.3	-7.1
1958	12,417	7.1	-7.3	-9.0
1959	11,474	6.5	-7.6	-8.5
1960	10,866	6.0	-5.3	-7.7
1961	9,938	5.4	-8.5	-10.0
1962	9,506	5.1	-4.3	-5.6
1963	9,311	4.9	-2.1	-3.9
1964	8,303	4.3	-10.8	-12.2
1965	7,934	4.1	-4.4	-4.7
1966	7,625	3.9	-3.9	-4.9
1967	6,901	3.5	-9.5	-10.3
1968	6,292	3.1	-8.8	-11.4
1969	5,567	2.8	-11.5	-9.7
1970	5,217	2.6	-6.3	-7.1
1971	4,501	2.2	-13.7	-15.4
1972	4,376	2.1	-2.8	-4.5
1973	3,875	1.8	-11.4	-14.5
1974	3,513	1.7	-9.3	-5.6
1975	3,333	1.6	-5.1	-5.9
1976	3,130	1.5	-6.1	-6.3
1977	2,968	1.4	-5.2	-6.7
1978	2,914	1.3	-1.8	-7.1
1979	2,007	0.9	-31.1	-30.8
1980	1,978	0.9	-1.4	0.0
1981	1,937	0.8	-2.1	-11.1
1982	1,807	0.8	-6.7	0.0
1983	1,779	0.8	-1.5	0.0
1984	1,729	0.7	-2.8	-12.5
1985	1,752	0.7	1.3	0.0
1986	1,782	0.7	1.7	0.0
1987	1,755	0.7	-1.5	0.0
1988	1,921	0.8	9.5	14.3
1989	1,970	0.8	2.6	0.0
1990	1,810	0.7	-8.1	-12.5
1991	1,713	0.7	-5.4	0.0
1992	1,705	0.7	-0.5	0.0
1993	1,631	0.6	-4.3	-14.3
1994	1,478	0.6	-9.4	0.0
1995	1,336	0.5	-9.6	-16.7
1996	1,202	0.5	-10.0	0.0
1997	1,166	0.4	-3.0	-20.0
1998	1,112	0.4	-4.6	0.0
1999	930	0.3	-16.4	-25.0
2000 ⁽³⁾	776	0.3	-16.6	0.0
2001	764	0.3	-1.5	0.0
2002	784	0.3	2.6	0.0
2003	711	0.2	-9.3	-33.3
2004	657	0.2	-7.6	0.0
2005	648	0.2	-1.4	0.0
2006	644	0.2	-0.6	0.0

Sources: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 2008.

Notes:

(1) Death rates are per 100,000 population.

(2) Percent change from previous year.

(3) Mortality data prior to 2000 are not strictly comparable to subsequent years due to changes in counting from implementation of ICD-10.

--- Data Not Available.

TABLE 2: TUBERCULOSIS CASES AND CASE RATES, 1953-2008 ⁽¹⁾

YEAR	CASES		PERCENT CHANGE ⁽²⁾	
	NUMBER	RATE	NUMBER	RATE
1953	84,304	53.0	---	---
1954	79,775	49.3	-5.4	-7.0
1955	77,368	46.9	-3.0	-4.9
1956	69,895	41.6	-9.7	-11.3
1957	67,149	39.2	-3.9	-5.8
1958	63,534	36.5	-5.4	-6.9
1959	57,353	32.5	-9.4	-11.0
1960	55,494	30.8	-3.5	-5.2
1961	53,726	29.4	-3.2	-4.5
1962	53,315	28.7	-0.8	-2.4
1963	54,042	28.7	1.4	0.0
1964	50,874	26.6	-5.9	-7.3
1965	49,016	25.3	-3.7	-4.9
1966	47,767	24.4	-2.5	-3.6
1967	45,647	23.1	-4.4	-5.3
1968	42,623	21.3	-6.6	-7.8
1969	39,120	19.4	-8.2	-8.9
1970	37,137	18.3	-5.1	-5.7
1971	35,217	17.1	-5.2	-6.6
1972	32,882	15.8	-6.6	-7.6
1973	30,998	14.8	-5.7	-6.3
1974	30,122	14.2	-2.8	-4.1
1975 ⁽³⁾	33,989	15.9	---	---
1976	32,105	15.0	-5.5	-5.7
1977	30,145	13.9	-6.1	-7.3
1978	28,521	13.1	-5.4	-5.8
1979	27,669	12.6	-3.0	-3.8
1980	27,749	12.3	0.3	-2.4
1981	27,373	11.9	-1.4	-3.3
1982	25,520	11.0	-6.8	-7.6
1983	23,846	10.2	-6.6	-7.3
1984	22,255	9.4	-6.7	-7.8
1985	22,201	9.3	-0.2	-1.1
1986	22,768	9.4	2.6	1.1
1987	22,517	9.3	-1.1	-1.1
1988	22,436	9.1	-0.4	-2.2
1989	23,495	9.5	4.7	4.4
1990	25,701	10.3	9.4	8.4
1991	26,283	10.4	2.3	1.0
1992	26,673	10.5	1.5	1.0
1993	25,287	9.8	-5.2	-6.7
1994	24,361	9.4	-3.7	-4.1
1995	22,860	8.7	-6.2	-7.4
1996	21,337	8.0	-6.7	-8.0
1997	19,851	7.4	-7.0	-8.5
1998	18,361	6.8	-7.5	-8.1
1999	17,531	6.4	-4.5	-5.9
2000	16,377	5.8	-6.6	-9.4
2001	15,989	5.6	-2.4	-3.4
2002	15,075	5.2	-5.7	-7.1
2003	14,874	5.1	-1.3	-1.9
2004	14,517	4.9	-2.3	-3.2
2005	14,097	4.8	-2.9	-3.8
2006	13,779	4.6	-2.1	-3.1
2007	13,288	4.4	-3.2	-3.8
2008	12,904	4.2	-2.9	-3.8

Sources: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 2008

Notes:

(1) Case rates are per 100,000 population.

(2) Percent change from previous year.

(3) Case data prior to 1975 are not strictly comparable to later years due to changes in counting criteria which became effective in 1975

--- Data not available.

TABLE 3: TUBERCULOSIS CASES AND CASE RATES BY SEX & AGE, 1993 & 2006 & RACE/ETHNICITY & COUNTRY OF ORIGIN, 1993 & 2008

CHARACTERISTIC	NUMBER OF CASES			CASE RATES ⁽¹⁾		
	1993	2008	CHANGE (%)	1993	2008	CHANGE (%)
SEX						
MALE	17,433	7,942	-54.4	12.5	5.3	-57.6
FEMALE	9,236	4,961	-46.3	6.3	3.2	-49.2
AGE GROUP						
0-14	1,661	786	-52.7	2.9	1.3	-55.2
15-24	1,822	1,440	-21.0	5.0	3.4	-32.0
25-44	9,586	4,242	-55.7	11.5	5.1	-55.7
45-64	6,197	3,935	-36.5	12.4	5.0	-59.7
65+	5,820	2,500	-57.0	17.7	6.4	-63.8
RACE/ETHNICITY						
WHITE, NON-HISPANIC	6,889	2,142	-68.9	3.6	1.1	-69.4
BLACK, NON-HISPANIC	8,942	3,273	-63.4	28.5	8.8	-69.1
HISPANIC ⁽²⁾	5,140	3,798	-26.1	19.9	8.1	-59.3
AMERICAN INDIAN / ALASKA NATIVE	271	139	-48.7	13.9	6.0	-56.8
ASIAN/PACIFIC ISLANDER	3,700	N/A	N/A	44.1	N/A	N/A
ASIAN ⁽³⁾	N/A	3,391	N/A	N/A	25.6	N/A
NATIVE HAWAIIAN/PACIFIC ISLANDER ⁽³⁾	N/A	69	N/A	N/A	15.9	N/A
MULTIPLE RACE ⁽⁴⁾	N/A	42	N/A	N/A	0.9	N/A
COUNTRY OF ORIGIN						
FOREIGN BORN ⁽⁵⁾	7,403	7,563	2.2	34.0	20.3	-40.3
U.S.-BORN	17,422	5,283	-69.7	7.4	2.0	-73.0
UNKNOWN	282	58	N/A	N/A	N/A	N/A
TOTAL	25,107	12,904	-48.6	10.5	4.4	-58.1

Sources: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 1993 and 2008

Notes:

N/A - Not Available

(1) Case rates are per 100,000 population.

(2) Persons of Hispanic ethnicity may be of any race.

(3) Separate race categories for Asians and Native Hawaiian/Pacific Islanders were first reported in 2003; from 1993 to 2002 the category was reported as Asians or Pacific Islanders.

(4) Indicates two or more races reported for a person. Category first reported in 2003. Does not include information on Hispanic ethnicity.

(5) Persons born outside the United States and its territories.

TABLE 4: TUBERCULOSIS CASES BY AGE AND RACE/ETHNICITY IN U.S.-BORN PERSONS, 1993 AND 2008

AGE GROUP	WHITE, NON-HISPANIC			BLACK, NON-HISPANIC		
	1993	2008	CHANGE (%)	1993	2008	CHANGE (%)
0-4	160	32	-80.0	335	106	-68.4
5-14	82	6	-92.7	177	43	-75.7
15-24	173	52	-69.9	412	180	-56.3
25-44	1,567	313	-80.0	3,785	585	-84.5
45-64	1,708	739	-56.7	2,149	923	-57.0
65+	2,593	606	-76.6	1,359	396	-70.9
TOTAL ⁽¹⁾	6,300	1,748	-72.3	8,229	2,234	-72.9

AGE GROUP	AMERICAN INDIAN OR ALASKA NATIVE			HISPANIC		
	1993	2008	CHANGE (%)	1993	2008	CHANGE (%)
0-4	15	9	-40.0	312	228	-26.9
5-14	10	1	-90.0	100	79	-21.0
15-24	15	11	-26.7	174	122	-29.9
25-44	83	37	-55.4	884	190	-78.5
45-64	84	51	-39.3	500	190	-62.0
65+	58	26	-55.2	269	111	-58.7
TOTAL ⁽¹⁾	265	135	-49.1	2,241	920	-58.9

AGE GROUP	ASIAN ⁽²⁾			NATIVE HAWAIIAN/OTHER PACIFIC ISLANDER ⁽²⁾		
	1993	2008	CHANGE (%)	1993	2008	CHANGE (%)
0-4	51	45	-11.8	N/A	3	N/A
5-14	21	17	-19.0	N/A	4	N/A
15-24	26	35	34.6	N/A	11	N/A
25-44	86	29	-66.3	N/A	15	N/A
45-64	43	11	-74.4	N/A	12	N/A
65+	60	16	-73.3	N/A	5	N/A
TOTAL ⁽¹⁾	287	153	-46.7	N/A	50	N/A

AGE GROUP	MULTIPLE RACE ⁽³⁾		
	1993	2008	CHANGE (%)
0-4	N/A	1	N/A
5-14	N/A	0	N/A
15-24	N/A	3	N/A
25-44	N/A	3	N/A
45-64	N/A	7	N/A
65+	N/A	3	N/A
TOTAL ⁽¹⁾	N/A	17	N/A

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 1993 and 2008

Notes:

(1) Total includes persons with age unknown.

(2) Separate race categories for Asians and Native Hawaiian/Pacific Islanders were first reported in 2003; from 1993 to 2002 the category was reported as Asians or Pacific Islanders.

(3) Indicates two or more races reported for a person. Category first reported in 2003. Does not include information on Hispanic ethnicity.

TABLE 5: TUBERCULOSIS CASES BY STATE, 1992-2008

STATE	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	CHANGE (%)	
																		1992-2008	2007-2008
Alabama	418	487	433	420	423	405	381	314	310	265	233	258	211	216	196	176	176	-57.9	0.0
Alaska	57	57	93	81	96	78	55	61	108	54	49	57	43	59	70	50	50	-12.3	0.0
Arizona	259	231	249	319	282	296	254	262	261	289	263	295	272	281	315	302	227	-12.4	-24.8
Arkansas	257	209	264	271	225	200	171	181	199	162	136	127	132	114	102	106	83	-67.7	-21.7
California	5,382	5,170	4,859	4,677	4,313	4,056	3,852	3,606	3,297	3,332	3,169	3,227	2,989	2,904	2,779	2,728	2,695	-49.9	-1.2
Colorado	104	104	94	95	104	94	79	88	97	138	104	111	127	101	124	111	103	-1.0	-7.2
Connecticut	156	155	148	139	138	128	128	121	105	121	104	111	101	95	89	108	98	-37.2	-9.3
Delaware	55	66	57	56	43	39	36	34	28	33	25	33	32	26	29	19	23	-58.2	21.1
Dc	146	161	121	102	139	110	107	70	85	74	82	79	81	56	72	59	54	-63.0	-8.5
Florida	1,707	1,655	1,762	1,556	1,417	1,400	1,302	1,277	1,171	1,145	1,086	1,046	1,076	1,094	1,038	988	954	-44.1	-3.4
Georgia	893	812	740	746	790	696	631	665	703	575	524	526	536	505	504	473	478	-46.5	1.1
Hawaii	273	251	247	193	200	167	181	184	136	151	148	117	116	112	115	122	124	-54.6	1.6
Idaho	26	11	13	14	15	15	14	16	16	9	14	13	11	23	20	9	11	-57.7	22.2
Illinois	1,270	1,237	1,117	1,024	1,060	974	850	825	743	707	680	633	569	596	569	520	469	-63.1	-9.8
Indiana	247	248	211	199	202	168	188	150	145	115	128	143	128	146	125	128	118	-52.2	-7.8
Iowa	49	59	66	72	70	74	55	58	40	43	34	40	47	55	40	43	49	0.0	14.0
Kansas	56	80	84	89	74	78	56	69	77	80	89	75	62	60	82	59	57	1.8	-3.4
Kentucky	402	404	347	327	259	198	179	209	147	152	146	138	127	124	84	120	101	-74.9	-15.8
Louisiana	373	367	433	476	420	406	380	357	331	294	230	260	249	257	207	217	227	-39.1	4.6
Maine	24	28	35	28	21	21	13	23	24	20	23	25	20	17	16	19	9	-62.5	-52.6
Maryland	442	417	363	370	319	340	324	294	282	262	306	268	314	283	253	271	278	-37.1	2.6
Massachusetts	428	370	329	330	262	268	282	270	285	270	271	261	283	265	259	224	261	-39.0	16.5
Michigan	495	480	462	424	443	374	385	351	287	330	315	243	273	246	221	225	188	-62.0	-16.4
Minnesota	165	144	140	156	131	161	161	201	178	239	237	214	199	199	217	238	211	27.9	-11.3
Mississippi	281	279	278	271	251	245	225	215	173	154	134	128	119	103	115	138	118	-58.0	-14.5
Missouri	245	257	260	244	224	248	184	208	211	157	136	131	127	108	104	118	107	-56.3	-9.3
Montana	16	22	24	21	19	18	20	14	21	20	12	7	15	10	13	11	9	-43.8	-18.2
Nebraska	28	23	22	24	22	22	31	18	24	40	28	28	39	35	25	25	33	17.9	32.0
Nevada	99	99	126	115	137	112	128	93	96	96	85	107	95	112	101	102	102	3.0	0.0
New Hampshire	18	26	17	23	21	17	14	19	22	20	19	15	24	4	17	11	19	5.6	72.7
New Jersey	984	912	855	848	820	718	640	571	565	530	530	495	482	485	508	467	422	-57.1	-9.6
New Mexico	88	74	81	85	89	71	68	64	46	54	57	49	42	39	48	51	60	-31.8	17.6
New York	4,574	3,953	3,636	3,066	2,588	2,265	2,000	1,837	1,744	1,676	1,434	1,480	1,363	1,289	1,271	1,169	1,200	-73.8	2.7
North Carolina	604	594	566	519	554	463	498	488	447	398	434	374	382	329	374	345	335	-44.5	-2.9
North Dakota	11	7	10	5	8	12	10	7	5	6	6	6	4	6	9	7	3	-72.7	-57.1
Ohio	358	315	337	280	301	286	230	317	340	306	257	229	219	260	239	251	213	-40.5	-15.1
Oklahoma	216	209	261	237	201	212	198	208	154	194	190	163	178	144	144	149	100	-53.7	-32.9
Oregon	145	154	165	156	190	161	156	123	119	123	111	106	106	103	81	94	75	-48.3	-20.2
Pennsylvania	758	749	621	674	583	528	448	454	383	350	353	336	327	325	341	276	387	-48.9	40.2
Rhode Island	54	64	56	50	35	38	63	53	49	60	49	46	51	47	26	45	36	-33.3	-20.0
South Carolina	387	401	387	334	348	328	286	315	286	263	256	254	234	261	222	218	188	-51.4	-13.8

Continued on next page

TABLE 5 cntd: TUBERCULOSIS CASES BY STATE, 1992-2008

STATE	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	CHANGE (%)	
																		1992-2008	2007-2008
South Dakota	32	16	28	28	19	19	23	21	16	13	13	20	11	16	14	13	16	-50.0	23.1
Tennessee	527	556	520	465	504	467	439	382	383	313	308	285	279	298	279	235	282	-46.5	20.0
Texas	2,510	2,396	2,542	2,369	2,103	1,992	1,820	1,649	1,506	1,643	1,550	1,594	1,683	1,535	1,585	1,510	1,501	-40.2	-0.6
Utah	78	46	55	48	58	36	52	40	49	35	31	39	36	29	34	39	27	-65.4	-30.8
Vermont	7	7	10	4	4	6	5	3	4	7	8	9	6	8	8	3	6	-14.3	100.0
Virginia	457	458	372	359	349	350	339	334	292	306	315	332	329	355	332	309	292	-36.1	-5.5
Washington	306	285	264	278	285	305	265	258	258	261	252	250	244	256	262	291	228	-25.5	-21.6
West Virginia	92	75	80	71	57	54	42	41	33	32	30	21	24	28	22	24	28	-69.6	16.7
Wisconsin	106	100	109	117	114	130	109	110	92	86	78	66	95	78	75	70	68	-35.8	-2.9
Wyoming	8	7	12	5	7	2	4	3	4	3	3	4	5	...	4	2	5	-37.5	150.0
United States	26,673	25,287	24,361	22,860	21,337	19,851	18,361	17,531	16,377	15,989	15,075	14,874	14,517	14,097	13,779	13,288	12,904	-51.6	-2.9

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 1992-2008

TABLE 6: TUBERCULOSIS CASE RATES PER 100,000 BY STATE, 1992-2008

STATE																		(%)	(%)
	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	1992-2008	2007-2008
Alabama	10.1	11.6	10.3	9.9	9.9	9.4	8.8	7.2	7.0	5.9	5.2	5.7	4.7	4.7	4.3	3.8	3.8	-62.4	0.0
Alaska	9.7	9.5	15.3	13.4	15.8	12.8	9.0	9.9	17.2	8.5	7.6	8.8	6.6	8.9	10.4	7.3	7.3	-24.7	0.0
Arizona	6.8	5.9	6.1	7.6	6.4	6.5	5.4	5.5	5.1	5.4	4.8	5.3	4.7	4.7	5.1	4.8	3.5	-48.5	-27.1
Arkansas	10.7	8.6	10.8	10.9	9.0	7.9	6.7	7.1	7.4	6.0	5.0	4.7	4.8	4.1	3.6	3.7	2.9	-72.9	-21.6
California	17.4	16.6	15.5	14.8	13.5	12.6	11.8	10.9	9.7	9.7	9.0	9.1	8.3	8.0	7.6	7.5	7.3	-58.0	-2.7
Colorado	3.0	2.9	2.6	2.5	2.7	2.4	2.0	2.2	2.3	3.1	2.3	2.4	2.8	2.2	2.6	2.3	2.1	-30.0	-8.7
Connecticut	4.8	4.7	4.5	4.2	4.2	3.9	3.9	3.7	3.1	3.5	3.0	3.2	2.9	2.7	2.5	3.1	2.8	-41.7	-9.7
Delaware	8.0	9.4	8.1	7.8	5.9	5.3	4.8	4.5	3.6	4.1	3.1	4.0	3.9	3.1	3.4	2.2	2.6	-67.5	18.2
District Of Columbia	24.9	27.9	21.2	18.4	25.6	20.8	20.5	13.5	14.9	12.9	14.4	14.0	14.6	10.2	12.4	10.0	9.1	-63.5	-9.0
Florida	12.7	12.1	12.6	11.0	9.8	9.6	8.7	8.5	7.3	7.0	6.5	6.1	6.2	6.1	5.7	5.4	5.2	-59.1	-3.7
Georgia	13.2	11.7	10.5	10.4	10.7	9.3	8.3	8.5	8.6	6.9	6.1	6.1	6.1	5.6	5.4	5.0	4.9	-62.9	-2.0
Hawaii	23.6	21.4	20.9	16.3	16.9	14.1	15.2	15.5	11.2	12.3	11.9	9.3	9.2	8.8	8.9	9.6	9.6	-59.3	0.0
Idaho	2.4	1.0	1.1	1.2	1.3	1.2	1.1	1.3	1.2	0.7	1.0	1.0	0.8	1.6	1.4	0.6	0.7	-70.8	16.7
Illinois	10.9	10.6	9.5	8.7	8.9	8.2	7.1	6.8	6.0	5.7	5.4	5.0	4.5	4.7	4.4	4.1	3.6	-67.0	-12.2
Indiana	4.4	4.3	3.7	3.4	3.5	2.9	3.2	2.5	2.4	1.9	2.1	2.3	2.1	2.3	2.0	2.0	1.9	-56.8	-5.0
Iowa	1.7	2.1	2.3	2.5	2.5	2.6	1.9	2.0	1.4	1.5	1.2	1.4	1.6	1.9	1.3	1.4	1.6	-5.9	14.3
Kansas	2.2	3.2	3.3	3.5	2.9	3.0	2.1	2.6	2.9	2.3	3.3	2.8	2.3	2.2	3.0	2.1	2.0	-9.1	-4.8
Kentucky	10.7	10.7	9.1	8.5	6.7	5.1	4.5	5.3	3.6	3.7	3.6	3.4	3.1	3.0	2.0	2.8	2.4	-77.6	-14.3
Louisiana	8.7	8.5	10.0	11.0	9.7	9.3	8.7	8.2	7.4	6.6	5.1	5.8	5.5	5.7	4.8	5.0	5.1	-41.4	2.0
Maine	1.9	2.3	2.8	2.3	1.7	1.7	1.0	1.8	1.9	1.6	1.8	1.9	1.5	1.3	1.2	1.4	0.7	-63.2	-50.0
Maryland	9.0	8.4	7.3	7.3	6.3	6.7	6.3	5.7	5.3	4.9	5.6	4.9	5.6	5.1	4.5	4.8	4.9	-45.6	2.1
Massachusetts	7.1	6.2	5.4	5.4	4.3	4.4	4.6	4.4	4.5	4.2	4.2	4.1	4.4	4.1	4.0	3.5	4.0	-43.7	14.3
Michigan	5.2	5.1	4.9	4.4	4.6	3.8	3.9	3.6	2.9	3.3	3.1	2.4	2.7	2.4	2.2	2.2	1.9	-63.5	-13.6
Minnesota	3.7	3.2	3.1	3.4	2.8	3.4	3.4	4.2	3.6	4.8	4.7	4.2	3.9	3.9	4.2	4.6	4.0	8.1	-13.0
Mississippi	10.7	10.6	10.4	10.0	9.2	9.0	8.2	7.8	6.1	5.4	4.7	4.4	4.1	3.5	4.0	4.7	4.0	-62.6	-14.9
Missouri	4.7	4.9	4.9	4.6	4.2	4.6	3.4	3.8	3.8	2.8	2.4	2.3	2.2	1.9	1.8	2.0	1.8	-61.7	-10.0
Montana	1.9	2.6	2.8	2.4	2.2	2.0	2.3	1.6	2.3	2.2	1.3	0.8	1.6	1.1	1.4	1.1	0.9	-52.6	-18.2
Nebraska	1.7	1.4	1.4	1.5	1.3	1.3	1.9	1.1	1.4	2.3	1.6	1.6	2.2	2.0	1.4	1.4	1.9	11.8	35.7
Nevada	7.4	7.1	8.6	7.5	8.5	6.7	7.3	5.1	4.8	4.6	3.9	4.8	4.1	4.6	4.0	4.0	3.9	-47.3	-2.5
New Hampshire	1.6	2.3	1.5	2.0	1.8	1.4	1.2	1.6	1.8	1.6	1.5	1.2	1.8	0.3	1.3	0.8	1.4	-12.5	75.0
New Jersey	12.6	11.6	10.8	10.7	10.3	8.9	7.9	7.0	6.7	6.2	6.2	5.7	5.5	5.6	5.8	5.4	4.9	-61.1	-9.3
New Mexico	5.6	4.6	4.9	5.0	5.2	4.1	3.9	3.7	2.5	3.0	3.1	2.6	2.2	2.0	2.5	2.6	3.0	-46.4	15.4
New York	25.3	21.7	20.0	16.9	14.2	12.5	11.0	10.1	9.2	8.8	7.5	7.7	7.1	6.7	6.6	6.0	6.2	-75.5	3.3
North Carolina	8.8	8.6	8.0	7.2	7.6	6.2	6.6	6.4	5.6	4.9	5.2	4.4	4.5	3.8	4.2	3.8	3.6	-59.1	-5.3
North Dakota	1.7	1.1	1.6	0.8	1.2	1.9	1.6	1.1	0.8	0.9	0.9	0.9	0.6	0.9	1.4	1.1	0.5	-70.6	-54.5
Ohio	3.2	2.8	3.0	2.5	2.7	2.6	2.1	2.8	3.0	2.7	2.3	2.0	1.9	2.3	2.1	2.2	1.9	-40.6	-13.6
Oklahoma	6.7	6.5	8.0	7.2	6.1	6.4	5.9	6.2	4.5	5.6	5.4	4.6	5.1	4.1	4.0	4.1	2.7	-59.7	-34.1
Oregon	4.9	5.1	5.3	5.0	5.9	5.0	4.8	3.7	3.5	3.5	3.2	3.0	2.9	2.8	2.2	2.5	2.0	-59.2	-20.0
Pennsylvania	6.3	6.2	5.2	5.6	4.8	4.4	3.7	3.8	3.1	2.8	2.9	2.7	2.6	2.6	2.7	2.2	3.1	-50.8	40.9
Rhode Island	5.4	6.4	5.6	5.1	3.5	3.9	6.4	5.3	4.7	5.7	4.6	4.3	4.7	4.4	2.4	4.3	3.4	-37.0	-20.9

Continued on next page

TABLE 6 CNTD: TUBERCULOSIS CASE RATES PER 100,000 BY STATE, 1992-2008

STATE	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	(%) 1992-2008	(%) 2007-2008
South Carolina	10.7	11.0	10.6	9.1	9.4	8.7	7.5	8.1	7.1	6.5	6.2	6.1	5.6	6.1	5.1	4.9	4.2	-60.7	-14.3
South Dakota	4.5	2.2	3.9	3.8	2.6	2.6	3.1	2.9	2.1	1.7	1.7	2.6	1.4	2.1	1.8	1.6	2.0	-55.6	25.0
Tennessee	10.5	10.9	10.0	8.8	9.5	8.7	8.1	7.0	6.7	5.5	5.3	4.9	4.7	5.0	4.6	3.8	4.5	-57.1	18.4
Texas	14.2	13.3	13.8	12.7	11.0	10.2	9.2	8.2	7.2	7.7	7.1	7.2	7.5	6.7	6.7	6.3	6.2	-56.3	-1.6
Utah	4.3	2.5	2.9	2.5	2.9	1.7	2.5	1.9	2.2	1.5	1.3	1.7	1.5	1.2	1.3	1.5	1.0	-76.7	-33.3
Vermont	1.2	1.2	1.7	0.7	0.7	1.0	0.8	0.5	0.7	1.1	1.3	1.5	1.0	1.3	1.3	0.5	1.0	-16.7	100.0
Virginia	7.1	7.1	5.7	5.4	5.2	5.2	5.0	4.9	4.1	4.3	4.3	4.5	4.4	4.7	4.3	4.0	3.8	-46.5	-5.0
Washington	6.0	5.4	4.9	5.1	5.2	5.4	4.7	4.5	4.4	4.4	4.2	4.1	3.9	4.1	4.1	4.5	3.5	-41.7	-22.2
West Virginia	5.1	4.1	4.4	3.9	3.1	3.0	2.3	2.3	1.8	1.8	1.7	1.2	1.3	1.5	1.2	1.3	1.5	-70.6	15.4
Wisconsin	2.1	2.0	2.1	2.3	2.2	2.5	2.1	2.1	1.7	1.6	1.4	1.2	1.7	1.4	1.3	1.3	1.2	-42.9	-7.7
Wyoming	1.7	1.5	2.5	1.0	1.5	0.4	0.8	0.6	0.8	0.6	0.6	0.8	1.0	0.0	0.8	0.4	0.9	-47.1	125.0
United States	10.5	9.8	9.4	8.7	8.0	7.4	6.8	6.4	5.8	5.6	5.2	5.1	4.9	4.8	4.6	4.4	4.2	-60.0	-4.5

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 1992-2008

TABLE 7: TUBERCULOSIS CASES BY AGE AND STATE, 2008

STATE	TOTAL	UNDER 5	5-14	15-24	25-44	45-64	65+	UNKNOWN
Alabama	176	5	3	15	44	59	50	0
Alaska	50	2	2	2	17	19	8	0
Arizona	227	19	10	25	79	51	43	0
Arkansas	83	3	4	8	16	25	27	0
California	2,695	87	68	280	812	825	623	0
Colorado	103	5	5	13	33	28	19	0
Connecticut	98	2	0	14	40	23	19	0
Delaware	23	2	0	3	13	1	4	0
Distric of Columbia	54	3	0	9	16	21	5	0
Florida	954	38	9	93	278	373	163	0
Georgia	478	33	9	51	177	146	62	0
Hawaii	124	0	2	12	25	55	30	0
Idaho	11	1	1	4	1	0	4	0
Illinois	469	9	5	44	166	155	90	0
Indiana	118	7	2	12	33	33	31	0
Iowa	49	0	1	5	20	17	6	0
Kansas	57	6	3	8	20	11	9	0
Kentucky	101	1	4	19	27	28	22	0
Louisiana	227	2	2	25	74	87	37	0
Maine	9	0	0	1	3	4	1	0
Maryland	278	9	3	46	103	64	53	0
Massachusetts	261	2	2	39	97	75	46	0
Michigan	188	5	2	22	58	65	36	0
Minnesota	211	18	13	52	72	33	23	0
Mississippi	118	3	6	6	32	50	21	0
Missouri	107	3	0	14	38	25	27	0
Montana	9	1	0	1	2	2	3	0
Nebraska	33	4	1	7	12	7	2	0
Nevada	102	11	1	10	29	35	16	0
New Hampshire	19	0	0	3	5	4	7	0
New Jersey	422	2	7	42	176	122	73	0
New Mexico	60	0	2	3	12	22	21	0
New York	1,200	16	25	160	427	363	209	0
North Carolina	335	19	8	30	119	91	68	0
North Dakota	3	0	0	1	1	1	0	0
Ohio	213	12	9	28	70	45	49	0
Oklahoma	100	11	1	7	30	33	17	1
Oregon	75	2	1	10	29	19	14	0
Pennsylvania	387	24	29	44	104	94	92	0
Rhode Island	36	1	3	2	12	10	8	0
South Carolina	188	14	5	17	59	52	41	0
South Dakota	16	6	2	2	4	0	2	0
Tennessee	282	13	2	21	94	88	64	0
Texas	1,501	74	23	149	540	503	212	0
Utah	27	1	0	6	6	5	9	0
Vermont	6	0	0	0	1	4	1	0
Virginia	292	13	10	31	81	48	45	0
Washington	228	13	10	31	81	48	45	0
West Virginia	28	1	0	3	6	12	6	0
Wisconsin	68	1	1	9	25	17	15	0
Wyoming	5	0	0	0	3	2	0	0
United States	12,904	496	290	1,440	4,242	3,935	2,500	1

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 2008

TABLE 8: TUBERCULOSIS CASES BY RACE/ETHNICITY AND STATE, 2008

STATE	TOTAL CASES	NON-HISPANIC							
		HISPANIC ⁽¹⁾	WHITE	BLACK	AMERICAN/ INDIAN/ ALASKA	ASIAN ⁽²⁾	NATIVE HAWAIIAN/ PACIFIC ISLANDER	MULTIPLE RACE ⁽³⁾	UNKNOWN/ MISSING
					NATIVE				
Alabama	176	27	60	80	0	9	0	0	0
Alaska	50	3	3	2	33	9	0	0	0
Arizona	227	128	30	18	15	34	0	2	0
Arkansas	83	9	40	21	0	9	1	0	3
California	2,695	1,058	261	207	9	1,138	12	6	4
Colorado	103	37	14	18	3	29	1	1	0
Connecticut	98	30	17	18	0	32	1	0	0
Delaware	23	7	6	6	0	4	0	0	0
District of Columbia	54	9	1	41	0	3	0	0	0
Florida	954	255	210	387	1	95	0	2	4
Georgia	478	93	69	229	0	84	1	0	2
Hawaii	124	1	3	1	0	93	25	1	0
Idaho	11	2	5	2	0	1	1	0	0
Illinois	469	96	83	132	0	151	0	0	7
Indiana	118	23	46	23	1	25	0	0	0
Iowa	49	7	16	8	0	18	0	0	0
Kansas	57	21	7	10	2	17	0	0	0
Kentucky	101	20	53	19	0	8	0	1	0
Louisiana	227	21	62	122	0	19	0	0	3
Maine	9	1	2	4	0	2	0	0	0
Maryland	278	52	30	111	0	85	0	0	0
Massachusetts	261	41	53	71	0	94	0	2	0
Michigan	188	26	54	61	0	44	0	0	3
Minnesota	211	32	16	111	4	48	0	0	0
Mississippi	118	5	30	80	0	3	0	0	0
Missouri	107	13	35	36	1	20	1	1	0
Montana	9	0	3	0	4	2	0	0	0
Nebraska	33	14	4	8	1	6	0	0	0
Nevada	102	43	16	10	1	32	0	0	0
New Hampshire	19	3	8	2	0	6	0	0	0
New Jersey	422	128	49	77	0	168	0	0	0
New Mexico	60	36	0	0	18	6	0	0	0
New York	1,200	363	140	274	1	401	2	7	12
North Carolina	335	85	57	129	9	44	0	11	0
North Dakota	3	0	1	0	1	1	0	0	0
Ohio	213	32	56	82	1	41	0	1	0
Oklahoma	100	13	31	23	19	7	6	0	1
Oregon	75	23	17	3	0	30	2	0	0
Pennsylvania	387	41	91	141	0	112	1	1	0
Rhode Island	36	9	4	9	1	13	0	0	0
South Carolina	188	44	22	101	0	21	0	0	0
South Dakota	16	0	0	4	4	1	0	0	7
Tennessee	282	43	97	115	1	26	0	1	0
Texas	1,501	763	223	331	1	174	3	6	0
Utah	27	10	6	3	1	6	1	0	0
Vermont	6	0	4	1	0	1	0	0	0
Virginia	292	61	42	75	0	114	0	0	0
Washington	228	52	29	51	6	78	11	0	1
West Virginia	28	3	19	3	0	3	0	0	0
Wisconsin	69	13	15	13	1	23	0	0	3
Wyoming	5	2	2	0	0	1	0	0	0
United States	12,904	3,798	2,142	3,273	139	3,391	69	42	50

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 2008

Notes:

(1) Persons of Hispanic ethnicity may be of any race

(2) Separate race categories for Asians and Native Hawaiian/Pacific Islanders were first reported in 2003; from 1993 to 2002 the category was reported as Asians or Pacific Islanders.

(3) Indicates two or more races reported for a person. Category first reported in 2003. Does not include Hispanic ethnicity

TABLE 9: TUBERCULOSIS CASES AND PERCENTAGES BY COUNTRY OF ORIGIN AND STATE, 2008

STATE	TOTAL CASES	U.S.-BORN		FOREIGN-BORN		UNKNOWN ORIGIN	
		No.	%	No.	%	No.	%
Alabama	176	136	77.3	40	22.7	0	0.0
Alaska	50	38	76.0	12	24.0	0	0.0
Arizona	227	79	34.8	148	65.2	0	0.0
Arkansas	83	66	79.5	15	18.1	2	2.4
California	2,695	672	24.9	2,012	74.7	11	0.4
Colorado	103	30	29.1	73	70.9	0	0.0
Connecticut	98	22	22.4	76	77.6	0	0.0
Delaware	23	8	34.8	15	65.2	0	0.0
District Of Columbia	54	26	48.1	28	51.9	0	0.0
Florida	954	504	52.8	450	47.2	0	0.0
Georgia	478	282	59.0	196	41.0	0	0.0
Hawaii	124	38	30.6	86	69.4	0	0.0
Idaho	11	4	36.4	7	63.6	0	0.0
Illinois	469	187	39.9	282	60.1	0	0.0
Indiana	118	70	59.3	48	40.7	0	0.0
Iowa	49	17	34.7	32	65.3	0	0.0
Kansas	57	20	35.1	37	64.9	0	0.0
Kentucky	101	58	57.4	43	42.6	0	0.0
Louisiana	227	182	80.2	45	19.8	0	0.0
Maine	9	1	11.1	8	88.9	0	0.0
Maryland	278	81	29.1	197	70.9	0	0.0
Massachusetts	261	46	17.6	215	82.4	0	0.0
Michigan	188	104	55.3	83	44.1	1	0.5
Minnesota	211	56	26.5	155	73.5	0	0.0
Mississippi	118	110	93.2	8	6.8	0	0.0
Missouri	107	47	43.9	60	56.1	0	0.0
Montana	9	6	66.7	3	33.3	0	0.0
Nebraska	33	10	30.3	23	69.7	0	0.0
Nevada	102	32	31.4	70	68.6	0	0.0
New Hampshire	19	5	26.3	14	73.7	0	0.0
New Jersey	422	99	23.5	323	76.5	0	0.0
New Mexico	60	28	46.7	32	53.3	0	0.0
New York	1,200	287	23.9	907	75.6	6	0.5
North Carolina	335	213	63.6	122	36.4	0	0.0
North Dakota	3	2	66.7	1	33.3	0	0.0
Ohio	213	115	54.0	98	46.0	0	0.0
Oklahoma	100	80	80.0	18	18.0	2	2.0
Oregon	75	18	24.0	57	76.0	0	0.0
Pennsylvania	387	179	46.3	183	47.3	25	6.5
Rhode Island	36	8	22.2	28	77.8	0	0.0
South Carolina	188	131	69.7	57	30.3	0	0.0
South Dakota	16	12	75.0	4	25.0	0	0.0
Tennessee	282	195	69.1	85	30.1	0	0.0
Texas	1,501	775	51.6	726	48.4	0	0.0
Utah	27	10	50.0	17	63.0	0	0.0
Vermont	6	3	27.4	3	50.0	0	0.0
Virginia	292	80	27.6	212	72.6	0	0.0
Washington	228	63	36.8	165	72.4	0	0.0
West Virginia	28	21	75.0	7	25.0	0	0.0
Wisconsin	68	25	36.8	34	50.0	9	13.2
Wyoming	5	2	40.0	3	60.0	0	0.0
United States	12,904	5,283	40.9	7,563	58.6	58	0.4

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 2008

TABLE 10: TUBERCULOSIS CASES AND CASE RATES BY METROPOLITAN STATISTICAL AREAS WITH >500,000 POPULATION, 1998-2008

METROPOLITAN STATISTICAL AREA ⁽³⁾	CASES											CASE RATES ⁽¹⁾										
	2008	2007	⁽³⁾	2005	2004	2003	2002	2001	2000	1999	1998	2008	2007	⁽³⁾	2005	2004	2003	2002	2001	2000	1999	1998
Akron, OH	5	5	5	10	7	9	13	19	16	14	7	0.7	0.7	0.7	1.4	1.0	1.3	1.9	2.7	2.3	2.0	1.0
Albany-Schenectady-Troy, NY	4	16	17	16	14	12	15	17	29	19	14	0.5	1.9	2.0	1.8	1.6	1.3	1.7	1.9	3.3	2.2	1.6
Albuquerque, NM	23	16	12	13	16	14	17	12	6	16	25	2.7	1.9	1.5	1.7	2.1	1.9	2.3	1.7	0.8	2.4	3.7
Allentown-Bethlehem-Easton, PA	17	2	22	9	13	19	8	14	15	17	22	2.1	0.2	2.7	1.3	1.9	2.9	1.2	2.2	2.4	2.7	3.6
Ann Arbor, MI	---	---	---	12	9	7	13	7	14	15	4	---	---	---	1.9	1.5	1.1	2.2	1.2	2.4	2.7	0.7
Atlanta-Sandy Springs-Marietta, GA	300	274	280	295	316	312	309	313	403	343	334	5.6	5.2	5.4	6.2	6.9	7.0	7.0	7.3	9.8	8.9	8.9
Augusta-Richmond County, GA-SC ⁽⁴⁾	26	34	35	30	---	---	---	---	---	---	---	4.9	6.4	6.7	5.8	---	---	---	---	---	---	---
Austin-Round Rock, TX	56	66	52	57	84	72	79	105	81	90	92	3.4	4.1	3.4	3.9	5.9	5.2	5.9	8.0	6.5	7.9	8.3
Bakersfield, CA	50	38	40	42	36	47	57	49	49	62	48	6.2	4.8	5.1	5.5	4.9	6.6	8.2	7.2	7.4	9.6	7.6
Baltimore-Towson, MD	89	105	83	122	118	98	132	116	119	134	160	3.3	3.9	3.1	4.6	4.5	3.7	5.1	4.5	4.7	5.4	6.4
Baton Rouge, LA	30	28	17	17	16	16	18	20	22	39	27	3.9	3.6	2.2	2.7	2.6	2.6	2.9	3.3	3.6	6.7	4.7
Bergen-Passaic, NJ	---	---	---	89	85	76	64	86	78	104	117	---	---	---	6.3	6.1	5.4	4.6	6.2	5.7	7.7	8.7
Birmingham-Hoover, AL	32	42	44	36	62	68	43	70	80	77	89	2.9	3.8	4.0	3.8	6.5	7.2	4.6	7.5	8.7	8.4	9.8
Boise City-Nampa, ID	6	4	5	10	---	---	---	---	---	---	---	1.0	0.7	0.9	2.0	---	---	---	---	---	---	---
Boston-Cambridge-Quincy, MA	207	179	176	241	284	249	270	261	276	267	274	4.6	4.0	4.0	3.9	4.6	4.0	4.4	4.3	4.6	4.5	4.7
Bridgeport-Stamford-Norwalk, CT ⁽⁴⁾	36	52	33	39	---	---	---	---	---	---	---	4.0	5.8	3.7	4.3	---	---	---	---	---	---	---
Buffalo-Niagra Falls, NY	18	10	15	13	26	24	16	23	20	25	35	1.6	0.9	1.3	1.1	2.3	2.1	1.4	2.0	1.7	2.2	3.0
Cape Coral-Fort Meyers, FL ⁽⁴⁾	32	45	19	16	---	---	---	---	---	---	---	5.4	7.7	3.3	2.9	---	---	---	---	---	---	---
Charleston-North Charleston, SC	31	44	34	44	41	40	27	32	38	28	37	4.8	7.0	5.6	7.4	7.0	7.0	4.8	5.8	6.9	5.1	6.8
Charlotte-Gastonia-Concord, NC	76	50	81	71	105	73	76	75	104	103	107	4.5	3.0	5.1	4.2	6.4	4.5	4.8	4.9	6.9	7.3	7.7
Chattanooga, TN-GA	16	16	---	---	---	---	---	---	---	---	---	3.1	3.1	---	---	---	---	---	---	---	---	---
Chicago-Naperville-Joliet, IL	436	489	522	546	508	582	602	625	657	717	730	4.6	5.1	5.5	6.4	5.9	6.9	7.1	7.5	7.9	9.0	9.2
Cincinnati-Midleton, OH-KY-IN	42	44	36	38	48	26	25	31	44	42	30	1.9	2.1	1.7	2.3	2.9	1.6	1.5	1.9	2.7	2.6	1.9
Cleveland-Elyria-Mentor, OH	59	61	47	75	55	77	76	79	108	109	77	2.8	2.9	2.2	3.4	2.5	3.4	3.4	3.5	4.8	4.9	3.5
Colorado Springs, CO	10	7	10	9	9	4	5	7	7	---	---	1.6	1.2	1.7	1.6	1.6	0.7	0.9	1.3	1.4	---	---
Columbia, SC	24	31	20	11	25	25	19	25	27	30	25	3.3	4.3	2.8	1.9	4.4	4.5	3.4	4.6	5.0	5.8	4.9
Columbus, OH	66	80	90	81	58	68	64	84	85	62	47	3.7	4.6	5.2	5.0	3.6	4.3	4.0	5.4	5.5	4.2	3.2
Dallas-Fort Worth-Arlington, TX	372	384	422	275	294	305	270	299	229	255	291	5.9	6.2	7.0	6.9	7.6	8.0	7.2	8.2	6.5	7.8	9.1
Dayton, OH	10	15	15	7	15	11	18	23	16	16	17	1.2	1.8	1.8	0.7	1.6	1.2	1.9	2.4	1.7	1.7	1.8
Daytona Beach, FL	---	---	---	9	15	24	24	25	---	---	---	---	---	---	1.6	2.7	4.5	4.6	4.9	---	---	---
Denver-Aurora, CO	67	79	85	70	91	74	75	91	63	65	54	2.7	3.2	3.5	3.1	4.1	3.4	3.4	4.2	3.0	3.3	2.8
Des Moines-West Des Moines, IA ⁽⁴⁾	7	7	15	13	---	---	---	---	---	---	---	1.3	1.3	2.8	2.5	---	---	---	---	---	---	---
Detroit-Warren-Livonia, MI	119	138	131	168	175	166	199	199	194	231	261	2.7	3.1	2.9	3.8	3.9	3.7	4.5	4.5	4.4	5.2	5.8
El Paso, TX	67	40	72	49	70	71	65	67	56	61	81	9.0	5.5	9.8	6.8	9.8	10.1	9.3	9.7	8.2	8.7	11.5
Fort Lauderdale, FL	---	---	---	99	87	112	103	102	102	143	135	---	---	---	5.6	5.0	6.5	6.0	6.1	6.3	9.3	9.0
Fort Meyers, FL	---	---	---	19	21	---	---	---	---	---	---	---	---	---	2.9	4.1	---	---	---	---	---	---
Fort Wayne, IN	---	---	---	17	23	20	11	13	12	---	---	---	---	---	3.3	4.5	3.9	2.2	2.6	2.4	---	---
Fort Worth, TX	---	---	---	132	115	120	118	114	101	117	117	---	---	---	6.9	6.1	6.5	6.5	6.5	5.9	7.2	7.3
Fresno, CA	73	42	62	78	107	129	110	109	105	110	121	8.0	4.7	7.0	7.6	10.6	13.1	11.4	11.6	11.4	12.5	13.9
Gary, IN	---	---	---	20	15	17	15	9	24	22	23	---	---	---	3.1	2.3	2.7	2.4	1.4	3.8	3.5	3.7
Grand Rapids-Wyoming, MI	14	23	22	19	37	23	36	35	33	32	32	1.8	3.0	2.8	1.7	3.3	2.0	3.2	3.2	3.0	3.0	3.1
Greensboro-High Point, NC	24	31	42	51	49	60	69	50	41	68	65	3.4	4.5	6.1	3.8	3.7	4.6	5.4	3.9	3.3	5.8	5.6
Greenville, SC	19	18	11	25	22	30	39	34	42	34	36	3.0	2.9	1.8	2.5	2.2	3.0	3.9	3.5	4.4	3.7	3.9
Harrisburg-Carlisle, PA	17	13	5	25	18	10	22	15	21	11	25	3.2	2.5	1.0	3.9	2.8	1.6	3.5	2.4	3.3	1.8	4.1
Hartford-West Hartford-East Hartford, CT	24	25	20	25	24	33	35	40	29	48	47	2.0	2.1	1.7	2.1	2.0	2.8	3.0	3.5	2.5	4.3	4.2
Honolulu, HI	101	109	95	83	87	96	122	124	108	147	149	11.2	12.1	10.4	9.2	9.7	10.6	13.6	14.1	12.3	17.0	17.1
Houston-Sugar Land-Baytown, TX	457	488	473	423	512	467	456	464	432	482	482	8.0	8.7	8.5	9.1	11.2	10.4	10.3	10.8	10.3	12.0	12.3

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TABLE 10 CONT'D: TUBERCULOSIS CASES & CASE RATES BY METROPOLITAN STATISTICAL AREA WITH >500,000 POPULATION, 1998-2008

METROPOLITAN STATISTICAL AREA ⁽³⁾	CASES											CASE RATES ⁽¹⁾										
	2008	2007	(3)	2005	2004	2003	2002	2001	2000	1999	1998	2008	2007	(3)	2005	2004	2003	2002	2001	2000	1999	1998
Indianapolis-Carmel, IN	40	48	51	53	43	61	38	43	48	50	56	2.3	2.8	3.1	3.1	2.5	3.6	2.3	2.6	3.0	3.3	3.7
Jackson, MS ⁽⁴⁾	35	36	31	24	---	---	---	---	---	---	---	6.5	6.7	5.9	4.6	---	---	---	---	---	---	---
Jacksonville, FL	107	76	96	92	90	82	86	99	125	105	117	8.1	5.9	7.5	7.5	7.0	7.4	8.7	11.4	9.9	11.2	
Jersey City, NJ	---	---	---	69	68	78	94	84	85	84	88	---	---	---	11.4	11.2	12.8	15.4	13.8	14.0	15.2	15.8
Kansas City, MO-KS	46	49	50	47	49	60	61	50	73	63	62	2.3	2.5	2.5	2.5	2.6	3.3	3.3	2.8	4.1	3.6	3.6
Knoxville, TN	17	16	15	15	20	14	13	30	28	42	45	2.5	2.4	2.2	2.0	2.8	2.0	1.8	4.3	4.1	6.2	6.8
Lakeland, FL	21	29	31	54	27	29	---	---	---	---	---	3.6	5.1	5.5	9.9	5.1	5.7	---	---	---	---	---
Las Vegas-Paradise, NV	91	92	89	97	70	77	67	74	88	68	109	4.9	5.0	5.0	5.0	3.7	4.3	3.9	4.5	5.6	4.9	8.2
Lexington, KY	---	---	---	17	22	---	---	---	---	---	---	---	---	---	3.3	4.4	---	---	---	---	---	---
Little Rock-North Little Rock, AR	16	31	11	21	15	17	17	24	21	24	20	2.4	4.7	1.7	3.4	2.5	2.8	2.9	4.1	3.6	4.3	3.6
Los Angeles-Long Beach-Santa Ana, CA	1,054	1,077	1,157	973	996	1,027	1,096	1,113	1,140	1,265	1,372	8.2	8.4	8.9	9.8	10.0	10.4	11.2	11.5	12.0	13.6	14.9
Louisville-Jefferson County, KY-IN	34	39	28	36	38	32	48	38	36	47	51	2.7	3.2	2.3	3.4	3.6	3.1	4.6	3.7	3.5	4.7	5.1
Madison, WI ⁽⁴⁾	8	4	11	16	---	---	---	---	---	---	---	1.4	0.7	2.0	3.0	---	---	---	---	---	---	---
McAllen-Edinburg-Mission, TX	90	76	68	92	82	74	77	74	80	75	80	12.4	10.8	9.7	13.6	12.5	11.6	12.5	12.5	14.0	14.0	15.3
Melbourne, FL	---	---	---	14	8	12	---	---	---	---	---	---	---	---	2.6	1.5	2.4	---	---	---	---	---
Memphis, TN-MS-AR	96	84	121	96	92	88	92	94	92	97	131	7.5	6.6	9.5	8.1	7.8	7.5	7.9	8.2	8.1	8.8	12.0
Miami-Fort Lauderdale-Miami Beach, FL	349	337	369	229	270	242	258	291	280	273	288	6.4	6.2	6.8	9.6	11.4	10.3	11.1	12.7	12.4	12.5	13.4
Middlesex, NJ	---	---	---	65	73	67	82	75	84	82	94	---	---	---	5.2	5.9	5.5	6.8	6.3	7.2	7.3	8.4
Milwaukee-Waukesha-West Allis, WI	35	38	33	35	35	38	41	32	46	59	54	2.3	2.5	2.2	2.3	2.3	2.5	2.7	2.1	3.1	4.0	3.7
Minneapolis-St. Paul-Bloomington, MN	165	188	169	167	157	171	186	201	137	161	124	5.1	5.9	5.3	5.3	5.0	5.5	6.1	6.7	4.6	5.6	4.4
Mobile, AL	---	---	---	30	17	31	25	34	31	34	43	---	---	---	5.3	3.1	5.6	4.6	6.2	5.7	6.3	8.1
Modesto, CA	21	16	16	11	---	---	---	---	---	---	---	4.1	3.1	3.1	2.2	---	---	---	---	---	---	---
Monmouth-Ocean City, NJ	---	---	---	30	27	30	27	33	41	33	40	---	---	---	2.5	2.3	2.5	2.3	2.9	3.6	3.0	3.7
Nashville-Davidson-Murfreesboro, TN	100	74	82	100	69	90	89	89	96	85	97	6.4	4.9	5.6	7.5	5.3	7.0	7.0	7.1	7.8	7.3	8.4
Nassau-Suffolk, NY	---	---	---	103	101	117	122	162	137	129	154	---	---	---	3.7	3.6	4.2	4.4	5.8	5.0	4.8	5.8
New Haven-Milford, CT	26	25	22	65	66	69	65	73	54	65	76	3.1	3.0	2.6	3.7	3.8	4.0	3.8	4.3	3.2	4.0	4.7
New Orleans-Metairie-Kenner, LA	72	70	80	116	101	111	90	107	142	122	149	6.3	6.3	7.8	8.7	7.5	8.3	6.7	8.0	10.6	9.3	11.4
New York-Northern New Jersey-Long Island, NY-NJ-PA	1,446	1,450	1,574	1,070	1,126	1,221	1,181	1,356	1,427	1,540	1,657	7.6	7.7	8.4	11.3	11.9	13.0	12.5	14.5	15.3	17.7	19.1
Newark, NJ	---	---	---	150	171	168	188	178	194	181	209	---	---	---	7.2	8.2	8.1	9.1	8.7	9.5	9.3	10.7
Norfolk, VA	---	---	---	67	50	48	41	38	57	62	65	---	---	---	4.1	3.1	2.9	2.6	2.4	3.6	4.0	4.2
Ogden-Clearfield, UT	4	4	---	---	---	---	---	---	---	---	---	0.8	0.8	---	---	---	---	---	---	---	---	---
Oakland, CA	---	---	---	221	212	262	278	313	309	338	332	---	---	---	9.0	8.6	10.6	11.3	12.9	12.9	14.4	14.3
Oklahoma City, OK	35	41	46	57	59	57	65	60	64	79	77	2.9	3.4	3.9	5.0	5.2	5.1	5.9	5.5	5.9	7.6	7.4
Omaha-Council Bluffs, NE-IA	25	14	13	19	21	12	16	23	12	9	20	3.0	1.7	1.6	2.5	2.8	1.6	2.2	3.2	1.7	1.3	2.9
Orange County, CA	---	---	---	241	224	248	230	278	246	245	298	---	---	---	8.1	7.5	8.4	7.8	9.6	8.6	8.9	10.9
Orlando-Kissimmee, FL	106	117	141	121	126	103	123	138	140	154	163	5.2	5.8	7.1	6.3	6.8	5.7	7.0	8.1	8.5	10.0	10.8
Oxnard-Thousand Oaks-Ventura, CA ⁽⁴⁾	65	58	49	55	---	---	---	---	---	---	---	8.1	7.3	6.1	6.9	---	---	---	---	---	---	---
Palm Bay-Melbourne-Titusville, FL ⁽⁴⁾	10	19	8	14	---	---	---	---	---	---	---	1.9	3.6	1.5	2.6	---	---	---	---	---	---	---
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	285	237	285	218	218	205	240	223	263	299	286	4.9	4.1	4.9	4.2	4.2	4.0	4.7	4.4	5.2	6.0	5.8
Phoenix-Mesa-Scottsdale, AZ	150	210	205	194	211	225	186	174	172	159	145	3.5	5.0	5.1	5.0	5.7	6.3	5.3	5.1	5.3	5.3	4.9
Pittsburgh, PA	27	30	31	35	34	32	40	59	38	62	52	1.1	1.3	1.3	1.5	1.5	1.4	1.7	2.5	1.6	2.7	2.2
Portland-South Portland-Biddeford, ME ⁽⁴⁾	4	12	10	7	---	---	---	---	---	---	---	0.8	2.3	1.9	1.4	---	---	---	---	---	---	---
Portland-Vancouver-Beaverton, OR-WA	61	67	51	73	70	74	78	71	83	87	118	2.8	3.1	2.4	3.5	3.4	3.6	3.9	3.6	4.3	4.7	6.5

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TABLE 10 CONT'D: TUBERCULOSIS CASES & CASE RATES BY METROPOLITAN STATISTICAL AREA WITH >500,000 POPULATION, 1998-2008

METROPOLITAN STATISTICAL AREA ⁽³⁾	CASES											CASE RATES ⁽¹⁾											
	2008	2007	(3)	2005	2004	2003	2002	2001	2000	1999	1998	2008	2007	(3)	2005	2004	2003	2002	2001	2000	1999	1998	
Poughkeepsie-Newburgh-Middletown, NY ⁽⁴⁾	15	10	13	9	---	---	---	---	---	---	---	2.2	1.5	1.9	1.3	---	---	---	---	---	---	---	---
Providence-New Bedford-Fall River, RI-MA	56	58	38	43	48	45	47	58	49	52	61	3.5	3.6	2.4	4.3	4.8	4.5	4.8	6.0	5.1	5.7	6.7	6.7
Provo-Orem, UT	1	---	---	---	---	---	---	---	---	---	---	0.2	---	---	---	---	---	---	---	---	---	---	---
Raleigh-Cary, NC	51	64	56	65	94	68	87	74	84	79	82	4.7	6.1	5.6	4.7	7.1	5.3	6.9	6.0	7.1	7.1	7.6	7.6
Richmond, VA	38	30	42	47	44	59	40	36	16	28	37	3.1	2.5	3.5	4.4	4.2	5.7	3.9	3.6	1.6	2.9	3.9	3.9
Riverside-San Bernardino-Ontario, CA	153	140	132	121	142	142	131	149	175	192	175	3.7	3.4	3.3	3.1	3.7	3.9	3.7	4.4	5.4	6.0	5.6	5.6
Rochester, NY	17	24	25	23	26	29	17	37	40	30	44	1.6	2.3	2.4	2.1	2.4	2.6	1.5	3.4	3.6	2.8	4.1	4.1
Sacramento-Arden Arcade-Roseville, CA	124	134	110	154	166	165	110	138	126	101	120	5.9	6.4	5.3	8.3	9.1	9.2	6.3	8.1	7.7	6.4	7.8	7.8
St. Louis, MO-IL	58	56	52	52	57	63	73	75	107	98	110	2.1	2.0	1.9	1.9	2.1	2.4	2.8	2.9	4.1	3.8	4.3	4.3
Salt Lake City, UT	16	21	26	22	24	32	22	30	41	32	42	1.4	1.9	2.4	1.5	1.7	2.3	1.6	2.2	3.1	2.5	3.3	3.3
San Antonio, TX	92	84	108	80	121	61	78	82	99	100	98	4.5	4.2	5.6	4.6	7.0	3.6	4.7	5.0	6.2	6.4	6.4	6.4
San Diego-Carlsbad-San Marcos, CA	264	280	315	305	320	316	326	332	296	297	339	8.8	9.5	10.7	10.4	10.9	10.8	11.2	11.6	10.5	10.5	12.2	12.2
San Francisco-Oakland-Fremont, CA	404	454	400	205	204	231	225	275	227	307	307	9.5	10.8	9.6	12.2	12.1	13.6	13.1	16.0	13.1	18.2	18.2	18.2
San Jose-Sunnyvale-Santa Clara, CA	198	240	229	199	203	226	254	215	235	244	251	10.9	13.4	12.8	11.7	12.0	13.5	15.1	12.9	14.0	14.8	15.3	15.3
Sarasota-Bradenton-Venice, FL	31	33	33	29	21	27	26	27	25	19	35	4.5	4.8	4.8	4.3	3.2	4.3	4.2	4.4	4.2	3.5	6.4	6.4
Scranton-Wilkes-Barre, PA	12	9	8	9	10	10	14	15	15	23	14	2.2	1.6	1.5	1.5	1.6	1.6	2.3	2.4	2.4	3.8	2.3	2.3
Seattle-Tacoma-Bellevue, WA	164	209	192	152	153	168	174	167	148	127	136	4.9	6.3	5.9	6.0	6.1	6.8	7.0	6.8	6.1	5.4	5.9	5.9
Springfield, MA	6	13	17	22	15	19	16	15	16	12	12	0.9	1.9	2.5	3.6	2.4	3.1	2.6	2.5	2.6	2.0	2.0	2.0
Stockton, CA	66	51	78	63	65	69	52	51	72	74	65	9.8	7.6	11.6	9.5	10.0	10.9	8.5	8.6	12.8	13.1	11.8	11.8
Syracuse, NY	22	17	14	20	13	22	26	20	26	37	23	3.4	2.6	2.2	2.7	1.8	3.0	3.5	2.7	3.6	5.0	3.1	3.1
Tacoma, WA	---	---	---	27	34	18	16	22	34	43	36	---	---	---	3.6	4.6	2.4	2.2	3.1	4.9	6.2	5.3	5.3
Tampa-St. Petersburg-Clearwater, FL	111	128	123	125	120	142	98	121	127	156	152	4.1	4.7	4.6	4.7	4.6	5.6	3.9	4.9	5.3	6.8	6.7	6.7
Toledo, OH	8	8	12	13	7	7	7	10	9	10	8	1.2	1.2	1.8	2.1	1.1	1.1	1.1	1.6	1.5	1.6	1.3	1.3
Tucson, AZ	26	41	35	33	21	24	24	45	23	46	51	2.6	4.1	3.7	3.6	2.3	2.7	2.7	5.2	2.7	5.7	6.4	6.4
Tulsa, OK	22	31	27	28	42	43	35	34	24	46	34	2.4	3.4	3.0	3.4	5.1	5.2	4.3	4.2	3.0	5.9	4.4	4.4
Vallejo, CA	---	---	---	44	49	36	33	37	30	35	---	---	---	---	8.1	9.0	6.6	6.1	7.0	5.8	6.9	---	---
Ventura, CA	---	---	---	55	72	74	66	52	44	62	57	---	---	---	6.9	9.0	9.4	8.4	6.7	5.8	8.3	7.8	7.8
Virginia Beach-Norfolk-Newport News, VA-NC ⁽⁴⁾	42	41	51	67	---	---	---	---	---	---	---	2.5	2.5	3.1	4.1	---	---	---	---	---	---	---	---
Washington-Arlington-Alexandria, DC-VA-MD-WV	401	416	421	390	435	397	426	380	385	366	398	7.5	7.8	8.0	7.3	8.2	7.6	8.3	7.5	7.8	7.7	8.5	8.5
West Palm Beach, FL	---	---	---	92	99	87	99	79	76	108	83	---	---	---	7.3	8.0	7.2	8.3	6.8	6.7	10.3	8.0	8.0
Wichita, KS	17	17	30	23	17	33	30	22	29	29	22	2.8	2.9	5.1	4.1	3.0	5.9	5.4	4.0	5.3	5.3	4.0	4.0
Wilmington, DE	---	---	---	19	18	19	13	16	17	15	12	---	---	---	3.1	2.9	3.1	2.2	2.7	2.9	2.6	2.1	2.1
Worcester, MA ⁽⁴⁾	29	18	32	26	---	---	---	---	---	---	---	3.7	2.3	4.1	3	---	---	---	---	---	---	---	---
Youngstown-Warren-Boardman, OH-PA	6	8	6	10	10	8	10	11	17	10	17	1.1	1.4	1.0	1.7	1.7	1.4	1.7	1.9	2.9	1.7	2.9	2.9
Total - 97 Areas ⁽²⁾	10,153	10,456	10,733	11,011	11,420	11,586	11,650	12,239	12,367	13,111	13,730	5.1	5.3	5.5	5.7	6.0	6.2	6.3	6.8	6.9	7.7	8.1	8.1

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 1998-2008

Notes:

- (1) Cases rates are per 100,000 population.
- (2) In 2006, there were 97 metropolitan statistical areas with a population over 500,000. In 2005 there were 109 metropolitan statistical areas with a population over 500,000.
- (3) In 2006, MSAs were renamed and some were merged, changing total number of MSAs in the REPORTED TUBERCULOSIS IN THE UNITED STATES report from 109 in 2005 to 97 in 2006.
- (4) New MSA in 2006 REPORTED TUBERCULOSIS IN THE UNITED STATES report.
- Data not available

TABLE 11: TUBERCULOSIS CASES BY RACE/ETHNICITY AND METROPOLITAN STATISTICAL AREAS WITH >500,000 POPULATION, 2008

METROPOLITAN STATISTICAL AREA ^(1,2)	TOTAL CASES	HISPANIC ⁽³⁾	WHITE	BLACK	NON-HISPANIC				
					AMERICAN INDIAN/ ALASKA NATIVE	ASIAN ⁽⁴⁾	NATIVE HAWAIIAN/ PACIFIC ISLANDER ⁽⁴⁾	MULTIPLE RACE ⁽⁵⁾	UNKNOWN/ MISSING
Akron, OH	5	0	2	0	0	3	0	0	0
Albany-Schenectady-Troy, NY	4	0	1	1	0	2	0	0	0
Albuquerque, NM	23	15	0	0	4	4	0	0	0
Allentown-Bethlehem-Easton, PA-NJ	17	6	4	2	0	4	0	1	0
Atlanta-Sandy Springs-Marietta, GA	300	52	35	140	0	72	1	0	0
Augusta-Richmond County, GA-SC ⁽⁶⁾	26	1	7	16	0	2	0	0	0
Austin-Round Rock, TX	56	23	10	12	1	10	0	0	0
Bakersfield, CA	50	32	7	4	0	7	0	0	0
Baltimore-Towson, MD	89	8	13	38	0	30	0	0	0
Baton Rouge, LA	30	0	8	15	0	5	0	0	2
Birmingham-Hoover, AL	32	4	8	18	0	2	0	0	0
Boise City-Nampa, ID	6	2	2	1	0	0	1	0	0
Boston-Cambridge-Quincy, MA-NH	207	36	38	59	0	72	0	2	0
Bridgeport-Stamford-Norwalk, CT ⁽⁶⁾	36	13	6	6	0	11	0	0	0
Buffalo-Niagara Falls, NY	18	0	6	6	0	6	0	0	0
Cape Coral-Fort Myers, FL ⁽⁶⁾	32	13	10	9	0	0	0	0	0
Charleston-North Charleston, SC	31	7	6	11	0	7	0	0	0
Charlotte-Gastonia-Concord, NC-SC	76	17	11	35	0	10	0	3	0
Chattanooga, TN-GA	16	7	4	2	0	2	0	0	1
Chicago-Naperville-Joliet, IL	436	96	73	125	0	140	0	0	2
Cincinnati-Middleton, OH-KY-IN	42	12	16	6	0	6	0	2	0
Cleveland-Elyria-Mentor, OH	59	5	8	35	0	11	0	0	0
Colorado Springs, CO	10	4	3	2	0	1	0	0	0
Columbia, SC	24	6	4	11	0	3	0	0	0
Columbus, OH	66	11	9	34	0	12	0	0	0
Dallas-Fort Worth-Arlington, TX	372	118	61	129	0	62	1	1	0
Dayton, OH	10	0	5	2	1	2	0	0	0
Denver-Aurora, CO	67	19	7	13	1	25	1	1	0
Des Moines-West Des Moines, IA ⁽⁶⁾	7	1	1	0	0	5	0	0	0
Detroit-Warren-Livonia, MI	119	9	32	53	0	23	0	0	2
El Paso, TX	67	60	7	0	0	0	0	0	0
Fresno, CA	73	33	9	0	0	31	0	0	0
Grand Rapids-Wyoming, MI	14	4	4	1	0	5	0	0	0
Greensboro-High Point, NC	24	1	3	13	0	6	0	1	0
Greenville, SC	19	8	1	3	0	7	0	0	0
Harrisburg-Carlisle, PA	17	1	3	6	0	7	0	0	0
Hartford-West Hartford-East Hartford, CT	24	6	4	4	0	10	0	0	0
Honolulu, HI	101	1	2	1	0	74	22	1	0
Houston-Sugar Land-Baytown, TX	457	189	71	128	0	68	0	1	0
Indianapolis-Carmel, IN	40	11	10	10	0	9	0	0	0
Jackson, MS ⁽⁶⁾	35	2	8	24	0	1	0	0	0
Jacksonville, FL	107	6	26	59	0	16	0	0	0
Kansas City, MO-KS	46	12	8	13	0	13	0	0	0
Knoxville, TN	17	1	12	3	0	1	0	0	0
Lakeland, FL	21	5	3	12	0	1	0	0	0
Lancaster, PA	17	2	9	5	0	1	0	0	0
Las Vegas-Paradise, NV	91	34	15	9	1	32	0	0	0
Little Rock-North Little Rock, AR	16	3	5	6	0	1	0	0	1
Los Angeles-Long Beach-Santa Ana, CA	1,054	453	77	99	1	420	2	2	0
Louisville-Jefferson County, KY-IN	34	2	19	13	0	0	0	0	0
Madison, W ⁽⁶⁾	8	3	1	0	0	4	0	0	0
McAllen-Edinburg-Mission, TX	90	85	3	0	0	1	0	1	0
Memphis, TN-MS-AR	96	12	10	63	1	10	0	0	0
Miami-Fort Lauderdale-Miami Beach, FL	349	130	41	161	0	15	0	2	0
Milwaukee-Waukesha-West Allis, WI	35	6	7	11	0	10	0	0	0
Minneapolis-St. Paul-Bloomington, MN-WI	165	11	9	99	2	44	0	0	0
Modesto, CA	21	11	3	0	0	7	0	0	0
Nashville-Davidson-Murfreesboro, TN	100	15	31	43	0	11	0	0	0
New Haven-Milford, CT	26	8	4	6	0	8	0	0	0
New Orleans-Metairie-Kenner, LA	72	13	21	32	0	6	0	0	0

Continued on next page

TABLE 11 CONT'D: TUBERCULOSIS CASES BY RACE/ETHNICITY AND METROPOLITAN STATISTICAL AREAS WITH >500,000 POPULATION, 2008

METROPOLITAN STATISTICAL AREA ^(1,2)	TOTAL CASES	HISPANIC ⁽³⁾	WHITE	BLACK	NON-HISPANIC				
					AMERICAN INDIAN/ ALASKA NATIVE	ASIAN ⁽⁴⁾	NATIVE HAWAIIAN/ PACIFIC ISLANDER ⁽⁴⁾	MULTIPLE RACE ⁽⁵⁾	UNKNOWN/ MISSING
New York-Northern New Jersey-Long Island, NY-NJ-PA	1,446	465	139	318	1	508	2	7	6
Ogden-Clearfield, UT	4	2	1	0	0	0	1	0	0
Oklahoma City, OK	35	5	8	15	4	3	0	0	0
Omaha-Council Bluffs, NE-IA	25	9	6	6	0	4	0	0	0
Orlando-Kissimmee, FL	106	20	16	52	1	17	0	0	0
Oxnard-Thousand Oaks-Ventura, CA ⁽⁶⁾	65	33	9	1	0	22	0	0	0
Palm Bay-Melbourne-Titusville, FL ⁽⁶⁾	10	1	9	0	0	0	0	0	0
Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	285	26	37	122	0	100	0	0	0
Phoenix-Mesa-Scottsdale, AZ	150	85	17	12	5	29	0	2	0
Pittsburgh, PA	27	1	13	6	0	7	0	0	0
Portland-South Portland-Biddeford, ME ⁽⁶⁾	4	0	1	2	0	1	0	0	0
Portland-Vancouver-Beaverton, OR-WA	61	13	12	3	0	30	3	0	0
Poughkeepsie-Newburgh-Middletown, NY ⁽⁶⁾	15	4	4	3	0	4	0	0	0
Providence-New Bedford-Fall River, RI-MA	56	12	15	13	1	15	0	0	0
Provo-Orem, UT	1	0	1	0	0	0	0	0	0
Raleigh-Cary, NC	51	17	6	17	0	10	0	1	0
Richmond, VA	38	8	4	15	0	11	0	0	0
Riverside-San Bernardino-Ontario, CA	153	70	21	7	1	51	1	2	0
Rochester, NY	17	2	5	6	0	4	0	0	0
Sacramento-Arden Arcade-Roseville, CA	124	21	21	10	0	71	1	0	0
St. Louis, MO-IL	58	4	15	26	1	11	1	0	0
Salt Lake City, UT	16	6	1	3	0	6	3	0	0
San Antonio, TX	92	52	18	10	0	11	0	1	0
San Diego-Carlsbad-San Marcos, CA	264	138	25	16	2	82	0	1	0
San Francisco-Oakland-Fremont, CA	404	97	37	47	1	215	6	1	0
San Jose-Sunnyvale-Santa Clara, CA	198	28	9	8	0	151	2	0	0
Sarasota-Bradenton-Venice, FL	31	8	12	7	0	4	0	0	0
Scranton-Wilkes-Barre, PA	12	2	8	0	0	2	0	0	0
Seattle-Tacoma-Bellevue, WA	164	28	18	47	2	59	10	0	0
Springfield, MA	6	1	1	1	0	3	0	0	0
Stockton, CA	66	19	9	3	0	34	0	0	1
Syracuse, NY	22	0	5	5	0	12	0	0	0
Tampa-St. Petersburg-Clearwater, FL	111	25	31	28	0	26	0	0	1
Toledo, OH	8	2	1	3	0	2	0	0	0
Tucson, AZ	26	10	4	5	2	5	0	0	0
Tulsa, OK	22	3	8	3	4	4	0	0	0
Virginia Beach-Norfolk-Newport News, VA-NC	42	5	9	12	0	16	0	0	0
Washington-Arlington-Alexandria, DC-VA-MD-WV	401	93	29	147	0	132	0	0	0
Wichita, KS	17	4	3	4	0	6	0	0	0
Worcester, MA	29	2	5	7	0	15	0	0	0
Youngstown-Warren-Boardman, OH-PA	6	0	3	2	0	1	0	0	0
Total - 97 Areas	10,170	2,966	1,419	2,601	37	3,042	55	33	17

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 2008

Notes:

- (1) In 2006, there were 97 metropolitan statistical areas with a population \geq 500,000.
- (2) In 2006, MSAs were renamed and some were merged, changing total number of MSAs in the REPORTED TUBERCULOSIS IN THE UNITED STATES report.
- (3) Persons of Hispanic origin may be of any race or multiple race.
- (4) Separate race categories for Asians and Native Hawaiian/Pacific Islanders were first reported in 2003; from 1993 to 2002 the category was "Other race."
- (5) Indicates two or more races reported for a person. Does not include information on Hispanic ethnicity.
- (6) New MSA in 2006 REPORTED TUBERCULOSIS IN THE UNITED STATES report.

TABLE 12: TUBERCULOSIS CASES (%) BY SELECTED CHARACTERISTICS, 2008

CHARACTERISTIC	PERCENT OF CASES WITH CHARACTERISTIC ⁽¹⁾
INITIAL DRUG REGIMEN	
ISONIAZID AND RIFAMPIN	0.9
ISONIAZID, RIFAMPIN & PYRAZINAMIDE	3.5
ISONIAZID, RIFAMPIN, PYRAZINAMIDE AND ETHAMBUTOL OR STREPTOMYCIN	83.3
SUBSTANCE USE PROBLEMS ⁽²⁾	
INJECTING-DRUG USE	1.8
NON-INJECTING-DRUG USE	7.3
EXCESSIVE ALCOHOL USE	13.1
RESIDENCE	
CORRECTIONAL INSTITUTION	4.1 ⁽³⁾
LONG-TERM-CARE FACILITY	2.1 ⁽⁴⁾
HOMELESSNESS	5.7 ⁽²⁾
UNEMPLOYED	52.5 ⁽⁵⁾
DRUG RESISTANCE ⁽⁶⁾	
ISONIAZID RESISTANT	8.2
ISONIAZID AND RIFAMPIN RESISTANT	1.0
TREATMENT TYPE	
DIRECTLY OBSERVED THERAPY (DOT)	57.5 ⁽⁷⁾
SELF-ADMINISTERED	22.9 ⁽⁸⁾
COMBINATION (DOT & SELF ADMINISTERED)	30.4 ⁽⁷⁾
TREATMENT STATUS	
COMPLETED OBSERVED THERAPY	92.5 ⁽⁷⁾
COMPLETED OBSERVED THERAPY \leq 1 YR	83.5 ⁽⁷⁾

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 2008

Notes:

(1) Percentages based on data from 52 reporting areas (50 states, NYC, DC) and comprises reporting areas with information on characteristics reported for equal to or greater than 75% of cases.

(2) During the preceding 12 months of TB diagnosis.

(3) Residents of correctional facilities at time of diagnosis.

(4) Residents of long term care facility at time of diagnosis.

(5) During the preceding 24 months.

(6) Patients with no previous history of TB and tested for at least isoniazid and rifampin. Isolates may be resistant to other drugs.

(7) Latest information available is for 2006.

(8) Latest information available is for 2003.

TABLE 13: TUBERCULOSIS DEATHS BY WHO REGION, 1990-2008 ^(1,2,3)

Year	Region						Total
	Africa	The Americas	Eastern Mediterranean	Europe	South-East Asia	Western Pacific	
1990	160	74	120	95	640	440	1,600
1991	180	68	120	94	640	440	1,600
1992	190	62	120	93	650	440	1,600
1993	190	59	130	91	660	450	1,600
1994	210	56	140	89	680	440	1,700
1995	220	53	140	83	680	440	1,700
1996	230	49	140	75	690	420	1,600
1997	250	46	130	71	650	420	1,600
1998	270	45	130	69	610	420	1,600
1999	300	35	140	76	560	440	1,600
2000	330	33	150	76	560	440	1,600
2001	360	33	150	73	570	440	1,700
2002	450	32	140	74	570	420	1,700
2003	480	32	140	73	560	360	1,700
2004	490	29	140	70	540	340	1,600
2005	500	28	130	73	520	310	1,600
2006	500	30	120	65	510	290	1,500
2007	410	34	110	57	500	280	1,400
2008	410	31	110	58	490	270	1,400

Source: World Health Organization. Global Tuberculosis Control, 2009.

Notes:

(1) Does not include HIV deaths.

(2) In thousands

(3) Summing across rows may not equal total due to rounding.

TABLE 14: TUBERCULOSIS CASES WITH HIV TEST RESULTS ¹ & WITH HIV COINFECTION BY AGE, 1993-2008

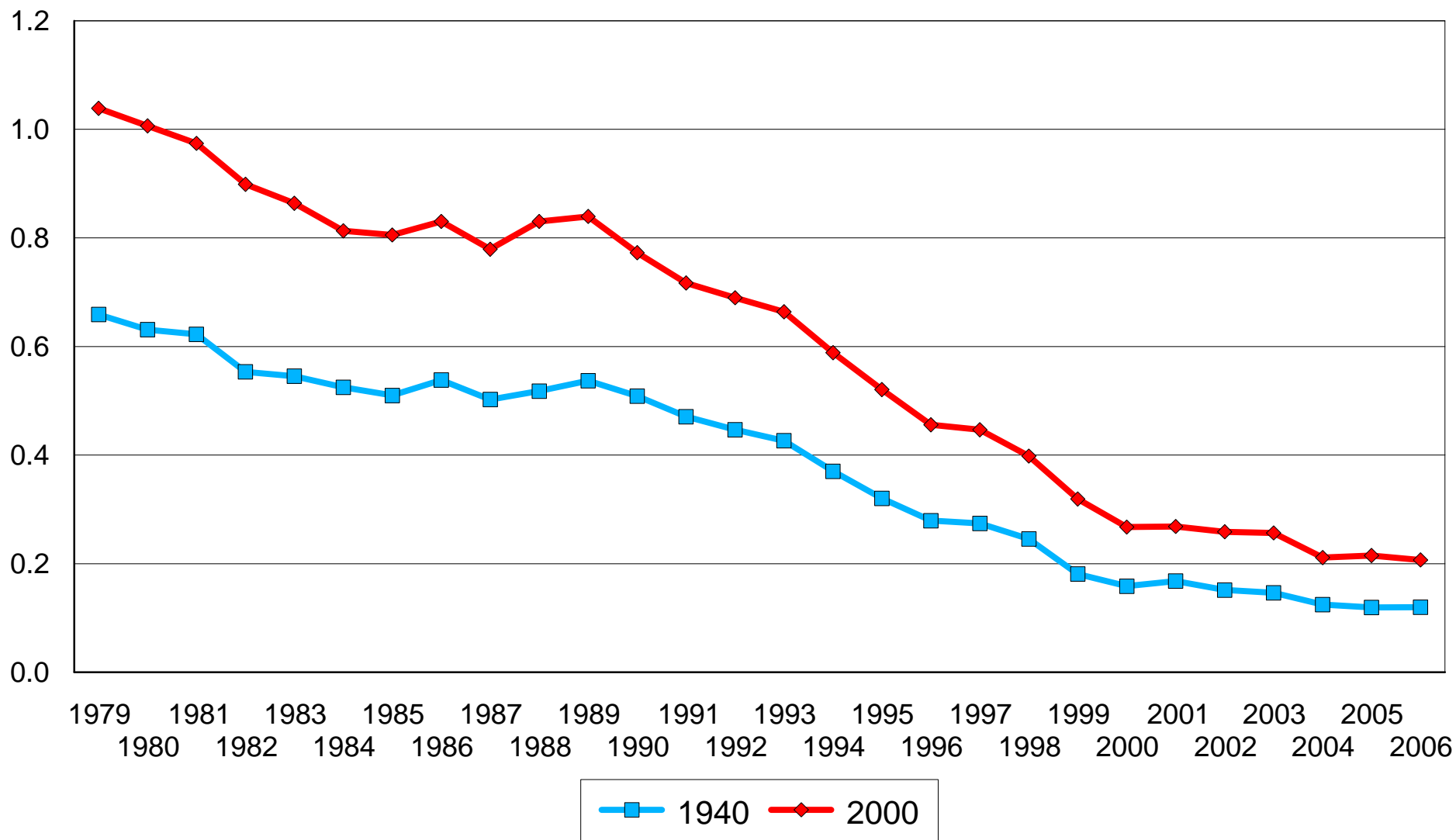
YEAR	25-44 YEARS OLD				ALL AGES			
	HIV TEST RESULTS		HIV POSITIVE		HIV TEST RESULTS		HIV POSITIVE	
	No.	%	No.	%	No.	%	No.	%
1993	4,377	46%	2,790	29%	7,455	30%	3,682	15%
1994	4,443	49%	2,669	30%	7,887	33%	3,601	15%
1995	4,277	52%	2,172	26%	8,179	36%	3,038	13%
1996	4,366	58%	1,856	25%	8,832	42%	2,615	12%
1997	4,142	60%	1,473	21%	8,771	44%	2,092	11%
1998	3,862	61%	1,240	20%	8,292	45%	1,831	10%
1999	3,811	63%	1,175	19%	8,420	48%	1,726	10%
2000	3,525	63%	955	17%	8,117	50%	1,464	9%
2001	3,576	64%	911	16%	8,095	51%	1,408	9%
2002	3,512	66%	845	16%	8,022	53%	1,390	9%
2003	3,424	68%	807	16%	8,118	55%	1,320	9%
2004	3,442	70%	682	14%	8,507	59%	1,194	8%
2005	3,273	69%	611	13%	8,226	58%	1,042	7%
2006	3,277	70%	557	12%	8,270	60%	961	7%
2007	3,147	73%	488	11%	8,302	62%	883	7%
2008	3,036	72%	411	10%	8,010	62%	820	6%

Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the U.S., 1994-2008

Note:

(1) Includes persons with positive, negative, or indeterminate HIV test results and persons from California with co-diagnosis of TB and AIDS. In California, the number of patients testing negative, indeterminate, refusing testing, not offered testing, test performed but status unknown, unknown, or missing HIV data is not reported to CDC. California did not report AIDS test results for 2005. Rhode Island did not report HIV test results for years 1993–1997.

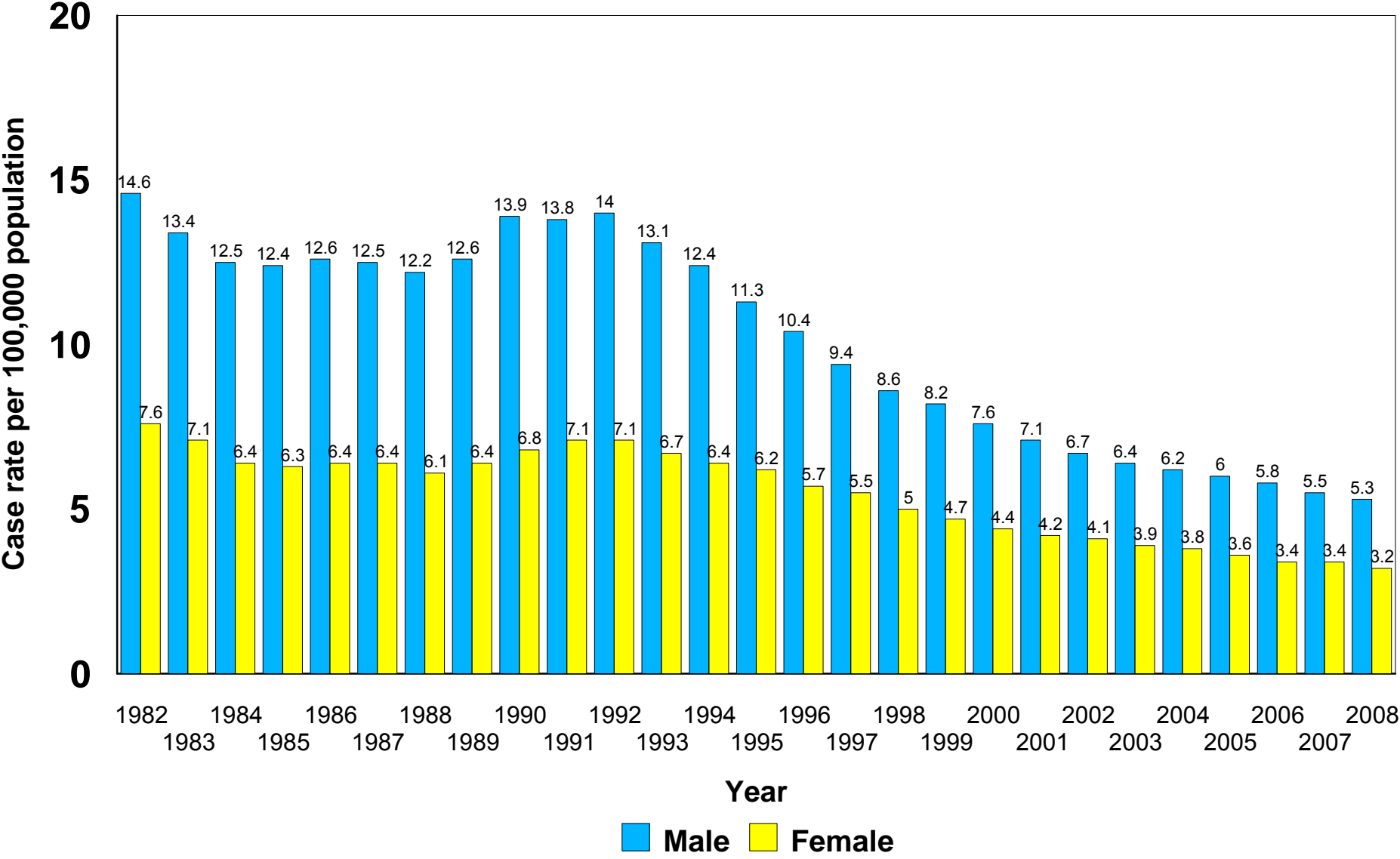
Figure 1: Tuberculosis Age-Adjusted Death Rates Based on the 1940 and 2000 Standard Population, 1979-2006



Source: National Vital Statistics System. Age-adjusted Death Rates: Trend Data Based on the Year 2000 Standard Population Report. Vol. 49, No. 9, September 21, 2001.

Centers for Disease Control and Prevention, National Center for Health Statistics. Compressed Mortality File 1999-2005. CDC Wonder On-line Database, compiled from Compressed Mortality File 1999-2005 Series 20 No. 2K, 2008. Accessed at <http://wonder.cdc.gov/cmfi-icd10.html> on April 1, 2008.

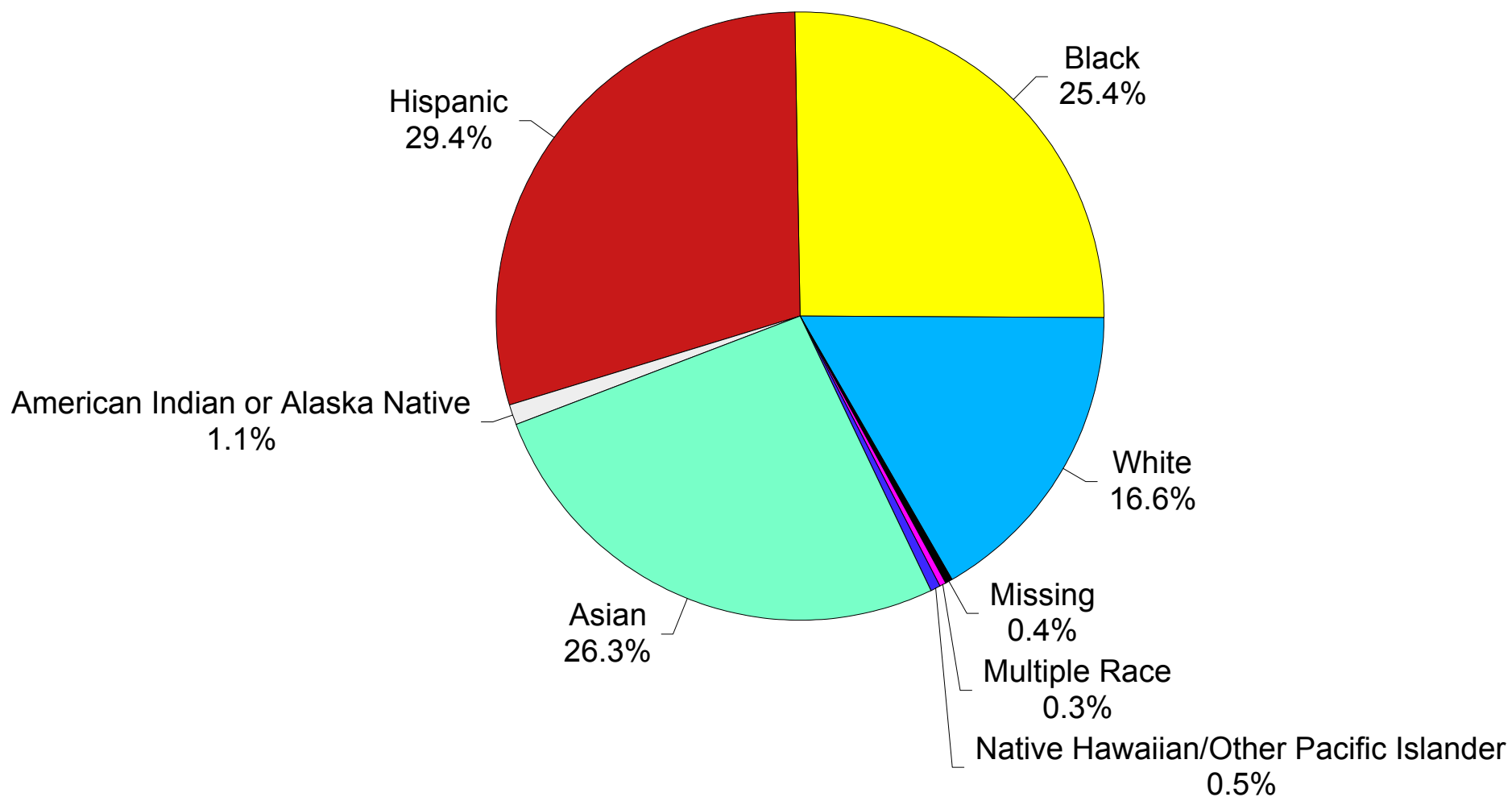
Figure 2: Tuberculosis Case Rates by Sex, 1982-2008



Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the United States, 1982-2008

Note:
1) Rates are per 100,000 population

Figure 3: Tuberculosis Cases (%) by Race/Ethnicity*, 2008

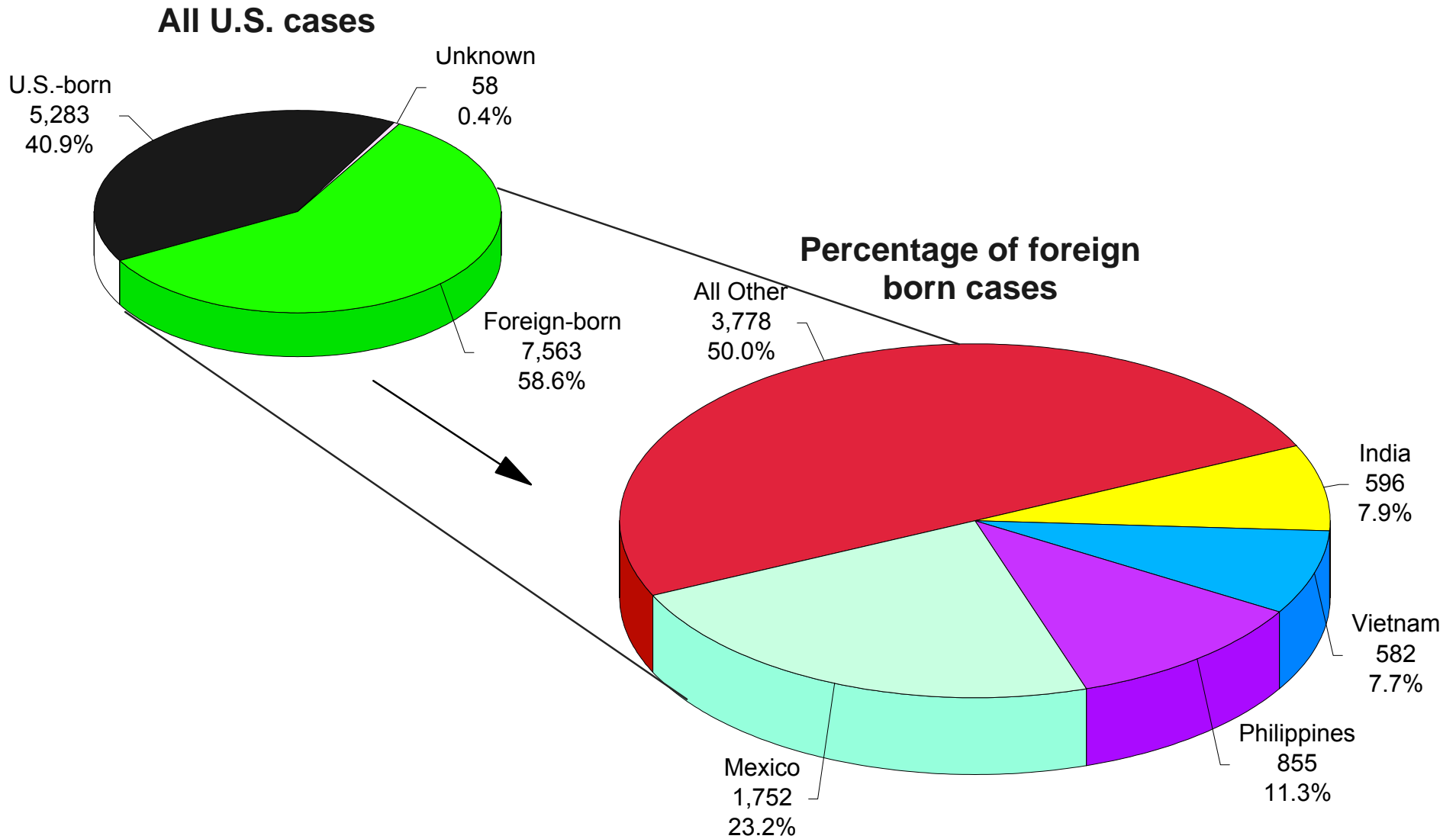


Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the United States, 2008

Note:

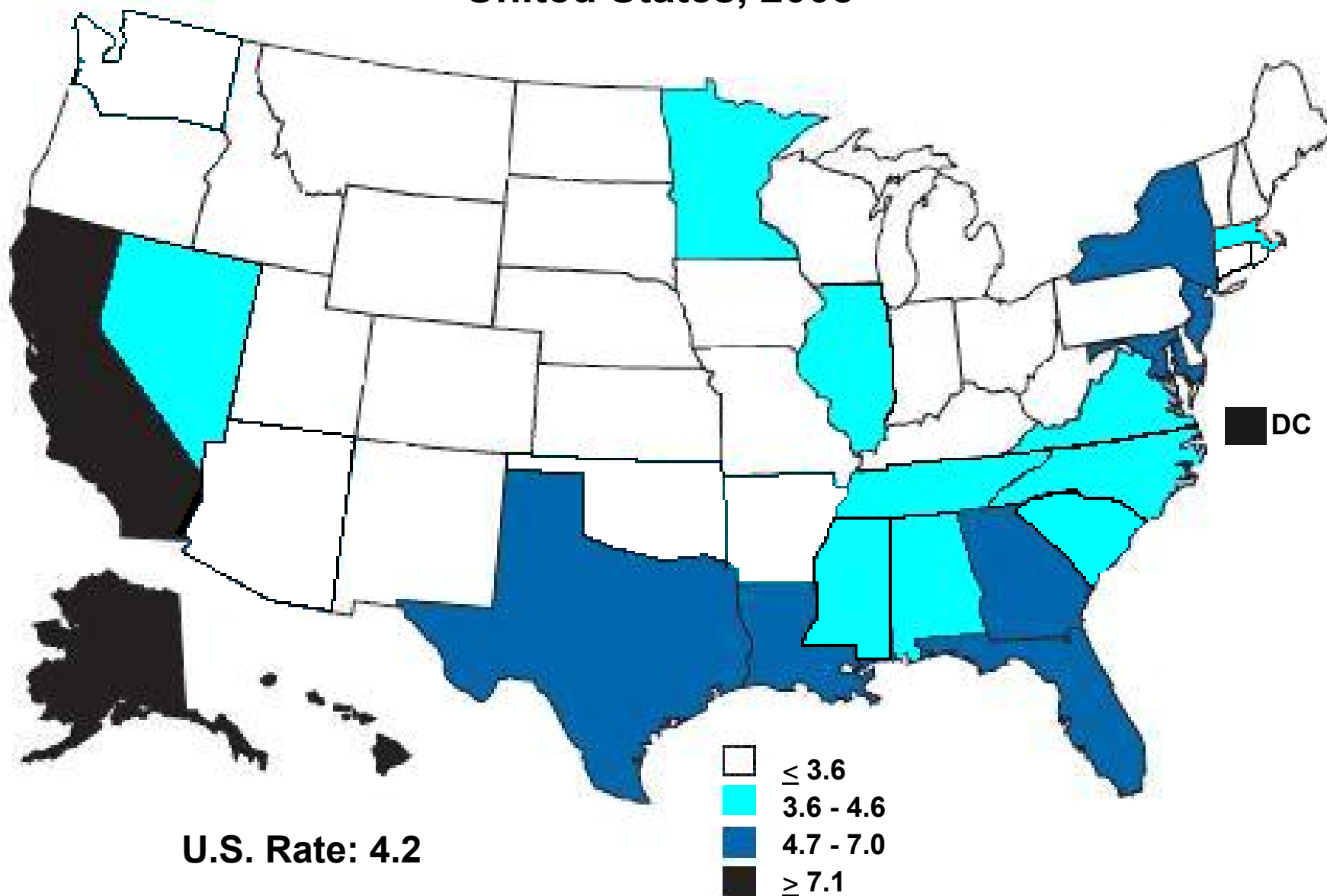
* Persons of Hispanic ethnicity may be of any race. Race categories do not include persons of Hispanic ethnicity or multiple race.

Figure 4: Tuberculosis Cases, by Country of Origin, United States, 2008



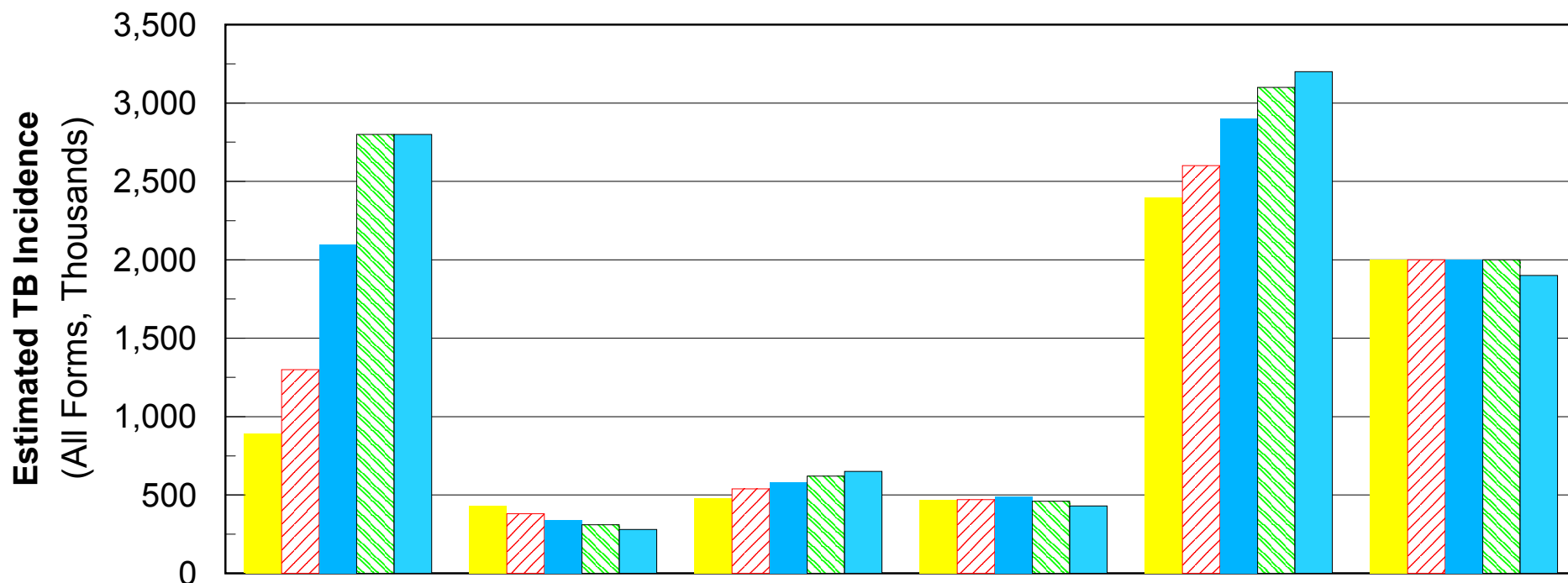
Source: Centers for Disease Control and Prevention. Reported Tuberculosis in the United States, 2008

Figure 5: Tuberculosis Case Rates per 100,000 Population by State, United States, 2008



Source: Centers for Disease Control and Prevention. Trends in Tuberculosis -- United States, 2008. Morbidity and Mortality Weekly Report. March 21, 2008; 57(11):281-285.

Figure 6 : Estimated Number of New Tuberculosis Cases by WHO Region, 1995, 2000 and 2005



	Africa	Americas	Eastern Mediterranean	Europe	South-East Asia	Western Pacific
1990	890	430	480	470	2,400	2,000
1995	1,300	380	540	470	2,600	2,000
2000	2,100	340	580	490	2,900	2,000
2005	2,800	310	620	460	3,100	2,000
2008	2,800	280	650	430	3,200	1,900

Source: World Health Organization. Global Tuberculosis Control Report, 2009.