

Epidemiology of Tuberculosis in African-American Population, United States 1993-2005 - Slide Text

Slide 1 (title slide). Stop TB in the African-American Community, May 16-17, 2006, Atlanta, Georgia

Epidemiology of Tuberculosis in African-American Population, United States 1993-2005

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Slide 2. Reported TB Cases United States, 1982–2005.

The resurgence of TB in the mid 1980s was marked by several years of increasing case counts followed by a steeper rise for several years. Trends in TB cases decreased from approximately 26,000 in 1982 to approximately 22,000 cases in 1984. The trend began to rise again around 1988 until it peaked to approximately 27,000 cases in 1992. From 1992 to 2005, the total number of TB cases has decreased each year. In 2005, a total of 14,093 TB cases were reported in the United States.

Slide 3. Reported TB Cases by Race/Ethnicity, United States, 2005.

In 2004, 82% of all reported TB cases occurred in racial and ethnic minorities (29% in Hispanics, 28% in non-Hispanic black or African Americans, 23% in Asians, 1% in American Indian or Alaska Natives, and <1% in Native Hawaiian or Other Pacific Islanders), whereas 18% of cases occurred in non-Hispanic whites.

In 2004, the TB rate for blacks was 8.3 times greater than for whites.

Several factors likely contribute to the burden of TB in minorities:

- Among people from countries where TB is common, TB disease may result from an infection acquired in their country of origin.

- Among racial and ethnic minorities unequal distribution of TB risk factors, particularly HIV infection, can also increase the chance of developing the disease.

Slide 4. Reported TB Cases in U.S.-born and Foreign-born, by Race/Ethnicity. U.S. 1993–2004

This is a comparison of TB cases reported from 1993 to 2004, by nativity and race/ethnicity group. For all reported TB cases (n = 223,583) between 1993 - 2004, among persons who were:

- White, non-Hispanic, 89% (n = 47,534) were U.S.-born and 11% (n = 6,111) were foreign-born;
- Black, non-Hispanic, 85% (n = 61,379) were U.S.-born and 15% (n = 10,924) were foreign-born;
- Hispanic, were 32% (n = 16,613) and 68% (n = 34,655) were foreign-born;
- American Indian/Alaska Native, 98% (n = 2,881) were U.S.-born and 2% (n = 63) were foreign-born;
- Asian/Pacific Islander, 6% (n = 2,561) were U.S.-born and 94% (n = 40,862) were foreign-born.

Slide 5. Reported TB Cases in U.S.-born, by Race/Ethnicity, U.S., 1993–2004

Verified cases of TB in U.S.-born, reported from 1993 through 2004 by race/ethnicity. The largest proportion occurred among Black, non-Hispanics, with 47% (n = 61,379).

For other U.S.-born populations, White, non-Hispanics accounted for 36% (n = 47, 534), Hispanics accounted for 13% (n = 16,613), American Indian/Alaska Natives (n = 2,881) and Asian/Pacific Islanders (n = 2,561) accounted for 2% each.

Slide 6. Characteristics Among Selected U.S.-born Persons with TB, 2004

There were 4,884 cases of TB in U.S. born persons in 2004. Non-Hispanic, blacks accounted for 2,675 cases. Seventy-percent of the cases in blacks were male, with the median age of 46 years. Non-Hispanic, whites accounted for 2,209 cases. Sixty-seven percent of the cases in whites were male, with the median age of 57 years.

Slide 7. TB Rates in U.S.-born, by Race/Ethnicity, United States, 1993–2004

Time-trends in TB rates for U.S.-born populations. Differences to note are that the highest TB rates in the US born population are consistently seen in Black, non-Hispanics. Rates in Black, non-Hispanics decreased from 28.0/100,000 cases in 1993 to 9.1/100,000 in 2004. Rates in White, non-Hispanics decrease from 3.4/100,000 in 1993 to 1.1/100,000 in 2004.

The TB case rate in Black, non-Hispanics is consistently 8 times that of White, non-Hispanics from 1993 - 2004.

Slide 8. TB Cases in U.S.-born African Americans, United States, 2000–2004

This map shows TB cases reported by state from 2000-2004. The states colored white have reported less than 100 cases, states colored blue have reported between 100 – 399 cases, and the states colored pink have reported greater than 400 cases in U.S.-born blacks between 2000-2004.

Slide 9. Percent of TB Cases in Persons with History of Substance Abuse, 1993–2004

Between 1993 and 2004, the percent of TB cases in persons with history of substance abuse remained relatively higher in non-Hispanic blacks (from 26% in 1993 to 34% in 2004) than in non-Hispanic whites (from almost 16% in 1993 to 27% in 2004.)

Substance abuse is defined as persons injecting drugs, using non-injecting drugs, or excess alcohol use in year prior to TB diagnosis.

Slide 10. Estimated HIV Co-infection in Persons Reported with TB, 1993–2004

Percent of HIV co-infection in persons reported with TB decreased between 1993 and 2004. This proportion remained consistently higher in non-Hispanic, blacks (21.3% in 1993, down to 16.4% in 2004) than in non-Hispanic, whites (8.6% in 1993, decreasing to 4% in 2004.)

Slide 11. Percent of Persons with TB Diagnosed in a Correctional Facility, 1993-2004

In non-Hispanic blacks, 6% were diagnosed with TB in 1993, and remained relatively stable over time (5.7% in 2004). In contrast, in non-Hispanic whites, it fluctuated between 2.9% when they were diagnosed with TB in 1993 compared to 3.1% in 2004

Slide 12. Percent of TB Cases in Homeless Persons (Year Prior to Diagnosis), 1993-2004

The percent of homelessness fluctuated around 10% between 1993 and 2004 and was similar in non-Hispanic, blacks and non-Hispanic, whites.

Slide 13. Percent of TB Cases in Unemployed Persons (in 2 Years Prior to Diagnosis), 1994-2004

Percent unemployment has remained similar for non-Hispanic, blacks and non-Hispanic, whites, over the 10 years between 1994 and 2004, fluctuating around 2/3 of all reported TB cases.

Slide 14. Percent of U.S.-born Persons with TB, by Race/Ethnicity and Health Provider Type, 2004

In 2004, the majority (59%) of non-Hispanic, blacks diagnosed with TB received TB care at the health department, 17% were seen by private providers, and 23% by a combination of the two.

Slide 15. Reported TB Cases, by Completion of Therapy, U.S., 1993–2002

The overall completion rate for:

- White, non-Hispanic persons was 86%; Black, non-Hispanic persons was 86%; Hispanic persons was 81%; American Indian/Alaska Native persons was 88%; and Asian/Pacific Islanders was 83%.

The rate for completion with 1 year for:

- White, non-Hispanic persons was 76%; Black, non-Hispanic persons was 72%; Hispanic persons was 73%; American Indian/Alaska Native persons was 79%; and Asian/Pacific Islanders was 76%.

Cohorts lag behind by almost 2 years, and completion rates in non-Hispanic, blacks are similar to those reported for non-Hispanic, whites.

Slide 16. Completion of TB Therapy in 1-Year , United States, 1993–2002

One-year treatment completion rates have improved in both non-Hispanic, blacks and non-Hispanic, whites with TB. These one year treatment completion rates have increased from 60.2% in non-Hispanic, blacks and 68.5% in non-Hispanic, whites in 1993, to 80.5% and 82.5%, respectively in 2002.

Slide 17. Summary

- TB rates steadily declined between 1993-2004 in all race/ethnic groups; African-Americans are largest U.S.-born group (47%).
- TB rates among African-Americans consistently >8 times higher than whites throughout 1993-2004. Closing the race/ethnic gap crucial to elimination.
- Geographic concentration of TB in African-Americans in Southeast and Northeast.
- TB in African-Americans associated with HIV, substance abuse, incarceration.
- Completion of therapy similar and improving in both groups.

Slide 18. Quote: "Insanity is doing the same thing over and over again and expecting different results." - Albert Einstein

Slide 19. The cover of the Institute of Medicine's report cover, entitled Ending Neglect: The Elimination of Tuberculosis in the United States.

Slide 20. Characteristics of Selected U.S.-born Persons with TB, 2004

For U.S.-born, non-Hispanic, black TB cases, 12 (.5%) were classified as multi-drug resistant TB (MDR TB) in which the TB was resistant to at least isoniazid and rifampin, 488 (16%) were HIV-positive, and 1001 (34%) had a history of substance abuse. For U.S.-born, non-Hispanic, white TB cases, 10 (.5%) were classified as MDR TB, 89 (4%) were HIV-positive, and 609 (27%) had a history of substance abuse.