



CDInfo

**MONTHLY
MORBIDITY
REPORT**

Communicable Disease Information



City of Chicago
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Department of Public Health
Terry Mason, MD, FACS
Commissioner

www.cityofchicago.org/health/

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For Disease Control
2160 West Ogden Avenue
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312-746-5387
312-743-1059 FAX

Immunization Program
312-746-5380
312-746-6144 FAX

Tuberculosis Program
312-746-5983
312-746-5134 FAX

CDInfo is a surveillance newsletter intended to promote prevention of morbidity and mortality by providing useful data and practical recommendations for clinicians, laboratorians and infection control personnel who diagnose, treat and/or report infectious diseases in Chicago.

Additional information on tuberculosis:

Illinois Department of Public Health
<http://www.idph.state.il.us/health/infect/rep/ortdis/tb.htm>

Centers for Disease Control and Prevention
<http://www.cdc.gov/tb>

Tuberculosis in Chicago — 2006

The number of newly diagnosed case of tuberculosis (TB) reported to the Chicago Department of Public Health (CDPH) TB Control Program in 2006 was 292 (10.1 cases per 100,000 population)—an historic all-time low for Chicago. This represents an 11% decrease from 329 cases reported in 2005. Since 1993, the incidence of TB in Chicago has declined by 63%. However, the 2006 Chicago TB rate is still twice the national rate (4.6/100,000; N=13,767) and state rate (4.4/100,000; N=569) (Figure 1).

Race/Ethnicity

Chicago continues to experience disparities in TB incidence across all racial groups, especially among non-Hispanic black or African Americans. In 2006, non-Hispanic black or African Americans accounted for almost half (45%) of the total TB cases, with a TB case rate of 12.4/100,000 (Table 1). This rate continues to be almost four times the rate for non-Hispanic whites (3.3/100,000). However, the number of TB cases among non-Hispanic black or African Americans has declined 73% from 1993, when 485 cases were reported (Figure 2). In 2006, non-Hispanic Asians had the highest TB case rate in the city at 41.5/100,000, even though this group comprised only 18% of the total TB cases (Table 1). Hispanics accounted for 27% (N=79) of total TB cases, with a TB case rate of 10.5/100,000 (Table 1). The 2006 Hispanic case count and rate were unchanged from the 2005 numbers.

During 2003-2006, the CDPH TB Control Program was funded by a competitive Centers for Disease Control and Prevention grant to identify strategies to improve TB screening, diagnosis, and treatment adherence among non-Hispanic blacks or African Americans. The High-Risk Project (HRP) (formerly known as the South Side Project (SSP)) is a community-based organization that was created via this grant to develop social and educational interventions to reduce the incidence of TB in 13 contiguous Chicago South Side community areas. The incidence of TB among the 13 HRP community areas declined 35% from 2005 (N=84 cases) to 2006 (N=55 cases). As a result, the TB case rate in the HRP community areas dropped to 10.6/100,000, which is just slightly higher than the rate for the remaining 64 Chicago community areas (10.0/100,000) (Figure 3).

Pediatric Cases

In 2006, seventeen children aged 0-4 years were reported with active tuberculosis, representing a case rate of 7.8/100,000 and a 21% increase from 2005 (N=14). Of these 17 children, eight were Hispanic or Latino, five were non-Hispanic black or African American, and four were non-Hispanic Asian. Six of these children were foreign-born and eleven were U.S.-born.

Place of Birth

Of the 292 cases of active TB reported in 2006, a total of 160 (55%) were U.S.-born persons, representing a rate of 7.1/100,000 and a decrease of 19% from 2005, when 197 U.S.-born cases were reported. This decline was primarily due to a large decrease in the number of TB cases reported among U.S.-born black or African Americans from 2005 (N=154) to 2006 (N=115). However, the majority (72%) of U.S.-born cases in 2006 were black or African American (Table 2).

In 2006, foreign-born persons comprised 132 (45%) of total TB cases, with a rate of 21.0/100,000. Even though the proportion of foreign-born TB cases increased from 40% in 2005 to 45% in 2006 (Figure 4), the foreign-born TB incidence and rate remained unchanged. Approximately half of the foreign-born TB cases reported to CDPH were Hispanic or Latino. As the global TB epidemic continues, imported cases of TB will continue to present a significant challenge to U.S. public health authorities in the control and elimination of TB.

Drug Resistance

Drug resistance is a result of inappropriate treatment regimens, patient non-adherence, or transmission of resistant disease. In 2006, 75% (N=219) of reported TB cases were culture-positive; 97% (N=212) of these had susceptibility results available. Of these, 10% (N=22) were resistant to one of the first-line anti-TB drugs (i.e., isoniazid, pyrazinamide, or streptomycin) and 9% (N=18) were

isoniazid mono-resistant (Table 3). There were no cases of rifampin mono-resistant or multi-drug resistant TB (MDR-TB) in 2006.

Co-Morbid Conditions

The HIV epidemic has had a significant impact on TB morbidity in Chicago, and TB prevention remains an important issue for residents living with HIV. Fortunately, the number of TB cases with HIV-TB co-infection continues to decline. In 2006, 6% (N=18) of TB cases had co-infection, compared to 20% (N=149) in 1993 (Figure 5).

Among all TB cases reported in 2006, injecting drug use was reported in 2% (N=5), non-injecting drug use in 12% (N=35), alcohol abuse in 19% (N=54), and any substance abuse (drug use or alcohol use) in 25% (N=74).

The number of TB cases who reported being homeless within the past year increased by 26%, from 19 cases in 2005 to 24 cases in 2006. The number who were a resident of a correctional facility at the time of diagnosis increased by 50%, from 10 cases in 2005 to 15 in 2006, while the number who were a resident of a long-term care facility at the time of diagnosis did not change from 2005 to 2006 (Table 4).

How to report TB cases in Chicago

1. FAX: The preferred method of reporting is for the physician or appropriate clinical staff to complete a copy of the Reported Verified Case of Tuberculosis (RVCT) and fax it to (312) 746-5134, then mail the paper copy to:

**Chicago Department of Public Health
Tuberculosis Control Program
2160 W. Ogden Avenue
Chicago, Illinois 60612**

Supplies of report forms and pre-addressed (not stamped) envelopes are available from the same address.

2. Phone: Immediate telephone reporting of TB cases is indicated when a patient is being transferred to another facility, the patient has a large number of close contacts, contacts include children under 15 years of age, or there is reason to believe that the patient will not report to any outpatient medical provider for continued follow-up and treatment.

To report by phone, call (312) 746-6036 or (312) 746-6052.

3. MAIL: The paper report form (RVCT) must be sent even if the case is reported by fax or phone.

CDPH TB Central Office			
CDPH Tuberculosis Control Program 2160 West Ogden Ave., Chicago, IL 60612 Phone: (312) 746-6083 Fax: (312) 746-5134			
CDPH TB Clinics			
Englewood Neighborhood Health Center 641 West 63 rd Street Phone: (773) 747-2443 Fax: (773) 745-0282	Uptown Neighborhood Health Center 845 West Wilson Avenue Phone: (312) 744-1295 Fax: (312) 742-1814	West Town Neighborhood Health Center 2418 West Division Street Phone: (312) 742-2418 Fax: (312) 742-1629	Lawndale Christian Health Center 3860 West Ogden Avenue Phone: (773) 843-3002 Fax: (773) 843-3422

Figure 1. Tuberculosis Case Rates -- United States, Illinois, and Chicago, 1993 - 2006

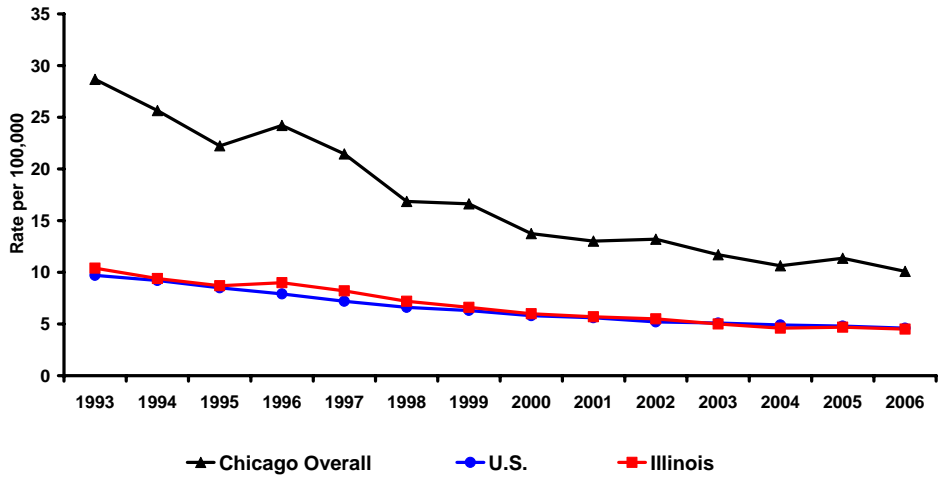


Table 1. Tuberculosis Cases and Case Rates by Race and Ethnicity Group -- Chicago, 2006

Race and Ethnicity	N	%	Rate / 100,000
Non-Hispanic Black or African American	131	45%	12.4
Hispanic or Latino	79	27%	10.5
Non-Hispanic Asian	52	18%	41.5
Non-Hispanic White	30	10%	3.3
Non-Hispanic American Indian or Native American	0	0%	0.0
Non-Hispanic Native Hawaiian or Pacific Islander	0	0%	0.0
Non-Hispanic Multiple Race	0	0%	0.0
Total	292	100%	10.1

Figure 2. Tuberculosis Cases by Race and Ethnicity -- Chicago, 1993-2006

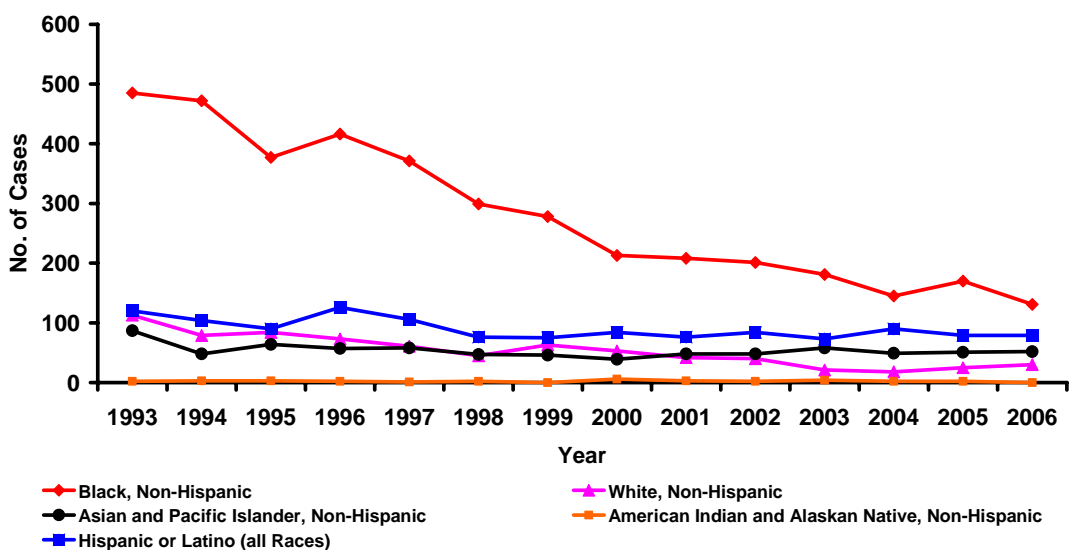


Figure 3. TB Cases Rates by Chicago Community Areas -- Chicago, 1995 - 2006

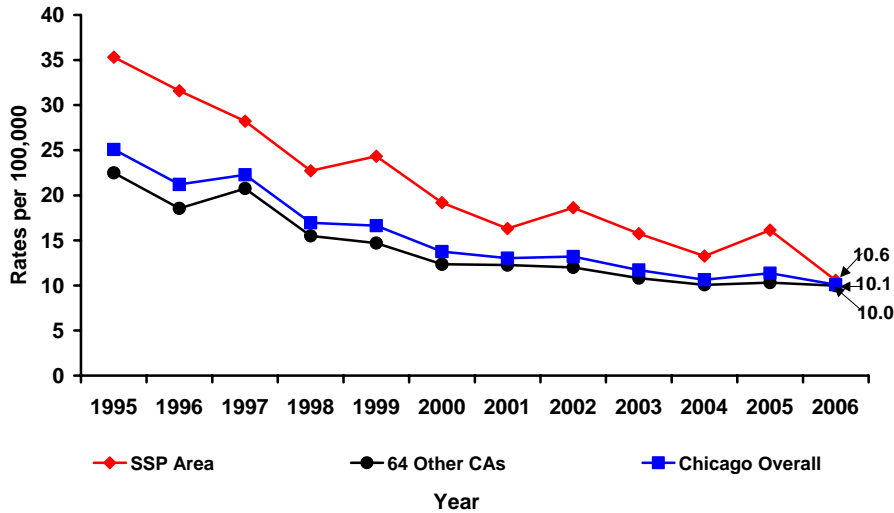


Table 2. Tuberculosis Cases by Country of Birth -- Chicago, 2005-2006

Race and Ethnicity	2005		2006		% Change	
	US	Foreign	US	Foreign	US	Foreign
Non-Hispanic Black or African American	154	16	115	16	-25%	0%
Hispanic or Latino (All Races)	21	58	22	57	5%	-2%
Non-Hispanic Asian	7	43	5	47	-29%	9%
Non-Hispanic White	12	13	18	12	50%	-8%
Non-Hispanic American Indian or Alaska Native	2	0	0	0	-100%	--
Non-Hispanic Native Hawaiian or Pacific Islander	0	1	0	0	--	-100%
Non-Hispanic Multiple Race	1	1	0	0	-100%	-100%
Total	197	132	160	132	-19%	0%

Figure 4. Tuberculosis Cases Among Foreign-born Persons -- Chicago, 1993-2006

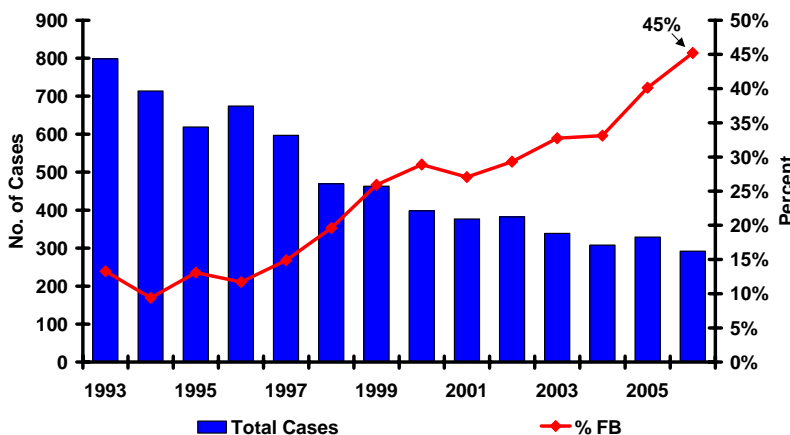


Table 3. Tuberculosis Cases by Drug Susceptibility Patterns and Place of Birth -- Chicago, 2006

Place of Birth	Cases with Susceptibility Results	Any Drug Resistance	Isoniazid Mono-Resistance	Multidrug Resistant TB (MDR-TB)
	No. ¹	No. (%) ²	No. (%) ³	No. (%) ⁴
Foreign-Born Cases	89	13 (15%)	10 (11%)	0 (0%)
U.S.-Born Cases	123	9 (7%)	8 (7%)	0 (0%)
Total	212	22 (10%)	18 (9%)	0 (0%)

¹Culture-confirmed cases with drug susceptibility results available

²Resistance to one first-line anti-TB drug (i.e. isoniazid, pyrazinamide, or streptomycin)

³Includes high (N=8, 4%) and low-level (N=10, 5%) resistance

⁴Multidrug resistance = resistance to at least isoniazid and rifampin

Figure 5. Estimated HIV Coinfection in Persons Reported with Tuberculosis -- Chicago, 1993-2006

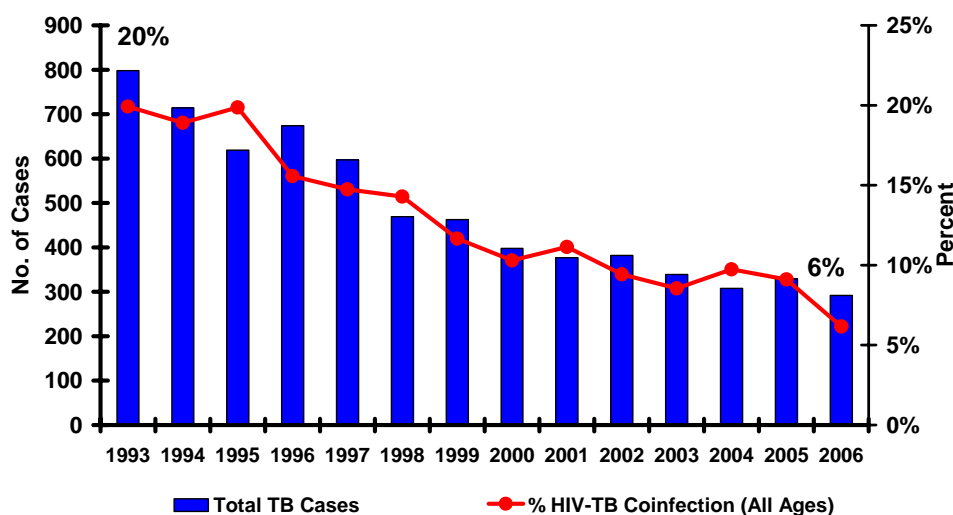


Table 4. Tuberculosis Cases and Percentages by Selected Risk Factors -- Chicago, 2000-2006

Year	Total Cases	Injecting Drug Use Within Past Year		Non-Injecting Drug Use Within Past Year		Excess Alcohol Use Within Past Year		Any Substance Abuse Within Past Year	
		No.	(%)	No.	(%)	No.	(%)	No.	(%)
2000	398	20	5%	38	10%	60	15%	85	21%
2001	378	12	3%	64	17%	63	17%	98	26%
2002	382	10	3%	46	12%	48	13%	76	20%
2003	339	6	2%	33	10%	37	2%	66	2%
2004	308	4	1%	33	11%	66	21%	66	21%
2005	329	6	2%	40	12%	59	18%	78	24%
2006	292	5	2%	35	12%	54	18%	74	25%

Note: Numbers and proportions are provisional and subject to updating.

Data Source: Official Chicago tuberculosis morbidity 1993-2006 data were obtained from the Tuberculosis Information Management System.