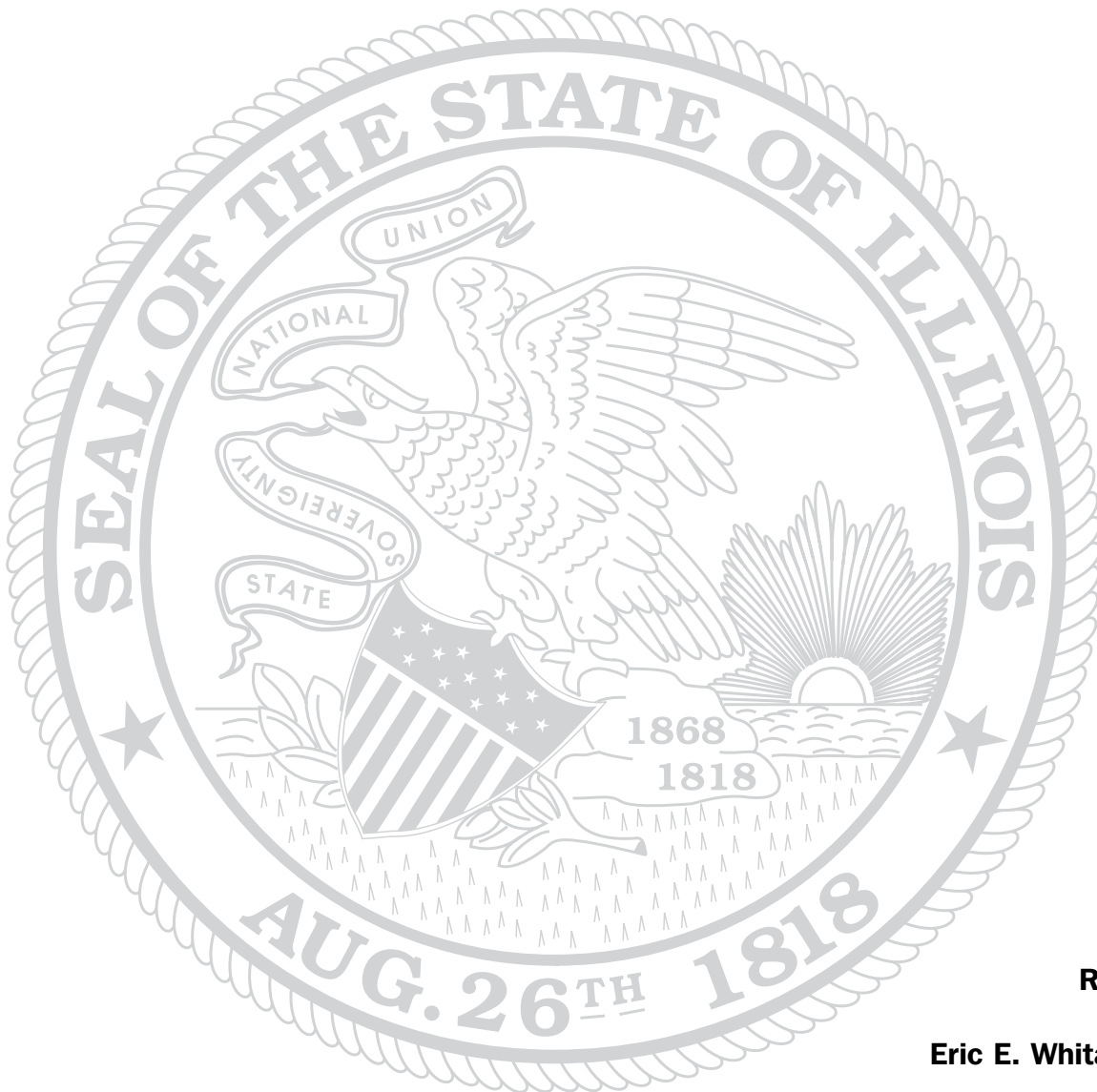




Annual Tuberculosis Report – Illinois

2003



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Illinois Tuberculosis Control Report, 2003

Introduction

Tuberculosis (TB) is a reportable disease in Illinois (suspect and confirmed cases). The sooner cases are reported to the local TB control authority, the sooner its personnel can begin investigations that may interrupt transmission of TB in the community. Delays in reporting may contribute to the spread of TB. The U.S. Centers for Disease Control and Prevention (CDC) has set national objectives to eliminate TB in the United States. Illinois is making progress in meeting these objectives (Table A1).

In 2003, Illinois ranked fifth in the United States in the total number of reported cases. The incidence of TB reported by local Illinois TB authorities ranges from very low (<1 case per year) in rural counties, to high (>400 cases per year) in the Chicago metropolitan area.

The Illinois Department of Public Health is responsible for statewide surveillance, management of the state's TB case registry, and oversight of prevention and control activities conducted by local TB control authorities. Surveillance data are used to direct efforts to identify high-risk groups and geographic locations. Department staff assist local programs through the provision of directly observed therapy (DOT) grants; assessment and identification of local problems; planning appropriate interventions; assistance with outbreaks; orientation and training of local staff; and promoting and facilitating networking with other programs.

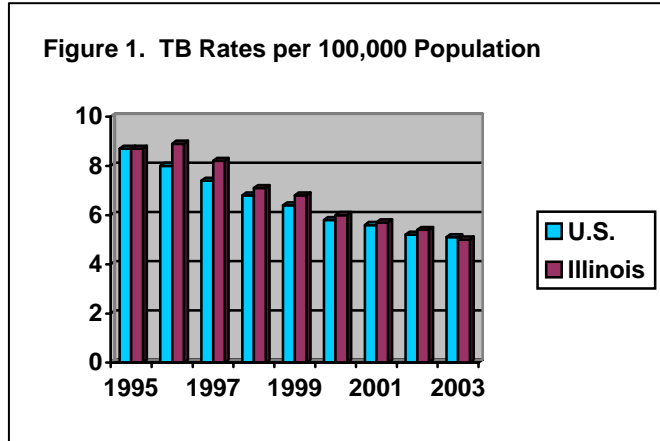
This report provides an overview of statewide TB morbidity. For more detailed information on the incidence of TB in Illinois jurisdictions and the city of Chicago, please refer to the following resources:

National level detailed surveillance reports may be obtained from the CDC at [Division of Tuberculosis Elimination - Surveillance Reports](#).

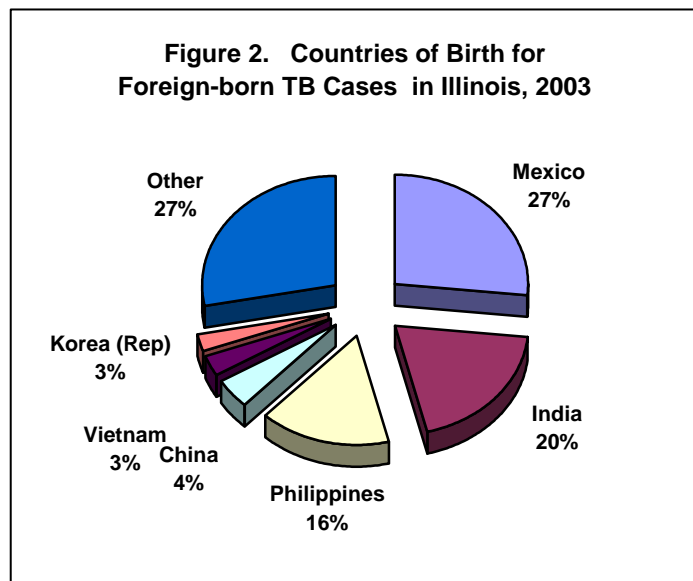
Detailed surveillance reports for the City of Chicago may be obtained at [Chicago Department of Public Health - Tuberculosis Morbidity Report Archive](#).

Executive Summary

In Illinois, 3,588 cases of tuberculosis were reported during 1999 through 2003, or an average of 718 cases (range 633-825 cases) annually. There was a net decrease of 192 (23 percent) cases during this time period. In 2003, for the seventh year in a row, the number of tuberculosis cases declined, dropping to 633 cases (5.0 cases per 100,000 population; the 2003 U.S. TB rate was 5.1 cases per 100,000) (Figure 1). The city of Chicago observed the largest decline during this five-year period (27 percent) from 463 cases (16.0 cases per 100,000 population) in 1999 to a low of 339 cases (11.7 cases per 100,000 population) in 2003 (Figure A1 and Table A2).



Among all cases, from 1995 to 2003, 1,311 (36.5 percent) were foreign-born, hailing from 88 countries. Mexico (380 cases), India (274 cases) and the Philippines (169 cases) accounted for 62.7 percent of all foreign-born cases reported (Figure 2). The percentage of foreign-born cases increased from 21.0 percent in 1995 to 43.1 percent in 2003 (Figure 3). The largest percentage of foreign-born cases is reported in Illinois outside of Chicago (Table A3 and Figure A2, A3).



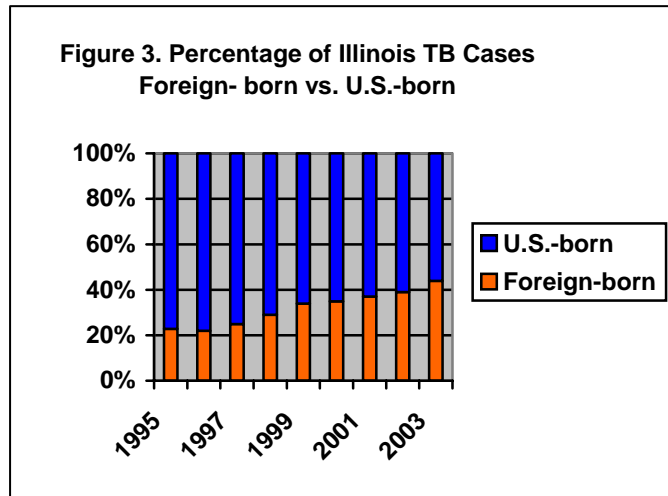
Among all cases, the race/ethnicity was 19.2 percent white non-Hispanic, 39.2 percent black non-Hispanic, 20.4 percent Hispanic, 20.3 percent Asian, 0.5 percent American Indian and 0.4 percent unknown. During 1999-2003, the percentage of cases that were Hispanic and Asian Pacific Islander increased from 17.0 percent to 22.9 percent and 17.3 percent to 24.5 percent, respectively, while percentage of white and black non-Hispanic cases declined. In 2003, 209 (89.7 percent) of the 233 black non-Hispanic cases were U.S.-born (Table A4).

Examining race and ethnicity data among cases reported in 2003 by region of the state yielded considerable differences. For example, Asian Pacific Islanders accounted for 33.1 percent of cases in suburban Cook County but only 17.1 percent of cases in the city of Chicago. During 2003, the Black non-Hispanic accounted for 53.4 percent of cases in the city of Chicago

but only 23.0 percent of cases in suburban Cook County and only 12.9 percent of cases in Illinois outside of Cook County. Recognizing these differences will help to target resources for local TB elimination efforts (Table A5).

Demographic data show that, from 1999 to 2003 in Illinois, the highest percentage of cases, 35.2 percent, were in the 25 to 44 year-old age group, whereas the highest rate per 100,000 population was generally recorded among those older than 65 (Tables A6 and A7); 59 percent of all cases were male and 41 percent were female. Among cases 18 to 65 years of age, 37 percent were unemployed (46 percent of city of Chicago cases vs. 29 percent of suburban Cook County cases).

Among all cases, 71 percent were pulmonary only, 24 percent extra-pulmonary and 5 percent both. Multi-drug resistant (MDR) cases continued to decline during the five-year period to less than 0.5 percent (3 of 633 tested) in 2003. There was a high of nine MDR cases in 1999 and a low of three cases in 2003 (Table A8).



Among the 739 TB cases ages 25-44, with reported HIV status, 14 percent (N=178) were HIV-positive. During the five-year period, reporting of HIV status for TB cases in this age group improved from a low of 40.7 percent in 1999 to a high of 71.0 percent in 2003 (Table A10). Among the 8,900 AIDS cases reported to IDPH during 1999-2003, TB (pulmonary and/or extra-pulmonary) was diagnosed in 250 (2.9 percent) of the cases.

Although overall rates of TB in Illinois have continued to decline, cases reported among foreign-born continue to increase. Also, the largest proportion of TB cases is still reported among blacks, particularly in the city of Chicago. The largest number of cases is reported among those 25 to 44 years of age and the highest rate of TB continues to be reported among those over 65 years. The Illinois Department of Public Health continues to work with local TB control authorities to ensure accurate and timely reporting of the disease in Illinois.

Appendix A. Illinois Data Summary

Table A1. Performance on National Objectives (as of 8/03/2004), Illinois

National Objectives	2002 Completion of Therapy ¹	2003 Susceptibility Testing ²	2003 HIV Status Reporting ³	2003 Contacts Identified ^{4,5}	2003 Contacts Evaluated ⁵	2002 Contacts with LTBI Completing Treatment ⁶
Target Percentage	90	95	75	90	95	85
Illinois	76.5% (444/580)	97.7% (471/482)	70.6% (161/228)	82.1% (170/207)	84.6% (1267/1497)	NA
Illinois outside of Chicago	85.4% (217/254)	96.7% (209/216)	80.0% (84/105)	93.3% (84/90)	76.8% (341/444)	76.3% (132/173)

¹Cases completing therapy where # 12 months of therapy was indicated, excluding cases who died during treatment, were rifampin resistant, or pediatric (age <15 years) with meningeal, bone and joint, or military TB

²Total culture positive cases completing susceptibility testing

³Cases between ages 25-44 years where valid response includes “positive,” “negative” or “indeterminate”

⁴Sputum smear-positive cases

⁵Contacts where final determination can be made of latent TB Infection (LTBI), or TB Disease

⁶All contacts with LTBI completing therapy

National objectives were established by the U.S. Centers for Disease Control and Prevention

Figure A1. TB Morbidity, Number of Cases, Illinois, 1980-2003

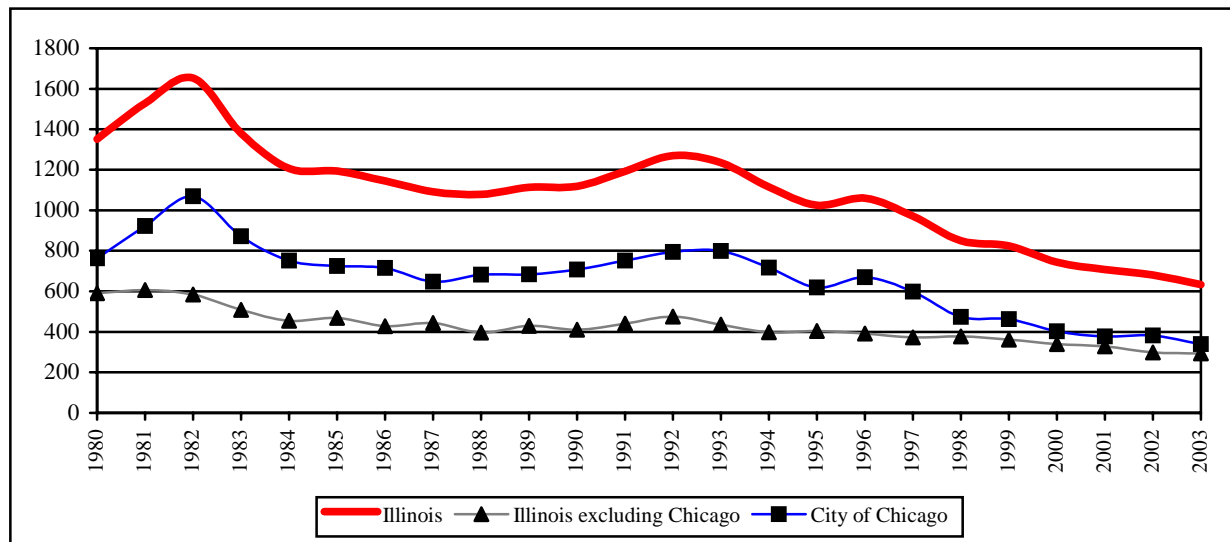


Table A2. Tuberculosis Cases and Rates (per 100,000 Population), Illinois, 1999-2003

Year	1999	2000	2001	2002	2003
Illinois Population: 12,419,293	825 (6.6)	743 (6.0)	707 (5.7)	680 (5.4)	633 (5.1)
Illinois Outside of Cook County Population: 7,042,552	222 (3.2)	199 (2.8)	188 (2.7)	168 (2.4)	171 (2.4)
Cook County Population: 5,376,741	603 (11.2)	544 (10.1)	519 (9.6)	512 (9.5)	462 (8.6)
Illinois Outside of Chicago Population: 9,523,279	362 (3.8)	343 (3.6)	330 (3.5)	298 (3.1)	294 (3.0)
Suburban Cook County Population: 2,480,727	140 (5.6)	141 (5.7)	140 (5.6)	130 (5.2)	123 (5.0)
City of Chicago Population: 2,896,014	463 (16.0)	400 (13.9)	377 (13.1)	382 (13.2)	339 (11.7)

¹Source: Census 2000 Summary File 1 Illinois, prepared by the U.S. Census Bureau, 2001

Table A3. Number of Foreign-born Tuberculosis Cases (% of total cases), Illinois, 1999-2003

Year	1999	2000	2001	2002	2003	Total
Illinois	32.0% (264/825)	33.6% (250/743)	36.6% (259/707)	38.9% (265/680)	43.1% (273/633)	36.5% (1311/3588)
Illinois Outside of Cook County	39.3% (87/221)	46.2% (92/199)	52.6% (100/188)	50.9% (85/167)	60.2% (103/171)	49.4% (467/946)
Cook County	30.0% (181/603)	29.6% (161/544)	31.2% (161/519)	35.1% (180/513)	36.8% (170/462)	32.2% (853/2641)
Illinois Outside of Chicago	41.5% (150/361)	47.9% (163/340)	55.1% (181/328)	57.4% (171/298)	62.2% (183/294)	52.3% (848/1621)
Suburban Cook County	45.0% (63/140)	49.6% (70/141)	58.9% (82/139)	65.6% (86/131)	65.0% (80/123)	56.3% (381/674)
City of Chicago	25.5% (118/463)	22.8% (91/403)	21.0% (79/379)	24.6% (94/382)	26.6% (90/339)	24.0% (472/1966)

Figure A2. Distribution of Foreign-born Tuberculosis Cases, Illinois, 1999-2003

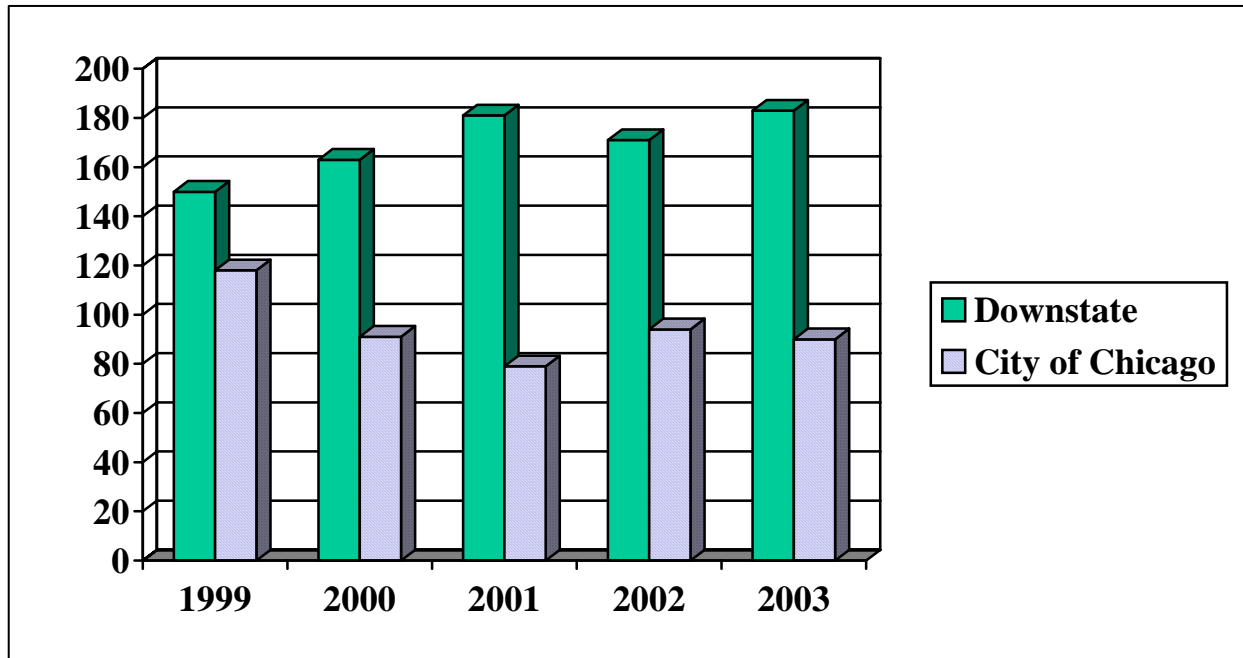


Figure A3. Foreign-born TB Cases, by Country of Origin, Illinois, 1999-2003

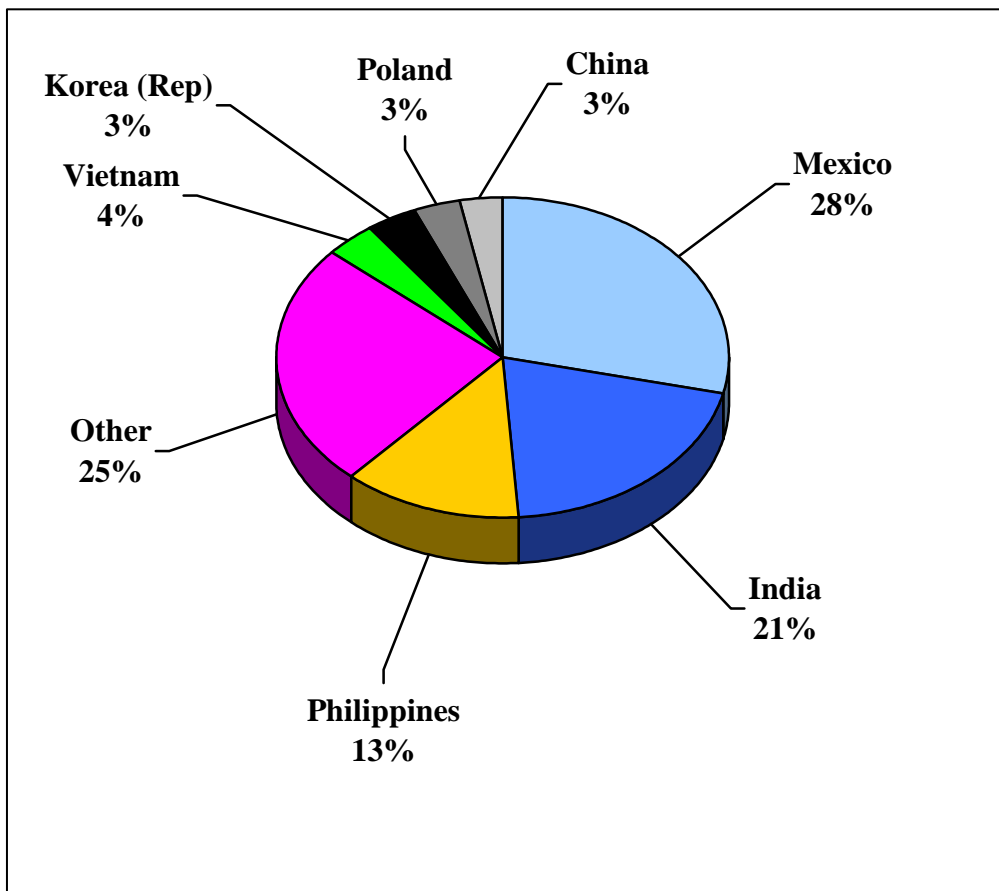


Table A4. Tuberculosis Cases, by Race/Ethnicity, Illinois, 1999-2003

	1999 (%)	2000 (%)	2001 (%)	2002 (%)	2003 (%)	Total
Total	825	743	707	680	633	3588
White, Non-Hispanic	188 (22.8)	150 (20.2)	129 (18.2)	128 (18.8)	93 (14.7)	688 (19.2)
Black, Non-Hispanic	349 (42.3)	300 (40.4)	279 (39.5)	246 (36.2)	233 (36.8)	1407 (39.2)
Hispanic	140 (17.0)	146 (19.7)	149 (21.1)	152 (22.4)	145 (22.9)	732 (20.4)
American Indian or Alaskan Native	0 (0.0)	7 (0.9)	5 (0.7)	3 (0.4)	4 (0.6)	19 (0.5)
Asian or Pacific Islander	143 (17.3)	136 (18.3)	145 (20.5)	149 (21.9)	155 (24.5)	728 (20.3)
Multiple Races Indicated	0 (0.0)	0 (0.0)	0 (0.0)	0 (0.0)	2 (0.3)	2 (0.1)
Unknown	5 (17.3)	4 (0.5)	0 (0.0)	2 (0.3)	1 (0.2)	12 (0.3)

Table A5. Tuberculosis Cases, by Race/Ethnicity, Illinois, 2003

	Total Cases	White, Non-Hispanic (%)	Black, Non-Hispanic (%)	Hispanic (%)	American Indian or Alaskan Native (%)	Asian or Pacific Islander (%)	Multiple Race Indicated (%)	Unknown (%)
Illinois	633	93 (14.7)	233 (36.8)	145 (22.9)	4 (0.6)	155 (24.5)	2 (0.32)	1 (0.2)
Illinois Outside of Cook County	155	36 (23.2)	20 (12.9)	48 (31.0)	0 (0.0)	51 (32.9)	1 (0.6)	0 (0.0)
Cook County	478	57 (11.9)	213 (44.6)	97 (20.3)	4 (0.8)	104 (21.8)	1 (0.2)	1 (0.2)
Illinois Outside of Chicago	294	70 (23.8)	52 (17.7)	74 (25.2)	0 (0.0)	97 (33.0)	1 (0.3)	0 (0.0)
Suburban Cook County	139	34 (24.5)	32 (23.0)	26 (18.7)	0 (0.0)	46 (33.1)	0 (0.0)	1 (0.7)
City of Chicago	339	23 (6.8)	181 (53.4)	71 (20.9)	4 (1.2)	58 (17.1)	1 (0.3)	0 (0.0)

Table A6. Tuberculosis Cases, by Age Group, Illinois, 1999-2003

	Age Group						
	Total Cases All Ages	0-4 (%)	5-14 (%)	15-24 (%)	25-44 (%)	45-64 (%)	65+ (%)
1999	825	26 (3.2)	22 (2.7)	57 (6.9)	295 (35.8)	242 (29.3)	183 (22.2)
2000	743	18 (2.4)	18 (2.4)	74 (10.0)	255 (34.3)	208 (28.0)	170 (22.9)
2001	707	31 (4.4)	14 (2.0)	68 (9.6)	259 (36.6)	216 (30.6)	119 (16.8)
2002	680	25 (3.7)	19 (2.8)	76 (11.2)	226 (33.2)	199 (29.3)	135 (19.9)
2003	633	25 (4.0)	19 (3.0)	71 (11.2)	228 (36.0)	182 (28.8)	108 (17.0)
Total	3,588	125 (3.5)	92 (2.6)	346 (9.6)	1,263 (35.2)	1,047 (29.2)	715 (19.9)

Table A7. Tuberculosis Cases, by Age Group, Rates per 100,000 Population, Illinois, 1999-2003

	Age Group Rates per 100,000 ¹					
	0-4	5-14	15-24	25-44	45-64	65+
1999	3.0	1.2	3.3	7.8	9.1	12.2
2000	2.1	1.0	4.2	6.7	7.8	11.3
2001	3.5	0.8	3.9	6.8	8.1	7.9
2002	2.9	1.0	4.4	6.0	7.5	9.0
2003	2.9	1.0	4.1	6.0	6.8	7.2
2000 Population¹	876,549	1,834,955	1,744,845	3,795,544	2,667,375	1,500,025

¹Source: Census 2000 Summary File 1 Illinois, prepared by the U.S. Census Bureau, 2001

Table A8. MDR and Isoniazid Drug Resistance in Culture Positive Cases, Illinois, 1999-2003

	Year	1999	2000	2001	2002	2003
Illinois	INH Resistant	4.80% (32/666)	4.95% (30/605)	7.56% (41/542)	2.7% (14/523)	3.63% (23/633)
	MDR Resistant	1.35% (9/666)	0.99% (6/605)	0.73% (4/542)	1.1% (6/523)	0.47% (3/633)
Illinois Outside of Cook County	INH Resistant	5.62% (9/160)	5.19% (8/154)	9.92% (13/131)	1.6% (2/122)	3.51% (6/171)
	MDR Resistant	0.62% (1/160)	0% (0/154)	0% (0/131)	0.8% (1/122)	0.58% (1/171)
Cook County	INH Resistant	4.55% (23/505)	4.89% (22/449)	6.82% (28/410)	3.0% (12/401)	3.68% (17/462)
	MDR Resistant	1.58% (8/505)	1.33% (6/449)	0.97% (4/410)	1.2% (5/401)	0.43% (2/462)
Illinois Outside of Chicago	INH Resistant	7.29% (20/274)	4.98% (13/261)	8.01% (19/237)	3.5% (8/229)	4.76% (14/294)
	MDR Resistant	1.82% (5/274)	0.38% (1/261)	0.42% (1/237)	1.3% (3/229)	0.68% (2/294)
Suburban Cook County	INH Resistant	9.73% (11/113)	4.76% (5/105)	5.71% (6/105)	5.6% (6/107)	6.50% (8/123)
	MDR Resistant	3.53% (4/113)	0.95% (1/105)	0.95% (1/105)	1.9% (2/107)	0.81% (1/123)
Chicago	INH Resistant	3.06% (12/392)	4.94% (17/344)	7.21% (22/305)	2.0% (6/294)	2.65% (9/339)
	MDR Resistant	1.02% (4/392)	1.45% (5/344)	0.98% (3/305)	1.0% (3/294)	0.29% (1/339)

¹ Isolates resistant to at least isoniazid and rifampin

Table A9. Tuberculosis Cases, by Directly Observed Therapy (DOT), Illinois, 1998-2002

Year	Total Cases	Cases Eligible for DOT ¹	Totally Self Administered (%)	DOT			Unknown or Missing (%)
				Totally DOT (%)	Both DOT and SA (%)	Total (%)	
1998	850	805	308 (38.3)	396 (49.2)	98 (12.2)	494 (61.4)	3 (0.3)
1999	825	799	286 (35.8)	412 (51.6)	83 (10.4)	495 (61.9)	18 (2.3)
2000	743	718	258 (35.9)	375 (52.2)	77 (10.7)	452 (62.9)	8 (1.1)
2001	707	684	209 (30.5)	368 (53.8)	106 (15.5)	474 (69.3)	1 (1.5)
2002	633	653	212 (32.4)	346 (53.0)	96 (14.7)	442 (67.6)	0 (0.0)
Total	3,758	3,659	1,273 (34.7)	1,897 (51.8)	460 (12.5)	2357 (64.4)	30 (0.8)

¹Includes cases alive at diagnosis with an initial drug regimen of one or more drugs prescribed

Table A10. HIV and TB, 1999 – 2003

Year	Total Cases	Total Cases Ages 25-44 years (%)	Valid Response ¹ (%)	Total HIV Positive ² (%)
1999	825	295 (35.7)	120 (40.7)	47 (15.9)
2000	743	259 (34.8)	135 (52.1)	36 (13.9)
2001	707	257 (36.3)	165 (64.2)	37 (14.4)
2002	680	226 (33.2)	157 (69.4)	30 (13.2)
2003	633	228 (36.0)	162 (71.0)	28 (12.2)
Total	3,588	1,265 (35.2)	739 (58.4)	178 (14.0)

¹Valid response includes (0) negative, (1) positive or (2) indeterminate.

²Postive results are based on either medical documentation or patient history.

Table A11. Tuberculosis Cases, by Risk Factors, 1999 – 2003

Year	Total Cases	Correctional Facility ¹ (%)	Homeless ² (%)	Long Term Care Facility ³ (%)	Injection Drug Use ⁴ (%)
1999	825	18 (2.1)	54 (6.5)	36 (4.4)	29 (3.5)
2000	743	18 (2.4)	23 (3.1)	26 (3.5)	22 (2.9)
2001	707	18 (2.5)	23 (3.2)	22 (3.1)	17 (2.4)
2002	680	20 (2.9)	31 (4.5)	17 (2.5)	16 (2.3)
2003	633	7 (1.1)	23 (3.6)	9 (1.4)	6 (1.0)
Total	3588	81 (2.3)	154 (4.3)	110 (3.1)	90 (2.5)

¹Resident of correctional facility at time of diagnosis

²Homeless in past 12 months

³Resident of long term care facility at time of diagnosis

⁴Injection drug use in past 12 months