# **Cook County Health and Hospitals System**

# Annual Tuberculosis Surveillance Report 2008

# COOK COUNTY DEPARTMENT OF PUBLIC HEALTH

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## **OVERVIEW**

#### Suburban Cook County Tuberculosis Cases Declined in 2008

After several years with marked increases in active tuberculosis (TB) cases, reported TB cases declined 28% between 2007 (n=139) and 2008 (n=100). The number of cases reported in 2008 was the second lowest number reported in the past 10 years. In 2008, the rate of TB was 3.9 per 100,000 population compared to 5.7 per 100,000 in 2007.

#### Cook County Department of Public Health (CCDPH) TB Control Activities, 2008

If untreated, a person with TB may infect as many as 10-15 others each year<sup>1</sup>. In order to prevent transmission of TB, the CCDPH TB Control and Prevention Program maintains constant vigilance in order to identify TB cases rapidly, to ensure that cases receive appropriate therapy and to screen contacts of TB cases to determine if they have been infected. To prevent and control TB in 2008, CCDPH staff conducted the following activities:

- Utilized an electronic database to monitor suspect and confirmed TB cases and to track all contacts to facilitate screening for TB infection.
- Administered 15,000 TB screening tests at the three CCDPH TB clinics located in Des Plaines, Forest Park and Harvey. As a result, 783 persons were identified as having latent TB infection (LTBI—see below) requiring treatment.
- Administered or assisted in 13 worksite and/or school-based skin testing programs.
- Reached out to more than 1,000 contacts to active TB cases.
- Provided direct care for 64 new, active TB cases through CCDPH clinics, including Directly Observed Therapy (DOT—see below).
- Gave 15 presentations and educational programs to diverse audiences:
  - ♦ Nursing homes or long-term care facilities (7)
  - ♦ Nursing staff, various organizations (3)
  - ♦ CEDA South Cook County (1)
  - ♦ Illinois Council on Tuberculosis (1)
  - ♦ South Suburban Head Start (1)
  - ♦ Head Start Health Advisory (1)
  - ♦ 2008 National Refugee and Immigration Conference (1)

#### **Tuberculosis Facts**

Tuberculosis is an infection caused by the organism *Mycobacterium tuberculosis*, which spreads from person to person when a contagious individual sneezes, coughs, or speaks. Persons with pulmonary or laryngeal TB can infect others. TB bacilli form tiny particles (droplet nuclei) that can become suspended in air, sometimes for long periods, and cause infection when they are inhaled by others. Close contacts of TB cases, such as household members or others who spend considerable time together, can become infected.

Most infected persons have latent TB infection (LTBI) with no symptoms and are not infectious to others; the condition is found through a positive screening test (skin test or blood test). It is crucial, however, that persons with LTBI receive treatment, because without treatment about 10% will eventually develop active TB. Persons with LTBI and immunocompromising conditions progress to active TB more quickly, and are more likely to have serious outcomes. For example, HIV-infected persons develop active TB 50 times faster than individuals without HIV<sup>2</sup>. Without proper treatment, up to 90% of HIV-positive persons with TB will die within months of TB infection<sup>2</sup>. Consequently, identifying persons with HIV and TB coinfection is critical.

Active TB can be difficult to diagnose and treatment requires months of therapy. Although TB most commonly involves the lungs, it can infect any organ of the body. Active TB generally causes significant symptoms including night sweats, unexplained weight loss, fever, and chills. Without treatment, an estimated 60—70% of persons with active TB would die of this curable disease within a few years<sup>3</sup>.

Persons diagnosed with active TB are required to limit contact with others until they are no longer infectious and to follow an intensive antibiotic regimen lasting at least 6 months. Patients with active TB *must* adhere strictly to the prescribed treatment regimen in order to avoid the development of drug-resistant strains of TB. If a person develops drug-resistant (MDR) TB or acquires MRR-TB, therapy can take 18 months or longer, and drug regimens often require the use of more toxic antibiotics to treat TB effectively.

To ensure successful completion of the treatment regimen, and to minimize the prospect of drug-resistant TB, field staff from the CCDPH TB Control and Prevention Program watch persons with active TB take each dose of medication. This process is called directly observed therapy (DOT) and is a cornerstone of modern TB control and prevention. DOT is labor and resource intensive—and highly effective in curing TB.

#### **Tuberculosis, a Global Challenge With Local Consequences**

Through aggressive TB case identification, effective treatment, and contact tracing efforts, transmission of TB within suburban Cook County has been largely controlled, mirroring national trends. But the control of TB requires a sustained commitment to screening and treatment of persons with LTBI. The majority of TB cases (66%) in 2008 were in persons born outside of the United States, many immigrating from many areas of the world where TB is common. These individuals, like most persons infected with TB, likely had LTBI which became active after they immigrated to the United States.

The World Health Organization estimates that one-third of the world's population, some 2 billion persons, currently have LTBI. Among this group, more than 9 million will develop active TB disease each year, and nearly 2 million, or 4,500 people per day, will die. The speed with which individuals can traverse the globe, together with dynamic immigration patterns to suburban Cook County, means that persons at risk of having LTBI are likely to reside within CCDPH jurisdiction. Screening programs targeting these high risk populations can identify LTBI, a condition which can be treated before it progresses to active TB disease.

During 2008, in addition to responding to identified cases of active TB, the CCDPH TB Prevention and Control Program utilized surveillance data to assist healthcare providers, schools, and other key partners to ensure that those most at risk of LTBI were screened. This critical step, as part of a strong, sustained private and public effort, is expected to prevent the development of active TB disease and greatly reduce the risk of potential transmission within the community.

<sup>1.</sup> WHO. Fact sheet on tuberculosis. Available at: http://www.who.int/mediacentre/factsheets/fs104/en/index.html (last accessed: 23 February 2009).

<sup>2.</sup> Stop TB Partnership. Talking Points—TB/HIV—June 2007. Available at: http://www.stoptb.org/wg/tb\_hiv/assets/documents/tbhivtalkingpoints.pdf (last accessed 23 February 2009).

<sup>3.</sup> Borgdorff Martien W., Floyd Katherine, Broekmans Jaap F.. Interventions to reduce tuberculosis mortality and transmission in low- and middle-income countries. Bull World Health Organ; 80(3): 217-227. Available at: http://www.scielosp.org/scielo.php? script=sci\_arttext&pid=S0042-96862002000300008&lng=en&nrm=iso.doi:10.1590/S0042-96862002000300008 (last accessed 24 February 2009).

# IMPORTANT TRENDS, 2008

#### **TB Case Rates**

In 2008, 100 newly active cases of tuberculosis (TB) were identified in suburban Cook County. This represents a 28% decrease in the number of cases reported in 2007 (n=139). The rate of active TB disease in suburban Cook County in 2008 was 3.9 per 100,000 population, compared to 7.4 per 100,000 population in the City of Chicago.

#### Place of Birth

Since 2000, the majority of TB cases in suburban Cook County occurred in persons born outside of the United States, in areas where TB is more common. In 2008, 66 (66%) of all TB cases were foreign-born. Countries ranking highest on the list of persons with TB in 2008 include the Philippines (n=16), Mexico (n=11), and India (n=10).

#### Race/Ethnicity

There are marked differences in race/ethnicity by birthplace. In 2008, 76% of foreign-born TB cases were either Asian/Pacific Islanders or Hispanic or Latino. Among U.S.-born cases, 88% were either non-Hispanic white or non-Hispanic black. Among foreign-born TB cases in 2008, 56% were from Asia or the Pacific Islands and 20% were Hispanic or Latino; foreign-born non-Hispanic blacks and whites represented just 16% and 6%, respectively of reported TB cases. Among U.S.-born TB cases in 2008, 59% were non-Hispanic white and 29% were non-Hispanic black. Only 12% of U.S.-born cases were Hispanic. There were no U.S.-born TB cases of Asian descent in 2008.

#### Age

Forty (40%) TB cases were aged 24-44 years in 2008; 30 (30%) were 45-64 years, and 22 (22%) were 65 years and older.

#### TB and HIV/AIDS Coinfection

The proportion of TB cases tested for HIV increased from 25% in 2000 to 89% in 2008. Of the 89 persons tested for HIV, 8 (9%) were HIV positive.

#### Multidrug-Resistant (MDR-TB) and Extensively Drug-Resistant (XDR-TB) Tuberculosis\*

Since 1999, suburban Cook County has averaged 1-2 multidrug-resistant TB (MDR-TB) cases each year. In 2008, there were no MDR-TB cases reported. Through 2008, there have been no cases of extensively drug-resistant TB (XDR-TB) reported in suburban Cook County.

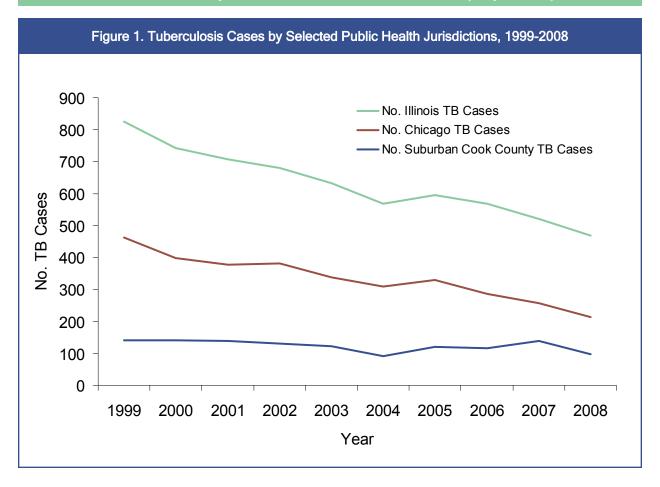
#### Site of Disease

Sixty-seven (67%) of all TB cases reported were pulmonary cases, 28 (28%) had extrapulmonary involvement, and 5 (5%) had both pulmonary and extrapulmonary involvement. These proportions have been consistent for the past 10 years.

#### Number of TB Cases and Case Rates by Municipality, 2008

A total of 52 TB cases (52%) lived in the North District during 2008. The North District represents approximately 44% of the general population of suburban Cook County, indicating a slightly larger than expected number of TB cases. Four of the top six municipalities with the largest number of TB cases were located in the North District: Evanston (n=6), Skokie (n=6), Des Plaines (n=5), and Morton Grove (n=5).

<sup>\*</sup>Multidrug-resistant TB (MDR-TB) is defined as TB resistant at least to isoniazid (INH) and rifampin (RIF). MDR TB treatment requires the use of second-line drugs that are less effective, more toxic, and more costly than first-line regimens. Extensively drug resistant TB (XDR-TB) is defined as resistance to INH, RIF, at least one fluoroquinolone and at least one of the injectable drugs (i.e., amakacin, kanamycin, or capreomycin).

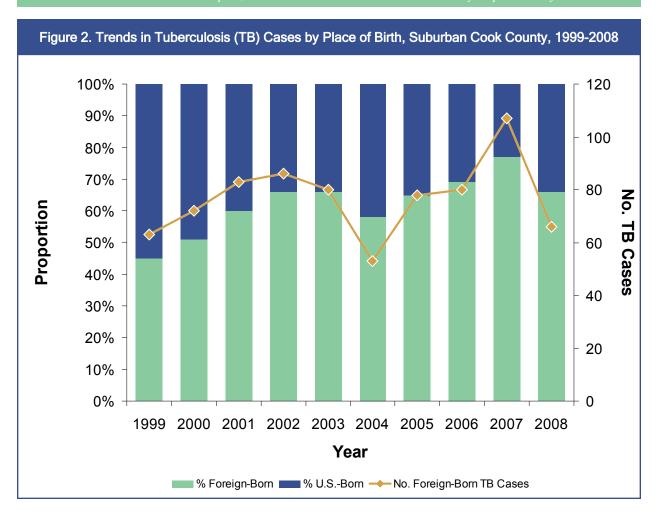


**Figure 1.** In suburban Cook County, tuberculosis (TB) cases declined steadily from an average of 140 cases per year between 1999-2001 to 91 cases in 2004, a decline of 35%. However, between 2004 and 2007, the trend reversed, and all of the previous gains were lost. From 2007 to 2008, cases declined 30%, from 139 in 2007 to 100 in 2008. Over the past 10 years, only the year 2004 had fewer cases (n=91).

In the City of Chicago, and in Illinois overall, the trend in reported TB cases has been downward over the past 10 years. In Illinois, reported TB cases declined 43%, from 825 in 1999 to 569 in 2008. In Chicago, reported TB cases declined 54%, from 463 in 1998 to 214 in 2008.

Table 1. Tuberculosis Cases and Percentages by Selected Characteristics, Suburban Cook County, 1999-2008 Characteristic No. Sex Male Female Race/Ethnicity White, not Hispanic 28 23 Black, not Hispanic 22 16 43 30 22 17 30 25 Hispanio Asian/Hawaiian/PI 45 37 Other/Unknown Age at Report Under 5 3. 5-14 15-24 16 12 25-44 54 42 38 31 43 31 45-64 34 24 35 25 42 30 31 24 44 36 33 36 31 26 34 29 57 41 30 30 65+ 21 17 30 26 37 26 32 23 31 22 31 24 21 23 25 21 30 22 Total 140 100 141 100 139 100 130 100 122 100 91 100 120 100 116 100 139 100 100 100

**Table1. Sex:** In 2007 males accounted for 59 (59%) of all TB cases, a proportion that is somewhat higher than in previous years. **Age:** In 2008, 93 (93%) of all TB cases were 25 years or older. Persons aged 25-44 years accounted for the largest proportion of active TB cases, 40 (40%), followed by persons aged 45-64 years (30%). **Race/Ethnicity:** Asian/Pacific Islanders account for the largest proportion of TB cases—38%. The number of Asian/Pacific Islanders and Hispanics with active TB decreased 44% from 2007 to 2008.

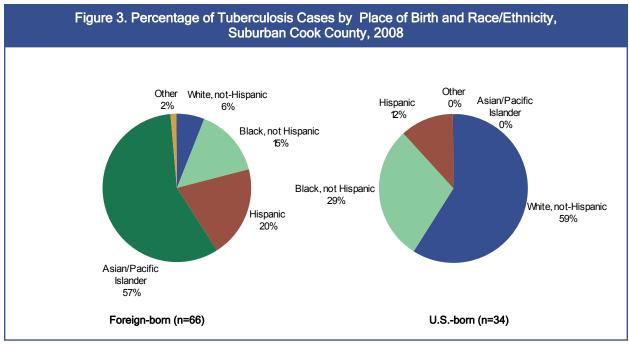


**Figure 2.** Between 1999 and 2007, the number of foreign-born TB cases increased 70%, from 63 in 2000 to 107 in 2007. Although the majority of cases in suburban Cook County were foreign-born in 2008, the proportion of foreign-born TB cases fell from 77% in 2007 to 66% in 2008. Similar increases were reported in Chicago (54% foreign-born, 2008)<sup>1</sup>, Illinois (60% foreign-born, 2008)<sup>2</sup>, and the U.S. (59% foreign born, 2008)<sup>3</sup>.

<sup>1.</sup> Eaglin M. Presentation, Chicago Technical Advisory Group Meeting. Chicago, IL, March 4, 2009.

<sup>2.</sup> Peter Ward, Personal Communication, 2009.

<sup>3.</sup> Centers for Disease Control and Prevention. *Reported Tuberculosis in the United States, 2008.* Atlanta, GA; U.S. Department of Health and Human Services, CDC: September, 2009.



**Figure 3.** Of the 100 cases of tuberculosis reported to Cook County Department of Public Health in 2008, 66 (66%) were foreign-born and 34 (34%) were U.S.-born. Among all TB cases reported in 2008, 100% of Asian/Pacific Islanders and 77% of Hispanics were foreign-born. Among foreign-born TB cases, 57% were Asian/Pacific Islanders and 20% were Hispanic. Among U.S.-born TB cases, 59% were non-Hispanic white and 29% were non-Hispanic black. Among all non-Hispanic whites, 83% were U.S. born; among all non-Hispanic blacks, 50% were U.S.-born.

Country	1999 No.	2000 No.	2001 No.	2002 No.	2003 No.	2004 No.	2005 No.	2006 No.	2007 No.	200 N
Philippines	5	9	6	7	13	10	12	16	21	16
Mexico	11	14	21	18	14	13	19	18	18	11
India	27	21	24	31	16	13	24	23	30	10
China	0	3	0	1	3	1	0	3	1	4
North Korea	0	0	0	0	1	0	0	0	1	3
Poland	1	6	6	4	3	3	2	1	4	2
Vietnam	2	0	3	1	3	0	1	2	1	2
Russia	2	1	0	0	1	0	1	0	1	2
South Korea	4	4	1	6	2	2	4	2	5	1
Pakistan	0	2	5	3	2	1	1	1	5	1
Nigeria	0	2	0	0	4	0	1	0	0	1
Romania	2	0	0	1	0	1	1	2	0	1
Burma	0	1	0	2	1	0	0	0	1	1
Greece	1	1	0	2	0	0	0	0	0	1
Thailand	1	1	2	0	1	0	0	1	1	0
Guatemala	0	0	1	1	1	1	0	0	2	0
Italy	1	0	0	1	1	0	1	0	2	0
Bosnia and Herzegovina	0	0	0	1	1	2	1	0	0	0
Haiti	0	0	0	0	3	0	1	0	1	0
Peru	0	0	0	0	1	1	1	0	2	0
Ukraine	0	1	0	0	1	1	0	0	2	0

Table 2. Table 3 shows foreign -born TB cases by country of origin for countries in which at least 5 cases were reported over the past 10 years. The number of TB cases from the Philippines increased over the past decade, and in 2008 there were fewer TB cases reported among Mexicans and Indians compared with previous years.

In 2008, foreign-born cases came from 15 different countries; however, the majority, 61%, came from just three: the Philippines (n=16), Mexico (n=11) and India (n=10). This has also been a stable trend over the past ten years.

Table 3. Tuberculosis Cases, Number and Proportion of TB Cases Tested for HIV and Number and Proportion Coinfected with TB and HIV, Suburban Cook County, 2000-2008

	Tuberculosis Cases	Tested	for HIV	Coinfected with HIV		
Year	No.	No.	%	No.	%	
2000	141	35	25	5	14	
2001	139	32	23	7	22	
2002	130	72	55	5	7	
2003	122	89	73	7	8	
2004	91	75	82	4	5	
2005	120	94	78	6	6	
2006	116	85	73	2	2	
2007	139	108	78	7	6	
2008	100	89	89	8	9	

**Table 3.** Between 2000 and 2008, the proportion of TB cases tested for HIV increased from 25% in 2000 to 89% in 2008. Of those with TB and HIV test results, approximately 9% were coinfected in 2008.

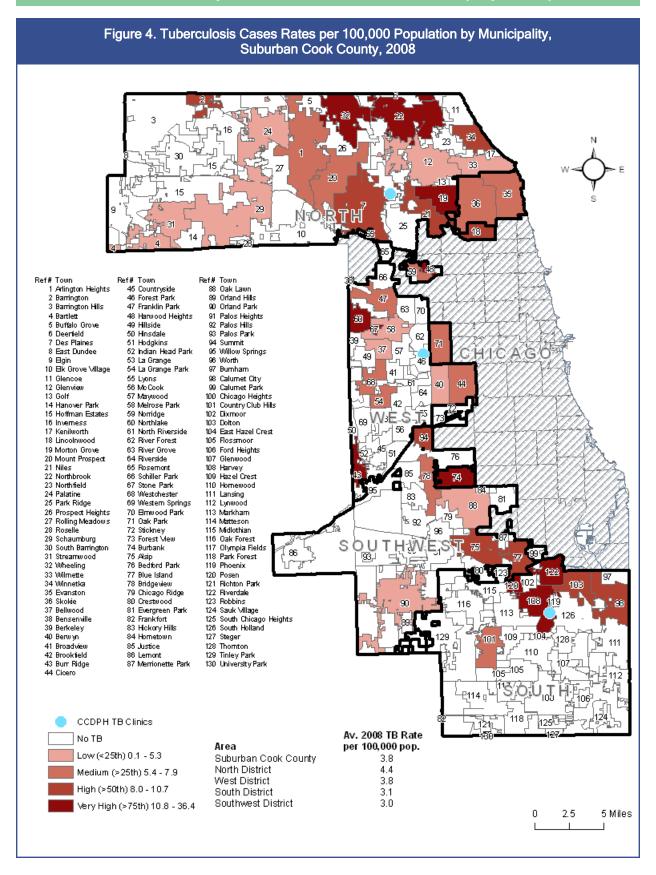


Table 4. Tuberculosis Cases and Rates (per 100,000 population) by Municipality for the North and West Districts, Suburban Cook County, 2006-2008

	2006		2007 20		200	φ.		200	R	2007		200	9
City	No.	Rate	No.	Rate	No.	Rate	City	No.	Rate	No.	Rate	No.	Rati
Arlington Heights	2	2.7	3	4.0	4	5.4	Bellwood	0	0.0	1	5.1	1	5.3
Barrington	0	0.0	0	0.0	1	9.7	Berkeley	0	0.0	0	0.0	0	0.
Barrington Hills	0	0.0	0	0.0	0	0.0	Berwyn	4	7.8	4	7.8	2	3.
Bartlett	0	0.0	0	0.0	1	2.5	Broadview	1	12.7	0	0.0	0	0.
Buffalo Grove	0	0.0	0	0.0	0	0.0	Brookfield	0	0.0	2	10.8	0	0.
Des Plaines	2	3.5	11	19.5	5	8.8	Burr Ridge	0	0.0	0	0.0	2	18.
Elgin	0	0.0	0	0.0	0	0.0	Cicero	7	8.5	6	7.2	4	4.
Elk Grove Village	2	5.9	4	11.8	0	0.0	Countryside	0	0.0	0	0.0	0	0.
Evanston	3	4.0	2	2.7	6	7.9	Elmwood Park	2	8.2	1	4.1	1	4.
Glencoe	1	11.1	0	0.0	0	0.0	Forest Park	0	0.0	5	32.9	0	0.
Glenview	3	6.5	4	8.7	2	4.3	Franklin Park	3	16.2	1	5.4	1	5.
Golf	0	0.0	0	0.0	0	0.0	Harwood Heights	0	0.0	1	12.2	2	24.
Hanover Park	0	0.0	1	2.7	0	0.0	Hillside	0	0.0	1	12.9	0	0.
Hoffman Estates	2	3.8	6	11.5	0	0.0	Hinsdale	0	0.0	0	0.0	0	0.
Inverness	0	0.0	0	0.0	0	0.0	Hodgkins	0	0.0	0	0.0	0	0
Kenilworth	0	0.0	0	0.0	0	0.0	Indian Head Park	0	0.0	0	0.0	0	0
Lincolnwood	0	0.0	2	16.6	1	8.4	La Grange	2	12.9	0	0.0	0	0.
Morton Grove	4	18.0	2	9.0	5	22.3	La Grange Park	0	0.0	0	0.0	1	7.
Mount Prospect	3	5.5	3	5.5	4	7.4	Lyons	0	0.0	1	9.6	0	0.
Niles	2	6.8	5	17.0	3	10.3	Maywood	3	11.6	5	19.4	0	0.
Norridge	0	0.0	0	0.0	1	7.1	Mocook	1	411.5	0	0.0	0	0.
Northbrook	2	36.3	0	0.0	2	36.4	Melrose Park	5	22.2	1	4.4	1	4.
Northfield	0	0.0	0	0.0	0	0.0	North Riverside	0	0.0	0	0.0	0	0.
Palatine	3	4.5	4	5.9	1	1.5	Northlake	1	15.7	3	47.0	2	31.
Park Ridge	0	0.0	0	0.0	0	0.0	Oak Park	0	0.0	1	2.0	3	6.
Prospect Heights	4	24.4	2	12.2	0	0.0	River Forest	0	0.0	0	0.0	0	0.
Rolling Meadows	1	4.2	2	8.4	0	0.0	River Grove	0	0.0	0	0.0	0	0.
Roselle	0	0.0	0	0.0	0	0.0	Riverside	0	0.0	1	11.8	0	0.
Schaumburg	2	2.7	7	9.6	3	4.1	Rosemont	0	0.0	0	0.0	0	0.
Skokie	10	15.5	11	17.0	6	9.0	Schiller Park	1	8.6	1	8.6	0	0.
South Barrington	0	0.0	0	0.0	0	0.0	Stone Park	2	40.8	0	0.0	1	20.
Streamwood	2	5.4	2	5.4	1	2.7	Westchester	0	0.0	3	18.5	1	6.
Wheeling	4	31.8	2	15.9	3	23.9	Western Springs	0	0.0	0	0.0	0	0.
Wilmette	1	3.7	1	3.7	2	7.5	aaam opanga						
Winnetka	0	0.0	1	8.0	1	8.0							
Total	53	4.6	75	6.6	52	4.5	Total	32	5.5	38	6.5	22	3.

Table 4. North District: a total of 52 cases (52%) were West District: Twenty-two cases (22%) were reported living in the North District in 2008, which corresponds from the West District, which corresponds to a rate of to a rate of 4.5 per 100,000 population. For the past 3.8 per 100,000 population. Cicero (n=4) and Oak Park three years, the North District has had the highest TB (n=3) had the largest number of reported TB cases in rates of the four Districts. Evanston (n=6), Skokie the West District. (n=6), Des Plaines (n=5) and Morton Grove (n=5) had the largest number of TB cases in the North District. Four of the top 5 municipalities with the largest number of TB cases were located in the North District.

Table 5 . Tuberculosis Cases and Rates (per 100,000 population) by Municipality for the South and Southwest Districts, Suburban Cook County, 2006-2008

		SOU	TH							SOUTHV	VEST		
	2006		200	7	2008	3		200		2007	7	200	8
City	No.	Rate	No.	Rate	No.	Rate	City	No.	Rate	No.	Rate	No.	Rate
Burnham	0	0.0	0	0.0	0	0.0	Alsip	0	0.0	2	10.5	2	10.0
Calumet City	2	5.3	2	5.3	4	10.7	Bedford Park	0	0.0	0	0.0	0	0.0
Chicago Heights	1	3.2	1	3.2	0	0.0	Blue Island	1	4.4	0	0.0	2	8.9
Country Club Hills	0	0.0	2	12.1	1	6.0	Bridgeview	1	6.7	0	0.0	1	6.
Dixmoor	0	0.0	1	26.2	0	0.0	Burbank	0	0.0	2	7.2	3	10.
Dolton	4	16.3	0	0.0	2	8.3	Calumet Park	0	0.0	0	0.0	0	0.0
East Hazel Crest	0	0.0	0	0.0	0	0.0	Chicago Ridge	0	0.0	0	0.0	0	0.0
Flossmoor	0	0.0	0	0.0	1	10.6	Crestwood	0	0.0	0	0.0	0	0.0
Ford Heights	0	0.0	0	0.0	0	0.0	Evergreen Park	1	5.0	0	0.0	0	0.0
Glenwood	1	11.5	1	11.5	0	0.0	Forest View	0	0.0	0	0.0	0	0.0
Harvey	3	10.4	2	7.0	4	14.0	Hickory Hills	0	0.0	0	0.0	0	0.0
Hazel Crest	0	0.0	0	0.0	0	0.0	Hometown	0	0.0	0	0.0	0	0.0
Homewood	1	5.3	0	0.0	0	0.0	Justice	0	0.0	0	0.0	0	0.0
Lansing	1	3.7	0	0.0	0	0.0	Lemont	0	0.0	0	0.0	0	0.
Lynwood	0	0.0	0	0.0	0	0.0	Merrionette Park	0	0.0	0	0.0	0	0.
Markham	0	0.0	0	0.0	0	0.0	Oak Lawn	0	0.0	2	3.7	1	1.5
Matteson	2	12.8	0	0.0	0	0.0	Orland Hills	0	0.0	0	0.0	0	0.0
Midlothian	1	7.2	1	7.2	0	0.0	Orland Park	2	3.6	3	5.4	1	1.3
Oak Forest	2	7.1	0	0.0	0	0.0	Palos Heights	0	0.0	0	0.0	0	0.0
Olympia Fields	0	0.0	0	0.0	0	0.0	Palos Hills	0	0.0	0	0.0	0	0.
Park Forest	0	0.0	0	0.0	0	0.0	Palos Park	0	0.0	0	0.0	0	0.
Phoenix	0	0.0	0	0.0	0	0.0	Stickney	0	0.0	0	0.0	0	0.0
Posen	0	0.0	0	0.0	1	20.2	Summit	0	0.0	0	0.0	1	9.3
Richton Park	0	0.0	2	15.4	0	0.0	Willow Springs	1	16.6	0	0.0	0	0.0
Riverdale	3	29.4	1	9.8	2	19.7	Worth	0	0.0	0	0.0	0	0.
Robbins	0	0.0	0	0.0	0	0.0							
Sauk Village	0	0.0	0	0.0	0	0.0							
South Chicago Heights	0	0.0	0	0.0	0	0.0							
South Holland	0	0.0	0	0.0	0	0.0							
Steger	0	0.0	0	0.0	0	0.0							
Thornton	0	0.0	0	0.0	0	0.0							
Tinley Park	1	1.7	0	0.0	0	0.0							
Total	22	4.6	13	2.7	15	3.1	Total	6	1.6	9	2.4	11	3.0

Table 5. South District: a total of 15 cases (15%) were Southwest District: Eleven cases (11%) were reported cases who were residents of the South District.

living in the North District in 2008, which corresponds from the West District, which corresponds to a rate of to a rate of 3.1 per 100,000 population. Harvey (n=4) 3.0 per 100,000 population. Burbank (n=3), Alsip (n=2) and Calumet City (n=4) had just over half of all the TB and Blue Island (n=2) had the largest number of TB cases in 2008.