



2021 Annual TB Surveillance Report

Communicable Disease Prevention and Control Unit
Cook County Department of Public Health

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Contents

ABBREVIATIONS, ACRONYMS & DEFINITIONS5

EXECUTIVE SUMMARY6

TECHNICAL NOTES18

LIST OF FIGURES

Figure 1. The number of TB diagnoses has declined significantly from 2000-2021
in all selected geographies8

Figure 2. There were more males (n=38; 61%) than females (n=24; 39%) diagnosed with TB in 20218

Figure 3. More than 7 out of 10 TB diagnoses in 2021 were 45 years old or older9

Figure 4. The vast majority of TB diagnoses in 2021 (84%) were in those born overseas9

Figure 5. There were notable differences in the race/ethnicity distribution depending
on whether cases were US- or foreign-born10

Figure 6. Nine in 10 foreign-born cases diagnosed with TB in 2021 have been living
in the US for 5 or more years.....10

Figure 7a. Forty-five cases (73%) had pulmonary TB.....13

Figure 7b. Twenty cases (32%) had extrapulmonary TB.....13

Figure 8. All TB cases diagnosed in 2021 were tested for HIV.....14

Figure 9. For pulmonary cases diagnosed in 2021, 95% received some form
of directly observed therapy.....14

Figure 10. The proportion of eligible TB cases completing therapy in 12
months or fewer was 88% in 2020.....15

LIST OF MAPS

Map 1. Active TB diagnoses per 100,000 population, 20217

Map 2. Foreign-born people diagnosed with TB in 2021 came from 12 different countries.....11

Contents (continued)

LIST OF TABLES

Table 1. Number and Rate (per 100,000 population) of Reported Tuberculosis Cases by
Selected Public Health Jurisdictions, 2000-202116

Table 2. Municipalities and Reference Numbers in Suburban Cook County17

Abbreviations, Acronyms and Definitions

Active TB: (see TB Disease)

AIDS: Acquired immunodeficiency syndrome.

DOT: Directly observed therapy. Healthcare personnel watch patients take their anti-tuberculosis medications to ensure adherence to therapy.

Extrapulmonary TB: A person with *Mycobacterium tuberculosis* infection outside of the lungs, the pleural space, and the larynx (voice box). A person with extrapulmonary disease can also have pulmonary TB (see below).

HIV: Human immunodeficiency virus, the virus that can lead to AIDS.

I-NEDSS: I-NEDSS stands for Illinois-National Electronic Disease Surveillance System. I-NEDSS is a web-based application that establishes a secure and real-time communication link between hospitals, laboratories and other health care providers with state and local health department staff for the purposes of reporting and managing communicable disease information. All TB cases in suburban Cook County are reported to the Illinois Department of Public Health using I-NEDSS.

INH: Abbreviation for isoniazid, an anti-TB medication.

MDR-TB: Multi-drug resistant TB. MDR-TB is defined as TB resistant to isoniazid and rifampin, the two most important first line anti-tuberculosis medications.

National Tuberculosis Indicators Project (NTIP): Monitoring system for tracking the progress of U.S. tuberculosis (TB) control programs toward achieving the national TB program objectives.

Pulmonary TB: A person with *Mycobacterium tuberculosis* infection of the lungs, pleural space or the larynx (voice box). A person with pulmonary TB can also have extrapulmonary TB.

RIF: Abbreviation for rifampin, an anti-TB medication.

TB: Tuberculosis.

TB Disease: A person with TB infection who is contagious to others; a person with TB disease can have pulmonary TB, extrapulmonary TB, or both.

XDR-TB: Extensively drug resistant TB. XDR-TB is defined as MDR-TB plus TB that is resistant to any fluoroquinolone plus resistance to one of the three injectable drugs (i.e., amikacin, kanamycin, or capreomycin).

Executive Summary

Epidemiologic Summary

- Sixty-two (62) new cases of TB were reported in suburban Cook County in 2021. This represents a rate of 2.7 cases per 100,000.
- Over the past 21 years, TB rates have fallen 53% from 5.7 per 100,000 in 2000 to 2.7 in 2021.
- Cases rose from 53 in 2020 to 62 cases in 2021. It is likely that TB cases in 2020 delayed seeking care and/or were under-reported due to the COVID-19 pandemic.

TB Burden in Foreign-born Persons

- The proportion of TB cases in foreign-born persons was 84% in 2021.
- Three countries accounted for 75% of all foreign-born cases: Mexico (27%), India (27%), and the Philippines (21%).
- Among foreign-born persons diagnosed with TB, 90% arrived 5 or more years prior to receiving a diagnosis of TB disease.

Drug Resistance

- Between 1-4 cases of MDR-TB were identified; however, no case of XDR-TB was identified.

Coinfection with HIV

- One hundred percent of patients diagnosed in 2020 were tested for HIV; between 1-4 cases were coinfectd.

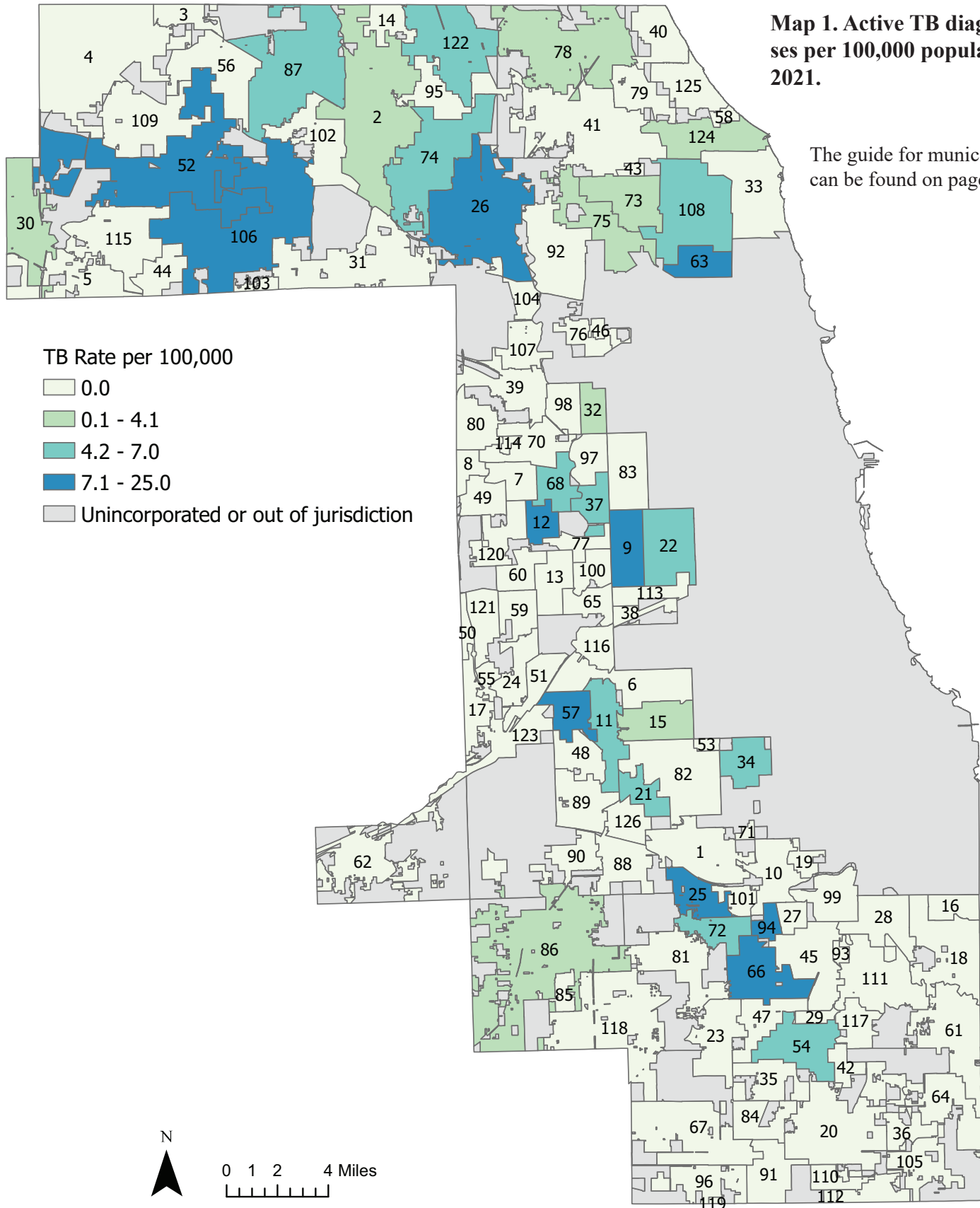
Directly Observed Therapy

- In 2021, 95% of patients with pulmonary TB received DOT.

Completion of Therapy

- For TB cases diagnosed in 2020, 95% of persons with TB disease who were eligible* completed treatment.
- Among persons diagnosed in 2019 and who were eligible* to complete TB treatment in 12 months, 88% of cases did so. This is below the National Tuberculosis Indicators Project target of 95%.

* Eligible cases are persons who were alive at the time of TB diagnosis and did not die during therapy, and excludes persons with TB resistant to rifampin and pediatric cases (<15 years) with a diagnosis of meningeal, bone/joint, or miliary TB.



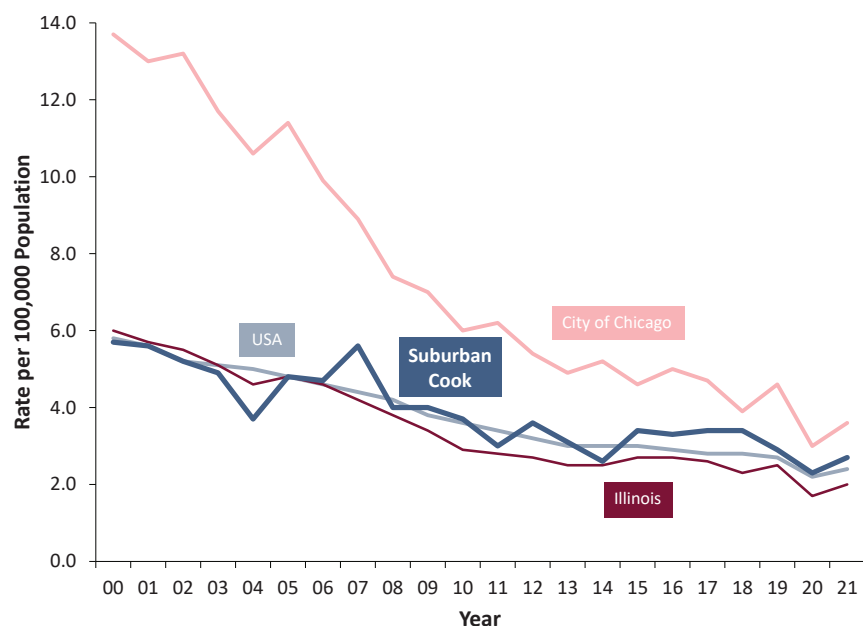


Figure 1. The number of TB diagnoses has declined significantly from 2000-2021 in all selected geographies.

In suburban Cook County, the TB rate dropped 53% from 5.7 in 2000 to 2.7 in 2021.

TB rates increased between 2020 and 2021, likely because more individuals sought care they may have avoided in 2020 because of the COVID-19 pandemic.

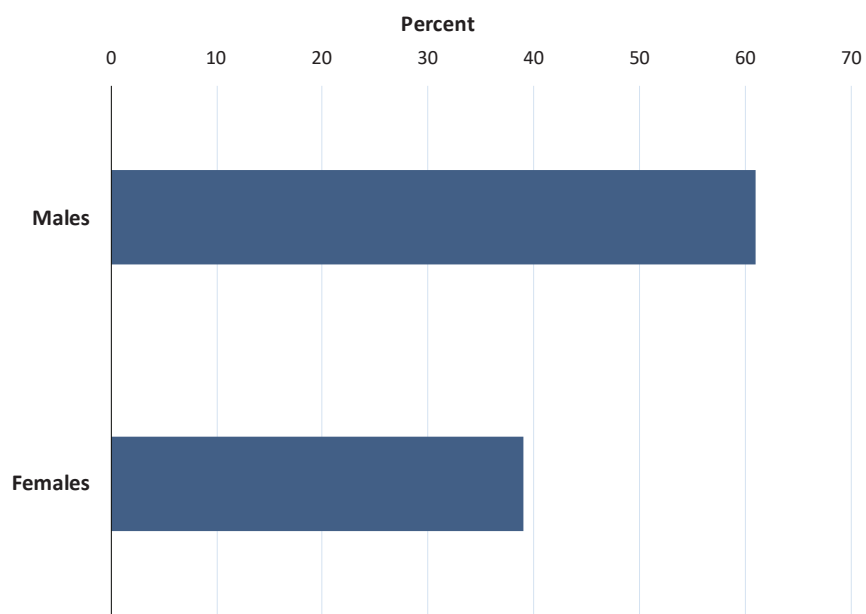


Figure 2. There were more males (n=38; 61%) than females (n=24; 39%) diagnosed with TB in 2021.

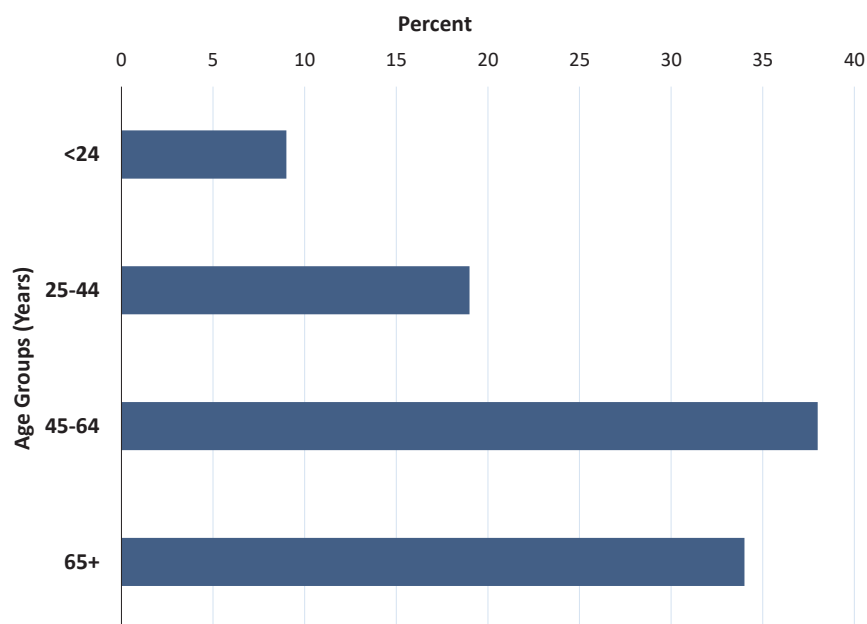


Figure 3. More than 7 out of 10 TB diagnoses in 2021 were 45 years old or older.

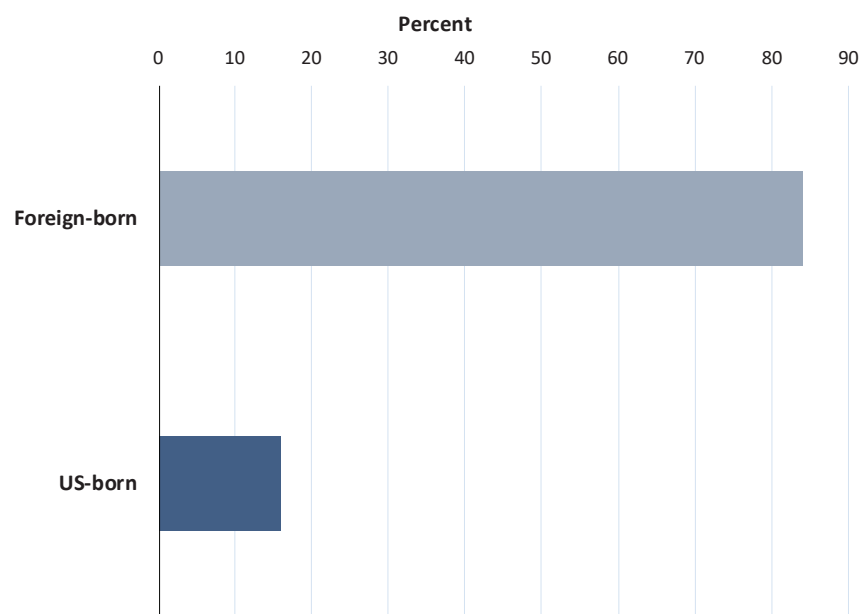


Figure 4. The vast majority of TB diagnoses in 2021 (84%) were in those born overseas.

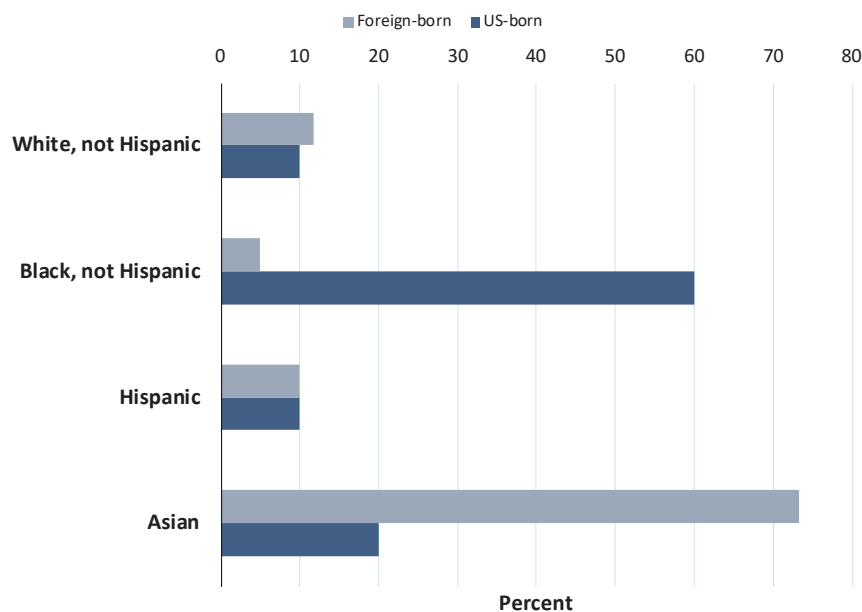


Figure 5. There were notable differences in the race/ethnicity distribution depending on whether cases were US- or foreign-born.

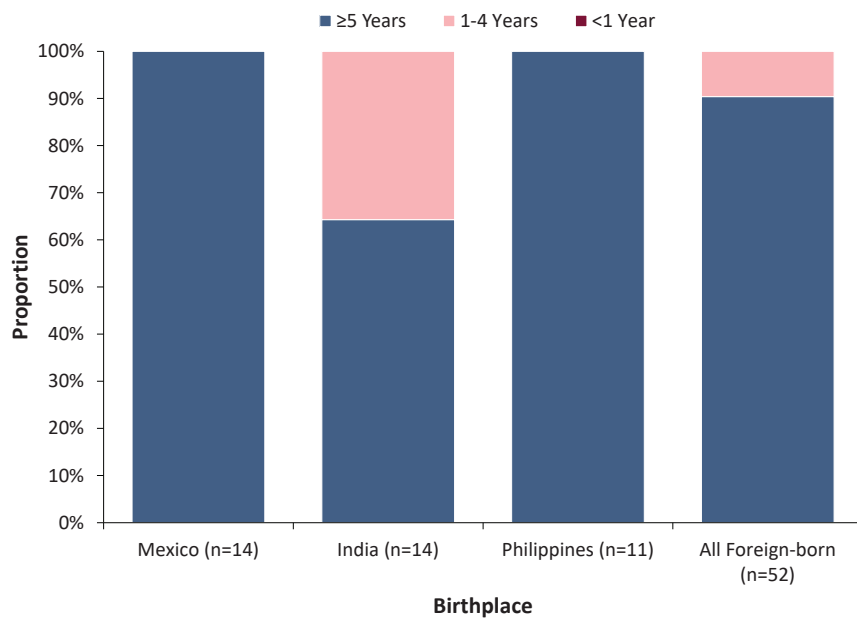
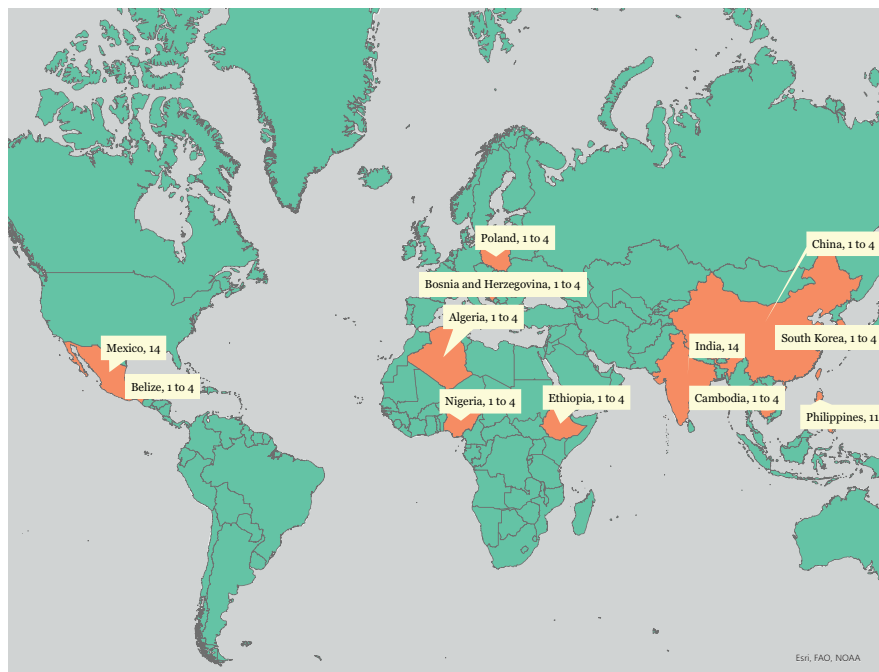


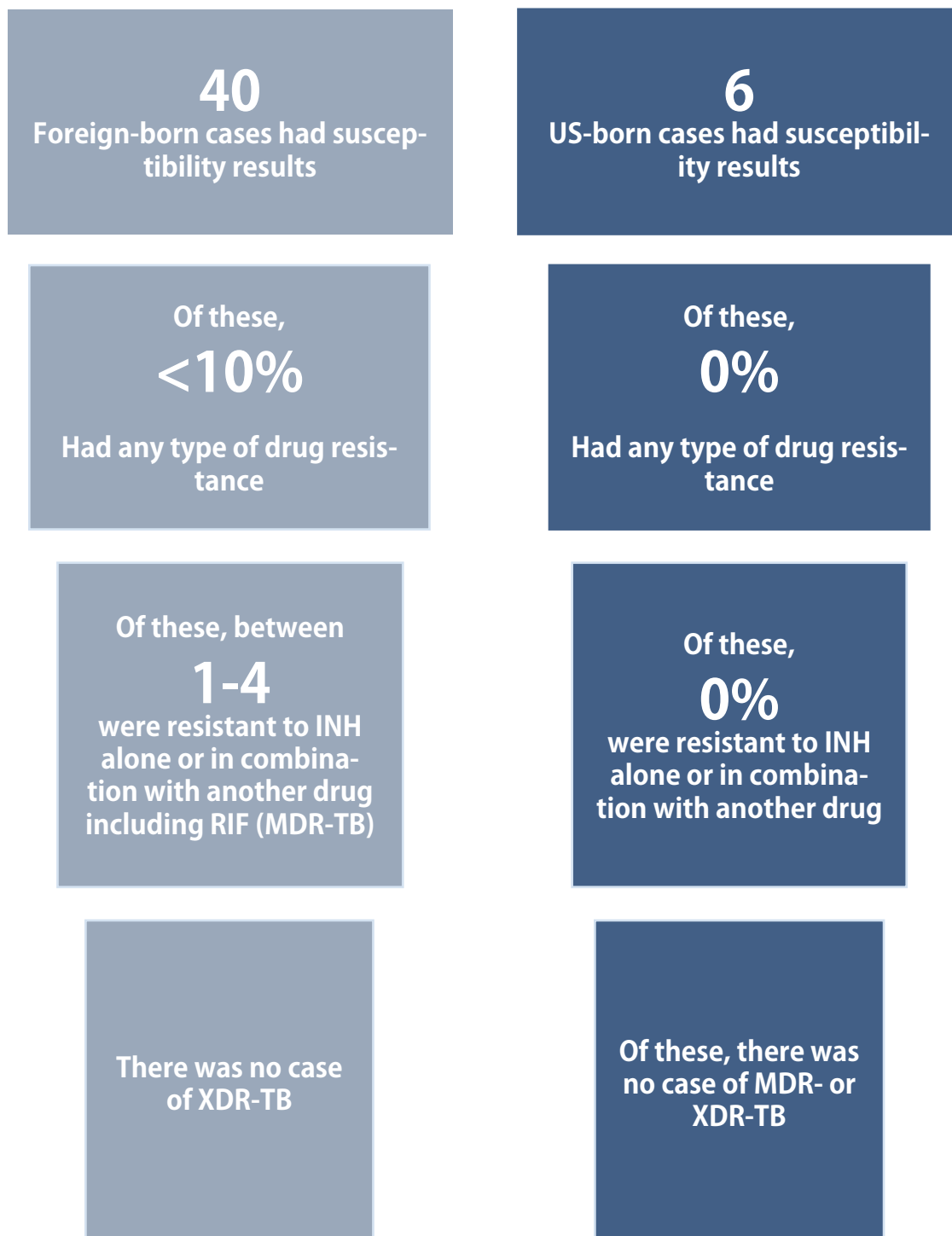
Figure 6. Nine in 10 foreign-born cases diagnosed with TB in 2021 have been living in the US for 5 or more years.



Map 2. Foreign-born people diagnosed with TB in 2021 came from 12 different countries.

Seventy-five percent (75%) of TB cases diagnosed in 2021 came from Mexico, India, and the Philippines.

**Please call
(708) 836-8662
to report a suspect or con-
firmed case of TB in suburban
Cook County**



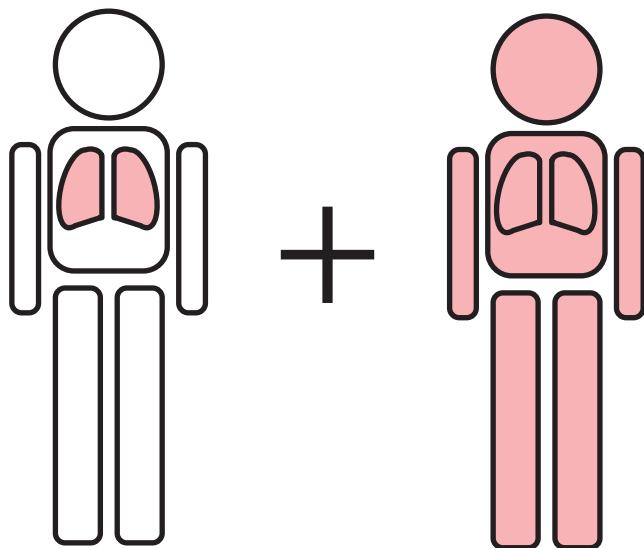


Figure 7a. Forty-five cases (73%) had pulmonary TB.

Of these, 16 (36%) had positive sputum smears; 17 (53%) had positive cultures.

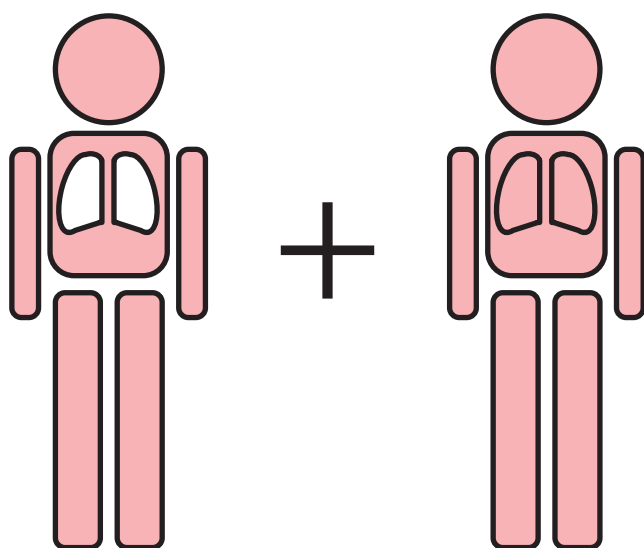


Figure 7b. Twenty cases (32%) had extrapulmonary TB.

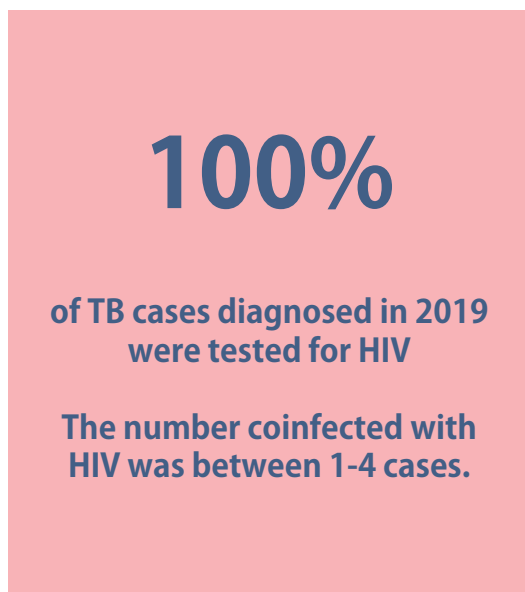


Figure 8. All TB cases diagnosed in 2021 were tested for HIV.

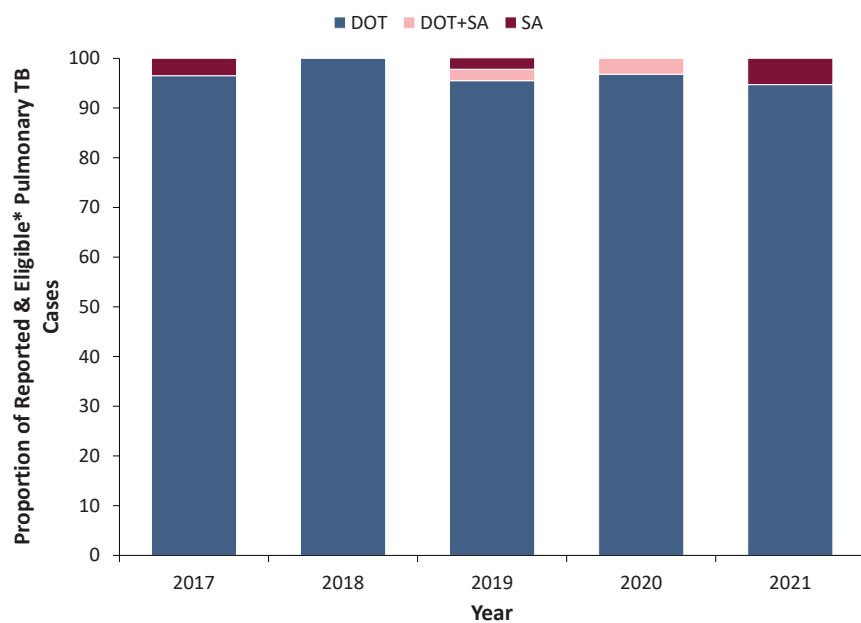


Figure 9. For pulmonary cases diagnosed in 2021, 95% received some form of directly observed therapy.

“SA” stands for “Self-Administered” as opposed to “DOT” which stands for “**D**irectly **O**bserved **T**herapy.”

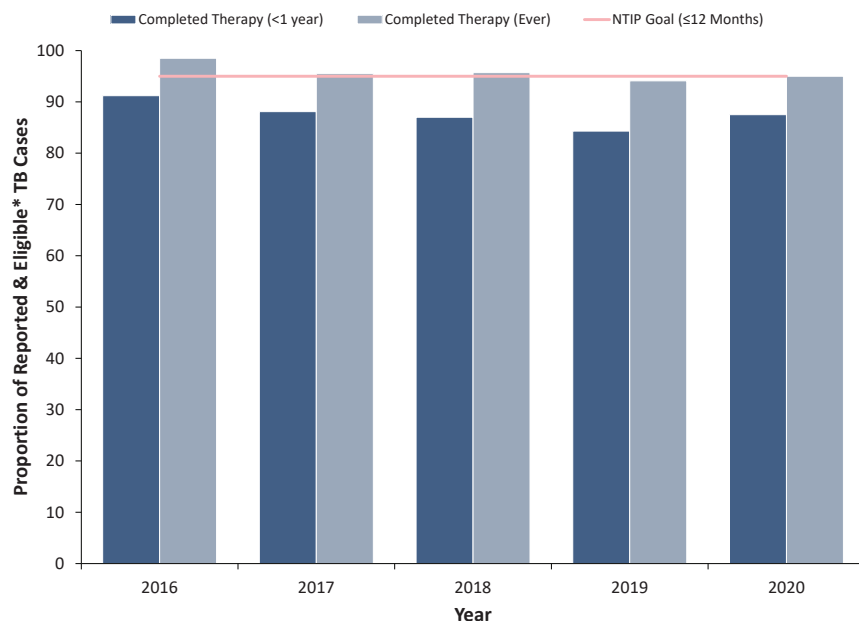


Figure 10. The proportion of eligible TB cases completing therapy in 12 months or fewer was 88% in 2020.

The proportion ever completing was 95%.

The proportion of eligible cases completing therapy in 12 months was below the National TB Indicator Project goal of 95%.

For TB case counts and other select conditions, [click here](#) to visit us on the web!

Table 1. Number and Rate (per 100,000 population) of Reported Tuberculosis Cases by Selected Public Health Jurisdictions, 2000-2021

Year	Suburban Cook County		City of Chicago		Illinois		USA	
	No.	Rate*	No.	Rate*	No.	Rate*	No.	Rate†
2000	141	5.7	398	13.7	743	6.0	16,310	5.8
2001	139	5.6	377	13.0	707	5.7	15,945	5.6
2002	130	5.2	382	13.2	680	5.5	15,056	5.2
2003	122	4.9	339	11.7	633	5.1	14,836	5.1
2004	91	3.7	308	10.6	569	4.6	14,500	5.0
2005	120	4.8	329	11.4	596	4.8	14,067	4.8
2006	116	4.7	287	9.9	569	4.6	13,727	4.6
2007	139	5.6	258	8.9	521	4.2	13,288	4.4
2008	100	4.0	214	7.4	469	3.8	12,904	4.2
2009	100	4.0	202	7.0	418	3.4	11,540	3.8
2010	93	3.7	161	6.0	372	2.9	11,181	3.6
2011	75	3.0	166	6.2	359	2.8	10,521	3.4
2012	89	3.6	146	5.4	347	2.7	9,951	3.2
2013	78	3.1	131	4.9	319	2.5	9,588	3.0
2014	64	2.6	141	5.2	320	2.5	9,421	3.0
2015	85	3.4	125	4.6	344	2.7	9,563	3.0
2016	83	3.3	135	5.0	342	2.7	9,256	2.9
2017	86	3.4	128	4.7	337	2.6	9,093	2.8
2018	84	3.4	105	3.9	293	2.3	9,029	2.8
2019	72	2.9	124	4.6	319	2.5	8,916	2.7
2020	53	2.3	82	3.0	216	1.7	7,163	2.2
2021	62	2.7	97	3.6	254	2.0	7,860	2.4

* Rates (per 100,000 population) for years 2000 - 2009 calculated using 2000 U.S. Census data.
Rates for 2010-present calculated using 2010 US census data.

† US rates calculated using intercensal estimates from the US Census Bureau.

Table 2. Municipalities and Reference Numbers in Suburban Cook County

Ref #	City/Town	Ref #	City/Town	Ref #	City/Town	Ref #	City/Town
1	Alsip	33	Evansston	65	Lyons	97	River Forest
2	Arlington Heights	34	Evergreen Park	66	Markham	98	River Grove
3	Barrington	35	Flossmoor	67	Matteson	99	Riverdale
4	Barrington Hills	36	Ford Heights	68	Maywood	100	Riverside
5	Bartlett	37	Forest Park	69	McCook	101	Robbins
6	Bedford Park	38	Forest View	70	Melrose Park	102	Rolling Meadows
7	Bellwood	39	Franklin Park	71	Merrionette Park	103	Roselle
8	Berkeley	40	Glencoe	72	Midlothian	104	Rosemont
9	Berwyn	41	Glenview	73	Morton Grove	105	Sauk Village
10	Blue Island	42	Glenwood	74	Mount Prospect	106	Schaumburg
11	Bridgeview	43	Golf	75	Niles	107	Schiller Park
12	Broadview	44	Hanover Park	76	Norridge	108	Skokie
13	Brookfield	45	Harvey	77	North Riverside	109	South Barrington
14	Buffalo Grove	46	Harwood Heights	78	Northbrook	110	South Chicago Heights
15	Burbank	47	Hazel Crest	79	Northfield	111	South Holland
16	Burnham	48	Hickory Hills	80	Northlake	112	Steger
17	Burr Ridge	49	Hillside	81	Oak Forest	113	Stickney
18	Calumet City	50	Hinsdale	82	Oak Lawn	114	Stone Park
19	Calumet Park	51	Hodgkins	83	Oak Park	115	Streamwood
20	Chicago Heights	52	Hoffman Estates	84	Olympia Fields	116	Summit
21	Chicago Ridge	53	Homewood	85	Orland Hills	117	Thornton
22	Cicero	54	Homewood	86	Orland Park	118	Tinley Park
23	Country Club Hills	55	Indian Head Park	87	Palatine	119	University Park
24	Countryside	56	Inverness	88	Palos Heights	120	Westchester
25	Crestwood	57	Justice	89	Palos Hills	121	Western Springs
26	Des Plaines	58	Kenilworth	90	Palos Park	122	Wheeling
27	Dixmoor	59	La Grange	91	Park Forest	123	Willow Springs
28	Dolton	60	La Grange Park	92	Park Ridge	124	Winnetta
29	East Hazel Crest	61	Lansing	93	Phoenix	125	Winnetka
30	Elgin	62	Lemont	94	Posen	126	Worth
31	Elk Grove Village	63	Lincolnwood	95	Prospect Heights		
32	Elmwood Park	64	Lynwood	96	Richton Park		

TECHNICAL NOTES

Surveillance Methodology

Healthcare providers and laboratories in suburban Cook County are required to report the following results within 24 hours: (1) sputum or tissue smears positive for acid-fast bacilli (AFBs); (2) cultures positive for *Mycobacterium tuberculosis*; (3) mycobacterial drug susceptibility results; (4) any other tests positive for *Mycobacterium tuberculosis*. In addition, confirmed TB cases must be reported to CCDPH within 7 days.

TB case reports are entered into I-NEDSS and provide the basis for the information presented in this report. This report includes all cases of tuberculosis reported during the year in which the case was confirmed. Confirmed TB cases who may have moved into suburban Cook County from another jurisdiction are not reflected in the data presented herein; such cases are counted in the jurisdiction that reported the case. Likewise, confirmed TB cases reported in suburban Cook County who may have moved out of suburban Cook County are included in the data presented herein.

Reported TB Case Rates

Suburban Cook County, Chicago and Illinois TB rates between 2000-2009 were calculated using 2000 census data. Suburban Cook County, Chicago and Illinois TB rates after 2009 were calculated using 2010 census data. Suburban Cook County TB rates after 2019 were calculated using 2020 census data. National TB rates were calculated using national intercensal estimates.