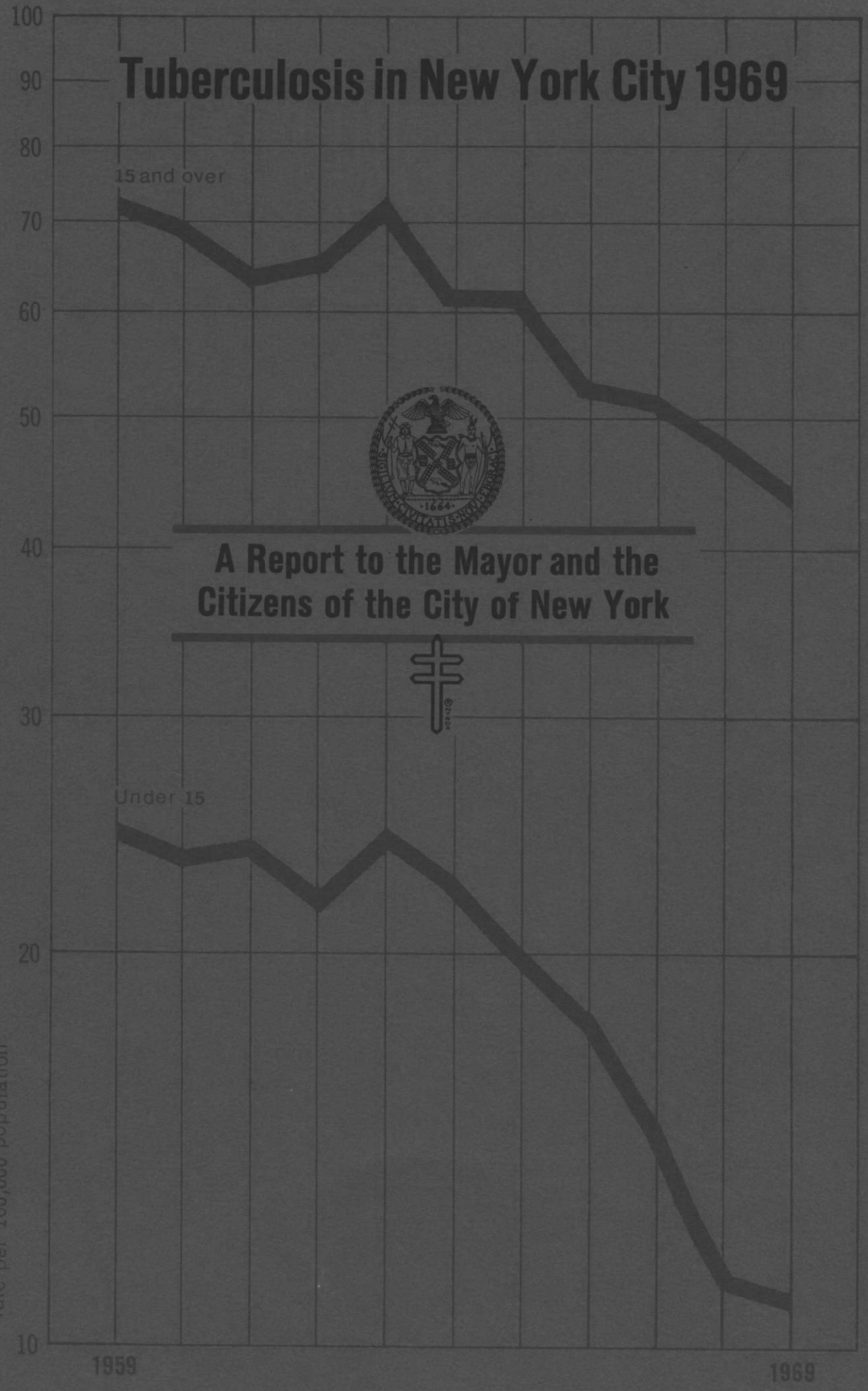
Tuberculosis in New York City 1969



A Report to the Mayor and the Citizens of the City of New York

Tuberculosis in New York City

1969

A Report to the Mayor
and the Citizens of the City of New York

Acknowledgements are extended to:

The Bureau of Records and Statistics, Department of Health, the City of New York, for compilation and statistical organization of data.

The Tuberculosis and Respiratory Disease Association of New York for editorial and production services involved in publication of this report.

Notes:

1. Tuberculosis case rates and death rates given for years after 1960 are based on estimated population.

2. Definition of ethnic groups:

   Puerto Rican - a person who was either born in Puerto Rico or whose mother was born in Puerto Rico -- irrespective of racial characteristics.

   Nonwhite - a person who is not white and not Puerto Rican as defined above. Well over 90% of this group is black.

   White - a person who is white and not Puerto Rican as defined above.

Cover: See page 13

The City of New York

DEPARTMENT OF HEALTH
125 WORTH ST., NEW YORK, N. Y. 10013

December, 1970

TO THE MAYOR AND THE CITIZENS OF THE CITY OF NEW YORK:

We are happy to present our second annual review of Tuberculosis in New York City.

As you will see in these pages, tuberculosis is gradually declining in New York City. However, the disease is still a threat to all New Yorkers and a drain on the city's resources. The tuberculosis control program costs taxpayers $40,000,000 each year.

During 1969, progress was made in putting into action the recommendations of the Mayor's Task Force on Tuberculosis in New York City. The Advisory Committee on Implementation of Task Force Recommendations has identified the first year's accomplishments and has set a number of specific goals for 1970.

We have all the scientific knowledge and technology necessary for the treatment and control of this contagious disease. Now, the ever-present task is to find the people who have tuberculosis as early as possible, to persuade them to take their medications regularly, and to test their contacts and associates for possible tuberculous infection or disease. We gratefully acknowledge the cooperation and help of the Tuberculosis and Respiratory Disease Associations of New York City in fulfilling this important task.

Let us hope that the coming year will show an even greater decrease in tuberculosis in New York City.

Mary C. McLaughlin, M.D.
Commissioner of Health

Aaron D. Chaves, M.D.
Assistant Commissioner for Chronic and Communicable Disease Services, Department of Health

SUMMARY OF THE REPORT

Tuberculosis rates in New York City in 1969 continued their downward trend. During the year, 2,951 new active cases of tuberculosis were reported in the city, and 418 New Yorkers died of tuberculosis. The new case rate was 36.4 per 100,000 population. The death rate was 5.2 per 100,000. The decline in the death rate from the previous year was the greatest since 1964.

Tuberculosis rates decreased among all ethnic groups, but the smallest decrease was among nonwhite people.

The age group with the highest tuberculosis new case rate is that from 35 to 44. Sixty-two per cent of all new patients were over 35. The median age of new patients was highest among whites and lowest among Puerto Ricans. The most rapid decline in tuberculosis rates in recent years has been among children under 15.

Two-thirds of all new patients were male.

New case rates for the whole city and for each borough have decreased. Eight of the city's thirty health districts accounted for more than half the cases, and in some of these the rate increased during 1969. The rates are highest in areas of high population density and low income. The 1969 rates ranged from 121.2 per 100,000 population in Central Harlem to 8.6 per 100,000 in Flushing.

The majority of the new cases in 1969 were reported by hospitals. A substantial number was also reported by municipal chest clinics.

An analysis of the service statistics shows an increasing trend toward outpatient care, and a decrease in hospitalization. Chest clinic tuberculosis records show that 62,698 individuals were served during 1969, with a total of 373,917 visits. This group included patients with active disease, their contacts and associates, and other people with tuberculous infection.

Over 650 former patients whose disease had become inactive showed reactivation during 1969.

Some other large cities surpass New York in tuberculosis rates based on population, but New York has the largest tuberculosis problem of any American city.

MAJOR TRENDS IN NEW ACTIVE CASES AND DEATHS

The numbers and rates of new active cases of tuberculosis and deaths from tuberculosis have declined steadily since 1960, despite minor reversals. Deaths have decreased at a more rapid rate than have new cases (Table 1, Figure 1).

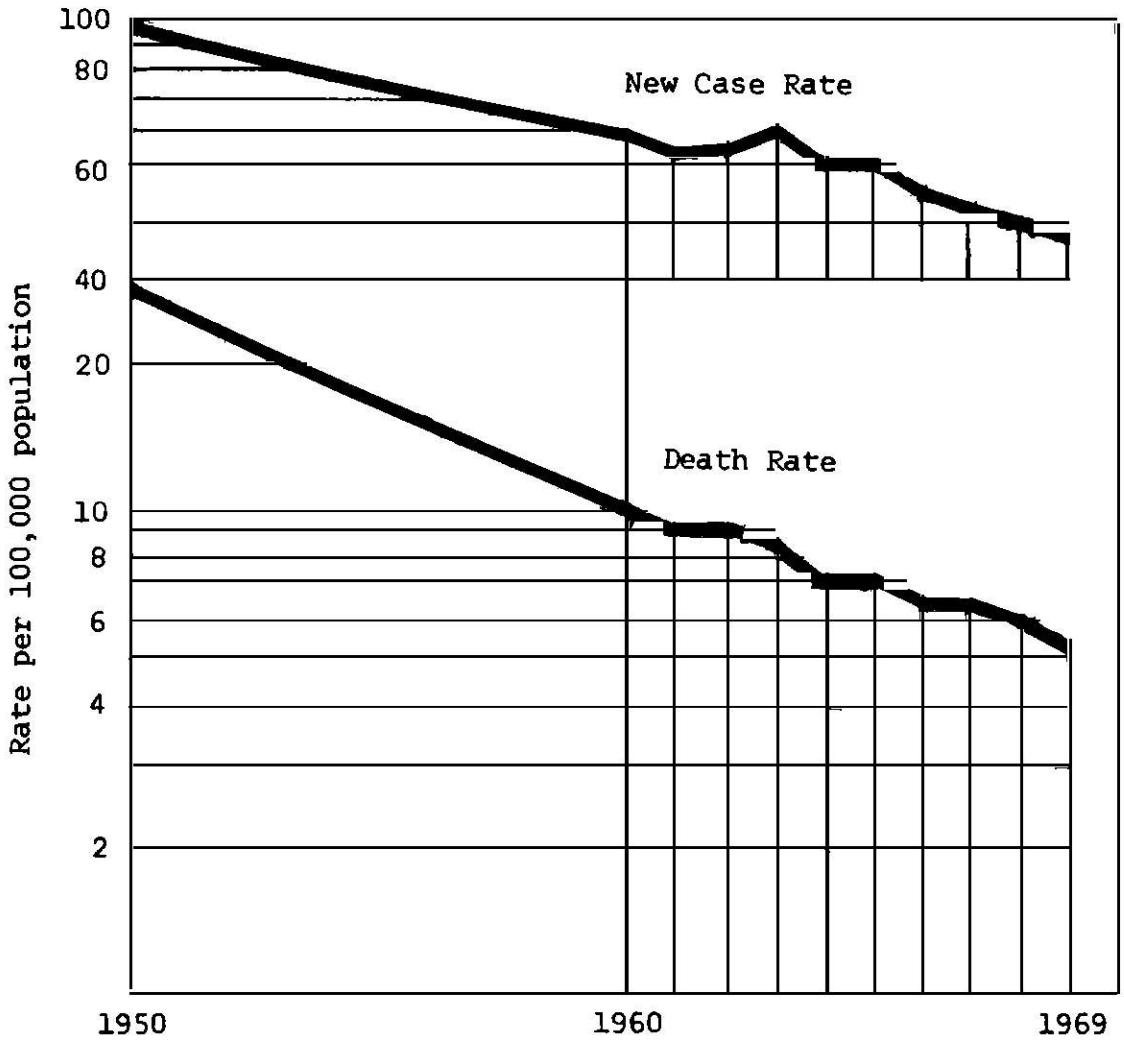
Table 1.

NEW ACTIVE TUBERCULOSIS CASES AND DEATHS
DUE TO TUBERCULOSIS, NUMBERS AND RATES
New York City, 1950, and 1960 to 1969

Year	New Active Cases	Deaths	Population (in 1000's)	Rate per 100,000	
				New Cases	Deaths
1950	7,717	2,321	7,903	97.6	29.4
1960	4,699	810	7,782	60.4	10.4
1961	4,360	738	7,782	56.0	9.5
1962	4,437	740	7,780	57.0	9.5
1963	4,891	683	7,780	62.9	8.8
1964	4,207	581	7,840	53.7	7.4
1965	4,242	592	7,960	53.3	7.4
1966	3,663	537	8,040	45.6	6.7
1967	3,542	525	8,125	43.6	6.5
1968	3,224	485	8,110	39.7	6.0
1969	2,951	418	8,110	36.4	5.2

Figure 1.

RATE OF NEW ACTIVE TUBERCULOSIS CASES AND DEATHS
New York City, 1950 to 1969



WHO ARE THE NEW PATIENTS?

ETHNIC GROUPS

Tuberculosis occurs among people of all ethnic backgrounds. However, ethnic group data, in combination with other epidemiologic information, are of major importance in defining the population segments most in need of tuberculosis services.

Since 1945, marked changes have occurred in the ethnic makeup of New York City. An ethnic analysis of tuberculous patients over the past 25 years reflects these changes (Table 2, Figure 2). In 1945, whites represented 90% of the population and accounted for 70% of the new active tuberculosis cases reported. Nonwhites and Puerto Ricans represented 10% of the total population and accounted for 30% of the new active cases of tuberculosis. In 1969, whites made up 71% of the population and accounted for 31% of the new active cases of tuberculosis. Nonwhites and Puerto Ricans represented 29% of the population and accounted for 69% of the new cases.

However, the new active case rates from 1945 to 1969 are a more important reflection of tuberculosis incidence within ethnic groups (Figure 3). The rates have declined for all ethnic groups since 1953. The reduction has been greatest among the nonwhites and Puerto Ricans.

Figure 2.

ANNUAL TOTALS OF NEW ACTIVE TUBERCULOSIS CASES
BY ETHNIC GROUP AND YEAR
New York City, 1945 to 1969

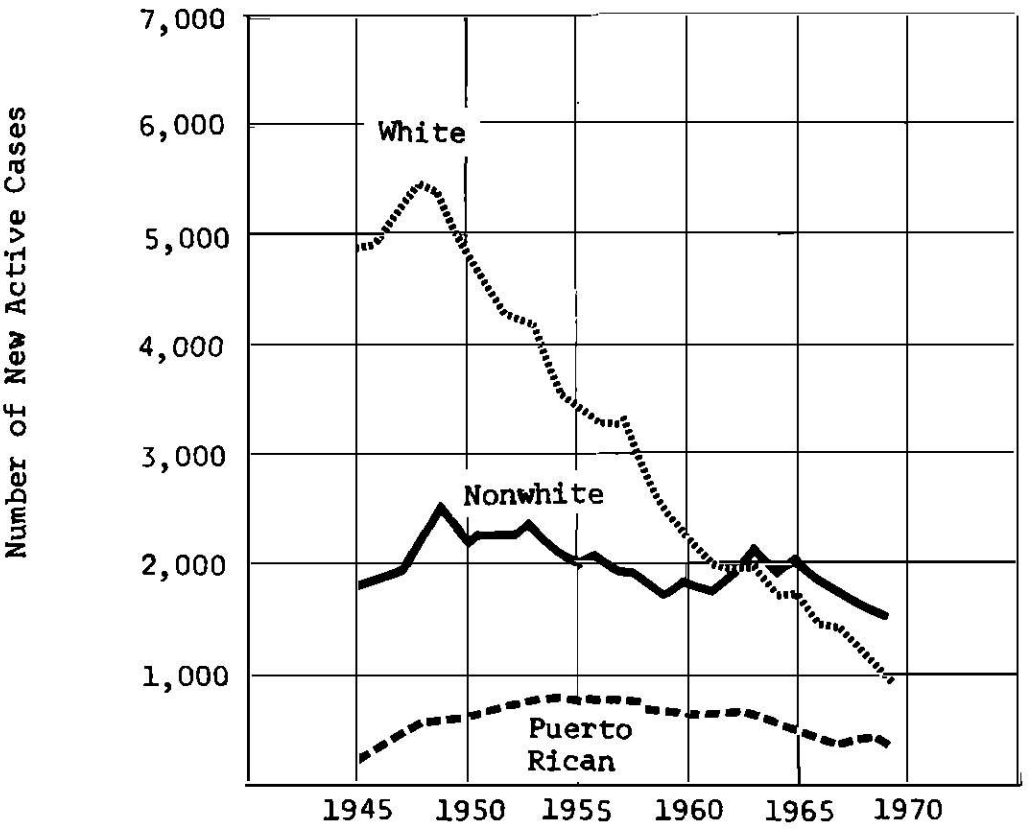


Figure 3.
NEW ACTIVE TUBERCULOSIS CASE RATES
BY ETHNIC GROUP AND YEAR
New York City, 1945 to 1969

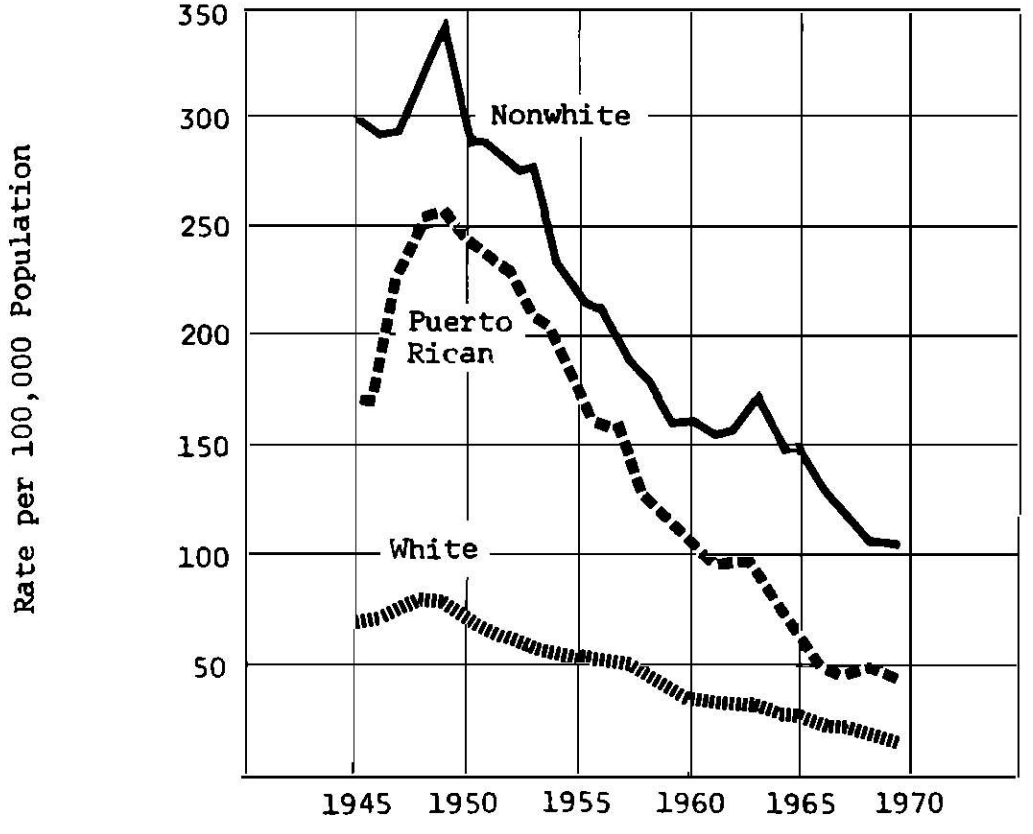


Table 2.

NEWLY REPORTED CASES OF ACTIVE TUBERCULOSIS, NUMBERS AND RATES BY ETHNIC GROUP
New York City, 1945 to 1969

	New Active Cases*				
Year	Total	White	Non-white	Puerto Rican	Total
1945	7,062	4,930	1,850	282	7,684
1946	7,123	4,930	1,880	313	7,728
1947	7,599	5,174	1,961	464	7,772
1948	8,306	5,482	2,276	548	7,815
1949	8,567	5,431	2,536	600	7,859
1950	7,717	4,915	2,192	610	7,903
1951	7,583	4,633	2,290	660	7,891
1952	7,282	4,253	2,279	750	7,879
1953	7,349	4,209	2,395	745	7,867
1954	6,582	3,672	2,105	805	7,854
1955	6,214	3,430	2,025	759	7,843
1956	6,137	3,305	2,077	755	7,831
1957	6,117	3,377	1,940	800	7,818
1958	5,482	2,901	1,901	680	7,806
1959	4,924	2,526	1,721	677	7,794
1960	4,699	2,263	1,803	633	7,782
1961	4,360	1,983	1,772	605	7,782
1962	4,437	1,936	1,859	642	7,780
1963	4,891	2,029	2,186	676	7,780
1964	4,207	1,705	1,924	578	7,840
1965	4,242	1,712	2,031	499	7,960
1966	3,663	1,448	1,810	405	8,040
1967	3,542	1,427	1,740	375	8,125
1968	3,224	1,178	1,610	436	8,110
1969	2,951	971	1,587	393	8,110

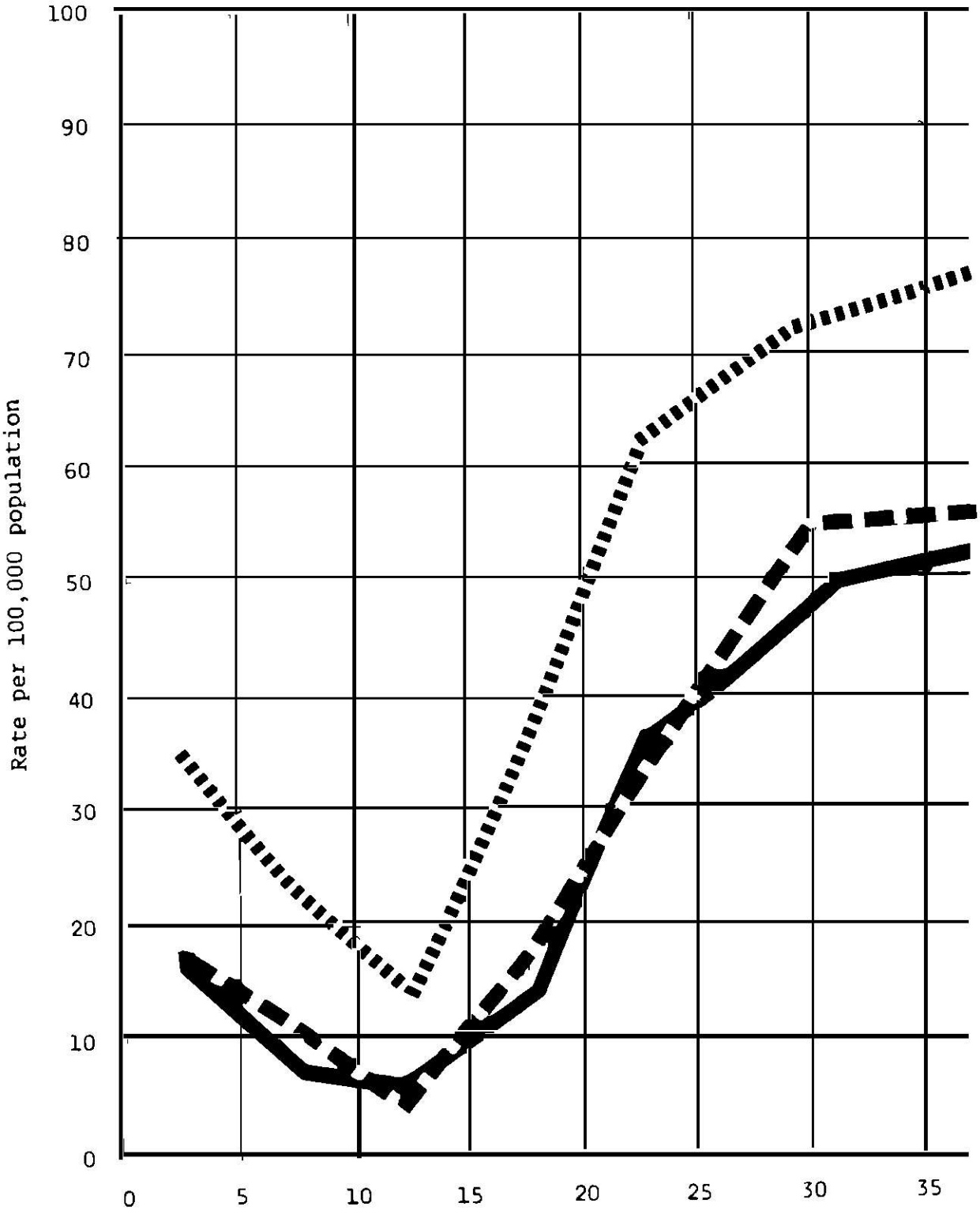
*New active cases of unknown ethnic group have

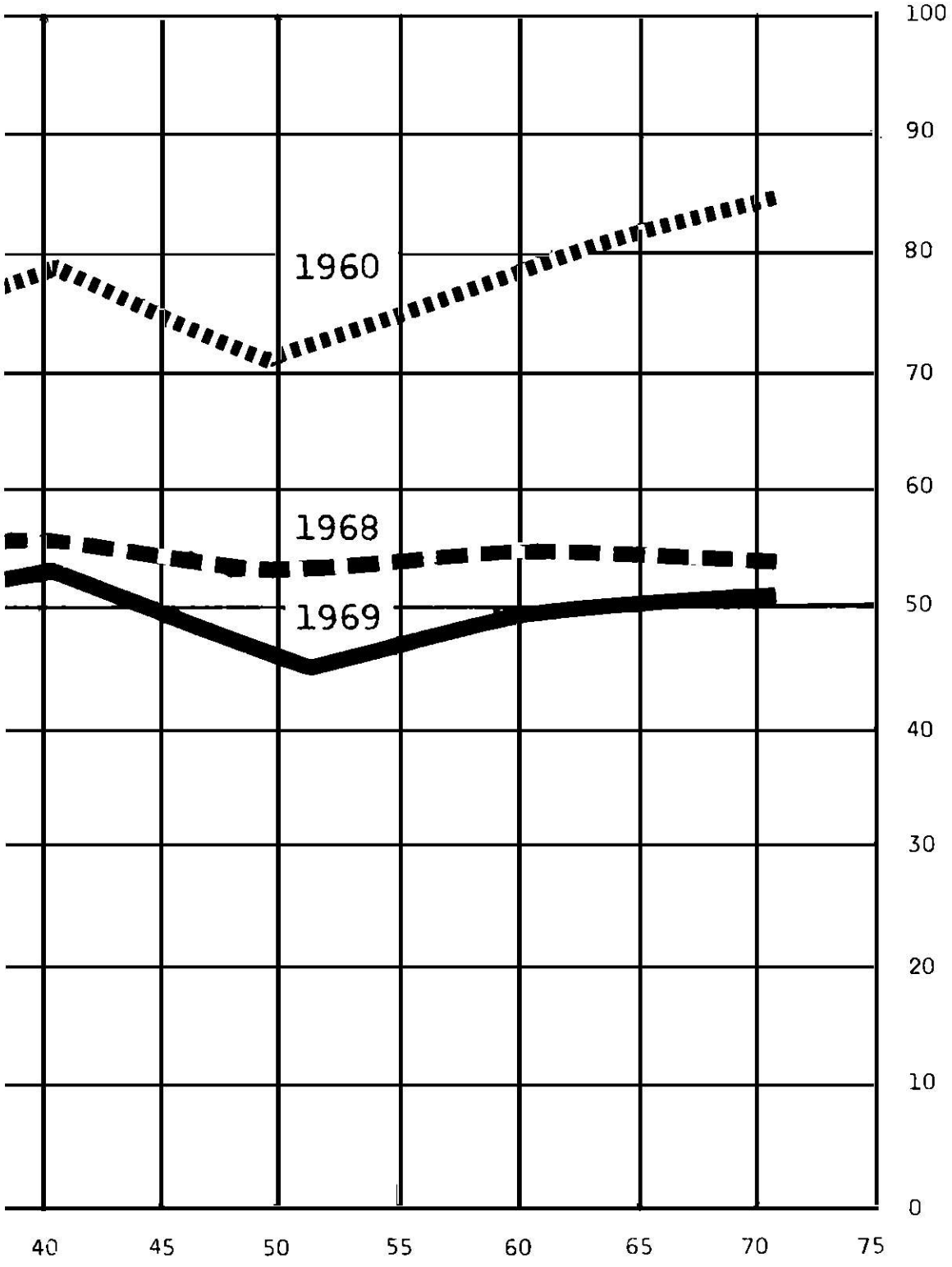
Population (in 1000's)			Rates per 100,000				
White	Non-white	Puerto Rican	Total	White	Non-white	Puerto Rican	Year
6,902	619	163	91.9	71.4	298.9	173.0	1945
6,901	646	181	92.2	71.4	291.0	172.9	1946
6,900	674	198	97.8	75.0	290.9	234.3	1947
6,897	702	216	106.3	79.5	324.2	253.7	1948
6,895	731	233	109.0	78.8	346.9	257.5	1949
6,894	759	250	97.6	71.3	288.8	244.0	1950
6,810	795	286	96.1	68.0	288.0	230.8	1951
6,726	830	323	92.4	63.2	274.6	232.2	1952
6,642	866	359	93.4	63.4	276.6	207.5	1953
6,558	901	395	83.8	56.0	233.6	203.8	1954
6,473	938	432	79.2	53.0	215.9	175.7	1955
6,390	973	468	78.4	51.7	213.5	161.3	1956
6,305	1,009	504	78.2	53.6	192.3	158.7	1957
6,221	1,045	540	70.2	46.6	181.9	125.9	1958
6,137	1,080	577	63.2	41.2	159.4	117.3	1959
6,053	1,116	613	60.4	37.4	161.6	103.3	1960
5,984	1,152	646	56.0	33.1	153.8	93.6	1961
5,913	1,198	669	57.0	32.7	155.2	96.0	1962
5,843	1,237	700	62.9	34.7	176.7	96.6	1963
5,817	1,286	737	53.7	29.3	149.6	78.4	1964
5,843	1,345	772	53.3	29.3	151.0	64.6	1965
5,829	1,399	812	45.6	24.8	129.4	49.9	1966
5,817	1,463	845	43.6	24.5	118.9	44.4	1967
5,734	1,500	876	39.7	20.5	107.3	49.8	1968
5,734	1,500	876	36.4	16.9	105.8	44.9	1969

been prorated according to the known ethnic distribution.

Figure 4.

NEW ACTIVE TUBERCULOSIS CASE RATES BY AGE GROUP
New York City, 1960, 1968 and 1969




100
90
80
70
60
50
40
30
20
10
0
1960
1968
1969
40
45
50
55
60
65
70
75

WHO ARE THE NEW PATIENTS?

AGE AND SEX GROUPS

The distribution of new tuberculous patients according to age and sex has remained nearly stable in recent years.

In 1969, the majority (62%) of new active cases was reported among people over 35 years of age. The largest number of cases was found in the 35-44 age group (Table 3). Nonwhite and Puerto Rican tuberculous patients were generally younger than whites. The median age of white male new tuberculous patients was 56, while for nonwhite and Puerto Rican males it was 39 and 33 respectively. Among women, the median age was 48 for whites and 36 for both nonwhites and Puerto Ricans. Two-thirds of the new patients were male.

The numbers and rates of new active cases of tuberculosis declined for all age groups between 1960 and 1969, despite minor reversals (Table 4).

Figure 5.

NEW ACTIVE TUBERCULOSIS CASE RATES BY AGE:
UNDER 15 AND 15 AND OVER
New York City, 1958 to 1969

A major focus of the New York City tuberculosis program is on children under 15 years of age. The incidence of tuberculous disease among children under 15 is a good indicator of the current impact of a control program. The rapid decline of tuberculosis among children under 15 is a major accomplishment of New York City's tuberculosis program.

It is estimated that nearly 2,000,000 New Yorkers are infected with the tubercle bacillus, and each is at variable risk of developing active tuberculosis. Many of these persons were infected years ago. The fact that fewer and fewer children are becoming infected is a further sign of progress in tuberculosis control.

Table 3.

NEW ACTIVE TUBERCULOSIS CASES, BY AGE, SEX AND ETHNIC GROUP
New York City, 1969

Sex and Ethnic Group	Total	5-Year Intervals					
		0-4	5-9	10-14	15-19	20-24	25-29
Total	2,951	121	60	42	85	225	270
Male	1,951	72	31	18	44	132	168
White	583	10	3	4	13	31	24
Nonwhite	891	39	10	8	20	56	106
Puerto Rican	187	18	8	3	8	25	18
Not reported	290	5	10	3	3	20	20
Female	1,000	49	29	24	41	93	102
White	232	7	3	2	5	21	19
Nonwhite	484	27	18	13	23	47	53
Puerto Rican	149	10	3	4	5	16	17
Not reported	135	5	5	5	8	9	13

AGE GROUPS

10-Year Intervals						Sex and Ethnic Group
30-34	35-44	45-54	55-64	65 & over	Not reported	
249	564	476	406	433	20	Total
165	377	328	295	312	9	Male
22	74	97	121	181	3	White
102	217	153	105	73	2	Nonwhite
18	33	26	19	9	2	Puerto Rican
23	53	52	50	49	2	Not reported
84	187	148	111	121	11	Female
13	30	42	25	62	3	White
47	101	73	54	25	3	Nonwhite
15	30	19	17	10	3	Puerto Rican
9	26	14	15	24	2	Not reported

Table 4.

NEW ACTIVE TUBERCULOSIS CASES AND CASE RATES BY AGE GROUP
New York City, 1960, 1968 and 1969

Age Group	1960		
	New Cases	Rates per 100,000 Estimated Population	New Cases
0-4	234	34.1	121
5-9	133	22.3	71
10-14	77	13.4	33
15-19	172	35.3	110
20-24	294	60.9	213
25-34	756	71.6	579
35-44	840	78.4	601
45-54	766	70.6	549
55-64	688	74.1	452
65 and over	671	82.4	464
Not reported	68	--	31
Total	4,699	60.4	3,224

1968	1969		
Rates per 100,000 Estimated Population	New Cases	Rates per 100,000 Estimated Population	Age Group
18.6	121	18.6	0-4
10.3	60	8.7	5-9
4.9	42	6.2	10-14
17.0	85	13.2	15-19
34.4	225	36.3	20-24
55.1	519	49.4	25-34
56.8	564	53.4	35-44
53.2	476	46.2	45-54
54.4	406	48.9	55-64
53.9	433	50.3	65 and over
--	20	--	Not reported
39.7	2,951	36.4	Total

Table 5.

NEW ACTIVE TUBERCULOSIS CASES BY AGE: UNDER 15, AND 15 AND OVER
NUMBERS AND RATES

New York City, 1958 to 1969

Year	Number of new active cases				Population in thousands			Rate per 100,000 population		
	Total	Under 15 yrs. of age	15 yrs. of age & over	Age not available	Total	Under 15 yrs. of age	15 yrs. of age & over	Total	Under 15 yrs. of age	15 yrs. of age & over
1958	5,482	600	4,763	119	7,806	1,816	5,990	70.2	33.0	79.5
1959	4,924	461	4,360	103	7,794	1,838	5,956	63.2	25.1	73.2
1960	4,699	444	4,187	68	7,782	1,859	5,923	60.4	23.9	70.7
1961	4,360	457	3,833	70	7,782	1,878	5,904	56.0	24.3	64.9
1962	4,437	421	3,926	90	7,780	1,898	5,882	57.0	22.2	66.7
1963	4,891	474	4,319	98	7,780	1,917	5,863	62.9	24.7	73.7
1964	4,207	439	3,680	88	7,840	1,936	5,904	53.7	22.7	62.3
1965	4,242	389	3,773	80	7,960	1,956	6,004	53.3	19.9	62.8
1966	3,663	355	3,246	62	8,040	1,975	6,065	45.6	18.0	53.5
1967	3,542	296	3,215	31	8,125	1,995	6,130	43.6	14.8	52.4
1968	3,224	225	2,968	31	8,110	2,014	6,096	39.8	11.2	48.7
1969	2,951	223	2,708	20	8,110	2,014	6,096	36.4	11.1	44.4

WHERE ARE THE NEW PATIENTS?

The new active tuberculosis case rate for New York City, 36.4 per 100,000 population, is a weighted average of the rates for the city's 30 health districts. The district rates range from 121.1 in Central Harlem to 8.6 in Flushing. The eight districts of Central Harlem, Lower East Side, Lower West Side, Riverside, Morrisania, Bedford, Brownsville, and Fort Greene accounted for more than half the new active cases of tuberculosis reported in 1969 (Tables 6 and 7).

Although the citywide rate is almost twice the national rate of 19.1, and three times the upstate New York rate of 13.6, the rate in Central Harlem is six times the national rate and nine times the rate of upstate New York.

Knowledge of the relative rates among New York City's boroughs and health districts assists the city's tuberculosis control program to deploy its resources in the areas of greatest need.

Throughout the city, only about 5% of the new active cases of tuberculosis were reported by private physicians. For many years, the vast majority of tuberculous patients have been found and treated through public facilities. In Queens and Richmond, however, the percentage of new cases reported by private physicians has been much higher -- double the citywide proportion in Queens, and five times the citywide proportion in Richmond. This reflects the general pattern of health care in these two boroughs (Table 8).

Table 6.

NEW ACTIVE TUBERCULOSIS CASES
BY BOROUGH AND HEALTH DISTRICT OF RESIDENCE,
NUMBERS AND RATES
New York City, 1960, 1968 and 1969

Health District	Number			Rate per 100,000		
	1960	1968	1969	1960	1968	1969
NEW YORK CITY	4,699	3,224	2,951	60.4	39.7	36.4
Manhattan	2,141	1,173	1,045	126.1	67.2	59.9
Central Harlem	581	282	280	249.6	122.1	121.2
East Harlem	168	123	107	94.5	68.0	59.1
Kips Bay-Yorkville	74	40	42	34.4	16.3	17.1
Lower East Side	562*	300*	232**	206.7	105.3	81.4
Lower West Side	325	186	151	123.7	68.4	55.5
Riverside	275	152	132	102.4	56.3	48.9
Washington Heights	156	90	101	57.9	34.5	38.7
Bronx	690	524	519	48.4	35.5	35.2
Fordham-Riverdale	48	33	32	20.7	14.2	13.7
Morrisania	198	156	171	75.4	58.6	64.3
Mott Haven	234	134	136	104.6	59.0	59.9
Pelham Bay	43	29	39	23.3	14.4	19.3
Tremont	114	91	84	43.3	34.5	31.8
Westchester	53	81	57	20.5	28.6	20.1
Brooklyn	1,359	1,080	998	51.7	41.2	38.1
Bay Ridge	58	46	38	20.0	16.4	13.6
Bedford	291	234	213	101.5	83.2	75.8
Brownsville	163	150	154	54.6	49.0	50.3
Bushwick	130	94	123	60.0	47.0	61.5
Flatbush	85	85	84	17.9	17.0	16.9
Fort Greene	213	176	152	98.9	85.8	74.1
Gravesend	66	72	61	22.3	22.0	18.7
Red Hook-Gowanus	136	70	63	83.9	45.4	40.9
Sunset Park	81	66	53	42.0	36.3	29.1
Williamsburg-Greenpoint	136	87	57	70.6	46.5	30.5
Queens	466	409	348	25.8	20.5	17.5
Astoria-Long Island City	70	53	44	27.4	21.2	17.6
Corona	70	69	66	32.1	27.4	26.2
Flushing	84	51	45	18.6	9.7	8.6
Jamaica East	121	128	99	41.2	40.0	30.9
Jamaica West	75	65	57	24.2	18.5	16.2
Maspeth-Forest Hills	46	43	37	16.3	14.7	12.6
Richmond	43	38	41	19.4	13.6	14.6

* 1960 and 1968 includes an indeterminate number of homeless men.
**1969 includes 98 homeless men.

Table 7.

NEW ACTIVE TUBERCULOSIS CASE RATES
BY HEALTH DISTRICT RANK, 1969
New York City, 1960, 1968, and 1969

Health District Ranked According to 1969 Rates	1969		1968		1960	
	Rank No.	Rate per 100,000 population	Rank No.	Rate per 100,000 population	Rank No.	Rate per 100,000 population
NEW YORK CITY		36.4		39.7		60.4
Central Harlem	1	121.1	1	122.1	1	249.6
Lower East Side	2	81.4**	2	105.3*	2	206.7*
Bedford	3	75.8	4	83.2	6	101.5
Fort Greene	4	74.1	3	85.9	7	98.9
Morrisania	5	64.3	8	58.6	10	75.4
Bushwick	6	61.5	11	47.0	12	60.0
Mott Haven	7	59.9	7	59.0	4	104.6
East Harlem	8	59.1	6	68.0	8	94.5
Lower West Side	9	55.5	5	68.4	3	123.7
Brownsville	10	50.3	10	49.0	14	54.6
Riverside	11	48.9	9	56.3	5	102.4
Red Hook-Gowanus	12	40.9	13	45.4	9	83.9
Washington Heights	13	38.7	16	34.5	13	57.9
Tremont	14	31.8	17	34.5	15	43.3
Jamaica East	15	30.9	14	40.0	17	41.2
Williamsburg-Greenpoint	16	30.5	12	46.5	11	70.6
Sunset Park	17	29.1	15	36.3	16	42.0
Corona	18	26.2	19	27.4	19	32.1
Westchester	19	20.1	18	28.6	25	20.5
Pelham Bay	20	19.3	27	14.4	22	23.3
Gravesend	21	18.7	20	22.0	23	22.3
Astoria-Long Island City	22	17.6	21	21.2	20	27.4
Kips Bay-Yorkville	23	17.1	25	16.3	18	34.4
Flatbush	24	16.9	23	17.0	29	17.9
Jamaica West	25	16.2	22	18.5	21	24.2
Richmond	26	14.6	29	13.6	27	19.4
Fordham-Riverdale	27	13.7	28	14.2	24	20.7
Bay Ridge	28	13.6	24	16.4	26	20.0
Maspeth-Forest Hills	29	12.6	26	14.7	30	16.3
Flushing	30	8.6	30	9.7	28	18.6

* 1960 and 1968 includes an indeterminate number of homeless men.
**1969 includes 98 homeless men.

Table 8.

NEWLY REPORTED CASES OF ACTIVE TUBERCULOSIS
BY SOURCE OF REPORT, NUMBERS AND PERCENTAGES OF TOTAL
NEWLY REPORTED CASES BY BOROUGH
New York City, 1969

Source of Report	New York City		Manhattan		Bronx	
	Number	Percent	Number	Percent	Number	Percent
Private Physicians	145	4.9	42	4.0	17	3.3
Municipal Chest Clinics	799	27.1	243	23.3	166	32.0
Hospitals and other-than-Municipal Chest Clinics	1,973	66.8	748	71.6	329	63.4
Other	34	1.2	12	1.1	7	1.3
Total	2,951	100.0	1,045	100.0	519	100.0

Brooklyn		Queens		Richmond		Source of Report
Number	Percent	Number	Percent	Number	Percent	
42	4.2	34	9.8	10	24.4	Private Physicians
283	28.4	97	27.9	10	24.4	Municipal Chest Clinics
667	66.8	209	60.1	20	48.8	Hospitals and other-than-Municipal Chest Clinics
6	0.6	8	2.2	1	2.4	Other
998	100.0	348	100.0	41	100.0	Total

WHAT ABOUT SOCIAL FACTORS?

Tuberculosis occurs in and is a threat to all population groups and areas of New York City. But poor socio-economic conditions facilitate the spread of tuberculous infection and breakdown with disease. The relationship between environment and disease becomes evident when tuberculosis rates are compared with population density and median income.

Each of the city's 30 health districts was rated as high, medium or low for population density and income respectively. The average new active tuberculosis case rate was then computed for groups of health districts with like population and income characteristics (Table 9). The districts with high population density and low median income had the highest tuberculosis case rates.

The Task Force on Tuberculosis in New York City recommended an aggressive attack on tuberculosis, especially in clearly identified poverty areas where the problem is concentrated. "This action," the Task Force report stated, "could go a long way toward stamping out tuberculosis in New York City before the many anti-poverty programs are able to reach their maximum effectiveness. The Task Force,..believes that substantial gains can be made now, irrespective of the presence of adverse socio-economic factors."

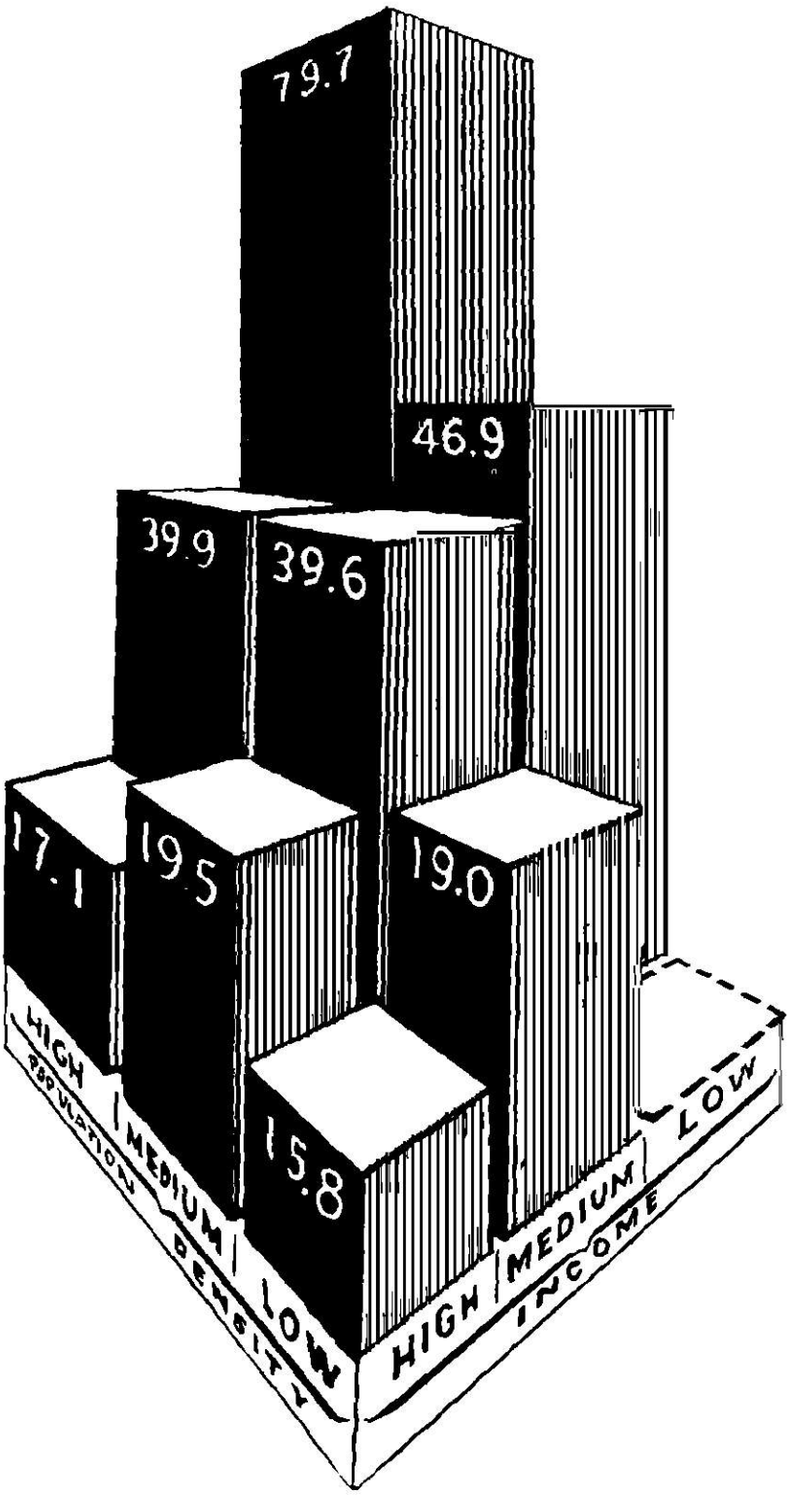
Table 9.

NEW ACTIVE TUBERCULOSIS CASE RATES IN HEALTH DISTRICTS
GROUPED BY INCOME AND POPULATION DENSITY
New York City, 1969

umber of Health istricts	Group	Population	New Active Tuberculosis Cases	Rate per 100,000 Population
6	Low Income - High Density	1,449,000	1,155	79.7
4	Low Income - Medium Density	874,000	410	46.9
0	Low Income - Low Density	- -	- -	- -
3	Medium Income - High Density	795,000	317	39.9
4	Medium Income - Medium Density	981,000	388	39.6
3	Medium Income - Low Density	735,000	140	19.0
1	High Income - High Density	245,000	42	17.1
2	High Income - Medium Density	532,000	104	19.5
7	High Income - Low Density	2,499,000	395	15.8
30	New York City - Total	8,110,000	2,951	36.4

Figure 6.

NEW ACTIVE TUBERCULOSIS CASE RATES
PER 100,000 POPULATION, IN HEALTH DISTRICTS
GROUPED BY INCOME AND POPULATION DENSITY
New York City, 1969



STAGE AND TYPE OF TUBERCULOSIS

The distribution of new active cases of pulmonary tuberculosis by extent of disease is essentially the same in 1969 as it was in 1960 (Table 10). In fact the distribution has changed very little since 1940.

The distribution of new active cases by type of disease is also essentially unchanged since 1960 (Table 11).

Table 10.

NEW ACTIVE CASES OF PULMONARY TUBERCULOSIS
AMONG PERSONS 10 YEARS OF AGE AND OVER, BY STAGE OF DISEASE
New York City, 1960, 1968 and 1969

Stage	Number			Percent		
	1960	1968	1969	1960	1968	1969
Minimal	653	389	357	16.6	14.6	14.9
Moderately Advanced	1,585	1,021	896	40.4	38.4	37.4
Far Advanced	954	663	698	24.3	25.0	29.1
Stage Not Reported	564	423	330	14.4	15.9	13.8
First Reported at Death	167	162	116	4.3	6.1	4.8
Total	3,923	2,658	2,397	100.0	100.0	100.0

Table 11.

NEW ACTIVE CASES OF TUBERCULOSIS BY TYPE OF DISEASE
New York City, 1960, 1968 and 1969

Type of Disease	Number			Percent		
	1960	1968	1969	1960	1968	1969
Pulmonary, 10 years of age and over	3,923	2,658	2,397	83.5	82.5	81.2
Pulmonary, under 10 years of age	329	174	157	7.0	5.4	5.3
Pleural Effusion	106	85	88	2.3	2.6	3.0
Meningitis	30	17	27	0.6	0.5	0.9
Miliary	41	42	29	0.9	1.3	1.0
Genito-Urinary	NA*	70	48	NA	2.2	1.6
Lymph Nodes	NA	118	134	NA	3.6	4.6
Other	270	60	71	5.7	1.9	2.4
Total	4,699	3,224	2,951	100.0	100.0	100.0

*NA - not available.

WHAT IS THE CITY'S TUBERCULOSIS WORK LOAD?

On March 31, 1970, nearly 12,000 New Yorkers were under treatment or supervision for tuberculosis. Of the 3,416 who had active disease, nearly half were under the care of clinics, while about one-third were recorded as being in hospitals. Over 8,500 required drug treatment for other-than-active tuberculosis (Table 12).

The number of hospital beds assigned to tuberculous patients has declined over 50% since 1960. The average length of stay and total number of days in the hospital for tuberculous patients have also decreased (Table 13). Although hospital beds for tuberculosis have only 75% occupancy, hospital facilities for tuberculosis care are not adequate in all respects. The need remains for more voluntary hospitals to admit tuberculous patients from the communities they serve. Now many patients must be hospitalized far from home. Mount Sinai, New York, and Roosevelt Hospitals in Manhattan, and Montefiore Hospital in the Bronx do admit tuberculous patients.

A total of 373,917 visits were made to chest clinics during 1969. Of these visits, 208,000 were for clinic services and 165,917 were for X-ray screening. The number of individuals served by these chest clinic visits was 62,698. The average number of visits per patient was 3.3 (Table 14).

Statistics show a marked shift in tuberculosis care from in-patient to outpatient service. During 1969, only 3,487 tuberculous patients were admitted to hospitals, while over 62,000 were cared for in clinics, showing a clinic-to-hospital ratio of nearly twenty to one (Tables 13 and 14). Yet hospital care continues to consume about 75% of the tuberculosis control funds.

Table 12.

28. NUMBER OF TUBERCULOUS PATIENTS ON HEALTH DISTRICT ROSTERS FOR WHOM TREATMENT IS RECOMMENDED, BY TYPE OF CARE, AS OF MARCH 31, 1970

New York City

Health District	Total	ACTIVE			
		Total	Hospital	Clinic	Private Physician
NEW YORK CITY	11,954	3,416	1,232*	1,534	196
Manhattan	4,794	1,272	572	434	61
Central Harlem	808	342	137	169	1
East Harlem	337	117	36	64	6
Kips Bay-Yorkville	94	45	12	11	16
Lower East Side (Res.)	468	144	72	57	12
Lower East Side (Homeless Men)	2,054	175	113	11	0
Lower West Side	450	221	114	44	14
Riverside	450	180	64	60	11
Washington Heights	133	48	24	18	1
Bronx	2,443	802	250	422	28
Fordham-Riverdale	186	49	9	23	6
Morrisania	661	281	103	138	1
Mott Haven	517	173	65	97	4
Pelham Bay	190	48	15	25	6
Tremont	553	174	38	98	2
Westchester	336	77	20	41	9
Brooklyn	3,591	946	285	493	51
Bay Ridge	140	21	8	6	3
Bedford	840	217	69	104	2
Brownsville	531	145	37	81	10
Bushwick	363	104	21	61	6
Flatbush	278	54	14	25	13
Fort Greene	473	150	59	72	2
Gravesend	214	58	20	28	7
Red Hook-Gowanus	268	98	34	47	3
Sunset Park	187	39	7	27	3
Wmsbrg-Greenpoint	297	60	16	42	2
Queens	971	352	101	179	43
Astoria-L.I.C.	200	59	14	37	7
Corona	223	84	24	41	9
Flushing	158	53	18	14	14
Jamaica East	119	62	20	35	3
Jamaica West	151	66	20	38	2
Maspeth-Forest Hills	120	28	5	14	8
Richmond	155	44	24	6	13

Other-Than-Active, Pulmonary Treatment Recommended					
Care Pending	Lost to Supervision	Childhood	Cavitary**	Non-Cavitary	Health District
257	197	147	1,140	7,251	NEW YORK CITY
111	94	25	281	3,216	Manhattan
27	8	5	115	346	Central Harlem
5	6	10	18	192	East Harlem
3	3	0	3	46	Kips Bay-Yorkville
3	0	7	33	284	Lower East Side (Res.)
22	29	0	13	1,866	Lower East Side (Homeless Men)
22	27	1	42	186	Lower West Side
26	19	2	43	225	Riverside
3	2	0	14	71	Washington Heights
59	43	28	225	1,388	Bronx
9	2	0	7	130	Fordham-Riverdale
21	18	15	87	278	Morrisania
3	4	7	40	297	Mott Haven
2	0	0	17	125	Pelham Bay
17	19	6	37	336	Tremont
7	0	0	37	222	Westchester
61	56	87	554	2,004	Brooklyn
4	0	0	32	87	Bay Ridge
10	32	9	153	461	Bedford
14	3	21	75	290	Brownsville
16	0	20	66	173	Bushwick
2	0	4	30	190	Flatbush
9	8	14	58	251	Fort Greene
2	1	3	20	133	Gravesend
3	11	4	21	145	Red Hook-Gowanus
1	1	4	52	92	Sunset Park
0	0	8	47	182	Wmsbrg-Greenpoint
26	3	4	76	539	Queens
1	0	0	20	121	Astoria-L.I.C.
9	1	0	4	135	Corona
5	2	1	11	93	Flushing
4	0	1	5	51	Jamaica East
6	0	1	22	62	Jamaica West
1	0	1	14	77	Maspeth-Forest Hills
0	1	3	4	104	Richmond

Table 13.

MUNICIPAL TUBERCULOSIS CARE HOSPITAL UNITS
New York City, 1960, 1968 and 1969

	1960	1968	1969
Number of Hospitals with Tuberculosis Beds	8	9	9
Tuberculosis Bed Capacity as of End of Year	2,422	1,588	1,045
Percent Occupancy	90.2%	67.5%	76.6%
Average Length of Stay (Days) for Tuberculous Patients	117.5	94.1	74.5
Number of Patient Days for Tuberculous Patients	799,695	391,111	306,187
Average Daily Tuberculous Patient Census for the Year	2,184	1,056	800
Number of Tuberculous Patient Admissions	6,760	3,849	3,487

Table 14.

SERVICE STATISTICS FOR CHEST CLINICS
UNDER SUPERVISION OF THE DEPARTMENT OF HEALTH
New York City, 1969

TOTAL VISITS:			373,917
For regular service		208,000	
For X-ray only		165,917	
NUMBER OF INDIVIDUALS GIVEN REGULAR SERVICE DURING YEAR			62,698
CASES UNDER SUPERVISION AT END OF YEAR			39,294
Pulmonary Tuberculosis in Adults:		19,495	
Active	1,393		
Quiescent	495		
Activity undetermined	286		
Inactive:	17,321		
Treatment recommended	6,219		
Treatment not recommended	11,102		
Childhood Pulmonary Tuberculosis (active and inactive)		1,302	
Nonpulmonary Tuberculosis (active and inactive)		1,750	
Nontuberculous Thoracic Conditions		3,634	
Diagnosis Pending		979	
Contacts and Associates		9,269	
Persons other than Contacts and Associates with Recent Tuberculous Infections		2,865	

A sample of the new active cases of tuberculosis reported in 1966 was followed and their status in 1969 is shown in Table 15.

After three years, 80% of the patients were living and the status of their disease was known. Ten per cent had died, half of these from tuberculosis. Nearly 10% were lost to supervision.

Table 15.

1969 STATUS OF NEW ACTIVE TUBERCULOSIS CASES REPORTED IN 1966, BY INITIAL DIAGNOSIS*
New York City

Initial Diagnosis	Status in 1966: Total Cases		Living: All Living		Living: With Active Tuberculosis		Living: With Inactive Tuberculosis	
	No.	%	No.	%	No.	%	No.	%
New Living Active	497	100.0	399	80.2	27	5.4	372	74.8
Minimal	76	100.0	64	84.2	3	3.9	61	80.3
Moderately Advanced	195	100.0	158	81.0	12	6.1	146	74.9
Far Advanced	107	100.0	85	79.5	6	5.6	79	73.9
Stage not Reported	119	100.0	92	77.3	6	5.0	86	72.3

*Based on an approximate 20% sample, stratified by health district, of all new active cases of pulmonary tuberculosis reported during calendar year 1966, exclusive of those first reported at death.

TREATMENT OF NEW CASES?

Among the patients who were known to be living and under supervision in 1969, about 93% had inactive tuberculosis. About 7% still had active disease.

Treatment was verified as successful in nearly 80% of the sample of newly reported cases of tuberculosis in 1966. It is possible that treatment was also successful among some of the patients who were lost to supervision (Table 15).

Status as of October 31, 1969

Dead										
All Deaths		With Active TB				With Inactive Tuberculosis, from Other Causes		Status Unknown		Initial Diagnosis
		From Tuberculosis		From Other Causes						
No.	%	No.	%	No.	%	No.	%	No.	%	
50	10.1	22	4.4	8	1.6	20	4.1	48	9.7	New Living Active
6	7.9	2	2.6	1	1.3	3	4.0	6	7.9	Minimal
18	9.2	8	4.1	4	2.0	6	3.1	19	9.8	Moderately Advanced
13	12.1	7	6.5	2	1.9	4	3.7	9	8.4	Far Advanced
13	10.9	5	4.2	1	0.8	7	5.9	14	11.8	Stage not Reported

DO ALL FORMER PATIENTS STAY WELL?

Not all persons stay well after treatment for tuberculosis, as evidenced by 652 former patients who were reported in 1969 as having reactivated disease. Some of these patients had received their care before anti-tuberculosis drugs were discovered. Many who reactivated were, however, treated in the era of TB chemotherapy, but had an unsuccessful result. It is presumed that some of these patients did not complete their full course of drug therapy.

Reactivated cases constituted a group about one-fifth as large as the total number of new active cases reported during 1969. This ratio varies among the health districts, ranging from 32.2% in the Lower East Side to 7.1% in Pelham Bay (Table 16).

The Health Research Council of the City of New York and the Tuberculosis and Respiratory Disease Association of New York jointly sponsored a study of reactivation of tuberculosis in New York City. The study was conducted by John Edsall, M.B., M.R.C.P., Physician-in-Charge, Chest Clinic, Harlem Hospital Center, and J. Gary Collins, M.B.A., Statistical Consultant. Their report was published in the November, 1970, issue of the AMERICAN REVIEW OF RESPIRATORY DISEASES, official journal of the American Thoracic Society. Reprints are available from the Tuberculosis and Respiratory Disease Association of New York or from the New York City Department of Health.

Table 16.

REACTIVATED TUBERCULOSIS CASES EXPRESSED AS A PERCENTAGE OF THE SUM OF NEWLY REPORTED ACTIVE AND REACTIVATED CASES BY HEALTH DISTRICT
New York City, 1969

Health District	Total	Newly Reported Active Cases	Reactivated Cases	Reactivated Cases as a Percentage of Total	Reactivated Cases as a Percentage of Newly Reported Active Cases
NEW YORK CITY	3,603	2,951	652	18.1	22
Manhattan	1,347	1,045	302	22.4	29
Central Harlem	341	280	61	17.9	22
East Harlem	133	107	26	19.5	25
Kips Bay-Yorkville	50	42	8	16.0	19
Lower East Side	342	232	110	32.2	47
Lower West Side	200	151	49	24.5	33
Riverside	162	132	30	18.5	23
Washington Heights	119	101	18	15.1	18
Bronx	586	519	67	11.4	13
Fordham-Riverdale	36	32	4	11.1	12
Morrisania	187	171	16	8.6	9
Mott Haven	162	136	26	16.0	19
Pelham Bay	42	39	3	7.1	8
Tremont	93	84	9	9.7	11
Westchester	66	57	9	13.6	16
Brooklyn	1,202	998	204	17.0	20
Bay Ridge	43	38	5	11.6	13
Bedford	274	213	61	22.3	29
Brownsville	174	154	20	11.5	13
Bushwick	134	123	11	8.2	9
Flatbush	94	84	10	10.6	12
Fort Greene	186	152	34	18.3	22
Gravesend	75	61	14	18.7	23
Red Hook-Gowanus	73	63	10	13.7	16
Sunset Park	65	53	12	18.5	23
Williamsburg-Greenpoint	84	57	27	32.1	47
Queens	419	348	71	16.9	20
Astoria-Long Is. City	60	44	16	26.7	36
Corona	81	66	15	18.5	23
Flushing	49	45	4	8.2	9
Jamaica East	121	99	22	18.2	22
Jamaica West	65	57	8	12.8	14
Maspeth-Forest Hills	43	37	6	14.0	16
Richmond	49	41	8	16.3	20

Table 17.

PATIENTS WITH REACTIVATED TUBERCULOSIS BY AGE, SEX AND ETHNIC GROUP
New York City, 1969

Sex and Ethnic Group	Total	Age Group 0-14	15-34	35-44	45-54
Total	652	5	45	163	159
Male	499	4	28	109	129
White	215	2	4	25	50
Nonwhite	224	2	18	68	64
Puerto Rican	39	0	6	13	11
Not Reported	21	0	0	3	4
Female	153	1	17	54	30
White	41	0	1	6	8
Nonwhite	76	1	13	33	15
Puerto Rican	27	0	3	13	5
Not Reported	9	0	0	2	2

55-64	65-74	75 and over	Not Reported	Sex and Ethnic Group
159	78	36	7	Total
135	65	25	4	Male
70	41	19	4	White
51	19	2	0	Nonwhite
6	1	2	0	Puerto Rican
8	4	2	0	Not Reported
24	13	11	3	Female
14	6	5	1	White
7	4	3	0	Nonwhite
2	1	2	1	Puerto Rican
1	2	1	1	Not Reported

WHO DIED OF TUBERCULOSIS?

Tuberculosis killed 418 New Yorkers in 1969.

Most of the persons who died of tuberculosis lived in areas of high tuberculosis prevalence, high population density and low income. However, deaths from tuberculosis occurred in every health district of the city in 1969, ranging from a high of 44 persons in Central Harlem to a low of two in the Westchester Health District of the Bronx (Table 18).

Table 18.

DEATHS FROM TUBERCULOSIS BY HEALTH DISTRICT
New York City, 1960, 1968 and 1969

Health District	Number of Deaths			Rate per 100,000 Population		
	1960	1968	1969	1960	1968	1969
NEW YORK CITY	795	485	418	10.2	6.0	5.2
Manhattan	388	142	128	22.8	8.1	7.3
Central Harlem	97	42	44	41.7	18.2	19.0
East Harlem	30	16	8	16.9	8.8	4.4
Kips Bay-Yorkville	19	1	5	8.8	0.4	2.0
Lower East Side	85	15	18	31.3	5.3	6.3
Lower West Side	95	30	19	36.2	11.0	7.0
Riverside	39	21	14	14.5	7.8	5.2
Washington Heights	23	17	20	8.5	6.5	7.7
Bronx	98	58	52	6.9	3.9	3.5
Fordham-Riverdale	11	8	7	4.7	3.4	3.0
Morrisania	26	14	22	9.9	5.3	8.3
Mott Haven	29	10	8	13.0	4.4	3.5
Pelham Bay	7	6	5	3.8	3.0	2.5
Tremont	19	11	8	7.2	4.2	3.0
Westchester	6	9	2	2.3	3.2	0.7
Brooklyn	209	172	142	8.0	6.6	5.4
Bay Ridge	8	9	7	2.8	3.2	2.5
Bedford	48	30	32	16.7	10.7	11.4
Brownsville	11	23	15	3.7	7.5	4.9
Bushwick	20	15	12	9.2	7.5	6.0
Flatbush	19	23	14	4.0	4.6	2.8
Fort Greene	33	26	27	15.3	12.7	13.2
Gravesend	10	13	6	3.4	4.0	1.8
Red Hook-Gowanus	17	10	10	10.5	6.5	6.5
Sunset Park	15	11	6	7.8	6.0	3.3
Williamsburg-Greenpoint	28	12	13	14.5	6.4	6.9
Queens	92	60	62	5.1	3.0	3.1
Astoria-Long Island City	14	9	9	5.5	3.6	3.6
Corona	8	8	11	3.7	3.2	4.4
Flushing	16	6	7	3.5	1.1	1.3
Jamaica East	24	13	14	8.2	4.1	4.4
Jamaica West	15	12	10	4.9	3.4	2.8
Maspeth-Forest Hills	15	12	11	5.3	4.1	3.8
Richmond	8	6	3	3.6	2.1	1.1
NON-RESIDENTS	NA*	17	12	--	--	--
RESIDENTS OF INSTITUTION	NA	8	7	--	--	--
RESIDENCE UNKNOWN	NA	22	12	--	--	--

*NA - not available.

HOW DOES NEW YORK COMPARE WITH OTHER LARGE CITIES?

New York has the largest tuberculosis problem of any American city, principally because of its large population. However, New York City's new case rate ranks 13th among the 26 cities with 500,000 or more population (Table 19).

Table 19.

NUMBERS AND RATES OF NEW ACTIVE TUBERCULOSIS CASES IN CITIES OF 500,000 OR MORE POPULATION 1969

RANK	CITY	Rate per 100,000 Population	Number of New Active Cases
1.	Baltimore	55.1	500
2.	San Francisco	48.4	342
3.	Washington	47.6	380
4.	Chicago	47.3	1,671
5.	Detroit	41.8	660
6.	Boston	41.7	275
7.	Buffalo	41.3	184
8.	Houston	41.0	493
9.	Philadelphia	40.8	850
10.	St. Louis	40.1	235
11.	Pittsburgh	37.6	200
12.	San Antonio	37.0	268
13.	NEW YORK	36.4	2,951
14.	Cleveland	34.4	278
15.	New Orleans	31.9	220
16.	Cincinnati	29.0	145
17.	Seattle	27.7	163
18.	Los Angeles	27.3	801
19.	Kansas City	25.3	129
20.	San Diego	21.7	152
21.	Dallas	21.0	180
22.	Phoenix	20.3	111
23.	Milwaukee	17.0	128
24.	Columbus, Ohio	15.9	89
25.	Minneapolis	12.3	58
26.	Denver	14.2	69

RETURN TO
MARIE DORSINVILLE

CHRISTMAS SEALS FIGHT
Tuberculosis...Emphysema...Air Pollution
IT'S A MATTER OF LIFE AND BREATH

TUBERCULOSIS AND RESPIRATORY DISEASE ASSOCIATION OF NEW YORK
15 East 26th Street
New York, N.Y. 10010