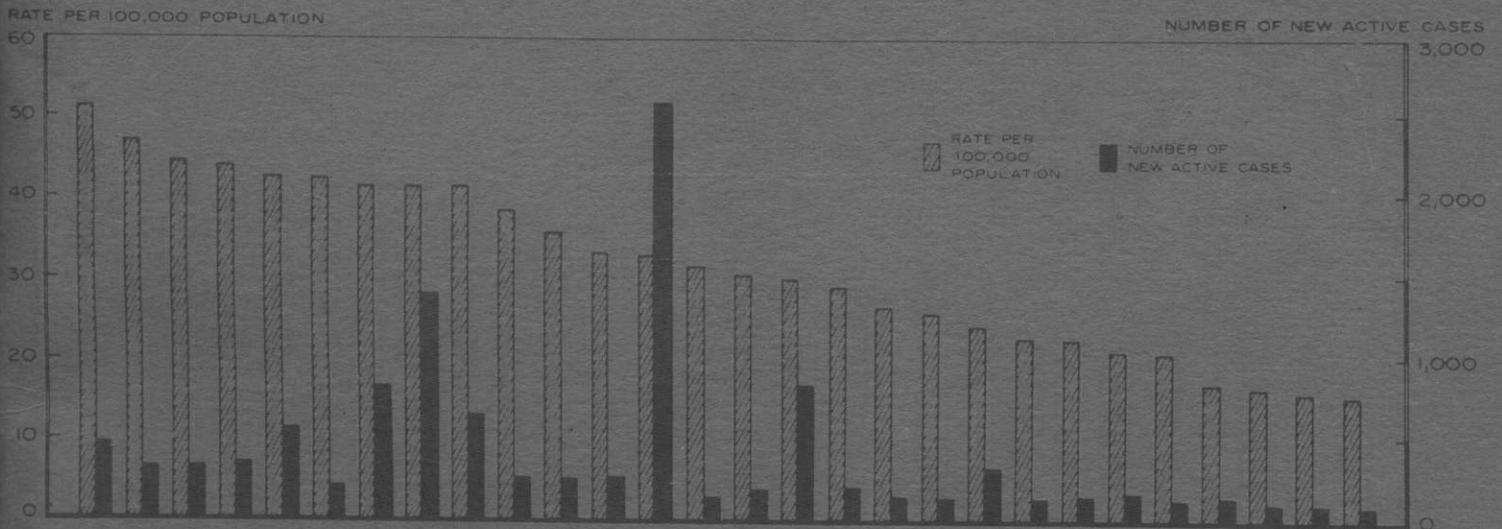


Tuberculosis in New York City 1971

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



Tuberculosis in New York City

1971

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

Acknowledgements are extended to:

Mr. J. Kirschenbaum, Principal Statistician; Mr. V. Di Fava, Assistant Statistician and Jon Jensen, Illustrator, of the Bureau of Health Statistics and Analysis, Department of Health, City of New York, for compilation and statistical organization of data.

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Notes:

1. Except for the census years 1960 and 1970, tuberculosis case rates and death rates are based on population estimates.
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 per cent of this group is black.
 - White - a person who is white and not Puerto Rican as defined above.



HEALTH SERVICES ADMINISTRATION
125 Worth Street
New York, New York 10013

October 1972

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

We are pleased to present this fourth annual review of tuberculosis in New York City.

As you will note, great progress has been made in the battle against tuberculosis. Yet these accomplishments must not obscure the fact that tuberculosis remains a serious health problem.

An estimated 1.5 million New Yorkers are currently infected with the tubercle bacillus--a fact of great concern since a majority of next year's tuberculosis patients will come from this population.

In 1971, 2,572 New Yorkers developed active tuberculosis, and 310 residents died. Both the number of cases and the rate based on population were down slightly from 1970--in a year when these statistics increased for nine major U.S. cities. Deaths in New York City also decreased during 1971.

But it is important to note that tuberculosis is nearly always a curable disease. Of the top 20 causes of death in the United States, it is the only one that is almost completely understood. We know its pathogenesis, we know how it is transmitted, and we know how to prevent the infected individual from coming down with active disease. No new discoveries are needed to prevent most of New York's cases of tuberculosis.

The prevention and cure of tuberculosis in New York City continues to be a major task, requiring the expenditure of forty million dollars of taxpayer's money each year.

But it is hoped that with the continuing implementation of the recommendations of the Mayor's 1968 Task Force on Tuberculosis in New York City, the situation will show continued improvement.

Gordon Chase, Administrator
Health Services Administration

Joseph A. Cimino, M.D., M.P.H.
Commissioner of Health

Lee B. Reichman, M.D., M.P.H.
Director
Bureau of Tuberculosis
Department of Health

SUMMARY OF THE REPORT

The continued decrease of tuberculosis case rates in New York City appears to level off in 1971. During the year, 2,572 new cases were reported, compared to 2,590 cases in 1970. In 1971 the new active case rate was 32.6 per 100,000 population, compared with 32.8 per 100,000 population in 1970.

The age group with the highest tuberculosis new case rate is that from 35 to 44. Sixty-one per cent of all new patients were over 35. The median age of new patients was highest among white and lowest among Puerto Ricans. New active cases increased in non-whites in 1971. This trend was noted nationally one year ago. An increase was also noted among children under 15.

About two-thirds of all new cases were male.

As last year, eight of the City's 30 health districts accounted for more than half the cases. As in the past, the rates were higher in areas with high population density and low income. In 1971 rates ranged from 131.8 per 100,000 population in Central Harlem to 9.3 per 100,000 population in Flushing.

An increase in new active cases was noted in Brooklyn and Queens, with the other boroughs showing declines.

The majority of new cases were reported by hospitals, with substantial numbers reported by Health Department Chest Clinics.

Analysis of the service statistics shows an accelerated trend toward out-patient care and a decline in hospitalization. Chest clinic tuberculosis records show that 50,360 individuals were served in 1971, with a total of 208,000 visits. This group included patients with active disease, their contacts and associates and others with tuberculosis infection. In-patient care was provided in municipal hospitals to 3,511 tuberculosis patients for a total of 258,949 patient days in 1971.

Tuberculosis killed 310 New Yorkers, a rate of 3.9 per 100,000 population in 1971, a sharp decline as compared with 386 and a rate of 4.9 per 100,000 in 1970. Of the 28 U.S. cities with populations of 500,000 or more, twelve surpass New York in tuberculosis rates. But New York still has the largest number of tuberculosis cases of any American city.

MAJOR TRENDS IN NEW ACTIVE CASES AND DEATHS

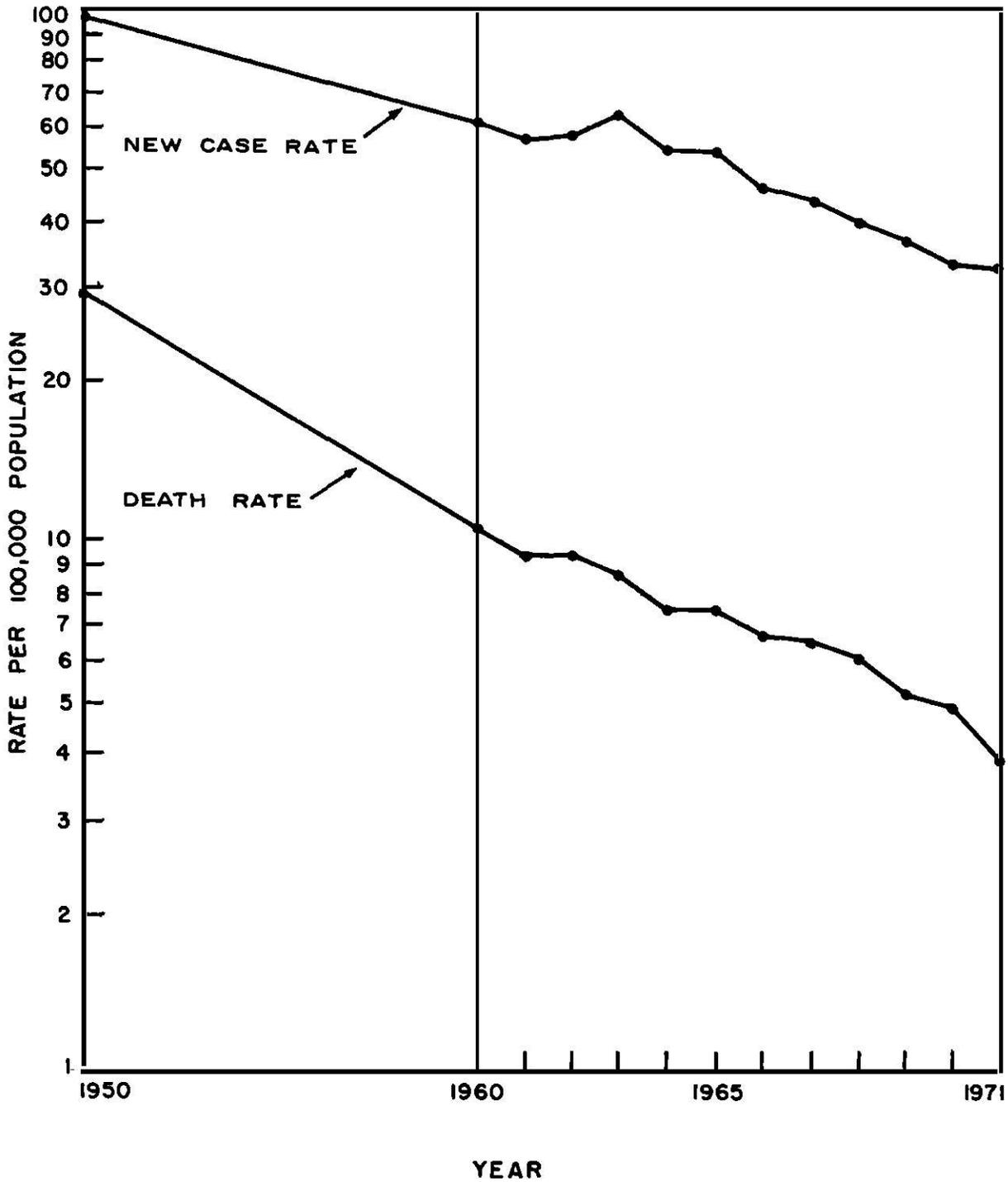
The numbers and rates of new active cases of tuberculosis and deaths from tuberculosis have declined substantially since 1960, despite minor reverses. Deaths have decreased at a more rapid rate than have new cases (Table 1, Figure 1).

Table 1
NEWLY REPORTED CASES OF ACTIVE TUBERCULOSIS AND DEATHS
DUE TO TUBERCULOSIS, NUMBERS AND RATES
NEW YORK CITY, 1950 and 1960 Through 1971

Year	New Active Cases Reported	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
1970	2,590	386	7,896	32.8	4.9
1971	2,572	310	7,896	32.6	3.9

Figure 1

RATES OF NEWLY REPORTED ACTIVE TUBERCULOSIS CASES AND DEATHS
New York City, 1950 to 1971



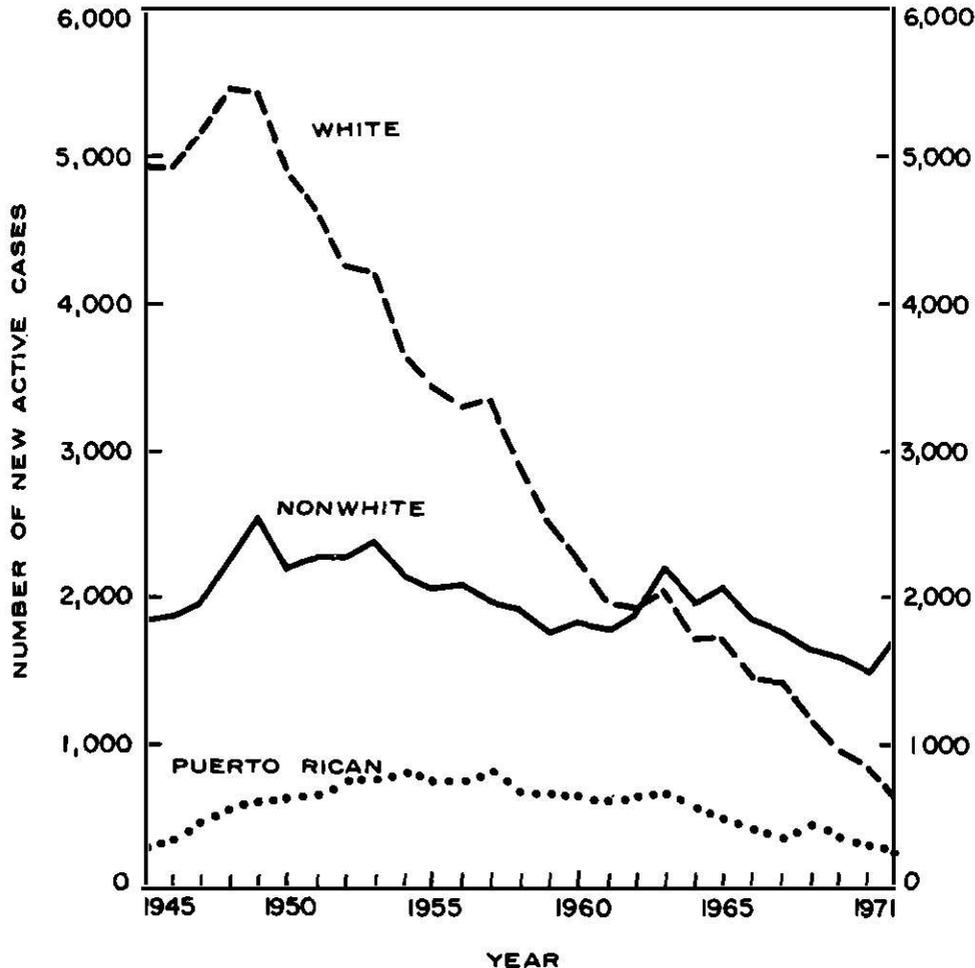
WHO ARE THE NEW PATIENTS?

ETHNIC GROUPS

Tuberculosis occurs among people of all ethnic backgrounds. 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 make-up of New York City. An ethnic analysis of tuberculosis patients over the past 26 years reflects these changes (Table 2, Figure 2). In 1945, whites represented 90 per cent of the population and accounted for 70 per cent of the new active tuberculosis cases reported. Non-whites and Puerto Ricans represented 10 per cent of the total population and accounted for 30 per cent of the new active cases of tuberculosis. In

Figure 2
ANNUAL TOTALS
OF NEWLY REPORTED ACTIVE TUBERCULOSIS CASES
BY ETHNIC GROUP AND YEAR
New York City, 1945 to 1971



1971, whites made up 67 per cent of the population and accounted for 24 per cent of the new active cases of tuberculosis. Non-whites and Puerto Ricans represented 33 per cent of the population and accounted for 76 per cent of the new cases.

However, the new active cases rates from 1945 to 1971 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 non-whites and Puerto Ricans.

An increase in the rate of tuberculosis for the non-white population group had been noted nationally in 1970 but this is the first year we have seen this phenomenon in New York City. A one year rise in new cases among certain population groups is difficult to evaluate depending upon what occurs in succeeding years. An epidemiological evaluation of the apparent rise in non-white cases is being carried out.

Figure 3

NEWLY REPORTED ACTIVE TUBERCULOSIS CASE RATES
BY ETHNIC GROUP AND YEAR
New York City, 1945 to 1971

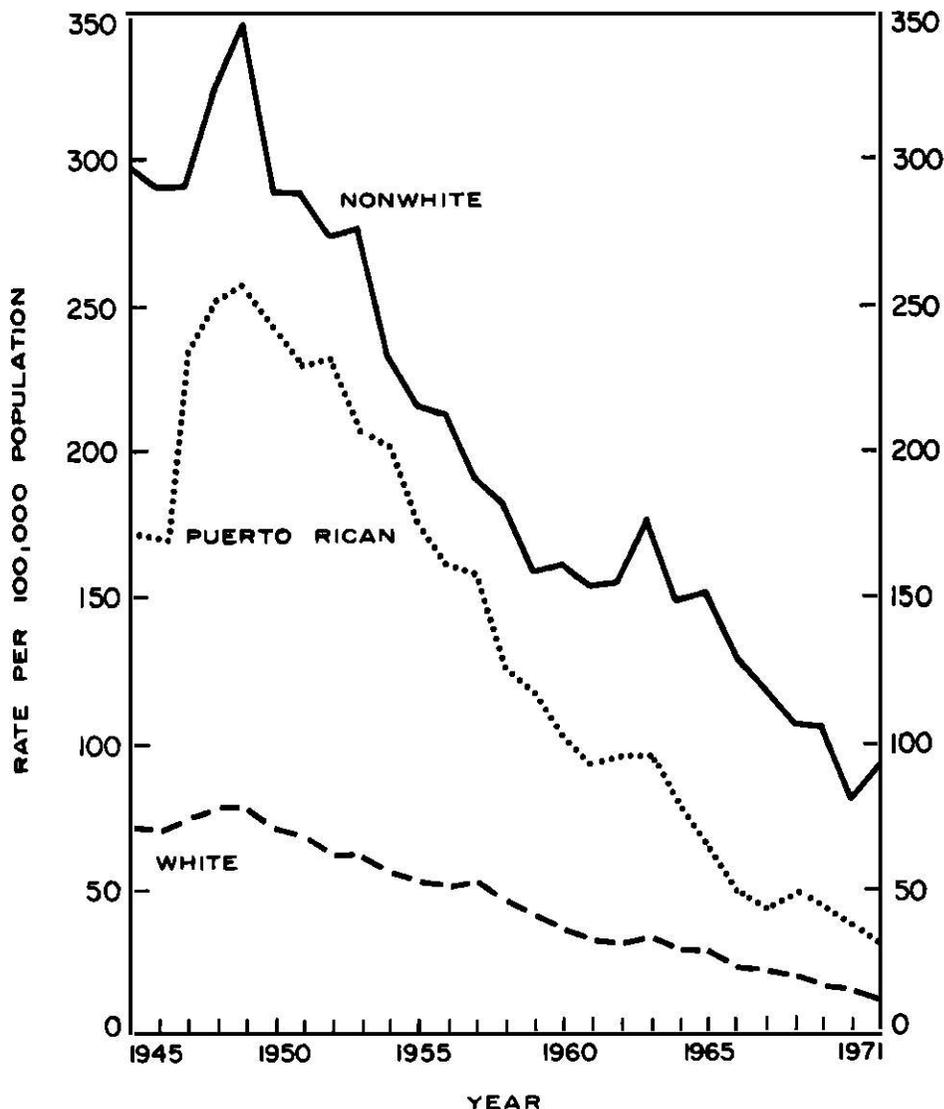


Table 2

NEWLY REPORTED CASES OF ACTIVE TUBERCULOSIS, NUMBERS AND RATES BY ETHNIC GROUP
New York City, 1945 to 1971

Year	New Active Cases*				Total
	Total	White	Non-White	Puerto Rican	
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
1970	2,590	828	1,460	302	7,896
1971	2,572	626	1,693	253	7,896

*New active cases of unknown ethnic group have been prorated according to the known ethnic distribution.

Population (in 1,000's)			Rates per 100,000				Year
White	Non-White	Puerto Rican	Total	White	Non-White	Puerto Rican	
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
5,279	1,807	810	32.8	15.7	80.8	37.3	1970
5,279	1,807	810	32.6	11.9	93.7	31.2	1971

WHO ARE THE NEW PATIENTS?AGE AND SEX GROUPS

In recent years, most patients with new active tuberculosis have been men over 35. True to this pattern, approximately 61 per cent of the new active tuberculosis cases reported in 1971 were found among people over 35, and 63 per cent of the patients were male (Table 3).

Non-white and Puerto Rican patients with new active tuberculosis were generally younger than the whites. For the white males the median age was 54, while for the non-white and Puerto Rican males it was 35 and 32, respectively. Among women, the median age was 44 for whites, 34 for non-whites and 29 for Puerto Ricans.

The numbers and rates of new active cases declined markedly between 1960 and 1971 for all age groups, despite occasional minor increases (Table 4).

Table 3

NEWLY REPORTED CASES OF ACTIVE TUBERCULOSIS,
ALL FORMS, BY AGE, SEX AND ETHNIC GROUP
NEW YORK CITY, 1971

Sex and Ethnic Group	Total	5 Year Intervals					
		0-4	5-9	10-14	15-19	20-24	25-29
Total	2,572	108	71	30	98	214	234
Male	1,645	54	34	18	43	105	139
White	439	9	2	1	6	17	20
Nonwhite	716	29	15	14	23	48	71
Puerto Rican	136	8	8	1	9	14	22
Not reported	354	8	9	2	5	26	26
Female	927	54	37	12	55	109	95
White	187	6	2	2	8	12	14
Nonwhite	433	30	23	5	33	53	36
Puerto Rican	117	10	6	3	6	22	14
Not reported	190	8	6	2	8	22	31

A major focus of the New York City tuberculosis control program continues to be on children under 15 years of age. The incidence of tuberculosis disease among these children is a good indicator of the impact of a control program. The rapid decline of tuberculosis among children under 15 (Figure 5) is a major accomplishment of New York City's tuberculosis program.

Pulmonary childhood tuberculosis rose from 122 cases in 1970 to 160 in 1971. A one year rise of this type may or may not have significance, depending upon the statistics for succeeding years, but because of the importance of this population these figures must be watched most carefully. During 1971 there was a net increase of 32 cases of all types of tuberculosis among children under 15 years of age. This figure reflects an increase in pulmonary tuberculosis, and a decrease in non-pulmonary categories.

AGE GROUPS							
30-34	10 Year Intervals				65 & Over	Not Reported	Sex and Ethnic Group
	35-44	45-54	55-64				
238	488	448	328	315	0	Total	
146	316	317	255	218	0	Male	
28	64	85	101	106	0	White	
74	162	135	87	58	0	Nonwhite	
12	19	25	10	8	0	Puerto Rican	
32	71	72	57	46	0	Not reported	
92	172	131	73	97	0	Female	
14	27	27	25	50	0	White	
49	86	71	26	21	0	Nonwhite	
7	18	10	6	15	0	Puerto Rican	
22	41	23	16	11	0	Not reported	

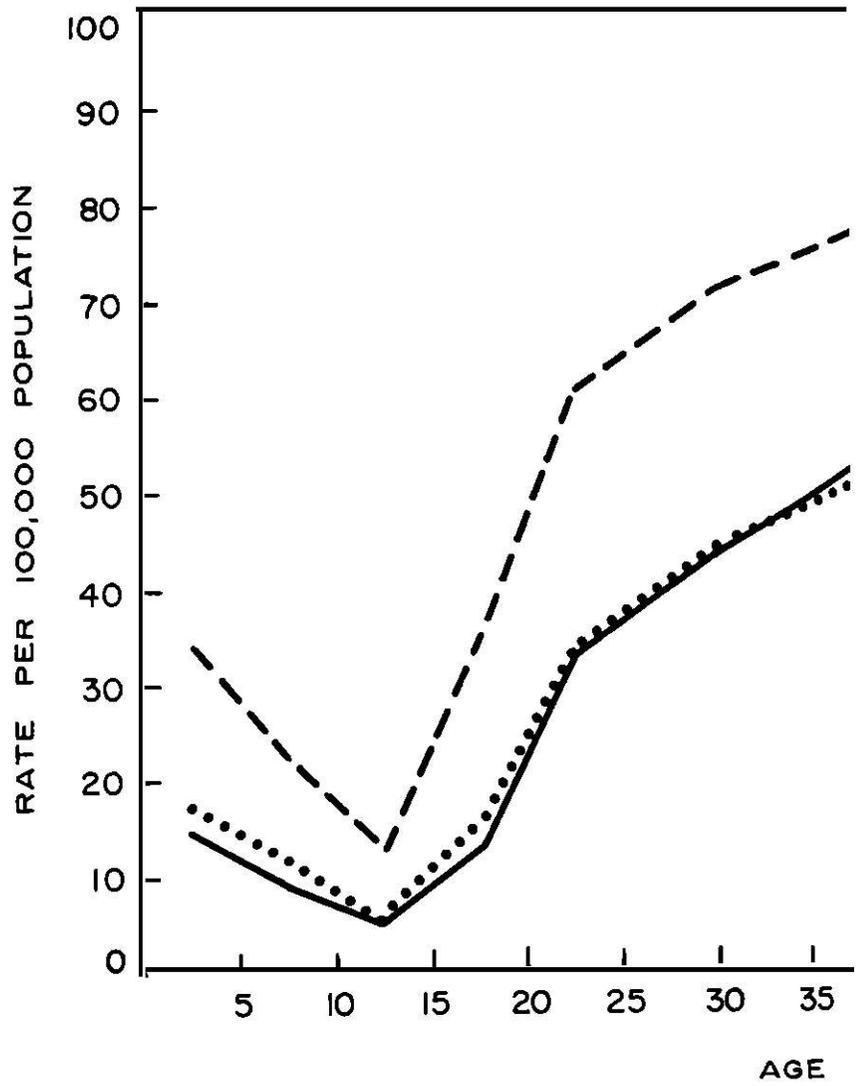
Table 4

NEWLY REPORTED ACTIVE TUBERCULOSIS CASES AND CASE RATES BY AGE GROUP
New York City, 1960, 1970 and 1971

Age Group	1960		New Cases Reported
	New Cases Reported	Rates per 100,000 Population	
0-4	234	34.1	87
5-9	133	22.3	59
10-14	77	13.4	31
15-19	172	35.3	78
20-24	294	60.9	211
25-34	756	71.6	458
35-44	840	78.4	500
45-54	766	70.6	430
55-64	688	74.1	341
65 and over	671	82.4	385
Not reported	68	-	10
Total	4,699	60.4	2,590

1970		1971		Age Group
Rates per 100,000 Population	New Cases Reported	Rates per 100,000 Population		
14.2	108	17.5		0-4
9.4	70	11.1		5-9
5.0	31	5.0		10-14
13.0	98	16.3		15-19
32.5	214	32.9		20-24
42.8	472	43.9		25-34
54.8	488	53.3		35-44
45.9	448	47.6		45-54
38.5	328	36.8		55-64
40.8	315	33.2		65 and over
-	-	-		Not reported
32.8	2,572	32.6		Total

Figure 4
NEWLY REPORTED ACTIVE TUBERCULOSIS CASE RATES BY AGE
New York City, 1960, 1970 and 1971



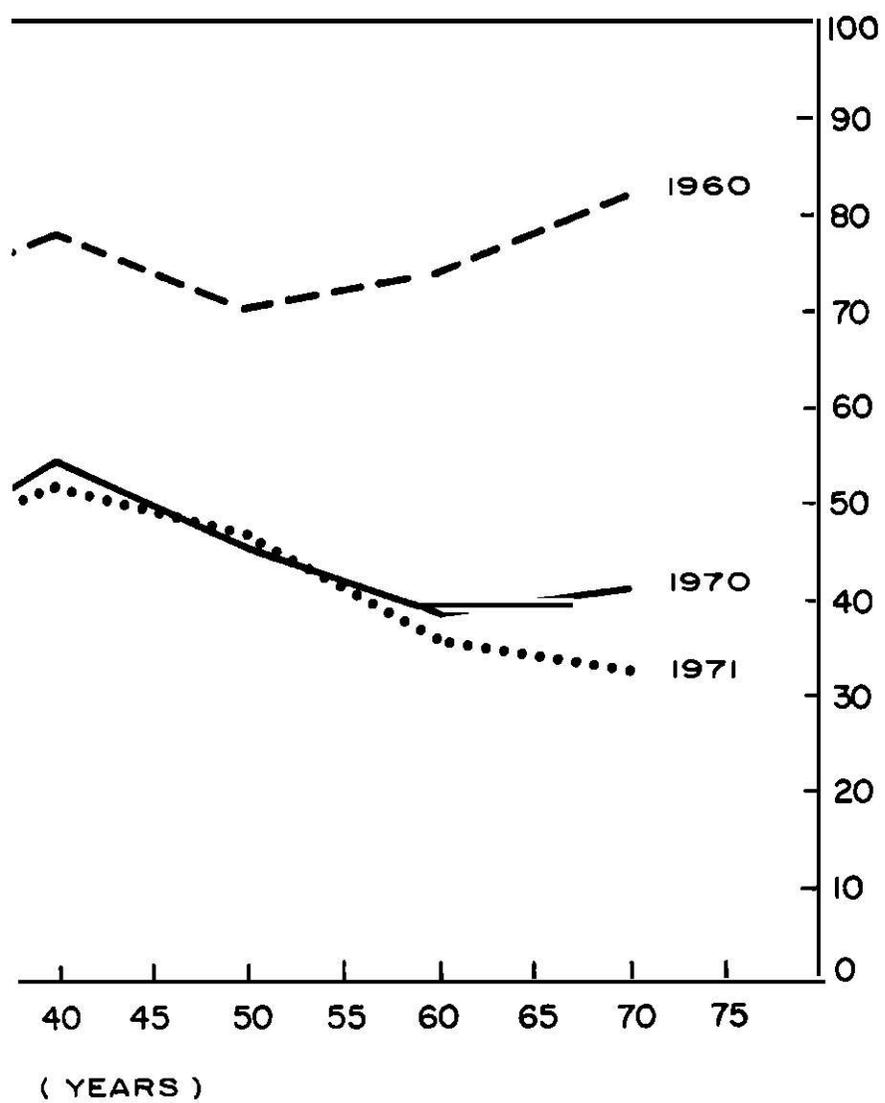


Figure 5

NEWLY REPORTED ACTIVE TUBERCULOSIS CASE RATES BY AGE
 UNDER 15 AND 15 AND OVER
 New York City, 1958 to 1971

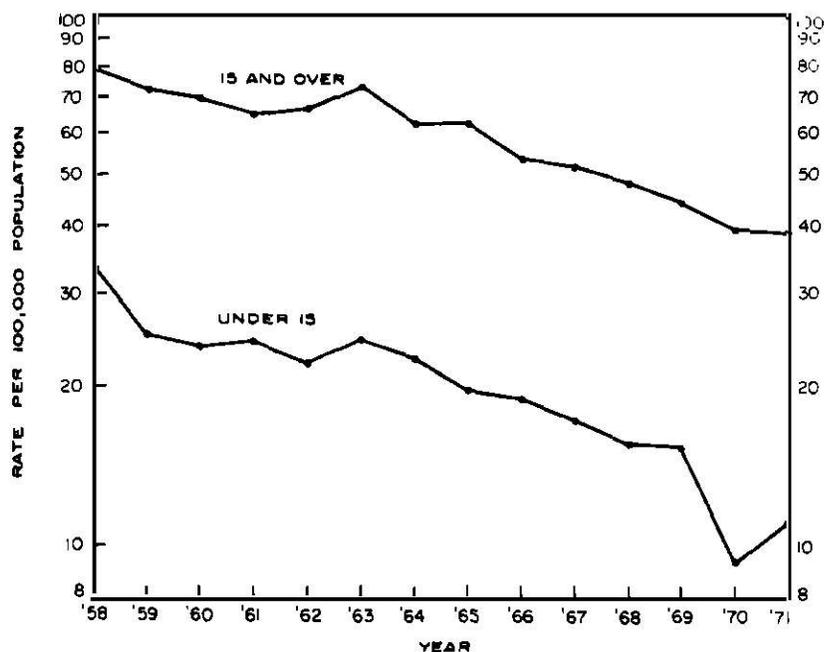


Table 5

NEWLY REPORTED ACTIVE TUBERCULOSIS CASES BY AGE: UNDER 15 AND 15 AND OVER,
 NUMBERS AND RATES
 New York City, 1958 - 1971

Year	Number of New Active Cases reported				Population in thousands			Rate per 100,000 population		
	Total	Under 15 yrs. of age	15 yrs. of age & over	Not Reported	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
1970	2,590	177	2,403	10	7,896	1,872	6,024	32.8	9.4	39.9
1971	2,572	209	2,363	0	7,896	1,872	6,024	32.6	11.2	39.2

WHERE ARE THE NEW PATIENTS?

Knowledge of the relative tuberculosis rates in New York City's boroughs and health districts enables the City's tuberculosis control program to concentrate its resources in the areas of greatest need. For this reason, Tables 6 and 7 are among the most valuable analyses provided by this report.

The new active tuberculosis case rate for New York City, 32.6 per 100,000 population, is a weighted average of the rates for the City's 30 health districts. These district rates range from Central Harlem's 131.8 per 100,000 to Flushing's 9.3 per 100,000. The districts of Central Harlem, Lower East Side, Bedford, Brownsville, Fort Greene, Morrisania, Bushwick and Lower West Side, with a total of 1,315 new active cases, account for 51 per cent of the new active case reports in the entire city in 1971. The number of new active cases in Brooklyn and Queens rose 12 per cent and 15 per cent, respectively. A rise in the number of new active cases was noted in 11 of the 16 health districts in those two boroughs. The reason for these increases is not entirely clear; however population shifts may well play a role. An investigation of the significance of this rise is underway.

Underscoring the above figures is the fact that the City-wide rate of 32.6 per 100,000 population is nearly twice the national rate (17.1 per 100,000 population) and three times the upstate New York rate (11.2 per 100,000 population). The rate in Central Harlem (131.8 per 100,000 population) is eight times the national rate and twelve times the upstate rate. It is obvious that such high incidence areas must and do have top priority in tuberculosis control activities.

NEW ACTIVE TUBERCULOSIS CASES REPORTED
BY BOROUGH AND HEALTH DISTRICT OF RESIDENCE
NUMBERS AND RATES
New York City, 1960, 1970 and 1971

Health District	Number			Rate per 100,000 pop.		
	1960	1970	1971	1960	1970	1971
New York City	4,669	2,590	2,572	60.0	32.8	32.6
Manhattan	2,141	957	884	126.1	62.2	57.4
Central Harlem	581	247	241	249.6	135.1	131.8
East Harlem	168	78	71	94.5	49.7	45.2
Kips Bay-Yorkville	74	30	30	34.4	13.1	13.1
Lower East Side	562*	225*	208*	206.7	90.2	83.4
Lower West Side	325	141	124	123.7	55.6	48.9
Riverside	275	128	122	102.4	58.1	55.4
Washington Heights	156	108	88	57.9	43.6	35.6
Bronx	690	510	426	48.4	34.6	28.9
Fordham-Riverdale	48	33	25	20.7	13.6	10.3
Morrisania	198	153	139	75.4	58.4	53.1
Mott Haven	234	129	111	104.6	60.7	52.2
Pelham Bay	43	32	32	23.3	15.5	15.5
Tremont	114	118	85	43.3	45.6	32.8
Westchester	53	45	34	20.5	15.6	11.8
Brooklyn	1,359	796	894	51.7	30.6	34.4
Bay Ridge	58	23	27	20.0	8.4	9.9
Bedford	291	207	200	101.5	74.9	72.4
Brownsville	163	140	144	54.6	43.9	45.2
Bushwick	130	78	128	60.0	33.9	55.7
Flatbush	85	60	72	17.9	12.3	14.7
Fort Greene	213	109	131	98.9	54.8	65.8
Gravesend	66	40	35	22.3	12.7	11.1
Red Hook-Gowanus	136	55	46	83.9	39.0	32.6
Sunset Park	81	38	40	42.0	20.6	21.7
Williamsburg-Greenpoint	136	46	71	70.6	26.2	40.4
Queens	466	287	330	25.8	14.4	16.6
Astoria-Long Island City	70	32	62	27.4	12.8	24.8
Corona	70	62	60	32.1	24.2	23.5
Flushing	84	35	45	18.6	7.2	9.3
Jamaica East	121	82	97	41.4	23.8	28.2
Jamaica West	75	50	38	24.3	13.9	10.6
Maspeth-Forest Hills	46	26	28	16.3	8.8	9.5
Richmond	43	40	38	19.4	13.5	12.9

* 1960 includes an undetermined number of homeless men, 1970 includes 102 homeless men, and 1971 includes 89 homeless men.

Table 7

NEW ACTIVE TUBERCULOSIS CASE RATES
 BY HEALTH DISTRICT RANK, 1971
 New York City, 1960, 1970 and 1971

Health District Ranked According to 1971 Rates	1971		1970		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		32.6		32.8		60.0
Central Harlem	1	131.8	1	135.1	1	249.6
Lower East Side	2	83.4*	2	90.2*	2	206.7*
Bedford	3	72.4	3	74.9	6	101.5
Fort Greene	4	65.8	8	54.8	7	98.9
Bushwick	5	55.7	14	33.9	12	60.0
Riverside	6	55.4	6	58.1	5	102.4
Morrisania	7	53.1	5	58.4	10	75.4
Mott Haven	8	52.2	4	60.7	4	104.6
Lower West Side	9	48.9	7	55.6	3	123.7
East Harlem	10	45.2	9	49.7	8	94.5
Brownsville	11	45.2	11	43.9	14	54.6
Williamsburg-Greenpoint	12	40.4	15	26.2	11	70.6
Washington Heights	13	35.6	12	43.6	13	57.9
Tremont	14	32.8	10	45.6	15	43.3
Red Hook-Gowanus	15	32.6	13	39.0	9	83.9
Jamaica East	16	28.2	17	23.8	17	41.2
Astoria-Long Island City	17	24.8	25	12.8	20	27.4
Corona	18	23.5	16	24.2	19	32.1
Sunset Park	19	21.7	18	20.6	16	42.0
Pelham Bay	20	15.5	20	15.5	22	23.3
Flatbush	21	14.7	27	12.3	29	17.9
Kips Bay-Yorkville	22	13.1	24	13.1	18	34.4
Richmond	23	12.9	23	13.5	27	19.4
Westchester	24	11.8	19	15.6	25	20.5
Gravesend	25	11.1	26	12.7	23	22.3
Jamaica West	26	10.6	21	13.9	21	24.2
Fordham-Riverdale	27	10.3	22	13.6	24	20.7
Bay Ridge	28	9.9	29	8.4	26	20.0
Maspeth-Forest Hills	29	9.5	28	8.8	30	16.3
Flushing	30	9.3	30	7.2	28	18.6

* 1960 includes an indeterminate number of homeless men, 1970 includes 102 homeless men, and 1971 includes 89 homeless men.

STAGE AND TYPE OF TUBERCULOSIS

The distribution of new active cases of pulmonary tuberculosis by extent of disease is essentially the same in 1971 as it was in 1960 (Table 8): 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 9).

Table 8

NEWLY REPORTED ACTIVE CASES OF PULMONARY TUBERCULOSIS
AMONG PERSONS 10 YEARS OF AGE AND OVER, BY STAGE OF DISEASE
NEW YORK CITY, 1960, 1970 AND 1971

Stage	Number			Percent		
	1960	1970	1971	1960	1970	1971
Minimal	653	313	327	16.6	15.1	16.0
Moderately Advanced	1,585	803	843	40.4	38.8	41.2
Far Advanced	954	604	549	24.3	29.1	26.8
Extent Not Reported	564	230	217	14.4	11.1	10.6
First Reported at Death	167	123	112	4.3	5.9	5.5
Total	3,923	2,073	2,048	100.0	100.0	100.0

Table 9

NEWLY REPORTED ACTIVE CASES OF TUBERCULOSIS BY TYPE OF DISEASE
New York City, 1960, 1970 and 1971

Type of Disease	Number			Percent		
	1960	1970	1971	1960	1970	1971
Pulmonary, 10 years of age and over	3,923	2,073	2,048	83.5	80.0	79.6
Pulmonary, under 10 years of age	329	122	160	7.0	4.7	6.2
Pleural effusion	106	74	81	2.3	2.9	3.2
Meningitis	30	27	16	0.6	1.0	0.6
Miliary	41	63	48	0.9	2.5	1.9
Genito-Urinary	NA*	58	43	NA*	2.2	1.7
Lymph Nodes	NA*	115	114	NA*	4.5	4.4
Other	270	58	62	5.7	2.2	2.4
Total	4,699	2,590	2,572	100.0	100.0	100.0

* NA - Not Available

WHAT IS THE CITY'S TUBERCULOSIS WORK LOAD?

On March 31, 1972, nearly 10,000 New Yorkers were receiving drug treatment for tuberculosis and an additional 6,600 infected individuals were known to be receiving preventive drug therapy. Of 3,057 individuals who had active disease, it is noted that nearly half were under the care of out-patient facilities while about one-third were reported as being in hospitals (Table 10).

The number of hospital beds assigned to tuberculosis patients has declined over 60 per cent since 1960. The average length of stay and total number of days in the hospital for tuberculosis patients have also decreased as have the number of tuberculosis patient admissions (Table 11). The occupancy rate of hospital beds for tuberculosis is 84 per cent.

Hospital care of tuberculosis is not adequate in all respects: 1) patients are often hospitalized some distance from their neighborhoods; 2) many voluntary general hospitals will not admit tuberculosis patients; and 3) third-party payments are often restrictive in their coverage of tuberculosis.

Some voluntary hospitals are now admitting tuberculosis patients: Beth Israel, Brookdale, Columbus, Misericordia, New York and Roosevelt are the few that now provide this basic service. It is hoped that all general voluntary facilities will accept their responsibility to their communities and provide the care tuberculosis patients require in their neighborhoods. It now appears for the first time that Blue Cross will lift some of its restrictions on payment for hospitalization of tuberculosis patients. Perhaps when these restrictions are lifted, more voluntary hospitals will accept tuberculosis patients.

In 1971 Department of Health chest clinics provided care to 50,360 patients resulting in 208,007 patient visits. In addition, these chest clinics provided 152,913 individuals with screening X-rays. Despite the continuing downward trend of tuberculosis incidence and infection, patient visit data reflects an increase over the number of patient visits reported in prior years. This is the result of increasing preventive treatment programs and the closer supervision of patients under drug therapy. At the end of 1971, 25,045 patients were under the supervision of Department of Health chest clinics (Table 12).

Statistics reflect a shift in tuberculosis care from inpatient to outpatient services. During 1971, 3,511 tuberculosis patients were admitted to hospitals while 50,360 were cared for in clinics, showing a clinic-to-hospital ratio of nearly 14 to 1. Hospital costs for tuberculosis patients, based on a patient-day cost of \$124, totaled approximately \$32,000,000 in 1971. This amounts to 80 per cent of the entire \$40,000,000 expenditure for tuberculosis control in that year.

Throughout the city only about four per cent of the new active cases of tuberculosis were reported by private physicians. For many years the vast majority of tuberculosis 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 (Table 13).

Table 10

CENSUS OF CASES OF TUBERCULOSIS ON HEALTH DISTRICT ROSTERS
AS OF MARCH 31, 1972 BY TYPE OF CURRENT CARE

Health District	TOTAL		ACTIVE		
		Total Active	Hospital or institution	Clinic supervision	Private Physician
NEW YORK CITY	9,881	3,057	929*	1,607	149
Manhattan	3,691	1,099	422	481	31
Central Harlem	744	298	86	162	0
East Harlem	254	83	45	27	3
Kips Bay-Yorkville	84	39	16	12	8
Lower East Side (Res.)	471	125	41	74	6
Lower East Side (Homeless Men)	936	149	111	23	0
Lower West Side	436	132	52	37	4
Riverside	415	178	53	82	8
Washington Heights	351	95	18	64	2
Bronx	2,061	653	133	417	12
Fordham-Riverdale	168	54	7	33	5
Morrisania	565	199	27	152	0
Mott Haven	445	138	38	88	3
Pelham Bay	153	46	14	22	1
Tremont	516	172	32	101	0
Westchester	214	44	15	21	3
Brooklyn	2,809	908	228	533	57
Bay Ridge	109	30	6	18	4
Bedford	625	222	58	140	0
Brownsville	372	137	42	72	5
Bushwick	370	134	28	87	1
Flatbush	261	73	17	34	18
Fort Greene	318	110	40	54	5
Gravesend	172	51	6	38	5
Red Hook-Gowanus	193	55	13	37	2
Sunset Park	175	29	5	14	5
Wmsbrg.-Greenpoint	214	67	13	39	12
Queens	1,206	374	132	171	47
Astoria-L.I. City	212	54	10	36	6
Corona	205	54	17	29	7
Flushing	135	46	17	13	11
Jamaica East	334	121	51	54	7
Jamaica West	203	65	25	25	8
Maspeth-Forest Hills	117	34	12	14	8
Richmond	114	23	14	5	2

* Includes approximately 200 people probably under clinic supervision; discrepancy is due to lag in reporting hospital discharges.

INACTIVE PULMONARY
TREATMENT RECOMMENDED

Care pending	Lost to Supervision	Total quiescent	TREATMENT RECOMMENDED			
			Childhood	Cavitary	Non-cavitary	Miliary
243	129	541	101	497	5,634	51
102	63	136	26	143	2,224	13
35	15	72	9	53	303	9
5	3	11	8	4	148	0
3	0	2	0	1	42	0
4	0	2	2	10	332	0
14	1	17	0	4	766	0
13	26	22	1	37	244	0
19	16	41	3	18	173	2
9	2	19	3	16	216	2
67	24	80	18	119	1,176	15
7	2	3	0	4	107	0
11	9	28	9	50	272	7
9	0	22	3	13	269	0
7	2	2	1	10	94	0
30	9	17	4	25	292	6
3	2	8	1	17	142	2
63	27	203	38	162	1,476	22
2	0	5	0	19	55	0
18	6	43	7	22	324	7
11	7	9	9	8	202	7
17	1	51	10	23	149	3
2	2	11	3	15	158	1
5	6	29	2	19	156	2
1	1	9	1	9	102	0
1	2	12	0	10	116	0
3	2	18	5	33	89	1
3	0	16	1	4	125	1
10	14	66	19	70	676	1
2	0	16	0	13	129	0
1	0	7	0	5	139	0
5	0	3	0	8	78	0
2	7	19	14	18	162	0
0	7	15	5	7	110	1
0	0	6	0	19	58	0
1	1	6	0	3	82	0

Table 11
 MUNICIPAL TUBERCULOSIS CARE HOSPITAL UNITS
 New York City, 1960, 1970 and 1971

	1960	1970	1971
Number of Hospitals with Tuberculosis beds	8	9	9
Tuberculosis Bed Complement as of End of Year	2,422	975	844
Percent Occupancy	90%	77%	84%
Average Length of Stay (Days) for Tuberculosis Patients	117	87	89
Number of Patient Days for Tuberculosis Patients	799,695	271,313	258,949
Average Daily Tuberculosis Patient Census for the Year	2,184	747	709
Number of Tuberculosis Patient Admissions	6,760	3,817	3,511

Table 12

CASES UNDER SUPERVISION AT END OF YEAR
CHEST CLINICS OF THE DEPARTMENT OF HEALTH
NEW YORK CITY, 1971

		Total Cases
Pulmonary Tuberculosis (Child and Adult)		
Active	1,201	
Quiescent	565	
Activity Undetermined	<u>238</u>	
TOTAL	2,004	2,004
Inactive Adult Pulmonary Tuberculosis		
Chemotherapy recommended	4,542	
Chemotherapy completed	4,341	
Never on Chemotherapy	<u>698</u>	
TOTAL	9,581	9,581
Inactive Childhood Pulmonary and Hilar Node		666
Non-Pulmonary Tuberculosis		
Active	296	
Inactive	<u>411</u>	
TOTAL	707	707
Non-Tuberculosis Thoracic Conditions		2,000
Diagnosis Pending		483
Contacts and Associates		
Tuberculin negative	2,616	
Tuberculin positive	<u>3,065</u>	
TOTAL	5,681	5,681
Persons other than Contacts and Associates with recent tuberculosis infection		3,747
Other patients with diagnoses not elsewhere classified		178
		<u><u> </u></u>
TOTAL CASES UNDER SUPERVISION AT END OF YEAR		25,047

Table 13

NEWLY REPORTED CASES OF ACTIVE TUBERCULOSIS
 BY SOURCE OF REPORT, NUMBERS AND PERCENTAGES OF TOTAL
 NEWLY REPORTED CASES BY BOROUGH
 New York City, 1971

Source of Report	New York City		Manhattan		Bronx	
	Number	Percent	Number	Percent	Number	Percent
Private Physicians	99	3.8	22	2.5	7	1.6
Health Department Chest Clinics	760	29.6	222	25.1	160	37.1
Hospitals and Non-Health Department Chest Clinics	1,691	65.8	631	71.4	254	59.6
Other	22	0.8	9	1.0	5	1.2
Total	2,572	100.0	884	100.0	426	100.0

Brooklyn		Queens		Richmond		Source of Report
Number	Percent	Number	Percent	Number	Percent	
36	4.0	26	7.9	8	21.0	Private Physicians
280	31.3	91	27.6	7	18.4	Health Department Chest Clinics
573	64.1	210	63.6	23	60.6	Hospitals and Non-Health Department Chest Clinics
5	0.6	3	0.9	0	-	Other
894	100.0	330	100.0	38	100.0	Total

DO ALL FORMER PATIENTS STAY WELL?

Not all persons stay well after treatment for tuberculosis, as evidenced by 485 former patients who were reported in 1971 as having reactivated disease. Some of these patients had received their care before anti-tuberculosis drugs were discovered, others had received drugs, but their disease reactivated probably as a result of not having taken the drugs faithfully.

Table 14

PATIENTS WITH REACTIVATED TUBERCULOSIS BY AGE, SEX AND ETHNIC GROUP
New York City, 1971

Sex and Ethnic Group	Total	Age Group			
		0-14	15-34	35-44	45-54
Total	485	5	83	109	124
Male	367	3	46	82	101
White	136	1	8	20	29
Nonwhite	185	2	29	50	61
Puerto Rican	23	0	7	6	5
Not Reported	23	0	2	6	6
Female	118	2	37	27	23
White	26	0	4	5	6
Nonwhite	73	1	29	18	14
Puerto Rican	13	0	2	3	3
Not Reported	6	1	2	1	0

Reactivated cases constituted a group about one-sixth as large as the total number of new active cases reported during 1971. This ratio varies among the health districts, ranging from 26 per cent in the Lower East Side to 3 per cent in Pelham Bay (Tables 14 and 15).

The number of reactivated cases reported in 1971 (485) is approximately the same as that reported for 1970 (476).

55-64	65-74	75 and over	Not Reported	Sex and Ethnic Group
82	49	33	0	Total
68	41	26	0	Male
32	28	18	0	White
29	8	6	0	Nonwhite
3	2	0	0	Puerto Rican
4	3	2	0	Not Reported
14	8	7	0	Female
5	3	3	0	White
6	3	2	0	Nonwhite
1	2	2	0	Puerto Rican
2	0	0	0	Not Reported

Table 15

REACTIVATED TUBERCULOSIS CASES AND NEWLY REPORTED ACTIVE CASES
BY HEALTH DISTRICT - NEW YORK CITY, 1971

Health District	Total	Newly Reported Active Cases	Reactivated Cases Identified
NEW YORK CITY	3,057	2,572	485
Manhattan	1,102	884	218
Central Harlem	289	241	48
East Harlem	84	71	13
Kips Bay-Yorkville	35	30	5
Lower East Side	281	208	73
Lower West Side	161	124	37
Riverside	146	122	24
Washington Heights	106	88	18
Bronx	488	426	62
Fordham-Riverdale	31	25	6
Morrisania	156	139	17
Mott Haven	127	111	16
Pelham Bay	35	32	3
Tremont	96	85	11
Westchester	43	34	9
Brooklyn	1,053	894	159
Bay Ridge	30	27	3
Bedford	251	200	51
Brownsville	179	144	35
Bushwick	139	128	11
Flatbush	80	72	8
Fort Greene	158	131	27
Gravesend	38	35	3
Red Hook-Gowanus	57	46	11
Sunset Park	42	40	2
Williamsburg-Greenpoint	79	71	8
Queens	370	330	40
Astoria-L.I. City	70	62	8
Corona	66	60	6
Flushing	49	45	4
Jamaica East	105	97	8
Jamaica West	46	38	8
Maspeth-Forest Hills	34	28	6
Richmond	44	38	6

WHO DIED OF TUBERCULOSIS?

Tuberculosis deaths declined more than usual during 1971, dropping from 386 to 310. This decrease of 76 deaths, or 20 per cent during 1971, was approximately four times the average annual decline between 1960 and 1970 (5 per cent) (Table 16).

However, tuberculosis deaths occurred in every health district of the city with the exception of the Kips Bay Health District in Manhattan. The Central Harlem Health District had the largest number of deaths (35) of any district in the City.

Most of the persons who died of tuberculosis lived in areas of high tuberculosis prevalence, high population density and low income. While some persons who died of tuberculosis had not sought medical attention, others died with drug resistant organisms or as the result of heavy lung damage which had occurred prior to the diagnosis of their disease.

Table 16

DEATHS FROM TUBERCULOSIS BY HEALTH DISTRICT
New York City, 1960, 1970 and 1971

Health District	Number of Deaths			Rates per 100,000 pop.		
	1960	1970	1971	1960	1970	1971
NEW YORK CITY	795	386	310	10.2	4.9	3.9
Manhattan	388	118	92	22.8	7.7	6.0
Central Harlem	97	41	35	41.7	22.4	19.1
East Harlem	30	10	5	16.9	6.4	3.2
Kips Bay-Yorkville	19	11	0	8.8	4.8	-
Lower East Side	85	14	15	31.3	5.6	6.0
Lower West Side	95	19	16	36.2	7.5	6.3
Riverside	39	14	7	14.5	6.4	3.2
Washington Heights	23	9	14	8.5	3.6	5.7
Bronx	98	67	36	6.9	4.6	2.4
Fordham-Riverdale	11	9	5	4.7	3.7	2.0
Morrisania	26	22	11	9.9	8.4	4.2
Mott Haven	29	11	6	13.0	5.2	2.8
Pelham Bay	7	2	2	3.8	1.0	1.0
Tremont	19	16	8	7.2	6.2	3.1
Westchester	6	7	4	2.3	2.4	1.4
Brooklyn	209	126	126	8.0	4.8	4.8
Bayridge	8	8	7	2.8	2.9	2.6
Bedford	48	32	30	16.7	11.6	10.9
Brownsville	11	12	20	3.7	3.8	6.3
Bushwick	20	5	10	9.2	2.2	4.3
Flatbush	19	11	12	4.0	2.2	2.4
Fort Greene	33	19	26	15.3	9.5	13.1
Gravesend	10	11	4	3.4	3.4	1.3
Red Hook-Gowanus	17	11	5	10.5	7.8	3.5
Sunset Park	15	5	6	7.8	2.7	3.2
Williamsburg-Greenpoint	28	12	6	14.5	6.8	3.4
Queens	92	49	29	5.1	2.5	1.4
Astoria-Long Island City	14	6	4	5.5	2.4	1.6
Corona	8	7	3	3.7	2.7	1.2
Flushing	16	11	4	3.5	2.3	0.8
Jamaica East	24	15	10	8.2	4.4	2.9
Jamaica West	15	3	5	4.9	0.8	1.4
Maspeth-Forest Hills	15	7	3	5.3	2.4	1.0
Richmond	8	6	7	3.6	2.0	2.4
NON-RESIDENTS	NA	7	7	-	-	-
RESIDENTS OF INSTITUTIONS	NA	4	5	-	-	-
RESIDENCE UNKNOWN	NA	9	8	-	-	-

HOW DOES NEW YORK CITY COMPARE WITH OTHER LARGE CITIES?

New York City's tuberculosis problem is larger than that of any other city in the United States. Nevertheless when the size of population is taken into account, the New York City new case rate ranks 13 among the 28 cities with 500,000 or more population (Table 17). It will be noted that nine of these cities had increases in both numbers of cases and rates during 1971: Houston, Philadelphia, St. Louis, New Orleans, Los Angeles, Phoenix, Milwaukee, Denver and Minneapolis.

Table 17

NEWLY REPORTED ACTIVE TUBERCULOSIS CASES
IN CITIES OF 500,000 OR MORE POPULATION
NUMBERS AND RATES
1970 AND 1971

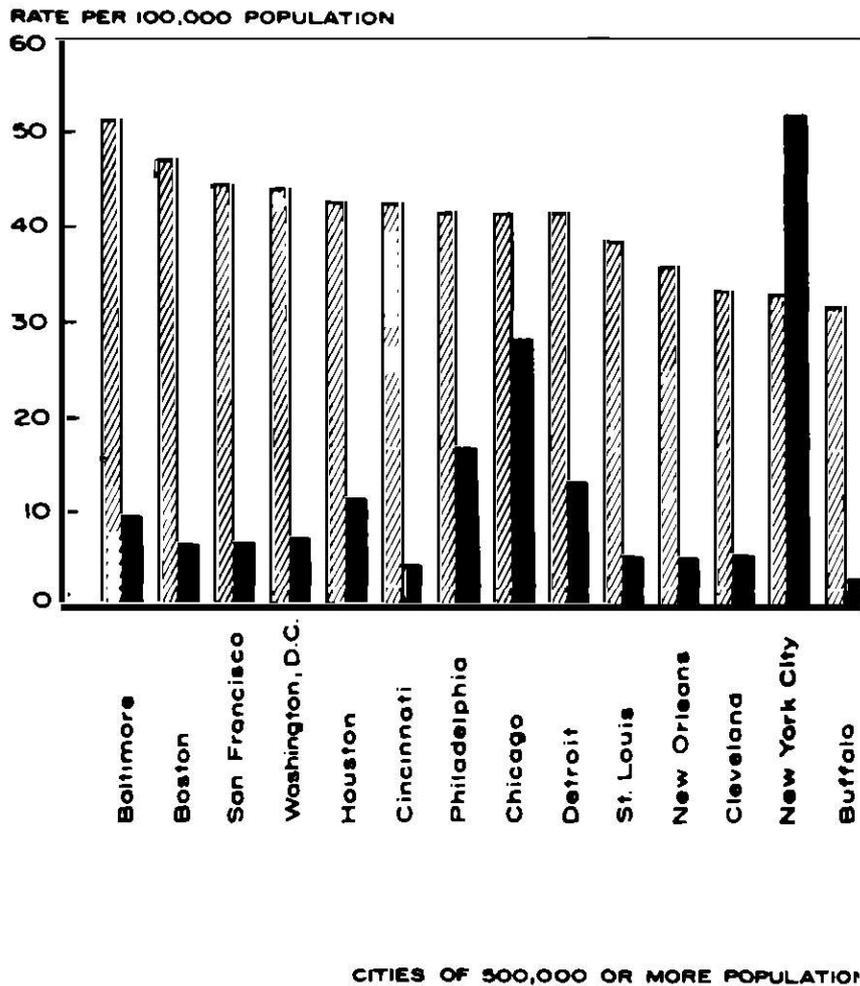
1971 RANK	CITY	1971		1970	
		Rate per 100,000 Population	Number of New Active Cases	Rate per 100,000 Population	Number of New Active Cases
1.	Baltimore	51.1	458	54.4	493
2.	Boston	46.6	299	48.0	308
3.	San Francisco	44.1	310	45.7	327
4.	Washington, D.C.	43.6	323	48.9	370
5.	Houston	42.4	544	35.5	438
6.	Cincinnati	42.4	192	47.3	214
7.	Philadelphia	41.2	803	38.9	758
8.	Chicago	41.1	1,385	45.6	1,536
9.	Detroit	41.0	620	47.6	719
10.	St. Louis	38.4	239	28.1	175
11.	New Orleans	35.5	212	33.0	196
12.	Cleveland	32.9	247	41.3	310
13.	NEW YORK CITY	32.6	2,572	32.8	2,590
14.	Buffalo	31.6	144	35.7	165
15.	Atlanta	30.8	187	38.3	236
16.	Los Angeles	29.9	845	28.2	794
17.	San Antonio	29.3	196	35.6	233
18.	Pittsburgh	26.5	138	39.0	203
19.	Dallas	25.7	226	29.4	248
20.	Miami	24.0	314	28.2	352
21.	Seattle	22.5	118	27.5	146
22.	Phoenix	22.2	138	19.4	113
23.	Milwaukee	20.9	150	12.3	88
24.	Kansas City	20.5	104	28.0	142
25.	San Diego	16.7 *	120 *	16.1 **	218 **
26.	Columbus, Ohio	16.1	87	18.2	98
27.	Denver	15.5	80	14.8	76
28.	Minneapolis	15.0	65	13.8	60

* City

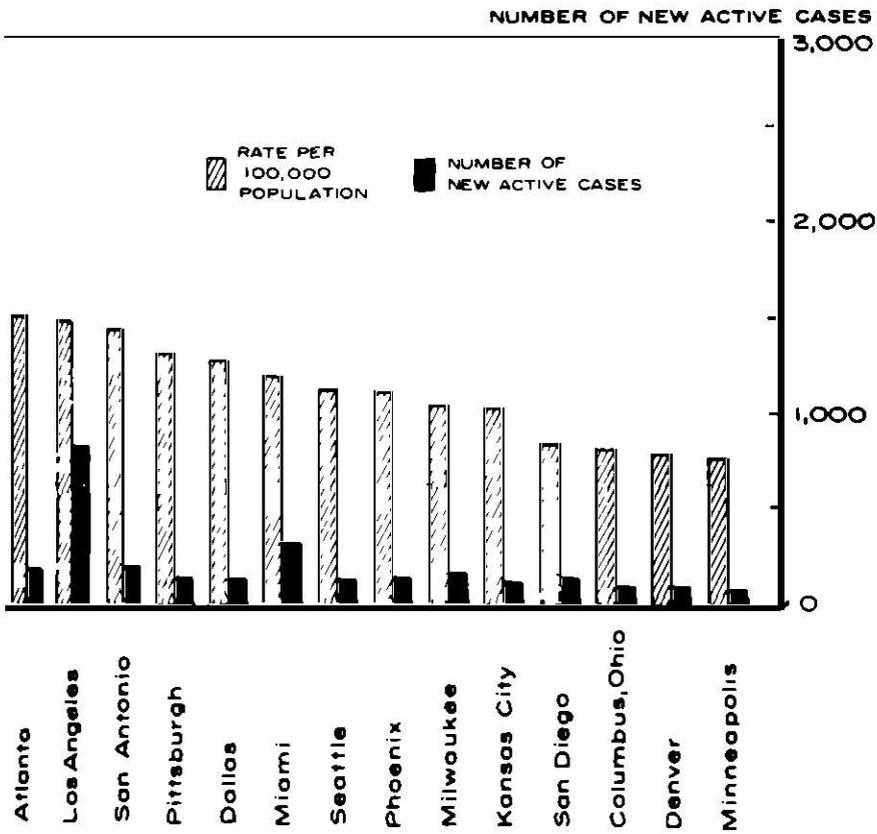
** County

Figure 6

NEWLY REPORTED ACTIVE TUBERCULOSIS CASES
 IN CITIES OF 500,000 OR MORE POPULATION
 NUMBERS AND RATES
 1971

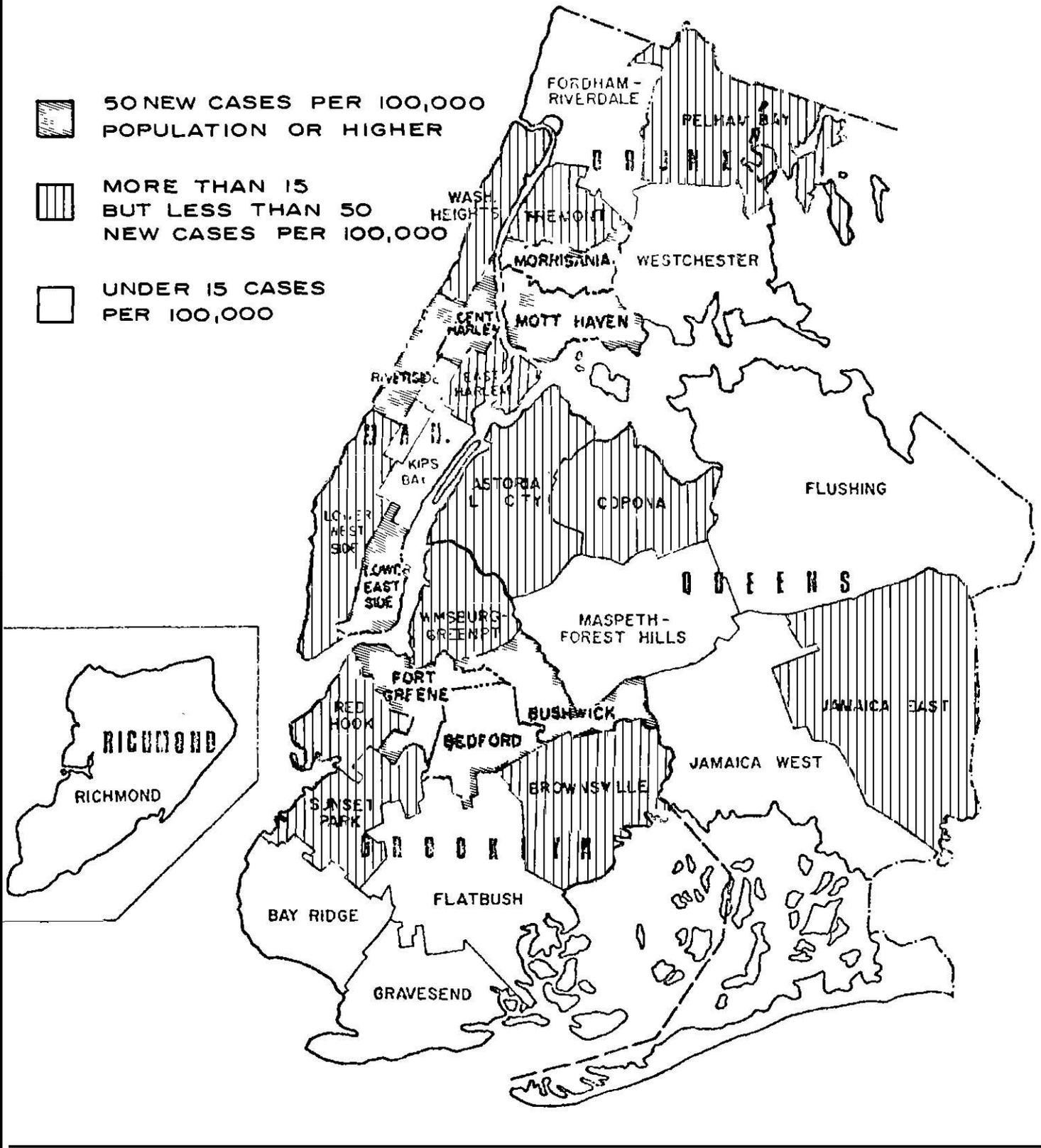


CITIES OF 500,000 OR MORE POPULATION



RANKED BY CASE RATE

Figure 7
GEOGRAPHIC CONCENTRATION
OF TUBERCULOSIS
New York City, 1971



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