

POLICY IMPLICATIONS OF CURRENT DRUG ABUSE  
ESTIMATES FOR LOCAL AREAS IN NEW YORK CITY

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A recent article in the New York Times referred to attempts to estimate the number of addicts in the United States as a "numbers game."<sup>1</sup> Many who have made or used such estimates for program purposes would agree. Ignoring for the moment the interesting question, "Who is an addict?" and relying on operational definitions based on existing data, the number estimated varies widely depending on what sources and methods are actually used.

This paper examines and evaluates Narcotics Abuse rates derived from New York City Narcotics Register data, New York State Narcotic Addiction Control Commission (NACC) estimates, and from New York City police arrest figures. These are the three basic sources of data for most estimates of the magnitude of the drug problem in New York City. Data taken from the Narcotics Register and from estimates made by NACC were used to describe rates of opiate use in New York City and the various subareas or neighborhoods of the City for 1964 through 1967. These subareas were then ranked according to rate of opiate use. (Graph A).

This ranking was made from estimates of drug use per 1,000 population 15-44 years old, based on Register data and tabulated by Health Center Districts. There are thirty Health Center Districts in New York City. These may be defined as sub-communities or neighborhoods within the city.

The ranking provides a basis for viewing the problem of drug abuse in New York City as a whole, and comparatively, among local communities within the city. Because of problems with the base data, however, extreme care must be taken in interpreting these and other available data - especially in using them to derive estimates of numbers of addicts. Yet one constantly hears in radio, press, and T.V. coverage of the drug problem references to the magnitude of the problem in terms of large numbers - estimates

of from 100,000 to 600,000 addicts in New York City. The accuracy of numbers such as these cannot be evaluated precisely because of the sources of the estimates. The data and method used to derive the numbers are described as follows.

Register Data

According to the 1969 report of the Narcotics Register, there were 94,699 drug abusers reported in New York City, for the year ending December 31, 1969.<sup>2</sup>

Manhattan ranked first among the five boroughs in reported cases of opiate abuse. Of the seven health districts in Manhattan, Central Harlem ranks first, East Harlem had the second largest number of cases, and the Lower East Side ranked third. Among the 30 Health Center Districts in New York City as a whole, the Lower East Side ranked fifth in newly reported cases of narcotics abuse in 1969.

Central and East Harlem are relatively homogeneous with respect to ethnic make-up. The Lower East Side is not. It is still a heterogeneous area. This evaluation of available data focuses on figures for the Lower East Side relative to all other areas. It was performed as part of an overall evaluation of Horizon Project, a drug treatment program in the area operated by the New York City Addiction Services Agency and funded by the National Institute of Mental Health. The results have implications for neighborhood based programs in all areas, however.

Table A describes the total number of narcotics abusers reported to the Register from the Lower East Side, Manhattan, and New York City. The table suggests a dramatic increase in drug use over the period shown. The increase probably results from both an increase in the number of narcotics abusers in the City and increased reporting to the Register by the agencies involved.

What are the addicts like in terms of social characteristics? More detailed

tabulations have been made of the social and demographic characteristics of heroin abusers than of all narcotics users. The 1969 data from the Register indicates that 87 percent of all drug abuse is heroin use. Thus, the material describing heroin abusers has been used interchangeably with that for total narcotics abusers.

Narcotics Register data on heroin abusers residing in the Lower East Side indicate that the ethnic breakdown of users was similar to the ethnic make-up of the community. Approximately 50 percent of the cases reported to the Register were Puerto Rican, 27 percent were other whites and 19 percent were blacks. This ethnic breakdown remained relatively stable over the period for which data were available. Most users reported to the Register were between 20-30 years of age. The proportion of blacks was highest in the thirty and over age category, however, 31.1 percent compared to 19 percent of the total. This may indicate 1) that drug use started earlier among blacks than others, and therefore, some users are older, or 2) that drug use may be a temporary or "youth" phenomena among Puerto Ricans and other whites and a long-term behavior pattern among blacks.

If these figures reflect the actual addict population in the Lower East Side, Puerto Ricans are over-represented, particularly in the younger age categories, while blacks are proportionately greater in the thirty and over age category. As will be seen shortly, however, Register data must be interpreted with extreme caution.

#### Evaluation of Data and Estimates

The figures cited indicate a massive and increasing drug abuse problem in New York City and in the Lower East Side. It is, however, difficult to evaluate the completeness and accuracy of these data because of 1) the method of reporting to the Register and 2) the method of correcting for under-reporting used by NACC in making estimates of rates per 1,000 population for each Health Center District.

#### The Narcotics Register Project

The Narcotics Register Project of the New York City Department of Health

is an example of the "cumulative case register" approach to disease surveillance used in many areas of public health practice.<sup>3</sup>

A case register is a system for collecting information on a population with a particular disease or problem based on cases reported by agencies or individuals (e.g., physicians, therapists) within a specified area. The Narcotics Register was designed to develop methods of establishing a reliable up-to-date, unduplicated count of narcotics addicts in New York City.<sup>4</sup>

The Narcotics Register has been viewed as a research project with no anticipated case intervention by either public health practitioners or law enforcement officials. Under the New York City Health Code, the reports supplied by the various social service agencies working with addicts are confidential and not subject to subpoena. Some agencies have been reluctant to report to the Register, however, because they fear confidentiality will not be maintained. In fact, even with all the publicity given to drug problems in public schools, the Board of Education has only recently agreed to report. Part of the increase in the incidence of drug abuse thus may be attributable to increased and better reporting to the Register.

#### Definition of Addiction

Definitions of addiction have been formulated by a number of organizations in the addiction field. They usually incorporate the three related phenomena of tolerance, physical dependency, and habituation to opiates or opiate-like drugs. The Narcotics Register has had considerable difficulty in developing suitable operational definitions. Cases are filed as narcotics addicts if

1. the individual had been accepted by a hospital or clinic for in-patient treatment,
2. the individual was reported by a medical source, and,
3. the individual was accepted for treatment and reported by an established social service agency.<sup>5</sup>

The above represents an acceptance of the "addict" definition used by the agency of report. Cases with only a single report, therefore, may be very different with respect to their actual drug involvement. Very little is really known about patterns of drug use over time. We do not know how many temporary or even one-time users exist. Thus, and most significantly, it may be quite inaccurate to list a one-time user, who happens to have been arrested on the occasion of use, in a Register which is designed to be primarily a cumulative list of active users. In addition to the fact that each reporting agency's definition of "addict" is accepted, inaccuracies in the data occur because some addicts may be reported more than once during the year, sometimes under different names and/or addresses. However, Register personnel feel they have minimized the duplication of reporting since 1969. Another possible source of error is suggested by the findings of another paper in the evaluation program which indicates that there is good reason to believe that a small number of persons in various treatment programs are not addicts at all.<sup>6</sup> Youths apprehended for a crime may plead addiction and opt to go to a treatment center in lieu of prison.

#### Problems of Estimating Drug Use

In addition to the problems of definition of "addict" or "user" and duplicate reporting to the Register, another difficulty may arise from the method of correcting for under-reporting to the Register. The rates of opiate use in the 30 Health Center Districts in New York City were computed by NACC's Division of Research, based on data from the Register. In order to correct for the acknowledged under-reporting to the Register, NACC research personnel devised a novel method for estimating the number of actual users from the Register cases. The method is described as follows:

"In the period January 1, 1964 through December 31, 1967, 46,400 different drug abusers were reported to the Register. Of this group, 38,751 were heroin users reported one or more times in this period. A recent check by the New York State Narcotic Addiction Control Commission of known addicts

living on a slum block in Manhattan disclosed that 78 percent were listed in the Register. A check by the City Department of Health on persons whose deaths were certified by the Medical Examiner as due to narcotism revealed that 60 percent of the death certificates ascribing death to evidence of narcotics were listed in the Register. Thus, it seems reasonable from the aforementioned clues, to estimate that the Register is about 65 percent complete as a list of regular heroin users in New York City. From this, one can estimate that there are 58,500 heroin users in the City. Since 87 percent of the opiate users reported to the Register were heroin users, the 58,500 heroin users were readjusted for this proportion, and it is estimated that there were approximately 65,000 regular users of opiates in New York City at the end of 1967.

This estimate is based on a four-year period, 1964-67. In addition, a recent NACC Benchmark Survey Report indicated under-reporting in low drug density areas. Where observations and the assumption that those reported are more than occasional users and a large number who may have tried opiates have not been included, a higher figure for opiate users may be justified.<sup>7</sup>"

The above estimate of 65,000 opiate users was then used to calculate the rates per 1,000 population 15-44 years of age for the city as a whole, for each of the five boroughs and for the thirty Health Center Districts into which New York City is divided. Construction of a rate based on the population 15 through 44 years of age appears reasonable in view of the fact that 97 percent of all heroin users listed in the Register from 1964-1967 were in this age group. To the extent that there is any difficulty with the rates, it arises primarily from two sources: 1) the correction factor for under-reporting and, 2) the use of "known addicts" in a four-year period as the numerator with an estimated population for one year, 1965, as the denominator.

The correction for under-reporting estimates that the Register contained only 65 percent of the opiate addicts for 1964-1967. The NACC research personnel recognized that the correction factor would have to be recomputed each year and that there is more under-reporting in low drug use areas than in high use areas

such as the block from which the 78 percent figure was derived. It is the only attempt to correct for the known under-reporting, and probably as good as any especially when used for comparative purposes. There is, however, no way of knowing whether the absolute numbers derived from the rates for any single area are correct. They may be higher in some areas and lower in others.

A second source of difficulty may contribute to an over-estimation of the number of addicts. A purist might argue about the logic of the mathematics of rate construction using a 4-year numerator and a 1-year denominator. On the other hand, because of the nature of narcotics addiction, it might be argued that "known addicts" in 1964 are still addicts in 1965, 1966, and 1967 and therefore, legitimately part of the numerator, whether reported to the Register each year or not. There would still be a question of residence, however. A "known addict" with an address in the Lower East Side in 1964 may still be an addict in 1966, but with an address in the Bronx. And, it is possible that he may not even be an addict. So little is known about the process of "cure," especially if it is not in a program, that it is impossible to estimate the number of former addicts who are cured or "clean." Also, the original report to the Register may have involved minimal and/or temporary involvement with drug use, because of the nature of reporting to the Register. One would have to examine each case reported by the police, for example, to determine the range of involvement with drugs used by the police to define "user" for reporting purposes. The same is true for other reporting agencies.

The point of all this is that a rate is usually expressed for a single period of time. Thus, for example, to describe the crude birth rate for 1965, one would need to know the number of births in 1965, and the total population in 1965. When it comes to a rate of opiate use, however, the existing NACC estimate for New York City utilizes a count of users obtained over a four-year period. This is then corrected upwards for known under-reporting, and related to the population base for a single year.

To compute a meaningful rate per 1,000 of opiate users, one needs: 1) the number of known users in a given year and, 2) the estimated population for that same year. At present, there is no provision for removing drug names from the Register. Once listed, a name remains on the Register. Thus, at any time, the Register includes some "cured" addicts and some non-users who experimented briefly or on a single occasion in the past. A better "user" population is needed to construct a rate. If a report is made each time the user comes in contact with the law, social service agencies, and medical sources, it might be possible to get a somewhat more accurate unduplicated list of addicts, for a single year (regardless of whether they appear on the Register in previous years), correct that for under-reporting, and use it as the numerator in the calculation of a rate instead of the cumulative number in the Register. The research cited suggesting that non-addicts are sometimes categorized as addicts and placed in programs, may also make it necessary to correct for "over-reporting."

An alternative method for estimating rates might utilize New York City Police Department drug arrest figures for supplementary information. Narcotics arrests have increased dramatically over the last five years in New York City. The increase is due in part, to what appears to be a real increase in the drug abuse problem, but in part also to a re-deployment of manpower and an increase in enforcement efforts by federal and city police agencies. The arrest data generated by the police department indicate the number of arrests, not the number of people arrested during the period covered. At present, data are not available indicating how many different people are involved in the total arrests report. Furthermore, as indicated previously, not all people arrested for narcotics offenses are addicts; and many addicts are arrested for non-narcotic offenses including theft, assault, and disorderly conduct.

Narcotics arrests of adults in the 89 police precincts in the city totaled 52,479 in 1970 compared to 35,178 in 1969 and 22,428 in 1968. The increase in felonies is especially notable in 1970 compared to earlier years. (Felonies

represent arrests for hard drug abuse.)

The number of narcotics arrests each year represents a sizeable proportion of the number on the Register for the same years. The Police Department reports all narcotics arrests to the Register. Yet arrest reports are only one of several sources of case data for the Register. It would be valuable to determine how many of the arrests reported are duplicate cases (also reported by drug treatment agencies for example). Such a clarification is not yet available. Yet given a file of unduplicated names which contain all of the drug use reports on each case (whether from police, hospital, etc.), it might be possible to design a method for estimating how much activity is generated by each reported addict each year, and thereby improve somewhat the accuracy of current estimates of the size of the addict population in the City. This would not, of course, correct for all sources of error in the Register.

It appears that the present method of estimating narcotics abuse rates, while useful for comparative purposes such as ranking the various sub-communities within the City, most likely results in an over-estimation of the total number of known addicts in New York City when the absolute figures are utilized to specify the extensiveness of drug addiction. Whatever the numbers of addicts are, they are large and increasing. Whether they are the same numbers as those derived from existing data is open to question, and it is suggested that existing estimates be used cautiously.

One policy implication of this evaluation concerns the funding of neighborhood based drug treatment programs. Any increase or decrease in the number of drug treatment programs in a community such as New York City is likely to influence the number of addicts reported to any central register. Moreover, the rapid expansion of drug programs as alternatives to overcrowded criminal justice systems is also likely to increase the number of "addicts" as youngsters opt for drug treatment instead of jail.

When central registers are used to compare the number of "addicts" in the sub-communities of the City with a number of drug treatment programs in operation, or districts subject to intensive

police surveillance, they may be expected to report more individuals to central registers than districts with few such programs or pressures. These same districts may then make a case for receiving more funds and programs than areas reporting fewer cases of drug abuse. Thus, to reiterate an earlier point, current estimates must be used with caution.

#### Footnotes

1. New York Times, Tuesday, June 6, 1972, p. 18.
2. Narcotics Register Statistical Report--1969. New York City Department of Health, Office of Research. (No date)
3. Narcotics Register Project Report, 1967-1968.
4. Zili Amsel, Carl L. Erhardt, Donald C. Krug and Conald P. Conwell in "The Narcotics Register: Development of a Case Register," paper presented at the 31st Annual Meeting of the Committee on Problems of Drug Dependence; Division of Medical Sciences, National Academy of Sciences--National Research Council. February 25, 1969.
5. Ibid., p. 2.
6. Emile J. Pin, Madeline H. Engel, Gerald Chasin, "Preliminary Statistical Analysis of Horizon Project Population in Treatment," Fordham University, Institute for Social Research, Horizon Project Evaluation, Internal Document, October 29, 1971, p. 15... For further elaboration, see Thomas M. Quinn, "The Impact of Law on the Heroin Distribution System, The Addict and the Community," Fordham University, Institute for Social Research, Horizon Project Evaluation, Internal Document, July 15, 1971.
7. New York State Narcotic Addiction Control Commission and New York City Narcotics Register, Opiate Use in New York City, pp. 3-4, November, 1969.

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Narcotics Register Statistical Report--1969. New York City Department of Health, Office of Research. (No date)

Opiate Use in New York City. New York State Narcotics Addiction Control Commission and New York City Narcotics Register. Prepared by Mary Koval, NACC Division of Research. November, 1969.

TABLE A. NUMBER OF NARCOTICS ABUSERS REPORTED TO THE REGISTER FROM THE LOWER EAST SIDE, MANHATTAN AND NEW YORK CITY, BY YEAR OF FIRST REPORT

Year	Lower East Side (LES)	Manhattan	New York City	LES as a Percent Manhattan	LES as a Percent New York City
1964-1969	4,632	37,475	94,699	12.4	4.9
1964-1968	3,043	25,337	58,095	12.0	5.2
1969	1,589	12,138	36,604	13.1	4.3

Source: Narcotics Register Project, New York City Department of Health, 1969 Statistical Report.

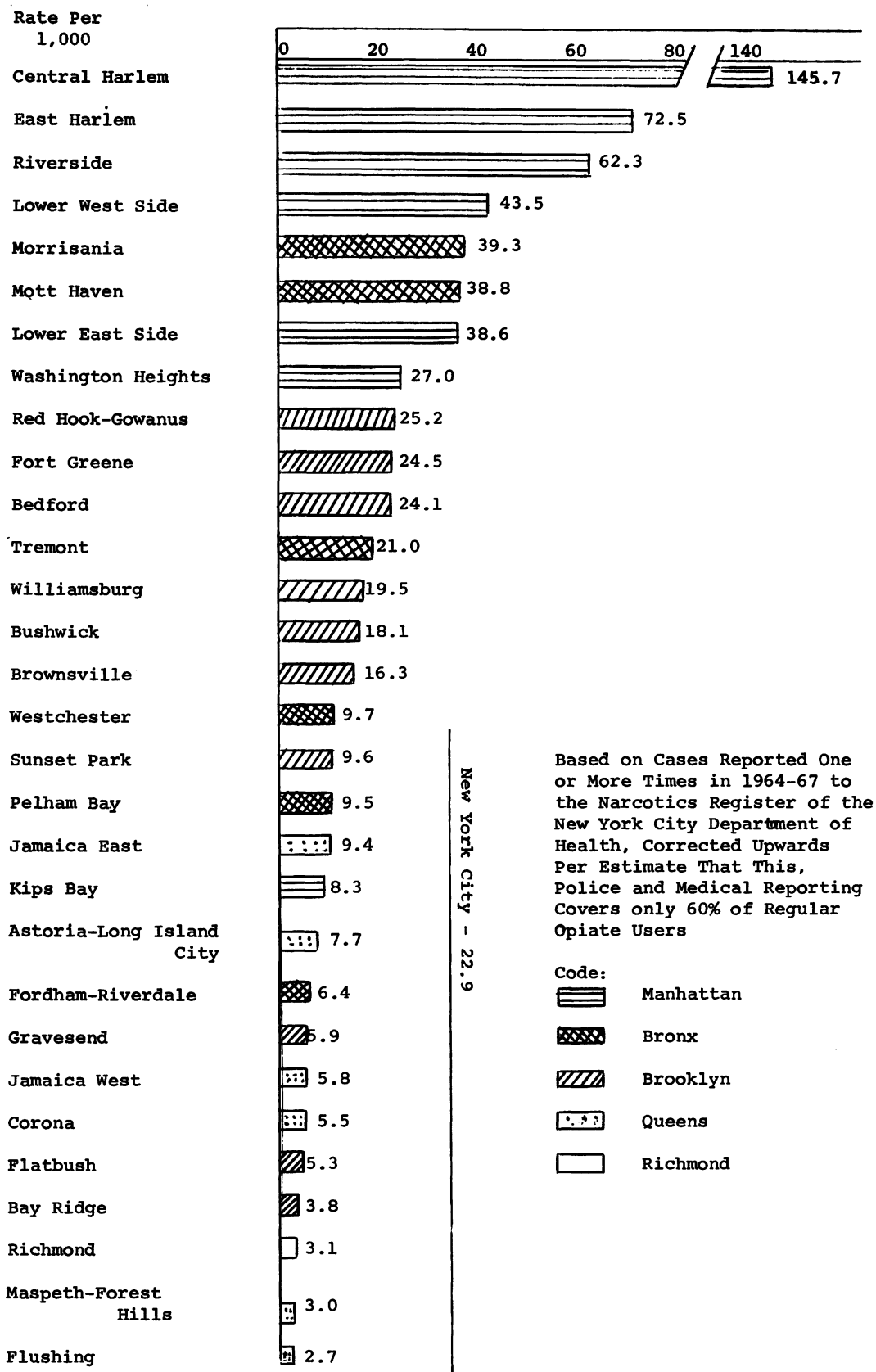
TABLE B. HEROIN ABUSERS REPORTED TO THE NARCOTICS REGISTER FROM THE HORIZON PROJECT AREA, 1964-1968  
by ETHNICITY

Ethnicity	Y E A R											
	1964 - 1968		1968		1967		1966		1965		1964	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
Total	1,729	100.0	394	100.0	334	100.0	371	100.0	342	100.0	288	100.0
Puerto Rican	863	49.9	202	51.3	163	48.8	185	49.9	161	47.1	152	52.8
Other White	470	27.2	93	23.6	90	26.9	101	27.2	120	35.1	66	22.9
Negro	329	19.0	74	18.8	73	21.9	72	19.4	51	14.9	59	20.5
Other/Unk.	67	3.9	25	6.3	8	2.4	13	3.5	10	2.9	11	3.8

Source: Narcotics Register Project, City of New York, Department of Health, 1968.

GRAPH A

NEW YORK CITY RATES OF OPIATE USE PER 1,000 POPULATION,  
15-44 YEARS OLD - RANKED BY HEALTH CENTER DISTRICTS



**HORIZON PROJECT AREA**  
**TABLE C. TOTAL NUMBER OF INDIVIDUALS REPORTED TO NARCOTICS REGISTER BY AGE AND ETHNICITY**  
**1964-1968**

Age and Ethnicity	Y E A R										Total	
	1964		1965		1966		1967		1968		1964-1968	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
<u>Under 20</u>												
Total	25	100.0	36	100.0	40	100.0	51	100.0	67	100.0	219	100.0
White	7	28.0	20	55.5	13	32.5	16	31.4	18	26.9	74	33.8
Negro	2	8.0	0	0.0	4	10.0	5	9.8	4	6.0	15	6.8
Puerto Rican	16	64.0	16	44.4	23	57.5	28	54.9	41	61.2	124	56.6
Other/Unknown	0	0.0	0	0.0	0	0.0	2	3.9	4	6.0	6	2.7
<u>20 - 29</u>												
Total	171	100.0	213	100.0	217	100.0	190	100.0	222	100.0	1,013	100.0
White	39	22.8	71	33.3	69	31.8	55	28.9	55	24.8	289	28.5
Negro	30	17.5	28	13.1	34	15.7	31	16.3	45	20.3	168	16.6
Puerto Rican	101	59.1	112	52.6	113	52.1	102	53.7	115	51.8	543	53.6
Other/Unknown	1	0.6	2	0.9	1	0.5	2	1.1	7	3.1	13	1.3
<u>30+</u>												
Total	73	100.0	83	100.0	109	100.0	86	100.0	80	100.0	431	100.0
White	15	20.5	24	28.9	18	16.5	19	22.1	13	16.3	89	20.6
Negro	24	32.9	22	26.5	32	29.4	35	40.7	21	26.3	134	31.1
Puerto Rican	26	35.6	30	36.1	47	43.1	28	32.5	43	53.7	174	40.4
Other/Unknown	8	11.0	7	8.4	12	11.0	4	4.7	3	3.7	34	7.9
<u>Age Unknown</u>												
Total	19	100.0	10	100.0	5	100.0	7	100.0	25	100.0	66	100.0
White	5	26.3	5	50.0	1	20.0	0	0.0	7	28.0	18	27.3
Negro	3	15.8	1	10.0	2	40.0	2	28.6	4	16.0	12	18.2
Puerto Rican	9	47.4	3	30.0	2	40.0	5	71.4	3	12.0	22	33.3
Other/Unknown	2	10.5	1	10.0	0	0.0	0	0.0	11	44.0	14	21.2

SOURCE: Narcotics Register Project, City of New York, Department of Health, 1968

**TABLE D. NARCOTICS ARRESTS BY THE NEW YORK CITY POLICE DEPARTMENT**  
**IN NEW YORK CITY AND IN THE PRECINCTS IN THE HORIZON**  
**PROJECT AREA, 1968, 1969, 1970**

Precinct and Type of Arrest	ARRESTS			Percent Change	
	1968	1969	1970	1968-69	1969-70
<b>New York City</b>					
Felonies	9,626	15,431	26,799	+60.3	+73.7
Misdemeanors	12,802	19,747	25,680	+54.2	+30.0
Total	22,428	35,178	52,479	+56.8	+49.2
<b>5th Precinct</b>					
Felonies	198	189	211	-4.5	+11.6
Misdemeanors	95	104	125	+9.5	+20.2
Total	293	293	336	0.0	+14.7
<b>7th Precinct</b>					
Felonies	208	177	322	-14.9	+81.9
Misdemeanors	277	271	286	-2.2	+5.5
Total	485	448	608	-7.6	+35.7
<b>9th Precinct</b>					
Felonies	642	938	1,286	+46.1	+37.1
Misdemeanors	299	699	574	+133.8	-17.9
Total	941	1,637	1,860	+74.0	+13.6
<b>13th Precinct</b>					
Felonies	80	126	193	+57.5	+53.2
Misdemeanors	86	154	151	+79.1	-1.9
Total	166	280	344	+68.7	+22.9

Source: Special tabulation prepared from New York City Police Department data.