Neighborhood Income and Income Distribution and the Use of Cigarettes, Alcohol, and Marijuana

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Abstract

Evidence about the relation between contextual variables and substance use is conflicting. Relations between neighborhood income and income distribution and the prevalence and frequency of substance use in 59 New York City (NYC) neighborhoods were assessed while accounting for individual income and other socio-demographic variables. Measures of current substance use (in the 30 days prior to the survey) were obtained from a random-digit-dial phone survey of adult residents of NYC and data from the 2000 U.S. Census to calculate median neighborhood income and income distribution (assessed using the Gini coefficient). Among 1355 respondents analyzed (female=56.2%, mean age=40.4), 23.9% reported cigarette, 40.0% alcohol, and 5.4% marijuana use in the previous 30 days. In ecologic assessment, neighborhoods with both the highest income and the highest income maldistribution had the highest prevalence of drinking alcohol (69.0%) and of smoking marijuana (10.5%) but not of cigarette use; there was no clear ecologic association between neighborhood income, income distribution, and cigarette use. In multilevel multivariable models adjusting for individual income, age, race, sex, and education, high neighborhood median income and maldistributed neighborhood income were both significantly associated with a greater likelihood of alcohol and marijuana use but not of cigarette use. Both high neighborhood income and maldistributed income also were associated with greater frequency of alcohol use among current alcohol drinkers. These observations suggest that neighborhood income and income distribution may play more important roles in determining population use of alcohol and marijuana than individual income, and that determinants of substance use may vary by potential for drug dependence. Further research should investigate specific pathways that may explain the relation between neighborhood characteristics and use of different substances.

Introduction

Cigarette and alcohol use are highly prevalent in the United States, with 69.7% of Americans having smoked in their lifetime, 30.6% in the past year, and 27.7% in the past month, and the majority of Americans reporting alcohol use in their lifetime (81.3%), in the past year (64.0%),

and in the past month (51.7%)[1]. Illicit drug use of any kind, while less common, is still present in a substantial proportion of the population, with 35.8% of Americans reporting use in their lifetime, 10.6% in the past year, and 6.2% in the last month.[1] The use of drugs is associated with a wide range of risks, including both symptoms of dependence (e.g, reducing important activities due to the use of drugs) and abuse (e.g., driving a car more than once while intoxicated, getting into trouble with superiors or co-workers due to intoxication). Despite a substantial extant body of research on substance use, there is very little research about the role of contextual (or group-level) variables in determining substance use and misuse. [2,3]

Recent research has shown that contextual (or group-level) variables are important determinants of health even after accounting for differences in individual-level characteristics. [4, 5] For the purposes of this paper, "contextual" variables refer to aggregate units representing characteristics of geographic areas and individuals in those areas, distinct from individuals' perceptions of those areas. Although this area of research is relatively new, it long has been suggested that contextual factors are the most important determinants of population health and population inequalities in disease.[6] In the past decade, widespread acceptance of improved statistical techniques to combine group-level and individual-level data in regression modeling (frequently referred to as multilevel modeling) and a growing interest in societal influences on health have resulted in a proliferation of epidemiologic research assessing the relations between contextual characteristics and health.

Two of the contextual variables that have been subject to the most research are aggregate income and income distribution. There is ample evidence for the relation between aggregate income and health, both in ecologic analyses and in multilevel analyses that account for individual-level income. Aggregate income has been associated with overall mortality,[7, 8] coronary heart disease,[9] and respiratory disease.[10] It has been postulated (although tested empirically in relatively few studies) that factors such as the limited availability and accessibility of health services, poor infrastructural conditions, and psychosocial stress may mediate the relations between aggregate income and health.[5] More controversially, income distribution has also been suggested as an important determinant of health, even after accounting for aggregate and individual-level income. Ecologic evidence has long suggested that countries with more egalitarian distribution of income have lower mortality rates.[11] In the early 1990s, a series of publications spurred further interest in the role of income distribution as an area-level determinant of health.[6] Recent empiric evidence suggests that inequalities in income distribution contribute to health differentials between states and may contribute to some of the racial and socio-economic disparities in health in the U.S.[12, 13] Other work has failed to document an association between inequalities in income distribution and health.[14] The principal proponents of the hypothesized relation between income distribution and health suggest that perceived and actual inequity, caused by the discrepancies in income distribution, erode social trust and diminish the social capital that shapes societal well-being and individual health.[15, 16]

There has been relatively little research that has assessed the potential relations between contextual variables and substance use behavior among adults and most of this work has focused on neighborhood socioeconomic status. In one study, Curry et al.[17] showed that community-level characteristics (e.g., residential stability, unemployment) were associated with attitudes toward smoking, although this study did not assess frequency of smoking. A subsequent study showed that persons living in more economically deprived areas (including variables such as employment levels and crowding) were more likely to smoke than persons living in less deprived areas, even after accounting for individual-level socioeconomic status. [18] Corroborating these findings, others have shown that living in areas with lower mean income is associated with a greater likelihood of smoking after accounting for individual-level variables.[19, 10, 20, 21] However, the number of cigarettes smoked has not been found to be

associated with levels of neighborhood deprivation.[21, 22] Additionally, while some studies have suggested that heavy drinking is more prevalent in areas with high levels of neighborhood disorder (high unemployment, crime, abandoned houses)[23], other studies have observed the highest levels of alcohol consumption in the least deprived neighborhoods,[24] or failed to find an association between neighborhood deprivation or disorder and alcohol consumption.[21, 25] Although there is a growing body of work assessing the relation between neighborhood context and the use of cigarettes, alcohol, and illicit drugs among adolescents, that literature is not reviewed here since determinants of substance use may be substantially different among youth and adults. There are only a few studies that have assessed the relation between income distribution and individual substance use among adults. One multilevel study showed that residence in neighborhoods with poorly distributed income was associated with a higher likelihood of death due to accidental drug overdose.[26]

Thus, the existing literature suggests that there may be a relation between contextual variables and individual substance use behavior even after accounting for individual characteristics. However, the observation of statistically significant associations between context and use of different substances has varied between studies. The inconsistencies in findings may demonstrate that contextual characteristics affect substance use only in certain places, that drugs with different actions (e.g., stimulants vs. depressants) may be expected to have different determinants, or may be explained by the use of different study designs, and the different behaviors being assessed in different studies. This paper contributes to the investigation of relations between contextual variables and substance use behavior by assessing the relations between neighborhood-level income and income distribution and cigarette, alcohol, and marijuana use. By considering multiple substances within the same study, potential differences in the relation of neighborhood income and income distribution with the use of different substances may be illuminated.

Methods

Individual-Level Variables

Individual-level variables for this study were obtained from a cross-sectional random digit dial (RDD) household telephone survey that included measures of substance use. The survey, carried out between March 25 and June 25, 2002, was designed to assess mental health in the New York City (NYC) metropolitan area in the aftermath of the September 11 terrorist attacks in NYC. The sampling frame for the survey included all adults in the NYC metropolitan area with over-sampling of residents in NYC; this analysis is limited to residents of NYC. Further discussions of the methods and results from this survey can be found elsewhere. [27, 28]

Respondents were interviewed using a structured questionnaire. The primary outcome variables for this analysis were respondents' cigarette smoking, alcohol drinking, and marijuana smoking. For each of the three substances respondents were asked the following series of questions. First the respondent was asked if he/she had used the substance in the previous twelve months (e.g., "Have you smoked cigarettes in the last twelve months?"). Respondents who answered "Yes" to this question were asked to report on how many days they had used the substance in the 30 days prior to the survey, and the average number of times the substance was used per day. This information was used to calculate the total number of cigarettes smoked, number of alcoholic drinks consumed, and number of times marijuana was smoked in the past 30 days. Of the sample of 1,355 NYC residents, ten respondents (0.7%) were missing data for the use of cigarettes in the past 30 days, 21 (1.5%) for the consumption of alcohol, and 18 (1.3%) for marijuana use. For the analyses presented here use of each of these substances were examined individually. The survey also assessed demographic characteristics including age, race/ethnicity, gender, yearly household income, and education.

Neighborhood Definition

NYC is divided into 59 residential community districts (CDs) by the Department of City Planning. These CDs delineate meaningful neighborhoods within NYC [29, 30, 31] and were used as neighborhood units in these analyses. These CDs will be referred to as neighborhoods hereafter. These neighborhood units have previously been used in one study of the relation between neighborhood income and income distribution and likelihood of drug overdose.[26]

Neighborhood-Level Variables

2000 U.S. Census data for the 59 neighborhoods in NYC were used to obtain median household income and to calculate the Gini coefficient as a measure of income distribution.[32] Incorporating more than just the range of incomes in a given area, the Gini coefficient provides information about the distribution of income and the extent of income inequality, and has been used in a number of studies assessing the relation between income distribution and health.[14, 26,33] The Gini coefficient is calculated from a Lorenz curve with the proportion of the population from poorest to richest represented on the x-axis and the proportion of the population's income on the y-axis. The Gini coefficient is the area between the diagonal line of no inequality and the concave line representing the income distribution in a particular population. Thus, a Gini coefficient of 0 denotes perfectly equitable income distribution whereas a Gini coefficient of 1.0 represents maximal maldistribution. The Gini coefficient was rescaled to range from 0 to 100 for this analysis so that regression parameter estimates could be more easily interpreted.

Statistical Analyses

Sampling weights were used in all analyses to correct potential selection bias related to the number of household telephones, persons in the household, and over-sampling. Demographic characteristics of the survey population were described and compared to the demographic distribution suggested by the 2000 U.S. Census.[32] All survey respondents were geocoded to their neighborhood of residence using their residential address. Respondents who could not be geocoded (due to missing or incorrect addresses) were excluded from these analyses; characteristics of the persons included in these analyses were compared to those who were excluded to ensure that there was no systematic bias introduced through exclusion of these participants. Logistic regression was used to test the bivariate relations between the individual and neighborhood-level covariates of interest and the likelihood of use of each of the three substances. Linear regression was used to test the bivariate relations between covariates and the frequency of substance use among those who had used a substance. Since the total number of persons who had used marijuana in the 30 days prior to the survey was small (92), the determinants of frequency of marijuana use were not assessed. The linearity of the relation between each covariate and outcome was assessed using differences in log-likelihood ratios ($p<0.1$), as it has been suggested that there is a non-linear relation between, for example, income and health.[34, 35] Evidence of a non-linear relation between median neighborhood income and mean number of cigarettes smoked in the past 30 days was found. The relation between median neighborhood income and frequency of smoking was best described by a quadratic income term and median neighborhood income was subsequently modeled in quadratic form in the model predicting frequency of smoking. To describe the ecologic relations between neighborhood income and income distribution and use of each substance, neighborhood median income was categorized into low ($16,000 - $32,424), medium ($32,425 - $43,089), and high ($43,090 - $79,475), while neighborhood Gini coefficient was categorized into low inequality (0.375 – 0.432), medium inequality (0.433 – 0.465), and high inequality (0.466 – 0.513). The prevalence of the use of each substance by thirds of median neighborhood income and Gini coefficient (e.g., low income and low inequality, low income and medium inequality, etc) was then calculated and graphed. Generalized Estimating Equations (GEE) were used to

fit separate multilevel multiple logistic regression models that assessed the relation between median neighborhood income, income distribution, and likelihood of use of each of the three substances while controlling for individual age, gender, race/ethnicity, income, and education. [36, 37] Among those who had used cigarettes and among those who had used alcohol in the month prior to the survey, separate multilevel linear GEE models were fit to assess the relations between neighborhood median income and income distribution and the number of cigarettes smoked and the number of alcoholic drinks consumed, respectively, in the 30 days prior to the survey assessment.

Results

Overall, 1,570 persons participated in the RDD survey. Of these persons, 1,355 were able to be linked to their neighborhood of residence, and all analyses presented were restricted to this latter sample. There were no significant differences in the characteristics of the persons included in these analyses and the 215 persons excluded from the analyses. Table 1 presents baseline characteristics of the sample used for these analyses. Mean age was 40.4 (standard deviation 12.9), 43.8% were male, 35.7% were white, 6.3% Asian, 24.2% African-American, and 29.7% Hispanic. A plurality of participants had an income of under $20,000 (24.7%), 16.5% had an income between $20,000 and $29,999, and 16.1% had an income between $50,000 and $74,999. Characteristics of this group were comparable to characteristics of the general NYC population obtained from the 2000 U.S. Census.[32] Overall, 308 (23.9%) persons had smoked, 661 (40.0%) had used alcohol, and 92 (5.4%) had used marijuana in the 30 days prior to the survey. These 30-day prevalences of substance use are comparable to national 30-day prevalence estimates of use of these substances.[38] Among those who had smoked, a mean of 262 cigarettes were smoked in the past 30 days (standard deviation 258.7). Among those who drank alcohol, a mean of 18 alcoholic drinks were consumed in the 30 days prior to the survey (standard deviation 20.9). Median neighborhood income across 59 New York City neighborhoods was $36,470 (range $16,000-$79,475); mean Gini coefficient was 0.45 (range 0.37-0.51).

For the purposes of illustration, the prevalence of past 30-day use of each substance were calculated by thirds of neighborhood median income and Gini coefficient. Figure 1 shows the relations between Gini coefficient, median income, and prevalence of cigarette smoking. None of the 59 NYC neighborhoods were classified as having both low income and low income inequality. Neighborhoods with the highest median income and the middle third of Gini coefficient had the highest prevalence of cigarette smoking (34.3%), while neighborhoods with the highest median income and with the highest Gini had the lowest prevalence of cigarette smoking (18.5%). As shown in Figure 1 there was no clear relation between neighborhood prevalence of cigarette smoking, median income, and Gini coefficient. Figure 2 shows the relations between Gini coefficient, median income, and the prevalence of alcohol drinking. There was a linear increase in the prevalence of alcohol drinking along both the median income and the Gini axes, such that the neighborhood with the highest median income and the highest Gini had the highest prevalence of alcohol drinking (69.0%). Figure 3 shows the relations between Gini coefficient, median income, and the prevalence of marijuana smoking. This relation approximated the pattern observed for alcohol drinking demonstrating an increase in the prevalence of marijuana smoking along both the median income and the Gini axes and with the highest prevalence of marijuana smoking (10.5%) in the neighborhood with the highest median income and the highest Gini.

Table 2 shows three multilevel logistic regression models assessing the relations between neighborhood median income and Gini coefficient with the individual likelihood of cigarette, alcohol, and marijuana use adjusting for individual-level variables. Neither neighborhood median income (β=0.15; p=0.13) nor neighborhood Gini (β=0.04; p=0.42) were associated

with likelihood of cigarette use; the relation between individual income and likelihood of cigarette use approached statistical significance ($\beta=-0.07$; $p=0.06$). Higher neighborhood median income ($\beta=0.25$; $p<0.001$), higher Gini ($\beta=0.07$; $p=0.02$) and higher individual income ($\beta=0.06$; $p=0.02$) all were significantly associated with greater likelihood of alcohol use. Higher neighborhood median income ($\beta=0.30$; $p=0.03$) and higher Gini ($\beta=0.13$; $p=0.02$) were significant predictors of greater likelihood of marijuana use while individual income ($\beta=0.01$; $p=0.92$) was not.

In multilevel multivariable linear models predicting frequency of cigarette use, neighborhood characteristics were not associated with frequency of cigarette use while individual income, modeled quadratically ($p=0.02$ and $p=0.008$) was significantly associated with cigarette use (Table 3). Neighborhood median income ($p=0.01$), Gini coefficient ($p=0.005$), and individual income ($p=0.005$) all were associated with frequency of alcohol use.

Discussion

Using data from a RDD telephone survey linked to New York City neighborhoods, higher neighborhood median income and income maldistribution were found to be associated with a greater likelihood of current individual alcohol use and marijuana use but not with cigarette use in multilevel models adjusting for individual income and other covariates. Neighborhood median income and income distribution were also associated with greater frequency of alcohol drinking among current alcohol drinkers.

There are several reasons why contextual variables in general, and neighborhood income and income distribution in particular, may be important determinants of substance use. First, neighborhood characteristics may increase levels of psychological distress[39] and drug use may occur for the relief of states of stress.[40, 41] There is ample research demonstrating that stressful life events occur with greater frequency in low-income neighborhoods[42] and that substance use may be a way to cope with these events.[43] Second, adverse neighborhood conditions (e.g., low income, greater income maldistribution) may undermine individuals' psychological coping resources and make use of substances more likely.[44] Third, it is possible that neighborhood disadvantage decreases social resources available to individuals, resulting in more limited assistance in coping with daily stresses, and fewer resources to overcome substance use once initiated. Fourth, drug-related behaviors may be related to neighborhood social norms through mechanisms unique to different neighborhoods and population groups.[45, 46] Fifth, differential neighborhood availability of substances may be directly associated with different levels of drug use independent of individual-level factors. For example, it has been shown that alcohol outlet density is related to higher levels of alcohol consumption.[47] Targeted advertising in particular neighborhoods may increase awareness and desirability of substances.[48]

These postulated mechanisms to explain potential relations between neighborhood context and substance use suggest that more disadvantaged neighborhoods (characterized by lower income or by greater income maldistribution) would be expected to have higher prevalence and frequency of substance use. This study's observations, taken in concert with other related work, suggest that the relation between neighborhood context and substance use is far more nuanced. Income and income distribution were both determinants of alcohol use in multilevel models. However, neighborhoods with *higher* median income had a *greater* likelihood of alcohol use. This finding is similar to work by Pollack et al. indicating a higher odds of heavy alcohol consumption among residents in the least deprived neighborhoods in California,[24] but stands in contrast to other work suggesting that *poorer* neighborhood conditions are associated with *greater* alcohol use.[23] This suggests that stress hypotheses (which may explain a relation between lower income or greater income maldistribution and alcohol use) are not a sufficient explanation for the role of neighborhood context in shaping alcohol use. In the case of alcohol

use, it is likely that social norms play a role in determining its use that is at least comparable to the role played by contextual stress. This study did not find any associations between either individual or neighborhood-level income and smoking. This adds to the discrepancy in the literature between work that has shown that contextual factors were associated with cigarette use[9, 18, 19, 20, 21] and work that has not.[49] These differences may be explained both by the methodologic differences (including contextual unit of analysis) between these studies and by the potential presence of multiple mechanisms, each relevant in different contexts, that determine substance use.

The literature about contextual determinants of illicit drug use is sparse.[50] Furthermore, empiric studies that have assessed contextual determinants of alcohol, cigarette, and marijuana use in the same population sample could not be found. This study suggests similarities between the determinants of alcohol and marijuana use in contrast to cigarette use. It is plausible that since cigarettes have a greater potential for dependence than either alcohol or marijuana,[51] current cigarette use is determined by earlier characteristics of the life-course, while contemporaneous contextual variables may have an effect on alcohol and marijuana use. This observation, if replicated, has substantial implications for prevention efforts and merits further research.

The observations made in this study must be interpreted with caution. Data from a study of residents of New York City in the aftermath of the September 11 attacks was used. It is possible that the relations observed here are particular to a period of heightened concern due to a national disaster and are not generalizable to other contexts. However, this data was collected more than six months after the attacks and there is no evidence that the increase in substances used in New York City after this disaster was differential across geographic areas suggesting that this concern is unlikely to affect the observations documented here. Also, the survey data used here were collected through telephone interviews, raising the possibility of under-reporting of substances used. This is again unlikely given the comparability of substance use documented here to national estimates and the growing evidence to suggest that estimates obtained through telephone assessments can validly replicate those from in-person assessments.[52, 53] Although available relevant individual and neighborhood-level variables were controlled for, it is possible that residual cross-level confounding or confounding by covariates not considered here could explain some of the observed relations among neighborhood characteristics and substance use measures. Consistent with previous research,[30] community districts were used as proxies for neighborhoods in NYC. Definition of relevant neighborhood units is challenging and these units, while large, are probably more meaningful analytic units than census tracts or zip codes, the most commonly used units of analysis in the study of neighborhood-level effects.[4, 29] Census data from 2000 were also used, and it is difficult to know how well this information represents conditions of neighborhoods in NYC in 2002 and if any changes may account for some of the observed associations. Also, inferences about the patterns of marijuana use prevalence are limited by the relatively low prevalence of marijuana use. Finally, the data pertain strictly to substance use and inferences should not be extended from these observations to either substance abuse or dependence.

Notwithstanding these limitations, this data suggest that neighborhood income and income distribution are associated with use of alcohol and marijuana, but not cigarettes. Further research should investigate specific pathways that explain the relation between neighborhood characteristics and use of different substances, as the elucidation of these pathways may be useful when developing interventions to reduce use of these substances.

Acknowledgements

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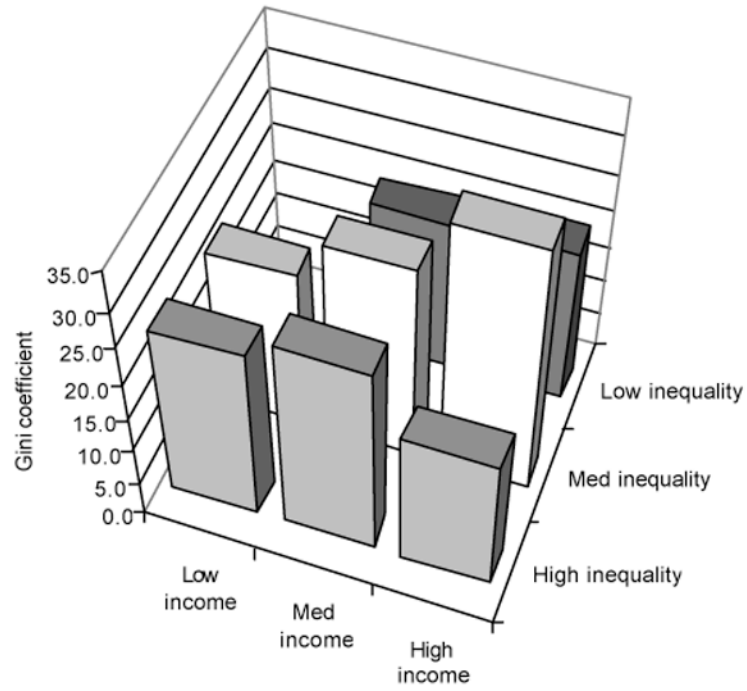
Figure 1. Gini coefficient (inequality), median income, and prevalence of cigarette smoking in New York City neighborhoods
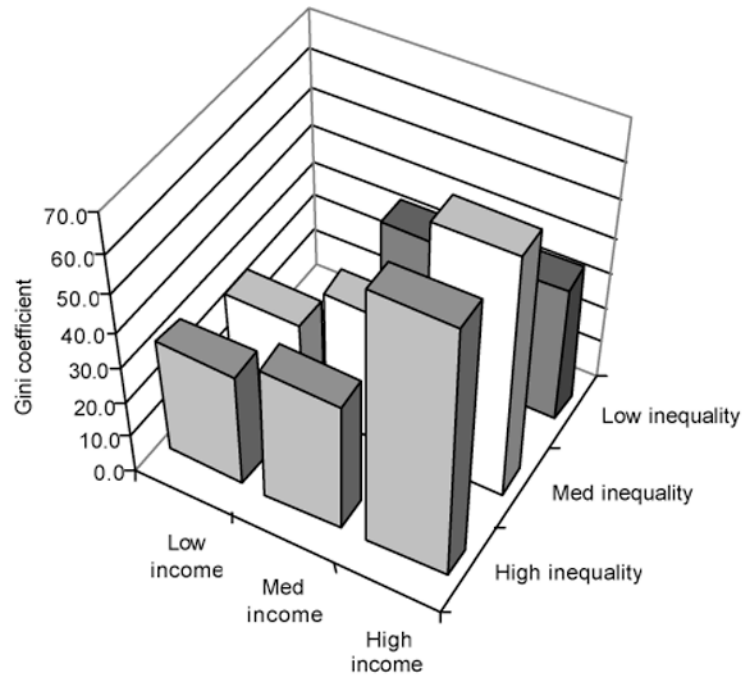
Figure 2. Gini coefficient (inequality), median income, and prevalence of alcohol drinking in New York City
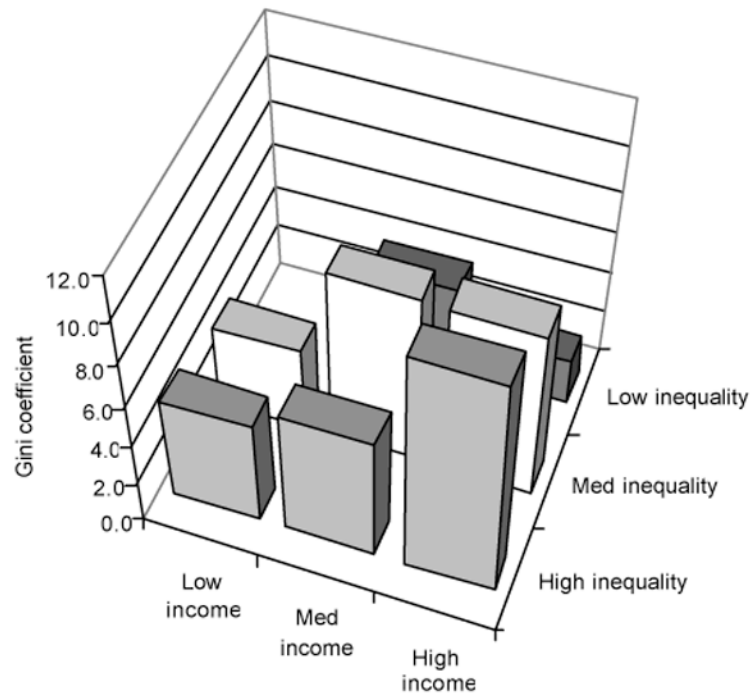
Figure 3. Gini coefficient (inequality), median income, and prevalence of marijuana smoking in New York City neighborhoods

Table 1

Demographic characteristics of survey population

	n	%*	Mean	Standard deviation
Total	1355	100.00		
Age			40.36	12.85
18-24	144	15.95		
25-34	357	27.75		
35-44	279	18.33		
45-54	248	18.04		
55-64	148	10.95		
65+	134	8.98		
Gender				
Male	616	43.83		
Female	739	56.17		
Race/ethnicity				
White	682	35.65		
Asian	102	6.26		
African American	220	24.24		
Hispanic	291	29.69		
Other	40	4.15		
Income				
$100,000 +	213	11.33		
$75,000 - $99,999	102	9.76		
$50,000 - $74,999	196	16.08		
$40,000 - $49,999	93	6.68		
$30,000 - $39,999	134	14.91		
$20,000 - $29,999	142	16.54		
< $20,000	265	24.71		
Education				
Graduate degree	255	10.55		
College degree	442	27.87		
Some college	239	21.60		
High school				
Graduate/GED	248	23.99		
< high school graduate	169	15.99		

*
Weighted percent to account for number of household telephones, persons in the household, and over-sampling

Table 2

Multilevel logistic regression models predicting use of substances

	Any cigarettes in last 30 days n=1115				Any alcoholic drink in last 30 days n=1107				Any marijuana in last 30 days n=1110			
	Beta	Low CI	High CI	p value	Beta	Low CI	High CI	p value	Beta	Low CI	High CI	p value
Neighborhood-level												
Median income	0.15	−0.04	0.35	0.13	0.25	0.09	0.40	<0.001	0.31	0.03	0.59	0.03
Gini coefficient	3.53	−5.03	12.10	0.42	7.27	0.91	13.64	0.03	12.81	1.49	24.12	0.03
Individual-level												
Income	−0.07	−0.14	<0.001	0.06	0.06	0.01	0.10	0.02	0.01	−0.13	0.15	0.92
Age	−0.02	−0.03	<0.001	0.03	−0.03	−0.04	−0.01	<.001	−0.09	−0.14	−0.05	<0.001
Male	0.66	0.11	1.21	0.02	0.67	0.33	1.01	<0.001	0.75	−0.09	1.58	0.08
Asian	−0.55	−1.70	0.61	0.35	−1.63	−2.66	−0.61	<0.001	−5.56	−7.78	−3.35	<0.0001
African-American	−0.05	−0.64	0.53	0.86	−0.75	−1.29	−0.21	0.01	−0.41	−1.30	0.48	0.37
Hispanic	−0.18	−1.01	0.64	0.66	−0.85	−1.45	−0.24	0.01	−1.86	−3.25	−0.48	0.01
Other	−0.78	−2.29	0.73	0.31	−0.44	−1.65	0.77	0.48	−0.05	−2.41	2.31	0.97
High school/GED	0.46	−0.26	1.18	0.21	0.03	−0.97	1.02	0.96	−0.99	−2.56	0.58	0.22
Some college	0.54	−0.25	1.34	0.18	0.39	−0.58	1.35	0.44	−0.34	−1.81	1.12	0.65
College graduate	−0.21	−1.03	0.61	0.61	0.72	−0.41	1.84	0.21	−1.59	−3.31	0.14	0.07
Graduate work	−1.08	−2.09	−0.07	0.04	0.78	−0.26	1.81	0.14	−1.58	−3.60	0.43	0.12

CI, confidence interval

Table 3

Multilevel linear regression models predicting quantity of cigarettes and alcohol used

	Number of cigarettes in last 30 days, among smokers; N=258				Number of alcoholic drinks in last 30 days, among drinkers; N=562			
	Beta	Low CI	High CI	p value	Beta	Low CI	High CI	p value
Neighborhood-level								
Median income	−24.95	−63.05	13.16	0.20	3.01	0.64	5.39	0.01
Gini coefficient	−872.50	−2628.64	883.64	0.33	159.46	47.08	271.85	0.01
Individual-level								
Household income	69.61	14.02	125.20	0.01	−0.90	−1.53	−0.28	<0.001
Household income²	−4.63	−7.97	−1.29	0.01	-	-	-	-
Age	4.01	0.68	7.35	0.02	0.01	−0.26	0.29	0.92
Male	102.30	20.08	184.52	0.01	6.84	0.44	13.24	0.04
Asian	−98.50	−248.68	51.67	0.20	−1.06	−15.40	13.28	0.88
African-American	−169.06	−278.37	−59.74	<0.001	−3.18	−15.40	9.04	0.61
Hispanic	−122.30	−261.38	16.79	0.08	−3.63	−14.19	6.94	0.50
Other	−287.09	−473.08	−101.10	<0.001	−13.95	−26.78	−1.11	0.03
High school/GED	40.01	−100.73	180.75	0.58	7.43	−7.45	22.30	0.33
Some college	−8.27	−168.84	152.30	0.92	5.47	−4.37	15.31	0.28
College graduate	96.10	−153.65	345.84	0.45	6.62	−4.95	18.18	0.26
Graduate work	6.88	−319.91	333.68	0.97	−0.96	−11.39	9.47	0.86

CI, confidence interval