

Prevalence and Social Correlates of Cardiovascular Disease Risk Factors in Harlem

ABSTRACT

Objectives. This study examined the prevalence, social correlates, and clustering of cardiovascular disease risk factors in a predominantly Black, poor, urban community.

Methods. Associations of risk factor prevalences with sociodemographic variables were examined in a population-based sample of 695 men and women aged 18 to 65 years living in Central Harlem.

Results. One third of the men and women were hypertensive, 48% of the men and 41% of the women were smokers, 25% of the men and 49% of the women were overweight, and 23% of the men and 35% of the women reported no leisure-time physical activity over the past month. More than 80% of the men and women had at least 1 of these risk factors, and 9% of the men and 19% of the women had 3 or more risk factors. Income and education were inversely related to hypertension, smoking, and physical inactivity. Having 3 or more risk factors was associated with low income and low education (extreme odds ratio [OR] = 10.2, 95% confidence interval [CI] = 3.0, 34.5 for education; OR = 3.7, CI = 1.6, 8.9 for income) and with a history of unstable work or of homelessness.

Conclusions. Disadvantaged, urban communities are at high risk for cardiovascular disease. These results highlight the importance of socioenvironmental factors in shaping cardiovascular risk. (*Am J Public Health.* 1999;89:302-307)

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Over the past few years, studies have suggested that cardiovascular diseases are an important cause of excess deaths in disadvantaged Black communities.¹⁻³ In Harlem, New York City, cardiovascular diseases were the leading cause of excess deaths between 1979 and 1981 in persons younger than 65 years and accounted for nearly a quarter of the excess deaths observed.¹ Ten years later (in 1989 to 1991), they remained the leading cause of excess deaths in Harlem women aged 15 to 64 years and were second in importance only to HIV in Harlem men at similar ages.² Despite the potential public health importance of cardiovascular diseases, little information on the prevalence and correlates of established cardiovascular disease risk factors is available for communities such as Harlem. Ongoing surveys such as the Behavioral Risk Factor Surveillance System (BRFSS)⁴ or the National Health and Nutrition Examination Survey (NHANES)⁵ do not allow community-specific estimates. The BRFSS is further limited by the use of a telephone survey method, which may under-sample disadvantaged subgroups, who are less likely to have telephones. The Harlem Household Survey, which was carried out by the Harlem Center for Health Promotion and Disease Prevention by using a door-to-door survey method and in-person data collection, provided a unique opportunity to examine the demographic and socioeconomic factors associated with the prevalence of 4 well-established cardiovascular risk factors—hypertension, overweight, smoking, and physical inactivity—and the clustering of these risk factors in a population-based sample of men and women living in Central Harlem, New York City. Valid information on the prevalence of cardiovascular risk factors in communities such as Harlem, as well as on the factors affecting their distribution, is crucial for designing effective strategies to prevent cardiovascular disease.

Methods

Central Harlem is a predominantly Black community located in northern Manhattan with a population of approximately 115 000. Nearly 40% of inhabitants live below the US federal poverty level. The Harlem Household Survey was carried out by the Harlem Center for Health Promotion and Disease Prevention between 1992 and 1994. In October and November 1991, trained community enumerators listed all dwelling units on 46 randomly selected blocks in the Central Harlem health district. The units listed included not only US census-defined dwelling units but also individual living quarters within group quarters (e.g., beds within homeless shelters); temporary residences (e.g., prison halfway houses, single occupancy hotels); and living spaces in commercial property, basements, abandoned buildings, or public spaces (subways) if they were judged to be where an individual spends most of his or her time or to which he or she regularly returns to sleep. A sample of 1300 dwellings was randomly selected from

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the more than 22 000 enumerated units. Of these, 963 units were inhabited and contained an adult resident at the time of the first interview. This respondent answered a brief questionnaire and was asked to list all persons usually residing in the household. One adult aged 18 to 65 years was then randomly selected from each household with a procedure developed by Kish.⁶ Household members were eligible for the survey if they were aged 18 to 65 years and spoke English (96% of Central Harlem residents aged 18 to 65 speak English). Of the 963 adults selected, 695 (72%) completed the interview. All interviews were conducted in person by trained and supervised interviewers who administered a structured questionnaire. Enumerators and interviewers were community residents, and all were Black. A supervisor reviewed interviews, and a system of callbacks was used to verify key information on selected interviews.

The survey included questions on demographic characteristics, socioeconomic status, health conditions, and health-related behaviors. Participants selected their race from a list of predefined categories (Black, White, Asian or Pacific Islander, American Indian, or other). Those who reported Spanish or Hispanic origin were further characterized as Hispanic. Participants also were asked to report the highest educational diploma, degree, or certificate earned and their total household income from a list of 13 predefined categories. Information on employment status (not employed, irregular or part-time employment, full-time employment, and more than full-time employment) and history of steady work ("Since age 18, during how much of your life have you had steady work for more than half the year when you wanted to work?") was also collected. Persons were considered to have a history of homelessness if they reported a time in their lives when they did not have a permanent place to live, slept in different places, or stayed in a shelter or other public place.

Questions on risk factors were modeled on the BRFSS.^{4,7} Systolic and diastolic blood pressure were measured by trained and certified interviewers twice during the interview (once at the halfway point and once at the end of the interview) with a mercury sphygmomanometer. The mean of the 2 measurements was used in the present analyses. Participants were asked if they had ever had hypertension or high blood pressure. Among those who reported being hypertensive, information on self-reported current use of antihypertensive medication was also recorded. Persons were classified as hypertensive if they had systolic blood pressure at or above 140 mm Hg or diastolic blood pressure at or above 90 mm Hg or

if they were currently taking antihypertensive medications. Height and weight were self-reported. Body mass index (BMI) was calculated as weight in kilograms divided by height in meters squared. Persons were classified as overweight if they had a BMI at or above 27.8 kg/m² for men and at or above 27.3 kg/m² for women.⁸

Current smokers were those who reported smoking 100 cigarettes in their entire lives and were smoking at the time of the survey. Past smokers were those who reported smoking 100 cigarettes in their entire lives but were not smoking at the time of the survey. Never smokers were those who had never smoked or had smoked fewer than 100 cigarettes in their entire lives and were not smoking at the time of the survey. Persons were characterized as physically inactive if they reported not having participated in any physical activities such as running, calisthenics, golf, bicycling, sports, dancing, or walking for at least 15 minutes at a time over the past month.

Because the Harlem Household Survey questions were modeled on the BRFSS, prevalences of cardiovascular risk factors were compared with BRFSS estimates for New York State, adjusted to the mean age of the Harlem sample. Because blood pressure was not measured in the BRFSS, estimates of prevalent hypertension were compared with nationwide NHANES III estimates.⁹ Associations between cardiovascular risk factors within the Harlem sample were investigated by estimating the odds ratio (OR) of having a given risk factor (e.g., obesity) in persons with another risk factor (e.g., smoking) compared to those without the other risk factor (e.g., nonsmoking). Age-adjusted percent prevalences of each of the risk factors, and of having 2 or more and 3 or more risk factors, were estimated for categories of demographic and socioeconomic variables, separately in men and women. Proportions were adjusted to the mean age by using logistic regression. In the case of ordinal categories, trend tests were performed by including the categories as an ordinal variable in the regression equations. Age- and gender-adjusted odds ratios of having 3 or more risk factors were estimated for categories of socioeconomic variables. Patterns for having 2 or more risk factors were similar to those observed for 3 or more risk factors, so only the latter are reported here. Because the intent was to describe the relation of different social variables to the outcomes of interest (rather than to tease apart the independent effects of these variables), estimates for the different socioeconomic indicators are adjusted for age (or age and gender) but not for one another.

Results

The survey sample comprised 287 men and 408 women aged 18 to 65 years. The median age was 37 years in men and 38 years in women. Selected characteristics of study participants are shown in Table 1. More than 90% of respondents reported being Black (of which 96% were non-Hispanic). Almost one third of the sample had not completed high school, and nearly 60% of the participants lived in households with annual incomes of \$15 000 or less. Approximately 46% of the men and 56% of the women were not employed at the time of the survey, and about a quarter of survey respondents reported that they had been homeless at some point in their lives. The sociodemographic characteristics of survey respondents were generally similar to those of the adult population of Central Harlem as a whole, as reported by the 1990 US census.

Prevalent proportions of cardiovascular risk factors are shown in Table 2. Nearly a third of the study population (32% of the men and 31% of the women) were categorized as hypertensive by the standard definition (compared with NHANES III nationwide estimates of 23% for men and 25% for women 18 years and older and 30% for non-Hispanic Black men and 27% for non-Hispanic Black women 18 years and older⁹ [data not shown]). However, substantially lower percentages of especially men (12.1%), but also of women (22.4%), self-reported hypertension in the survey. Approximately one quarter of the men and nearly half of the women were categorized as overweight. About 48% of the men and 41% of the women were current smokers. Approximately 23% of the men and 35% of the women reported not having participated in leisure-time physical activity over the past month. Estimates of overweight in the women and current smoking in both sexes were higher than BRFSS estimates for all men and women in New York State. Estimates of overweight in the women were slightly higher than statewide estimates for Black women, and Harlem residents also smoked substantially more than Blacks statewide.

More than 80% of both the men and the women had at least 1 of the 4 risk factors investigated, and 9% of the men and 19% of the women had 3 or more risk factors. Being overweight was positively associated with hypertension (OR = 2.1; 95% confidence interval [CI] = 1.2, 3.7 in men; OR = 2.6; CI = 1.7, 3.9 in women) and negatively associated with smoking (OR = 0.6; CI = 0.3, 1.1 in men; OR = 0.5; CI = 0.4, 0.8 in women) (not shown in table). Physical inactivity was

positively associated with hypertension (OR = 2.2; CI = 1.3, 3.8 in men; OR = 1.8; CI = 1.1, 2.7 in women) and with smoking (OR = 1.4; CI = 0.8, 2.4 in men; OR = 1.6; CI = 1.1, 2.5 in women). Physical inactivity and being overweight were not associated in this sample. Among men having 3 or more risk factors, smoking, hypertension, and physical inactivity were the most common combination (38%). Among women with 3 or more risk factors, overweight, hypertension, and physical inactivity were the most common combination (23%), but other combinations (overweight, smoking, and hypertension; overweight, smoking, and physical inactivity; smoking, hypertension, and physical inactivity; and all 4 risk factors) were nearly as common (18%–20% each).

Age-adjusted prevalent proportions of the 4 risk factors by sociodemographic characteristics are shown in Table 3. The prevalence of hypertension, smoking, and physical inactivity generally decreased with increasing education and with increasing income in both the men and the women, although trends were not always statistically significant. Hypertension was not consistently associated with income in the men, although its prevalence was lower in the highest income group than in the other 3 categories. Being overweight was not consistently associated with education or income in the men or women.

Persons who were not employed, who had a history of not having steady work, or who had a history of homelessness were more likely to be hypertensive and more likely to smoke than those who were employed full time, those who had always had steady work, and those who did not have a history of homelessness, respectively (all differences were statistically significant in women but not in men). In addition, men who were not employed were significantly less likely to be overweight than those who were employed full time, and women who were not employed were significantly more likely to be physically inactive than those who were employed full time.

Adjusted prevalence proportions and odds ratios of having 3 or more of the 4 risk factors are shown in Table 4. The odds of having 3 or more risk factors increased markedly in persons with no high school diploma, as compared with those with complete college. The highest income category had significantly lower odds of having 3 or more risk factors than the other 3 categories, but there was no dose-response trend. A history of not having steady work, a history of being homeless, and not being employed at the time of the survey (in women) were associated with increased odds of having 3 or more risk factors.

TABLE 1—Percentage Distribution of Survey Participants by Selected Sociodemographic Characteristics: Harlem Household Survey, 1992–1994

	Men (n = 287) ^e	Women (n = 408) ^e	Total (n = 695)
Age, y			
18–29	23.0	26.9	25.3
30–44	45.3	38.2	41.1
45–65	31.7	35.0	33.6
Race/ethnicity			
Black, non-Hispanic	87.5	87.8	86.5
Black, Hispanic	3.8	3.7	3.7
White, non-Hispanic	2.1	0.5	1.2
White, Hispanic	5.9	9.8	8.2
Other ^a	0.7	0.3	0.4
Education			
No high school diploma	32.7	31.6	32.1
High school diploma or GED	44.1	46.3	45.4
Technical certification or 2-year college degree	8.5	6.7	7.5
4-year college or graduate degree	14.6	15.4	15.1
Household income, \$			
<7000	28.5	32.9	31.1
7000–15 000	27.0	26.5	26.7
15 001–30 000	21.3	24.6	23.2
30 001–50 000	14.5	11.2	12.6
50 001–70 000	3.8	1.6	2.5
>70 000	4.9	3.2	3.9
Employment status			
Not employed	45.8	55.7	51.6
Irregular or part-time employment	13.3	8.4	10.4
Full-time employment ^b	40.9	36.0	38.0
Always had steady work when wanted to work ^c			
No	46.6	57.6	53.1
Yes	53.4	42.4	46.9
History of homelessness ^d			
Yes	32.4	21.7	26.1
No	67.6	78.3	73.9

Note. GED = general equivalency diploma.

^aIncludes 2 Asian/Pacific Islanders (1 man and 1 woman) and 1 American Indian/Hispanic man.

^bIncludes 11 men and 12 women who reported being employed at more than one job totaling more than 40 hours per week.

^cThe corresponding question for this item was "Since age 18, during how much of your life have you had steady work for more than half the year when you wanted to work?" Participants responding "All of my life" were recoded as "Yes." All others who claimed to have had steady work during only part of their lives (when they wanted to work) were coded as "No."

^dPersons were considered to have a history of homelessness if they reported that there was a time in their lives when they did not have a permanent place to live, slept in different places, or stayed in a shelter or other public place.

^eThe total number may vary slightly for each variable because of missing values. With the exception of income, missing values ranged from 0% to 2% of the total. Approximately 8% of participants were missing information on income.

Discussion

In this population-based sample of Harlem residents, more than 80% of men and women had at least 1 of the cardiovascular risk factors investigated. Substantial proportions of the population had more than 1 risk factor: 40% of men and 51% of women had 2 or more risk factors, and 9% of men and 19% of women had 3 or more of the 4 risk factors investigated. Overall, these results are consistent with

previous analyses suggesting that cardiovascular diseases are an important cause of morbidity and mortality in disadvantaged, urban communities.^{1,2} The high prevalences of cardiovascular risk factors documented in Harlem are also consistent with Gillum's proposed stages in the epidemiologic evolution of cardiovascular disease in Black Americans, in which urban Black communities are hypothesized to be at particularly high risk for cardiovascular disease.³

TABLE 2—Age-Adjusted Prevalences of Selected Cardiovascular Risk Factors by Gender: Harlem Household Survey, 1992–1994, and New York State Behavioral Risk Factor Surveillance System (BRFSS), 1993^a

	Harlem Household Survey		New York State BRFSS			
	Men (n = 287)	Women (n = 408)	All Men (n = 849)	All Women (n = 1114)	Black Men (n = 107)	Black Women (n = 193)
Hypertensive, % ^b	32.2	31.3	NA	NA	NA	NA
Self-reported hypertension, % ^b	12.1	22.4	17.2	16.2	18.0	16.7
Overweight, % ^c	25.4	48.9	29.0	23.0	25.7	43.2
Smoking status, % distribution						
Current	47.5	41.2	28.0	23.4	24.1	21.5
Former	13.4	12.6	24.3	23.7	19.7	5.2
Never	37.6	45.3	43.9	51.9	52.6	69.7
No leisure-time physical activity over past month, % ^d	22.5	34.8	32.9	35.1	34.3	50.4
1 or more risk factors, % ^e	83.0	86.2				
2 or more risk factors, %	39.0	51.2				
3 or more risk factors, %	8.9	18.5				

Note. NA indicates not applicable.

^aAge-adjusted to the mean age of the Harlem sample. BRFSS estimates correspond to persons aged 18–65 and are weighted by using sample weights. BRFSS estimate for physical inactivity corresponds to 1994 because it was unavailable in 1993. The New York State BRFSS included 805 men, 1103 women, 96 Black men, and 183 Black women. BRFSS estimates may not match published figures because they are adjusted to the mean age of the Harlem sample.

^bPersons were classified as hypertensives if systolic blood pressure ≥ 140 mm Hg or diastolic blood pressure ≥ 90 mm Hg or if they were currently taking antihypertensive medication. Persons were classified as having self-reported hypertension if they answered yes to the question "Have you ever had hypertension or high blood pressure?"

^cOverweight was defined as body mass index ≥ 27.8 kg/m² in men and ≥ 27.3 kg/m² in women.

^dIn the Harlem Household Survey, persons were classified as having no leisure-time physical activity if they reported not participating in activities such as running, calisthenics, golf, bicycling, sports, dancing, or walking for at least 15 minutes at a time over the past 30 days. In the 1994 BRFSS, persons were classified as having no leisure-time physical activity if they reported not participating in activities or exercises such as running, calisthenics, golf, gardening, or walking for exercise over the past 30 days.

^eHypertension, overweight, current smoking, or physical inactivity.

TABLE 3—Age-Adjusted Prevalences of Selected Cardiovascular Risk Factors by Sociodemographic Characteristics: Harlem Household Survey, 1992–1994

	Prevalence, ^a %							
	Men				Women			
	Hypertension	Smoking	Physical Inactivity	Overweight	Hypertension	Smoking	Physical Inactivity	Overweight
Age, y								
45–64	60.0*	49.5	45.6*	30.8	57.6*	40.9	43.0	60.4*
30–44	26.4	53.1*	14.3	24.4	29.2*	46.1	29.1	46.1
18–29	17.6	33.9	17.1	21.5	11.2	34.9	32.2	38.7
P for trend ^b	***		***		***			***
Education								
No high school diploma	37.8	54.7	26.0	30.3	35.6*	43.6*	47.0*	45.4
High school diploma	24.6	45.9	21.9	45.9	31.4	48.2*	33.9*	51.1
4-year college	29.2	37.0	19.0	16.9	19.9	11.4	11.1	45.9
P for trend ^b		**			**	***	***	
Household income, \$								
<7000	33.4	57.2*	25.2	24.0	37.4*	52.9*	40.1*	39.8
7000–15 000	38.6	55.6*	26.5	18.3	29.6	46.2	38.1	48.2
15 001–30 000	41.9*	35.5	22.4	35.6	31.5	31.3	28.6	60.4
>30 000	22.4	37.6	18.8	29.2	21.3	31.2	24.7	47.2
P for trend ^b		***				***	**	
Employment status								
Not employed	37.5	60.1*	20.4	19.7*	36.9*	48.5*	40.2*	49.9
Irregular or part-time	27.1	30.0	31.0	27.8	20.9	40.8	28.6	61.2
Full-time	29.1	39.4	22.3	31.1	25.5	29.7	28.8	44.0
Always had steady work								
No	37.6	53.0	22.6	25.5	35.5*	50.4*	37.1	45.7
Yes	27.6	42.0	21.9	26.0	24.8	29.7	31.7	53.4
History of homelessness								
Yes	37.5	61.3*	25.3	25.7	43.2*	57.8*	38.3	48.9
No	29.8	40.9	21.1	25.3	27.7	36.9	34.0	48.5

^aWith the exception of estimates for age categories, prevalence proportions are adjusted to the mean age of the Harlem sample.

^bEstimated using logistic regression with categories included as ordinal variables.

* $P < .05$ for comparison with reference category. Last category is reference category for P values.

** P for trend $< .05$. *** P for trend $< .01$.

Harlem is not economically homogeneous,¹ and patterning of risk factors by socioeconomic factors was evident. Prevalences of smoking, hypertension, and physical inactivity generally increased with decreasing income and education. Not being employed, having a history of not having steady work, and having a history of homelessness were all associated with increased prevalence of hypertension and smoking. The patterning of smoking by socioeconomic variables was particularly strong. Associations of education with number of cigarettes smoked, years smoked, age started smoking, and quit attempts in the Harlem Household Survey have been previously reported.¹⁰ Socioeconomic factors were also associated with the odds of having 3 or more risk factors. These findings are consistent with previous reports showing inverse associations between socioeconomic position and cardiovascular risk factors in a variety of populations.^{11,12} Although being overweight (particularly among women) has been found to be inversely associated with socioeconomic status,¹³ it was not clearly related to socioeconomic position in this Harlem sample. The explanation for this remains to be determined. Within communities such as Harlem, increasing income and education initially may be associated with the adoption of consumption habits conducive to increased, rather than decreased, body weight, leading to attenuation and even reversal of the socioeconomic patterns in BMI observed in other populations. Kumanyika¹⁴ argued that environmental and society-wide factors may be important in explaining the high prevalence of overweight documented in Black women generally. These broader environmental influences may overwhelm the potential effect of individual-level income or education on BMI in Harlem women.

Important strengths of the Harlem Household Survey include its population-based nature; its high participation rate (72%) for a poor, urban community; and the extensive efforts that were made to construct a representative sampling frame. The Bureau of the Census routinely undercounts housing units in poor and minority communities.¹⁵ In addition, nearly 20% of the survey participants reported not having a telephone at the time of the survey. If those not counted in the census and those living in households without telephones differ from other residents, traditional sampling schemes based on the census or on random digit dialing may generate biased samples of poor, minority communities.

In interpreting our results, one should bear in mind the limited availability of validity and reliability information for several of

TABLE 4—Percentage Prevalences and Odds Ratios of Having 3 or More Risk Factors by Sociodemographic Characteristics: Harlem Household Survey, 1992–1994

	Percentage Prevalence ^a		Adjusted Odds Ratios ^b (95% Confidence Interval)
	Men	Women	
Age, y			
45–65	24.7*	33.6*	7.7 (3.7, 16.1)
30–44	8.2	16.6	2.7 (1.2, 5.8)
18–29	0.0	8.8	1.0
<i>P</i> for trend	***	***	***
Education			
No high school diploma	13.5*	22.2*	10.2 (3.0, 34.5)
High school diploma	8.3	20.7*	8.1 (2.4, 26.9)
4-year college or more	1.8	2.6	1.0
<i>P</i> for trend	**	***	***
Household income, \$			
<7000	9.4	21.7*	3.7 (1.6, 8.9)
7000–15 000	14.6*	23.7*	4.2 (1.8, 10.1)
15 001–30 000	12.5*	15.8	3.9 (1.6, 9.6)
>30 000	2.5	7.4	1.0
<i>P</i> for trend		**	**
Employment status			
Not employed	10.8	22.9*	1.8 (1.1, 2.8)
Irregular or part-time	3.2	14.6	0.9 (0.3, 2.1)
Full-time	9.0	12.6	1.0
Always had steady work			
No	12.0	21.2	1.7 (1.1, 2.6)
Yes	6.4	15.0	1.0
History of homelessness			
Yes	12.1	30.8*	2.2 (1.3, 3.6)
No	7.4	14.9	1.0

^aWith the exception of estimates for age categories, prevalence rates are adjusted to mean age.

^bOdds ratios are adjusted for age (with the exception of estimates for age categories) and gender.

P* < .05 for comparison of prevalence rates with reference category. Last category is reference category for *P* values. *P* for trend < .05. ****P* for trend < .01.

the questionnaire items used, particularly in communities such as Harlem. The validity of self-reported height and weight has been previously documented,^{16,17} but potential differences in validity for different socioeconomic groups or communities have not been extensively investigated. However, at least one study concluded that self-reported data have high validity even among the less educated.¹⁸ The measure of physical activity used in these analyses is limited in that it did not quantify the degree of leisure-time physical activity and did not address other potential sources of physical activity. For example, work and transportation may be important sources of physical activity for urban African Americans.¹⁹ In addition, although the measure of physical activity used here is used routinely in BRFSS reports^{20,21} and has been shown to have acceptable reliability (even in culturally diverse populations),^{22,23} its validity has not been directly investigated. Warnecke et al.²⁴ recently reported variations by race/ethnicity in the way respondents defined physical activity in BRFSS questionnaires.

Even in the presence of identical cues and probes, the social desirability of a given behavior may influence respondents' answers to questionnaires. In Warnecke and colleagues' analyses, African Americans and Mexican Americans were more likely to have the social desirability trait, and overreport physical activity, than non-Hispanic Whites. This type of response bias may have influenced our estimates of physical inactivity and may have contributed to the relatively low prevalences of physical inactivity documented. Comparisons of Harlem physical inactivity estimates with statewide BRFSS estimates are also hampered by questions addressing physical activity in the Harlem Household Survey and the BRFSS that were not identical (e.g., both surveys included running, calisthenics, golf, and walking as probes, but the 1994 BRFSS added gardening, whereas the Harlem Household Survey added sports, bicycling, and dancing; the BRFSS referred to participation in physical activities over the past month for exercise, whereas the Harlem Household Survey

referred to participation in physical activities for at least 15 minutes at a time). Nevertheless, because of the paucity of information on physical activity in urban Black communities, and because a measure similar to the one used here is routinely included in surveillance,²⁰ we included physical inactivity in these analyses.

Despite the survey's limitations, it provides a unique opportunity to examine the distribution of cardiovascular risk factors in a poor, urban, and predominantly Black community. The high prevalence of cardiovascular risk factors in this community, as well as their patterning by socioeconomic factors, highlights the importance of examining environmental and social determinants of cardiovascular risk. What aspects of community environments are conducive to more active lifestyles, healthier diets, and less smoking? Why do risk factors tend to cluster in disadvantaged communities and in disadvantaged individuals within those communities? How do socioenvironmental factors promote and reinforce the development of cardiovascular risk factors and "unhealthy" behaviors in communities such as Harlem?

Finally, the high prevalence of cardiovascular risk factors documented makes the public health plight of these communities even more compelling: many of them are at high risk not only for HIV/AIDS, tuberculosis, drug abuse, violence, and environmental hazards but also for chronic diseases such as cardiovascular disease. □

Contributors

A. V. Diez-Roux analyzed the data and wrote the paper. M. E. Northridge and A. Morabia provided suggestions for the analysis and contributed to the writing of the paper. M. T. Bassett developed the original idea for the paper and provided critical reviews of the manuscript. S. Shea contributed to the writing of the paper.

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