Lack of Oral Health Care for Adults in Harlem: A Hidden Crisis

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Objectives. Profound and growing disparities exist in oral health among certain US populations. We sought here to determine the prevalence of oral health complaints among Harlem adults by measures of social class, as well as their access to oral health care.

Methods. A population-based survey of adults in Central Harlem was conducted from 1992 to 1994. Two questions on oral health were included: whether participants had experienced problems with their teeth or gums during the past 12 months and, if so, whether they had seen a dentist.

Results. Of 50 health conditions queried about, problems with teeth or gums were the chief complaint among participants (30%). Those more likely to report oral health problems than other participants had annual household incomes of less than $9000 (36%), were unemployed (34%), and lacked health insurance (34%). The privately insured were almost twice as likely to have seen a dentist for oral health problems (87%) than were the uninsured (48%).

Conclusions. There is an urgent need to provide oral health services for adults in Harlem. Integrating oral health into comprehensive primary care is one promising mechanism. (*Am J Public Health.* 2002; 92:49–52)

Although the oral health status of the US population has greatly improved over the last 30 years, profound and growing disparities exist among certain populations.[1–4] The most disadvantaged include people of color, the working-class poor, and people with chronic illnesses and disabilities. National, state, and local data to accurately quantify the nature and magnitude of these disparities in oral health are notably lacking.[5]

The surgeon general's report *Oral Health in America* calls for new efforts to eliminate disparities in oral health status and rates of oral disease. In particular, it uncovers the hidden epidemic of dental and oral diseases that largely affects poor people of color and those with chronic illnesses and disabilities.[1] The report also stresses the serious consequences that poor oral health has on overall health and well-being. Adults in Harlem suffer from high excess morbidity and mortality[6], yet very little is known about the prevalence or impact of oral diseases in the population. Oral health disparities have been attributed in part to differences in the utilization of oral health services and access to primary oral health care.[7–10] A better understanding of the underlying reasons for underutilization in poor populations of color is urgently needed. The Harlem Health Promotion Center, a joint project of Harlem Hospital Center, the Mailman School of Public Health of Columbia University, and the Centers for Disease Control and Prevention, conducted the Harlem Household Survey (HHS) to better understand and address the determinants of excess morbidity and mortality among adult residents of Harlem. This report presents the results of the survey's oral health assessment.

In particular, we characterized the burden of oral health complaints among Central Harlem adults, determined whether or not they received dental care for their self-reported problems, and identified factors that facilitated their utilization of dental care services.

METHODS

Study Design

The HHS was conducted from 1992 to 1994 in Central Harlem, a largely African American community located in northern Manhattan, New York City. Because previous research has demonstrated that people of color and the poor are underrepresented in household surveys,[11] the sampling frame of the HHS included those dwellings and places where people live that are often missed by conventional US census listing protocols; these include single-room occupancies, cars, and cardboard boxes. Details regarding the sampling frame, survey design, and instrument have been previously described.[12] Of the 963 adults selected, 695 successfully completed the interview, for a response rate of 72%. All interviews were conducted in person by trained community residents with a structured questionnaire; they lasted from 60 to 90 minutes. Respondents were compensated $10 for participating. The survey covered a range of topics, including 50 self-reported health complaints, 3 modules on primary care–sensitive conditions, preventive health practices, and social class measures. Detailed questions on health behaviors were included to afford better understanding of determinants of premature mortality in Harlem.

Health insurance was also queried about. Nonetheless, the HHS did not ask specifically about dental coverage. In New York State, Medicaid includes comprehensive primary oral health care coverage, Medicare has no dental component, and private insurance may or may not cover oral health services.

Oral and General Health Assessment

Participants were queried systematically from a list of 50 common symptoms and health conditions about whether or not they had experienced any complaints in the past 12 months. For each condition identified, participants were asked if they had sought medical treatment. The oral health assessment consisted of the question "During the past 12 months, have you had problems with your teeth or gums?" Those who answered yes to this question were asked "Did you see a dentist for problems with your teeth or gums?" Possible responses were yes and no.

In addition, the HHS queried specifically about 3 ambulatory care–sensitive conditions: asthma, diabetes, and hypertension. For

TABLE 1—Comparison of Harlem Household Survey (HHS) Participants (1992–1994) and General Population of Central Harlem (1990 Census)

	HHS, % (n = 695)	Central Harlem, % (n = 115 483)
Sex		
Female	59	55
Male	41	45
Race/ethnicity		
Black non-Latino	87	86
Any Latino	12	12
Other	1	2
Above poverty level[a]	59	61

[a]Poverty level is defined here as $13 359 for a family of 4.

TABLE 2—Percentage of Harlem Adults Reporting Problems With Given Health Conditions During the Past 12 Months: Harlem Household Survey, 1992–1994 (N = 695)

Condition	% Reporting Yes in Past 12 Months
Self-reported health complaint[a]	
Dental problems (teeth or gums)	30
Frequently tired or run-down	27
Repeated headaches	26
Repeated trouble with back or spine	26
Weakness in legs or trouble walking	23
Trouble remembering things	16
Shortness of breath (without exercise)	15
Trouble seeing even with glasses	15
Numbness or tingling in parts of body	14
Skin rash, itching, or other skin problem	14
Self-reported ambulatory care–sensitive condition[b]	
Hypertension	27
Asthma	14
Diabetes	7

[a]Participants were asked, "During the past 12 months, have you had [complaint]?"
[b]Participants were asked, "Have you ever had [diabetes, asthma, hypertension]?"

TABLE 3—Percentage of Harlem Adults Reporting Problems With Their Teeth or Gums, by Selected Characteristics: Harlem Household Survey, 1992–1994 (N = 695)

Characteristic	% Reporting Problems With Teeth or Gums
Age group, y	
18–29	30
30–44	27
45–65	33
Sex	
Female	31
Male	29
Education	
No HS diploma or GED	34
HS diploma or higher	28
Current work status*	
Unemployed	34
Employed	26
Annual household income*	
Less than $9 000	36
$9 001 or more	28
Health care coverage*	
Private	24
Public	34
Uninsured	32

Note. HS = high school; GED = general equivalency diploma.
*$P \leq .05$.

each of these 3 conditions, participants were asked, "Have you ever had [asthma, diabetes, hypertension]?" Those who answered yes were asked, "How old were you when you had [the identified condition]?" and "When did you last see a doctor?"

Data were entered and analyzed with SPSS 7.0 (SPSS, Inc, Chicago, Ill). Two-tailed χ^2 tests were used to test for differences in proportions between groups identified by known determinants of oral health—namely, age group, sex, social class (highest degree earned, current work status, annual household income), and health care coverage. Multivariate logistic regression was also performed, but the extremely high level of interdependence among the variables precluded meaningful interpretation of the results.

RESULTS

Sociodemographic Characteristics

HHS participants were broadly representative of the general population of Central Harlem on the basis of figures from the 1990 census (Table 1). Females were slightly overrepresented in the HHS sample (59% vs 55% in the 1990 census), probably because of their greater willingness to participate in health surveys such as ours. The sample was predominantly Black non-Latino (87%). Although 3 of every 5 households in both the HHS and the 1990 census earned above the poverty level of $13 359 for a family of 4, this amount is considerably lower than what is needed to adequately provide for the housing, nutrition, and health care needs of Harlem residents.

Of more than 50 health complaints that were part of the survey, problems with teeth or gums (30%) were the most frequently cited (Table 2). The percentage of Harlem adults suffering from dental problems was greater than the percentage suffering from hypertension, asthma, or diabetes.

Compared with their counterparts, adults reporting problems with their teeth or gums tended to be unemployed, to have lower household incomes, and to either lack health insurance or have public insurance (Table 3). No statistically significant differences were found between those who reported and those who did not report dental problems by age, sex, or education.

We also investigated whether the significant variables identified in the bivariate analyses in Table 3 would continue to help explain oral health complaints when entered into a multivariate analysis. Prior to the inclusion of these variables as independent measures into a logistic regression model, we examined the interrelationships among these items. Unfortunately, the extremely high level of interdependence among these variables precluded deriving maximum likelihood estimates of association in a logistic regression model. Employment was highly related to household income ($\chi^2_1 = 161.9$, $P < .001$) and health care coverage ($\chi^2_2 = 275.9$, $P < .001$), and income was highly related to health care coverage ($\chi^2_2 = 196.1$, $P < .001$).

Among participants reporting oral health complaints (n = 209), two thirds (66%) reported having seen a dentist for the complaint. Persons who had private insurance (87%) were more likely to have sought treat-

ment from a dentist than those who had public insurance (62%) or were uninsured (48%).

DISCUSSION

It is striking that the most commonly self-reported health complaint among Harlem adults in this community-based sample was problems with their teeth or gums (30%). Unfortunately, no data were collected on the severity of these complaints, which merits further study. In comparison, only 10% of those participants surveyed in a special supplement on oral health in the National Health Interview Survey (NHIS) in 1989 reported fair or poor oral health.[13] Furthermore, a previous study found that Harlem residents were less likely to identify dental problems than providers were.[14] National data from National Health and Nutrition Examination Survey III (NHANES III) suggest that among dentate adults (those with any natural teeth), nearly 50% of African Americans have untreated coronal tooth decay, compared with 25% of Whites.[15]

No significant differences in self-perceived dental problems were found by sex, age, or education. Those with lower educational attainment were somewhat more likely to report problems with their teeth or gums than were those with higher educational attainment. The lack of an association with age is notable given that the prevalence of caries and periodontal disease increases with age. In Harlem, it may be that a high disease burden at a young age becomes the norm, and therefore older residents do not report more oral health problems than younger residents. Data from national surveys (NHANES III and the 1989 NHIS) have shown that men rate their oral health more highly than do women (although women have fewer oral health problems than men) and that lower educational achievement is associated with greater perceived oral health needs.[15,16] The association between self-perceived oral health needs and age remains inconclusive.[17] The lack of differences in this study may be due to self-report and community perception of oral disease. Education, which may be an indicator of an individual's knowledge of oral hygiene and ability to navigate the health care system, may be a secondary issue when financial barriers to accessing care are great.

Even in Harlem, a poor community of color, differences by social class are evident. In particular, those with lower household incomes and the unemployed are more likely to report dental problems than are other adults in Harlem. This may reflect barriers to preventive or restorative dental care.

It is disturbing that a third of those who suffer from dental problems did not seek care. Among those who did, having insurance coverage was significantly associated with receipt of care. Those with private coverage were less likely to report having dental problems and more likely to report seeking treatment when problems existed than were those with public coverage or no coverage. Note that having private insurance does not necessarily mean that dental coverage is provided. It is likely that the strong relationship between having private insurance and seeking treatment for dental complaints is due in part to higher income and social class among those with private health insurance.

These hypotheses cannot be explored in the HHS owing to the limited data collected on oral health. Still, this study contributes to what is presently known regarding the unmet oral health needs of Harlem adults, as there is a woeful lack of other population-based oral health data on this population. These findings therefore merit attention and signal the need for additional research into how best to provide comprehensive health care, including dental care. Receipt of oral health services for people in need may be improved if those services can be integrated into comprehensive primary care programs.

This problem is particularly vexing because the New York State Medicaid program has one of the most comprehensive dental benefit packages among the 50 states, providing coverage for people of all ages. This suggests that there are other barriers to care that need to be examined (e.g., geographic accessibility and availability of dentists who both accept Medicaid and provide culturally competent care).[18]

As previously noted, requisite to any agenda for improving the health of vulnerable populations is the capacity of local, state, and national agencies to align preventive health and disease control policies.[19,20] In the case of oral health, new and innovative models of care for communities traditionally confronted with shortages of health professionals are needed.[21] For dental and medical providers, educational curricula need to incorporate a wider body of knowledge concerning the relationship of comorbid infections and other systemic health conditions with poor oral health status.[22] The correlation between poor oral health status and other chronic conditions among socially and economically disadvantaged communities illustrates the high level of unmet need for both general and dental health care. Those who are most likely to have oral health problems are also most likely to suffer from other chronic health conditions.[4,5] Therefore, integrating oral health services into comprehensive primary care services may improve access to dental care.[1,23,24]

Referring to the release of the surgeon general's report on oral health, Allukian[20] echoed the need to "reconnect the mouth to the rest of the body in health policies and programs." For far too long, oral and dental have been a neglected epidemic. We need to document the depth of oral health disparities among the most vulnerable groups in our society. Simultaneously, we must integrate oral health care into comprehensive primary care and aggressively pursue policies that will eliminate disparities in oral health. ■

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Contributors

G.P. Zabos, the principal investigator of the oral health project, wrote the proposal, supervised all aspects of the study, and was responsible for most of the writing and interpretation of the findings. M.E. Northridge designed the analyses and contributed substantially to the writing and interpretation of the findings. M.J. Ro conducted the analyses and contributed to the interpretation of the findings. C. Trinh performed the preliminary analyses and contributed to the writing. R. Vaughan provided

statistical consultation and contributed to the interpretation of the findings. J. Moon Howard was investigator on the project and was involved in the conceptualization of the paper. I. Lamster reviewed preliminary drafts and provided consultation as needed. M.T. Bassett provided initial funding of the project and conceptualization of the paper. A.T. Cohall, the principal investigator of the Harlem Health Promotion Center, provided access to the database.

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