Judith A. Malmgren, PhD Mona L. Martin, RN MPA Ray M. Nicola, MD MHSA

When this study was conducted, Dr. Malmgren was a Research Consultant at the Northwest Prevention Effectiveness Center, University of Washington. She is now Health Services Research Methodologist, Providence Health Plans, Seattle, WA. Ms. Martin is the Administrator at the Northwest Prevention Effectiveness Center. Dr. Nicola was Director of the Seattle-King County Department of Public Health and is now Acting Deputy Director of the Public Health Program Office at the Centers for Disease Control. Atlanta, GA.

Tearsheet requests to Dr. Malmgren in care of Mona Martin, Northwest Prevention Effectiveness Center, School of Public Health, Dept. of Health Services, University of Washington, Seattle, WA 98195, tel. 206-543-2548; fax 206-543-8841.

Health Care Access of Poverty-Level Older Adults in Subsidized Public Housing

SYNOPSIS

Objective. To assess the health status, access and use of health care and unmet health care needs of poverty-level residents of the Seattle Housing Authority over the age of 62.

Method. An in-person interview survey of a quota sample of community residents. **Results.** About half of SHA residents reported problems accessing care and sixteen percent reported being denied care. Multivariate analysis showed that encountering barriers to health care use were associated with having insufficient funds for monthly living expenses and lack of transportation. Over 90% of the population knew where to seek health care, so knowledge about sources of care did not appear to be a barrier. SHA residents met or exceeded national goals for completion of six out of nine recommended exams and procedures. SHA residents had unmet needs for services not covered by Medicare or provided by visiting nurse services.

Conclusions. The results suggest that SHA residents know how to access medical care, and that visiting nurse services may be remarkably effective in meeting some medical care needs of SHA residents. It appears access to care by residents of subsidized housing could be improved by addressing transportation and financial barriers, and by providing more services to residents on site.

ow-income and poverty-level older adults are one of the most invisible and difficult to reach groups in our society. They have limited financial resources to draw on in paying the out-of-pocket expenses associated with Medicare¹—partly because they spend a greater proportion of their total income on health care relative to other expenses than those under the age of 65.² In addition, health problems (such as restricted activity days, bed days, and chronic conditions requiring ongoing care) are more frequent in low socioeconomic groups, creating more demand on their incomes to pay for health services.³ Despite these prevailing conditions, a thorough review of the literature did not reveal any current reports on the unmet health care needs of poverty-level older adults.

Methods

We conducted a community survey to gather descriptive information on the health behaviors, health status, barriers

to health care access, and unmet needs of adults 62 and older living in Seattle Housing Authority (SHA) facilities. In 1990, 1,872 elderly (ages 62 and older) persons resided in dwellings provided by SHA. The median age was 76 years, 92% lived alone, and 69% were female. The 1990 median income for high-rise community residents where

the majority of the elderly live, was \$5655.4 All SHA residents were below the 1990 federal poverty-level income eligibility requirements of \$6652 per year for an individual.

In 1983, Visiting Nurse Services of the Northwest began conducting monthly Wellness Clinics in space provided by the SHA with funding from the United Way. The clinic staff provides health screening and education, foot care, and flu immunizations. They also provide assessment and monitoring of chronic health problems and referrals to other health care providers when appropriate. Clinic nurses maintain contact with home care staff and resident managers to promote continuity of care. In turn, resident managers can alert clinic nursing staff to residents in need of medical care.

We used quota sampling to survey residents ages 62 and older in 28 SHA facilities distributed throughout the Seattle area. Each site was sampled until the number of men and women surveyed matched the 1990 reported sex and age distribution of the total SHA elderly population. Potential subjects were contacted by building managers and if they agreed to be interviewed were then contacted by our survey project staff for an appointment. Appointments were scheduled for 148 interviews, and 125 were completed. The 23 scheduled but not completed were due to people refusing interviews (N=4), time conflicts or scheduling problems (N=13), illness (N=2), or an inability to understand the interview process (N=4).

To develop the interview survey, we held resident focus groups to identify appropriate and relevant topics within our a priori identified areas of interest and to elicit the residents_ own needs and concerns for inclusion as topics in the survey. The survey instrument included mental and physical health, functional state, and demographics. It also included measures to assess residents' ability to access health care, factors affecting health care utilization, and personal living situation. Questions addressing the Healthy People 2000 national objectives for older adults⁵ and the Guide to Clinical Preventive Services periodic health examination schedule for persons ages 65 and older6 were included. The 112-question

survey was interviewer administered in an average of 60 minutes and included open-ended as well as standardized response questions. We used the Institute of Medicine's Access to Health Care in America framework to identify and

> define barriers to access.7 We classified the responses to the question "Which of the following have ever made it hard to get care?" into three categories: financial, personal, and structural. T-test mean and chi-square test comparisons were done between those encountering and not encountering barriers to care. Multivariate analysis was done using logistic re-

gression to compute adjusted comparison statistics.9

Results

Forty-six percent of these

low-income older adults

reported having had

problems obtaining

health care.

In all, we surveyed 125 SHA residents. Their mean age was 77 (range: 62 to 98), 71% were women, and they were predominately white (77%). (See table 1.) A large propor-

Table 1. Demographic characteristics of 125 older adults living in subsidized public housing, Seattle, WA,

Variable	Number	Percent
Age (years)		
62–74	58	46
75–98	67	54
Gender		
Female	89	71
Male	36	29
Ethnicity		
White	71	77
African American/		
Asian American/Native		
American/Hispanic/Other	29	23
Education		
College graduate/some college	50	40
High school graduate	23	18
Less than high school	52	42
Ran out of money		
before month's end	41	33
Self-reported health		
Excellent/very good/good	47	58
Fair/poor	53	42
Stayed in bed due to illness		
at least once during previous year	50	, 40
Needs more help with transportation		
than currently available	36	29

tion (41%) had not graduated from high school. Forty-two percent described their health as fair or poor; the rest said their health was excellent, very good, or good. Forty percent of those we surveyed reported that they had stayed in bed due to illness or injury at least once in the past 12 months. Running out of money before the end of the month and needing more help with transportation than currently available were commonly encountered living problems.

In response to the question "Do you know a place to go if you needed the following?" over 90% of the total survey population said they knew where to get physical exams; eye exams; and illness, injury, and emergency care. However, 46% of these poverty-level older adults reported having had problems obtaining health care (table 2). A total of 36 people (29% of the total surveyed) reported having encountered one or more financial barriers. Lack of money or private health insurance was the most frequently encountered barrier to accessing health care. Nine percent of the residents reported encountering doctors who wouldn't accept Medicaid/Medicare payment. Eleven percent could not afford to fill prescriptions. Transportation problems comprised the majority of structural barriers encountered including having no transportation to get to the doctor and the distance being too far. Personal barriers were reported less often but included having been treated badly when trying to make an

Table 2. Barriers to obtaining medical care, counseling, or dental care reported by 125 older adults living in subsidized public housing, Seattle, WA, 1990

Reason	Number	
	(N=57)	Percent
Financial Barriers (n=36)		
No money or no private health		
insurance	27	22
Physician wouldn't take Medicare/		
Medicaid	11	9
Couldn't afford to fill		
prescription	14	11
Personal Barriers (n=11)		
Too embarrassed or scared to go	12	. 10
Was treated badly when tried		
to make appointment	4	3
Structural Barriers (n=30)		
Had to wait too long		
for an appointment	16	13
Didn't know where to go to		
get care	12	10
No transportation	13	10
Too far	12	10
Other	17	14
None of these	70	54

NOTE: Respondents gave all reasons that applied; therefore, the sample does not add to 100%.

appointment and being too embarrassed or scared to go.

The 20 people responding in the affirmative to the question "Have you ever tried to get health care for yourself but were denied or turned away?" were asked more in-depth questions. In response to "Who denied you care?" these people mentioned private doctors, clinics, and hospitals. In response to "What kind of care were you seeking when you were denied care?" they reported routine physicals, injury, illness, dental, or hospital care. In response to "Why were you denied or turned away?" they reported inability to pay, clinic scheduling problems, and refusal of the clinic or doctor to accept Medicaid or Medicare payment.

In a forced fit logistic regression model including age, ethnicity, education, and self-reported health, two factors—insufficient income to meet personal needs and needing more help with transportation—were significantly associated with encountering financial and structural barriers. Staying in bed due to illness or injury in the past 12 months was significantly associated with financial barriers, and being a woman with structural barriers.

Table 3 shows a comparison between the frequency of exams and procedures in the group we surveyed and the Year 2000 recommendations.⁵ SHA residents have a high level of exam frequency, with the exception of dental care, pap smears, and mammograms. The pap smear and mammogram data do not exactly coincide with the recommended exam schedule, as our questions only addressed the year prior to the interview.

Discussion

The Seattle Housing Authority population has lower education levels, worse health, and lower income than most of their elderly counterparts in the United States. ^{2,10} More than 90% of residents knew where to obtain care, and their exam frequency compared very favorably with Year 2000 objectives, yet 46% reported encountering financial, personal, and structural barriers. The primary barrier to care encountered by our study population was lack of money or private health insurance (22%) and an additional 9% said that they had been refused care due to their Medicare or Medicaid status. Low Medicare reimbursement schedules are seen by some experts as the source of reduced physician interest in treating elderly patients. ¹¹

A number of studies have found a larger burden of health care expense and a reduced ability to access care among the elderly with poor health and few financial resources. 12,13,14 Among the people we surveyed, those who encountered barriers to care did not have enough money to meet their monthly expenses, had significantly more bed days, and more transportation problems than those not encountering barriers.

In six out of nine categories of nationally recommended exams and procedures, SHA resident exam schedules for the previous twelve-month period met or exceeded the stated target levels.⁵ The high level of exam frequency reported in

Table 3. Frequency of exams among 125 older residents of Seattle Housing Authority facilities in relation to Year 2000 objectives

	Proportion of respondents	•
•	who had exam or procedu	re Year 2000
Exam or procedure	in past 12 months	objectives
Men and women (N=125)		
Flu shot	58%*	60-80%
		yearty
Fecal blood test	46%	50% every
		I-2 years
Blood pressure check	97%*	40% yearty
General physical	71%	40% yearly
Eye exam	65%	40% yearly
Dental exam	38%	60% yearly
Women (n=89)	•	
Pap smear	33%	70% every
		I-3 years
MD breast exam	67%	60% every
		I-2 years
Mammogram past year	39%	60% every
		I-2 years

^{*}Service provided on site by Visiting Nurse Services of the Northwest.

our survey indicates the success of the outreach and advocacy program provided by Visiting Nurse Services. Examples of other programs aimed at improving care access for low-income elderly include the Tulsa County Medical Society Very Important Person (VIP) program—which enables physicians to identify elderly persons with limited resources who need special assistance in accessing care¹⁵—and Project Safety Net, started by the UCLA School of Medicine, which provides comprehensive geriatric assessment in community- based outreach programs operating from senior service centers, meal delivery sites, churches, and lowincome housing units¹⁶.

We identified areas of unmet need for potential intervention, specifically, provision of better transportation options and identification of doctors willing to take Medicare/Medicaid patients. Gaps between needed services and Medicare coverage could be addressed by legislative action to correct entitlement schedules and reduce out-ofpocket expenses. The primary strength of our study is the detailed nature of the in-person interviews, in which openended questions about health and general living concerns were included. The cross-sectional design of our study limits our findings to noncausal associations between factors of interest. Future research evaluating care delivery programs such as the Visiting Nurse Services of the Northwest's Wellness Clinics could provide effective model guidelines for improving the health of our poverty-level urban elderly population. Needs assessments of similar populations that do not have access to the services provided by such clinics would likely reveal greater levels of need and barriers to care than those found among SHA residents. Reducing the burden of health care expense and increasing access to care are clearly identified areas needing improvement.

Dr. William Carter at Amgen Corporation and Dr. Donald Patrick and Ms. Jane Goodman at the Northwest Prevention Effectiveness Center, University of Washington, contributed substantively to this work. This research was funded in part by grant R48/CCR0002181 from the Centers for Disease Control.

References

- Rowland D. Fewer resources, greater burdens: medical care coverage for low income elderly people. US Bipartisan Commission on Comprehensive Health Care (The Pepper Commission). Washington, DC 1990.
- Aging America: trends and projections. Washington, DC: Department of Health and Human Services, 1991. DHHS pub. no. (FCoA) 91-28001.
- Kaplan GA, Haan MN, Syme SL, Minkler M, Winkleby M. Socioeconomic status and health. In: Amler RW, Dull HB, editors. Closing the gap: the burden of unnecessary illness. New York: Oxford University Press, 1987:125–129.
- Seattle Housing Authority. Annual population report. Research report series no. 45. Seattle, WA: Housing Authority of the City of Seattle, 1990
- Public Health Service [US]. Healthy people 2000: national health promotion and disease prevention objectives. Washington, DC: Government Printing Office, 1990. DHHS pub. no. (PHS) 91-50212.
- U.S. Preventive Services Task Force guide to clinical preventive services: an assessment of the effectiveness of 169 interventions. Report of the U.S. Preventive Services Task Force. Baltimore, MD: Williams and Wilkins, 1989.
- Millman M, editor. Access to health care in America. Committee on Monitoring Access to Personal Health Care Services, Institute of Medicine. Washington, DC: National Academy Press, 1993.
- 8. Norusis, MJ. SPSS for Windows Base System User's Guide, Release 6.0. Chicago, IL: SPSS Inc., 1993.
- EGRET. Seattle, WA: Statistics and Epidemiology Research Corporation, 1991.
- Adams PF, Benson V. Current estimates from the National Health Interview Survey. National Center for Health Statistics. Vital Health Statistics 1991;10(181):112.
- Butler RN, Brame JB, Kahn C, McConnell S, Myers RJ, Pollack R, Rowland D. Health care for all: a crises of cost and access. A roundtable discussion: part 1. Geriatrics 1993;47:34–36.
- Thomas C, Kelman HR. Unreimbursed expenses for medical care among urban elderly people. J Community Health 1990;15:137–149.
- Berk ML, Wilensky GR. Health care of the poor elderly: supplementing Medicare. Gerontologist 1983;25:311-314.
- Kiefe CI, McKay SV, Halevy A, Brody BA. Is cost a barrier to screening mammography for low-income women receiving Medicare benefits?: a randomized trial. Arch Intern Med 1994;154:1217-1224.
- Campbell JG, Rhode, RE. Preserving access with dignity for the elderly: Tulsa's VIP Program. Arch Otolaryngol Head Neck Surg 1991;117:488-489.
- Reuben, DB, Hirsch SH, Chernoff JC, Cheska Y, Drezner M, Engelman B, et al. Project Safety Net: a health screening outreach and assessment program. Gerontologist 1993;33:557-560.