

Enrollees Choose Priorities for Medicare

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Purpose: The purpose of this study was to demonstrate the feasibility and results of ascertaining Medicare enrollees' priorities for insured medical benefits. **Design and Methods:** Structured group exercises were conducted with Medicare enrollees from clinical and community settings in central North Carolina. By participating in a decision exercise, CHAT: Choosing Healthplans All Together, individuals and groups chose medical benefits within the constraints of a monthly Medicare + Choice premium. The acceptability of the exercise and the resulting benefit package were assessed. **Results:** Ten groups (121 individuals) made trade-offs that involved the selection of more tightly managed care in order to add pharmacy, dental, and long-term care benefits. All were willing to forgo experimental therapy; 7 groups gave priority to insuring the uninsured. Participants found the exercise overwhelmingly acceptable and were willing to abide by their groups' choices. **Implications:** Medicare enrollees are able to come to consensus about financially constrained benefit packages that may be useful in reform of the Medicare program.

Key Words: Medicare, Patient participation, Insurance benefits, Health priorities

The Medicare program is arguably among the most effective strategies in the United States for insuring health care for a large segment of the

population. Since its inception, the program has gone from insuring 19 million to insuring 44 million adults, and it is expected to cover 77 million by the year 2030 (Moon, 2001). As of 2001, it insured one seventh of all Americans (Moon, 2001). Through the Medicare program, the elderly population, along with some disabled adults (Lubitz & Pine, 1986), is nearly universally insured at relatively low administrative costs (Anonymous, 2002; Iglehart, 2001). The growing expense of the program has prompted cost-containment strategies such as using prospective payment arrangements, moving enrollees into managed health plans (Medicare + Choice), and holding down reimbursement to providers (Benko, 2000). Although these approaches have stabilized the Medicare Trust Fund (Fund, 2001), the program must confront continuing financial pressures and many policy decisions if it is to continue to meet the needs of the population it serves, along with the possibility of adding benefits such as prescription coverage (Wilensky, 2001). Financial pressures and decision priorities are not exclusively of interest to policy makers. The individual Medicare enrollee today spends an average of 19% of personal household income on health care costs (American Association of Retired Persons [AARP], 1999). Setting health care spending priorities, however, challenges individuals, policy makers, and health care providers, because restricting access to or coverage of health services is unpopular and may be perceived as an arbitrary withholding of an entitlement. Involving citizens in the process of setting priorities may make those difficult decisions more acceptable and justifiable to the population they so dramatically affect. In this article, we demonstrate the feasibility and results of giving enrollees in the Medicare program the opportunity to help set priorities by selecting the medical benefits the program would offer within the constraints of limited resources.

Information about Medicare enrollees' preferences regarding their insured benefits is sparse. Research has generally focused on measurement of their knowledge about the Medicare program (Murray & Shatto, 1998), satisfaction with the quality of care (Rosenbach, Acamache, & Khanddker, 1995), and

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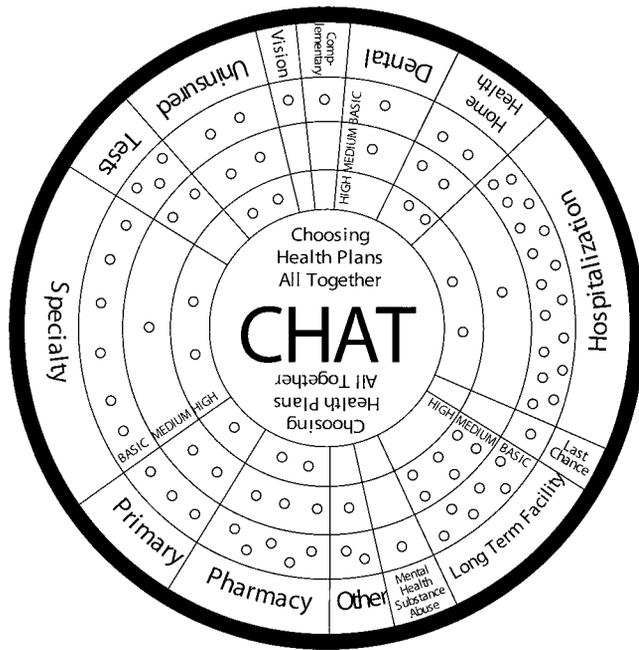


Figure 1. The version of the Choosing Healthplans All Together: CHAT board used in exercises with Medicare enrollees. Each service type and coverage level is represented in proportion to its actuarial cost. Each hole is valued at 2% of the per-member-per-month premium.

identification of factors associated with the likelihood of enrolling or disenrolling in managed care plans. A small amount of information exists regarding the relationship of benefit preferences to selection of supplemental insurance (Vistnes & Banthin, 1997–1998). The value of assessing enrollees' benefit preferences, in the manner demonstrated here, lies in the possibility of incorporating enrollees' views in efforts to set Medicare policy.

Methods

Participants

Residents of central North Carolina who self-identified as Medicare beneficiaries were recruited from ambulatory care and community settings. In the ambulatory care setting, patients who had recurring encounters with physicians at internal medicine and family practice clinics of several teaching hospitals for the prevention, diagnosis, or treatment of any medical condition were recruited by research assistants using a posted notice or in-person solicitation as they came into the clinic waiting area. In community settings, volunteers were recruited through invitations at senior centers, as well as through advertisements in local newspapers, flyers, word of mouth, and posters on mailboxes. Participants were paid \$75 to compensate for the 2.5-hr session and travel expense.

Study Instruments

Volunteers participated in structured small group exercises using CHAT: Choosing Healthplans All Together, a simulation exercise designed to allow groups of laypersons to construct health plans within the constraint of limited resources, as reported previously (Danis, Biddle, & Goold, 2002). A version of the CHAT exercise specifically based on the actuarial costs of typical senior Medicare enrollees was developed for use in this study.

The first step of the exercise uses a circular game board in which 14 insurance benefit categories are represented (Figure 1). Participants select their insurance package by distributing pegs among the holes on the board. The circular board is designed to avoid any hierarchical presentation of choices that might unduly influence the selection process. Participants can select Basic, Medium, or High options for each benefit category or may forgo a category altogether, thus offering the possibility of numerous variations in the insurance package design. An instruction manual describes the features of each of the benefit categories and their associated options (Table 1). All materials are written to be understood at a sixth-grade reading level.

Participants are given a total of 50 pegs to permit them to allocate funds comparable in value to a typical per-member-per-month (PMPM) premium paid by Medicare for managed care plans, excluding administrative costs (based on 1997 estimates). Each peg represents 2% of the PMPM premium. Because the national average for a Medicare managed care plan in 1997 was \$400, each peg is worth approximately \$8.

Actuarial costs for individual services were estimated on the basis of a breakdown of standard managed care plan costs for major medical categories (inpatient, outpatient, primary care, specialist, radiologic and laboratory tests, other medical services, pharmacy, and mental health); these relative costs were rounded to the nearest \$8 so that they can be selected by using the pegs. Costs for additional categories not routinely included in a typical Medicare managed care package, such as dental services and long-term care, were determined as a product of the expected utilization frequency per member and the estimated cost of the service utilization. For example, if a service was expected to be used by 1 out of 1,000 members on a monthly basis and the cost of providing this service was estimated to be \$8,000, then the estimated cost of providing this service was estimated to be $1/1,000 \times \$8,000$ or \$8.00 PMPM, which in this example would be represented as 1 peg.

The cost of insuring long-term care required arbitrary assumptions because it is currently unavailable to the Medicare population. It was therefore estimated based on expenditures incurred by the Medicaid program for skilled nursing facility (SNF) and intermediate care (IC) facility use by the elderly population. Distributing Medicaid expenses

Table 1. Details of Benefits

Type of Coverage	Level of Coverage		
	Basic	Medium	High
Complementary (pays for "alternative" treatments)	1 peg: Covers "alternative" services including acupuncture (for pain), chiropractic (for back, neck, or bone problems), and therapeutic massage.		
Dental (pays for care of your teeth)	1 peg: You get regular cleanings and x-rays every 6 months. You have cavities filled and bad teeth extracted. You get minimal dental care.	1 + 1 pegs: You get regular cleanings and x-rays every 6 months. You have cavities filled and bad teeth extracted. You get complete dental care including repairs and crowns.	
Home health (pays for in-home care if you are chronically ill or too disabled to care for yourself)	2 pegs: Half your in-home care is paid. Each month you get 8 visits from a nurse and daily care from a nurse's aide for 2.5 hr.	2 + 2 pegs: All your in-home care is paid. Each month you get 8 visits from a nurse and daily care from a nurse's aide for 5 hr.	2 + 2 + 2 pegs: All your home care is paid. Each month you get 15 visits from a nurse and daily care from a nurse's aide for 5 hr.
Hospitalization (pays for hospital bills; note that, except in an emergency, you need your insurance plan's approval before the hospital will admit you)	17 pegs: You pay \$50/day for your first 5 days in the hospital. You have little choice about your hospital (i.e., it could be far from your home). There is pressure on your doctor to discharge you as soon as possible.	17 + 1 pegs: You pay nothing per day; you have a large selection of hospitals; there is probably one near your home. You have many special facilities to choose from. There is pressure on your doctor to discharge you as soon as possible.	17 + 1 + 2 pegs: You pay nothing per day; you have a large selection of hospitals; there's probably one near your home. You have many special facilities to choose from. Your doctor can keep you in the hospital as long as he or she wants.
Last chance (pays for special treatments in life-threatening situations or extreme illness)	1 peg: If you don't get better with current treatments, your insurance will pay 80% of the cost for you to take part in a new, experimental treatment.		
Long term (pays for your care for 3 years in a residential nursing home)	6 pegs: Half your cost is paid for room and board in a nursing home.		
Mental health (pays for counseling and therapy, treatment of mental illness, and alcohol and drug abuse)	1 peg: Your plan pays for up to 30 visits/year to a therapist. You pay \$10/visit. Your plan pays for up to 30 days/year in a hospital for mental illness or drug abuse. You pay \$50 for each day in the hospital.		
Other medical (pays for services and equipment such as physical therapy, occupational therapy, ambulance service, wheelchair, hospital beds, and artificial limbs)	2 pegs: When you need these services, you pay a \$25 copay.	2 + 1 pegs: When you need these services, there is no copay.	

(Table continues on next page)

Table 1. (Continued)

Type of Coverage	Level of Coverage		
	Basic	Medium	High
Pharmacy (pays for medicines your doctor prescribes)	5 pegs: Your health plan only pays for medicines on its approved list (formulary). If you are prescribed a medicine not on this list, either your doctor has to change it or you pay for it. Your pharmacist must give you a generic medicine if he or she has it. You pay \$15 per prescription.	5 + 3 pegs: Your health plan only pays for medicines on its formulary. If you are prescribed a medicine not on this list, either your doctor has to change it or you pay for it. Your pharmacist may use either generic or brand name medicines for your prescriptions. You pay \$5/prescription.	5 + 3 + 2 pegs: Your health plan is not limited by the formulary; your pharmacist may use either generic or brand name medicines for your prescriptions. You pay \$5/prescription.
Primary (pays for regular care from you primary or "family" doctor and staff; your primary doctor can refer you to other doctors, order special services, and coordinate your care)	3 pegs: You pay \$10/visit. You wait ~4 weeks for a routine appointment and ~48 hr for an urgent problem. You pay \$25/emergency room visit. There are few doctors from which to choose. It may be difficult to see the doctor you have now, or to pick a female or a minority doctor, or a doctor who speaks your language. You may sometimes see a nurse or physician's assistant instead of a doctor.	3 + 2 pegs: You pay \$10/visit. You wait ~2 weeks for a routine appointment. You wait ~24 hr for an urgent problem. You pay nothing for emergency room visits. You have more doctors to choose from. You have a better chance of seeing the doctor you have now, or to pick a female or a minority doctor, or a doctor who speaks your language. You'll usually see a doctor rather than a nurse or physician's assistant.	3 + 2 + 1 pegs: Your plan has all the medium levels plus wellness and prevention benefits such as vaccinations, stop smoking programs, diet programs, automatic cancer screening, and stress management.
Specialty (pays for special problems, your primary doctor and staff don't handle)	6 pegs: You need your primary doctor's referral to see a specialist in your plan. You wait about 45 days for an appointment. There are few specialists available; you have little choice of which doctor you see; you pay \$10/visit. If you visit a specialist outside of your plan or go without a referral, you pay for it.	6 + 1 pegs: You may see a specialist in your plan without a referral from your primary doctor; you wait about 25 days for an appointment. There are more specialists available. You have more choice of which doctor you see. You pay \$10 a visit. If you visit a specialist outside of your plan or go without a referral, you pay half.	6 + 1 + 2 pegs: You may see a specialist without a referral from your primary doctor. You wait only a few days for an appointment; there are many specialties available. You may go to almost any specialist in your area. You pay \$10/visit.
Tests (pays for blood work, x-rays, or other tests you need)	3 pegs: Your doctor needs to get expensive tests approved before ordering them. You might need the test done at a lab far away from your doctor's office.	3 + 2 pegs: Your doctor can order any tests for you without getting approval. You can have the tests done at or near your doctor's office.	
Uninsured (17% of the people in your community have no health insurance. This option lets some of them buy into your health plan at half price. People who were in the plan but lost their insurance coverage get the first chance.	2 pegs: 30% of uninsured people in your community can buy health insurance at half price.	2 + 2 pegs: 60% of uninsured people in your community can buy health insurance at half price.	2 + 2 + 2 pegs: 90% of uninsured people in your community can buy health insurance at half price.

(Table continues on next page)

Table 1. Details of Benefits (*Continued*)

Type of Coverage	Level of Coverage	
	Basic	High
<p>Next are people with the lowest incomes. Others in your area are considering similar plans. Yours would be the first.) Vision (pays for eye exams, glasses and contact lenses; note: Visits to an eye doctor for medical reasons such as diabetes and cataracts are included in specialty care.)</p>	<p>1 peg: You get an eye exam every 2 years. You pay \$5/visit. You receive \$75 for lenses and frames if needed every 2 years.</p>	

for the elderly population of \$29.6 billion/year for SNFs and IC facilities among 38 million Medicare beneficiaries yields an annual cost of \$6,630 or \$65/month (which would be equivalent to 8 pegs). We assumed the utilization of long-term care through the Medicaid program is dampened by the eligibility requirement to exhaust personal financial assets, and that use of long-term care and actuarial costs might be higher otherwise. We therefore estimated the value for full coverage of long-term care (the Medium option) at 12 pegs (\$96 PMPM) and for the coverage of half of long-term care costs (the Basic option) at 6 pegs (\$48 PMPM).

The 14 services were assigned a total of 83 holes on the game board. The 50 pegs thus permit participants to select 60% of the services offered in the exercise (Figure 1).

In the second step of the exercise, participants spin a roulette wheel and receive health event cards describing illness scenarios and the associated consequences of coverage choices, including out-of-pocket payment responsibilities, access, and choice of provider or treatment. Players read their events aloud to the group and are asked to comment on their previous choice of coverage.

During the exercise, selection occurs four times to allow participants to make choices and face consequences (a) alone, (b) in groups of three, (c) as an entire group, and (d) once again alone. Players receive event cards following the first two cycles of benefit selection. This sequence of repeated decision cycles is intended to promote group decision making (Duke & Greenblat, 1981), including discussion and deliberation about what participants consider valuable and why. Repeated cycles also allow comparison of individual and group choices. Data were collected on recording sheets at the conclusion of each cycle (for more information, contact the authors).

Self-administered questionnaires were given to participants before and after playing the exercise. The pregame questionnaire included the following: sociodemographic items, health status of the participant and his or her immediate family, experience with chronic illness in the family, self-reported health services use, and out-of-pocket health care expenditures during the prior 12 months. The postgame questionnaire asked whether the participants found the CHAT game understandable, informative, easy to understand, and easy to do on a 4-point scale (1 = very easy, 2 = fairly easy, 3 = fairly hard, and 4 = very hard). In the postgame questionnaire, respondents were also asked how strongly they agreed or disagreed with statements about the exercise, including the following: the way the group reached its decision was fair; my views were considered and taken into account; the way the group reached its decision was equally fair to each member of the group; my own choice of a plan is very different from what the group chose; and I was satisfied with the group's decision.

Participant Protection

This project was approved by the Office of Human Subjects Research at the National Institutes of Health, and the institutional review boards at the University of Michigan, the University of North Carolina at Chapel Hill, and Duke University. During the game, participants were given an alias to preserve their anonymity to the researchers.

Data Analysis

We used descriptive statistics to describe the study participants and the types of coverage and flexibility of restrictions they selected. We considered the selection of Basic, Medium, or High coverage as a measure of the degree of coverage restriction and scored it by using a 3-point scale (1 = Basic, 2 = Medium, and 3 = High). We calculated the overall restrictiveness of the benefit package as the mean of the restrictiveness scores for the benefits the participants selected.

Analyses included chi-square statistics and Fisher's exact test for the analysis of categorical variables and the calculation of means, standard deviations, and Student *t* tests for continuous variables. We used the Mantel-Haenszel chi-square statistic (Mantel & Haenszel, 1959) to examine linear relationships between pairs of ordinal variables. We used McNemar's chi-square test (1947) to assess the degree of agreement between individual health care coverage choices made during the first and fourth cycles of the game. To use McNemar's test, we recoded coverage choice for each of the 14 service types into a dichotomous indicator (i.e., coverage was either selected or not selected). Results are reported as statistically significant if $p < .05$. We conducted all analyses by using SAS statistical software, version 6.12 (SAS Institute, Cary, NC).

Participant responses to the pregame questionnaire and the first cycle of the game were considered independent observations and analyzed as appropriate. However, because the postgame questionnaire and the final cycle were conducted after the group exercise, we initially assumed that the responses were not independent between individuals. To test this assumption, we calculated the intraclass correlations by using the group as the class variable. With the exception of two variables, intraclass correlations were less than .10, and those that were larger did not differ significantly from 0. Thus, we rejected the assumption of nonindependence and did not correct for intraclass correlation.

Results

Study Participants

There were 121 Medicare enrollees who participated in CHAT exercises conducted between June and December of 1999. Of the participants, 72%

were female and 85% were White; almost all of the remaining participants (14%) were African American (Table 2). Income ranged widely, with 37% reporting annual household incomes of \$15,000 or less and 26% reporting more than \$35,000 per year. All but 8 of the participants had at least a high school education, with nearly half reporting a 4-year college degree or more. As expected for a population of this age (mean = 73.4 years), slightly more than one fourth were widowed and approximately one third were married. Generally, participants reported being in good to excellent health, although 21% indicated fair or poor health. Slightly less than half reported the existence of a chronic illness in their household. Overall, 95% reported visiting the doctor at least one time during the previous 6 months, and 14% reported a hospitalization among household members during the same period. Forty-three percent spent \$500 or more out of pocket for medical expenses in the prior year.

Of the participants, 11 were under the age of 65, qualifying for Medicare on the basis of a disabling chronic illness or condition. These individuals were more likely than participants older than 65 to be African American, to be in fair or poor health, to have experienced a hospital stay, and to be poor.

Individual Insurance Preferences

Individual participants chose coverage for hospitalization, pharmacy, primary care, home health, dental, tests, specialty care, and vision care most frequently (Table 3). Half or more the participants opted for coverage above the basic level for all of these services except tests (Table 3). About two thirds of individuals selected long-term coverage both initially and in the final cycle. Participants included an average of 9.0 services with intermediate flexibility (score of 1.60, about midway between basic and medium levels) on a scale from 1 (tightly managed care) to 3 (more flexible care) during their first selection, and 9.2 services with flexibility of 1.56 during their final selection. There was no statistically significant difference between initial and final individual selections in the total number of covered benefits selected or the degree of flexibility of individual choices. However, the selection of particular services did vary in frequency. Those services more frequently selected at the conclusion of the exercise were tests, specialty care, mental health care, and coverage for the uninsured. Services that were less frequently selected by individuals in the last cycle of the game included complementary medicine and last chance coverage. When we examine the degree of concordance between Cycle 1 and Cycle 4 selections by using McNemar's test, only last chance ($p = .008$), tests ($p = .028$), specialty care ($p = .011$), and uninsured coverage ($p = .031$) revealed significant disagreement. With the exception of last chance

Table 2. Sociodemographic Characteristics and Health Status of CHAT Participants

Characteristic	<i>n</i>	% or <i>M</i> ± <i>SD</i>
Age (in years)	—	73.4 ± 8.8
Female	86	71.7
Race		
White	103	85.1
Black or African American	17	14.0
Other or unknown	1	0.8
Hispanic or Latino	2	1.9
Marital Status		
Married	38	32.2
Single or never married	8	6.8
Widowed	36	30.5
Divorced or separated	36	30.5
Educational attainment		
Less than high school	8	6.7
High school graduate or GED	31	25.8
Some college	22	18.3
College graduate or more	59	49.1
Household income (\$)		
0–<7,500	12	9.9
7,500–<15,000	33	27.3
15,000–<35,000	38	31.4
35,000+	32	26.4
Unknown or not reported	6	5.0
Live alone	59	48.8
Health status		
Excellent	9	7.5
Very good	47	39.2
Good	39	32.5
Fair	23	19.2
Poor	2	1.7
Chronic illness in household in past year	49	42.2
Member of household hospitalized during past 6 months	14	11.9
Proportion living in household with ≥ 1 physician visits during past 6 months	115	95.0
Out-of-pocket payments during past 12 months (\$)		
0	6	5.0
<500	52	43.0
500–<2,000	37	30.6
2,000+	17	14.0
Unknown	9	7.4

Notes: CHAT = Choosing Healthplans All Together; *n* = 121. Percentages do not always add to 100 as a result of unknowns and rounding. The number of individuals with unknown values ranges from 1 to 5; where more frequent, the number of unknowns are reported as a separate category. GED = general education degree.

coverage, participants were significantly more likely to select each of these service types during the final cycle.

Participants with less education (those with a high school degree or less) selected fewer services to put in their benefit packages than participants with more education (any college education) (8.2 vs. 9.5, *t* test,

Table 3. Individual Coverage Choices During Initial and Final Cycles of Senior CHAT Game

Service Type	Proportion (%) of Participants Selecting Coverage	
	Initial Choice	Final Choice
Hospitalization	100.0 (28/45/26)	99.1 (29/44/28)
Pharmacy	94.8 (50/29/21)	93.1 (58/21/20)
Primary care	94.2 (28/42/30)	93.3 (38/37/25)
Home health	84.0 (48/31/21)	84.0 (45/35/20)
Dental	75.2 (36/64/NA)	72.6 (42/58/NA)
Tests ^a	73.5 (63/37/NA)	82.9 (62/38/NA)
Specialty ^a	70.4 (44/38/17)	82.6 (39/47/14)
Vision	70.0 (100/NA/NA)	70.8 (100/NA/NA)
Long-term care	69.4 (78/22/NA)	66.7 (80/20/NA)
Other services	51.7 (67/33/NA)	50.8 (78/22/NA)
Complementary medicine	37.5 (100/NA/NA)	33.3 (100/NA/NA)
Mental health	37.5 (100/0/NA)	45.0 (100/0/NA)
Last chance ^a	34.2 (100/0/NA)	20.8 (100/0/NA)
Uninsured ^a	24.4 (62/17/21)	36.1 (79/16/5)

Notes: CHAT = Choosing Healthplans All Together; *n* = 121. For service type, services are listed in descending order of preference by initial choice (Cycle 1). Participants selecting coverage are those who chose it at all, and those who chose by level are shown by Basic/Medium/High coverage, in parentheses. NA means that coverage level was not offered.

^aMcNemar's test significant: last chance, $\chi^2 = 7.111$, *p* = .008; specialty, $\chi^2 = 6.533$, *p* = .011; tests, $\chi^2 = 4.84$, *p* = .028; uninsured, $\chi^2 = 4.667$, *p* = .031.

p = .0001), and the level of the services they picked were thus more likely to be at the High level. For example, less educated participants were more likely to select the highest level of hospitalization (54% vs. 15%, Fisher's exact test, *p* = .0001) and pharmacy (37% vs. 14%, Fisher's exact test, *p* = .04), and they tended to select mental health coverage less (25% vs. 42%, Fisher's exact test, *p* = .11).

Group Preferences

In the group selection cycle (Cycle 3), all 10 groups selected coverage for hospitalization, home health, pharmacy, dental services, primary care, specialty care, tests, and vision care (Table 4). The only service selected at higher than the basic level by more than half the groups was hospitalization. Other categories were selected by some groups but not others. The basic level of long-term care was selected by 7 of 10 groups and not chosen at all by the other three, and 7 of 10 groups chose to include uninsured coverage. All but one group included mental health services. Only one group selected complementary medicine coverage and no groups chose to include coverage for last chance treatments. The 10 groups selected an average of 11.3 types of coverage (*SD* = 0.2, range = 10–12) with a restrictiveness score of 1.2 on a scale from 1 (tightly managed care) to 3 (more flexible care).

There was considerable overlap in coverage selection among the groups with a total of 7 different

Table 4. Benefit Selections by Senior CHAT Groups

Coverage Type	Game									
	1	2	3	4	5	6	7	8	9	10
Complementary					B					
Dental	B	B	B	B	B	B	B	B	B	B
Home health	M	B	B	H	M	B	B	M	B	B
Hospitalization	M	M	M	M	M	M	M	M	M	M
Last chance										
Long-term care		B	B			B	B	B	B	B
Mental health	B	B		B	B	B	B	B	B	B
Other services	B	B	B	B	B	B	B		B	B
Pharmacy	B	B	B	M	M	B	B	B	B	B
Primary care	H	B	B	B	B	M	B	B	B	B
Specialty care	M	B	M	B	M	B	B	B	B	B
Tests	B	B	M	B	B	B	B	B	B	B
Uninsured	B	B			B		B	B	B	B
Vision	B	B	B	B	B	B	B	B	B	B

Notes: CHAT = Choosing Healthplans All Together; $n = 10$. Coverage level designated as B = Basic, M = Medium, and H = High.

combinations of services (Table 4). Four groups selected the same coverage (Table 4).

The vast majority of individual participants, 87 of 112 individuals (78%), indicated that they would be willing to abide by the health care plan developed by their groups. Seven individuals did not answer this question. Individual sociodemographic characteristics were not associated with the degree of willingness to abide by the group decision. With the exception of mental health (selected by 16% of nonabiders vs. 41% of abiders, Fisher's $p = .031$), individual benefit choices were not significantly different between those who would and would not abide by the group's decision. However, those individuals who were unwilling to abide by the group choice were more dissatisfied with the process of the group selection. Nonabiders were less likely to agree with the statement "their views were considered by the group" (24% vs. 19%, $p = .014$).

The group choices (Cycle 3) and final individual choices (Cycle 4) were compared for the 25 participants who indicated that they were unwilling to accept the coverage selections of their groups. We observed significant differences in coverage for the uninsured (McNemar's = 10.29, $p = .001$) and for "other services" (McNemar's = 5.33, $p = .001$), with the primary source of disagreement between the group and final cycle choices being that the individuals did not choose coverage but their groups did.

In their evaluation of the process, participants strongly agreed (78%) or agreed somewhat (20%) that the CHAT exercise was enjoyable, strongly agreed (66%) or agreed somewhat (30%) that it was easy to understand, strongly agreed (62%) or agreed somewhat (33%) that it was easy to do, and strongly agreed (65%) or agreed somewhat (32%) that it was informative. Participants with varying amounts of educations gave equal assessments of how enjoyable and informative the exercise was;

those with less education were less likely to agree that the game was understandable ($p = .03$) and easy ($p = .01$) but more likely to agree that they learned a lot from it ($p = .004$).

When asked about the group deliberations in the postgame questionnaire, 83% agreed that the way the group reached its decision was fair; 83% agreed that their views were considered and taken into account; and 88% agreed that the way the group reached its decision was equally fair to each member of the group. Although 41% agreed with the statement that their own choice of a plan was very different from what the group chose, 86% agreed that they were satisfied with the group's decision.

Discussion

Several findings predominate among the benefit choices of Medicare enrollees in the CHAT exercise. First, Medicare enrollees selected combinations of benefit options that are not available in either the traditional Medicare program or Medicare + Choice. They gave high priority to such services as dental and long-term care. Nearly 95% of individual participants and all 10 groups chose to include a pharmacy benefit, a finding consistent with the enormous support among senior citizens for including a prescription drug benefit in Medicare (Wilson, 1998). Second, the trade-offs that participants were willing to make in this exercise in order to gain additional benefits included tightly managed care such as a restrictive pharmacy benefit and forgoing coverage all together, for example, for organ transplantation and participation in experimental therapy. Third, there was a substantial amount of uniformity. Several groups picked identical packages, and four fifths of individuals reported being willing to abide by the benefit selection made by their group. Fourth, more than two thirds of the

groups chose to extend coverage to the uninsured when allocating the benefits in their package.

We have previously reported Medicare enrollees' choices for insurance benefits using a simpler instrument that assumed an indemnity model of care and did not permit group decision making. In contrast, the exercise reported here is based on a managed care model of insurance and adds a process of group deliberation. In the prior study, enrollees gave highest priority to hospitalization, outpatient care, prescription drugs, eye care, and home care or respite (Danis, Biddle, Henderson, Garrett, & DeVellis, 1997). In the present study, the CHAT exercise makes it possible to offer more complex trade-offs so that, rather than necessarily or exclusively trading one benefit area for another, participants can choose a larger number of services if they are willing to accept more restricted or highly managed care. Furthermore, in keeping with the nature of insurance, which is inherently a group product, the CHAT exercise involves trade-offs between individuals. It is noteworthy that groups selected a greater number of services than individuals selected. This strategy for accommodating varied individual preferences appears to have been effective as indicated by the vast majority of individuals reported being willing to abide by their group's decisions.

Several limitations of the study must be acknowledged. The actuarial estimates for services, particularly pharmacy benefits, which have dramatically risen in cost, were applicable at the time participants were enrolled and must be revised in order to measure current opinion. The study design, which involved the use of prescheduled group sessions, precluded the possibility of a larger and randomly selected sample of Medicare enrollees; thus we cannot generalize broadly to the population of Medicare enrollees. A random sample, for instance, would have included a broader educational level, although the representation of income levels in our study was quite broad. The range of benefits offered in the exercise, which was limited by the need to find accurate actuarial information, was not exhaustive. Recent suggestions for new benefits such as medicaring (Lynn et al., 1999) or a community-based long-term care option (Leutz, Capitman, & Green, 2001) might be worthwhile additions that participants would have selected. Finally, the extent to which selections made in a decision exercise would be acceptable in reality remains to be examined.

Several of these limitations will be addressed through ongoing research. Through development of an electronic version of the exercise, updated actuarial information will be easily incorporated. The design of a Web-based version of the exercise will facilitate systematic sampling of large number of individuals, which will complement data collected through the small group deliberation exercises. The extent to which choices made during the CHAT

exercise are a valid reflection of actual insurance selections will be examined in future research.

The findings we report have several implications. First, they suggest that Medicare enrollees may find solutions for constraining Medicare costs through managed care acceptable if they can have input into the allocation process. This would be a welcome possibility for several reasons. Many managed care plans have found it difficult to continue to offer plans to Medicare enrollees, and those that remain did so by using survival strategies such as cutting services, or increasing enrollees' out-of-pocket costs (Benko, 2000). Managed care plans are likely to continue to be important, particularly for Medicare enrollees with inadequate finances, less education, and high levels of social support. They have tended to enroll because of low premiums, enhanced HMO benefits, and pressure from employers providing retiree benefits (Silverman et al., 2000). It is not, however, merely less advantaged enrollees who are likely to find affordable broad coverage important. Although 90% of elderly Medicare beneficiaries were reported to have additional health insurance coverage that provided some supplemental benefits (Rice & Bernstein, 1999), the number of retirees who have supplemental coverage provided by their former employers has been dropping dramatically, having fallen from 40% in 1993 to 23% in 2001 (Iglehart, 2002). This coverage is increasingly unstable. Consequently, structural reform of the Medicare program has to include reconsideration of the basic benefits (Rice & Bernstein, 1999).

The need for Medicare reform is a frequently discussed policy problem, and proposed solutions are strongly contested by health care professionals, politicians, and the public. Proposed solutions have ranged from shifting to a system such as the Federal Employees Health Benefit Program through expansion of contracts with private health plans (Wilensky, 2001) and use of a defined contribution in a premium support model to arguments for leaving the program much as it is with some modification of its benefit package (Vladeck, 2001). Regardless of the direction of future reforms of Medicare, it will require sensitivity to costs and competing priorities in the face of large federal budget deficits and growing demands on the program. Information regarding the preferences of Medicare enrollees, and what, if anything, they would be willing to forgo in exchange, should not rest on speculation. Findings in this study, if reproduced or confirmed in other research, suggest directions Medicare enrollees would endorse.

A second implication is the possibility that Medicare could serve as a basis of expanding insurance coverage for the uninsured. A major obstacle to expanding coverage to the uninsured has been the concern that the need or demand for services may exceed available resources. Many states, for instance, face increasing Medicaid budgets

and decreasing revenues and must either restrict eligibility (“ration by people”) or cut the types of services covered. Medicare enrollees in this study endorsed the possibility of expanding the program’s coverage to the uninsured. Such a proposal is not new (1975), but it has garnered renewed interest as the large number of uninsured Americans has persisted (Cunningham, 1998; Shea, Short, & Powell, 2001). Although the expansion of Medicare raises financial concerns (Scott, 1998), it is important to consider the trade-offs that Medicare enrollees tell us they might consider acceptable in order to make expansion financially feasible.

References

- American Association of Retired Persons. (1999). *Out-of-pocket spending on health care by Medicare beneficiaries age 65 and older: 1999 projections*. Washington, DC: Author.
- Anonymous. (1975). Program and administrative changes in Medicare could form the basis of National Health Insurance. *Employee Benefit Plan Review*, 6, 44–45.
- Anonymous. (2002). Analysis of plan administrative costs offers terrific insights. *Capitation Rates Data*, 7, 8–10.
- Benko, L. (2000). Less is not more. Though newcomers are venturing into Medicare and other HMOs are expanding their territories, they plan to survive by limiting benefits, choices and raising premiums. *Modern Healthcare*, 30, 40–44.
- Cunningham, P. (1998). Next steps in incremental health insurance expansion: Who is most deserving? *Issue Brief*, 12, 1–2.
- Danis, M., Biddle, A., & Goold, S. (2002). Insurance benefit preferences of the low-income uninsured. *Journal of General Internal Medicine*, 17, 125–133.
- Danis, M., Biddle, A., Henderson, G., Garrett, J., & DeVellis, R. (1997). Older Medicare enrollees’ choices for insured services. *Journal of the American Geriatric Society*, 45, 688–694.
- Duke, R., & Greenblat, C. (1981). *Principles and practices of gaming simulation*. Newbury Park: Sage.
- Fund, T. C. (2001). *Medicare reform: The basics*. New York: Century Foundation Press.
- Iglehart, J. (2001). The Centers for Medicare and Medicaid Services. *New England Journal of Medicine*, 345, 1920–1924.
- Iglehart, J. (2002). Changing health insurance trends. *New England Journal of Medicine*, 347, 956–962.
- Leutz, W., Capitman, J., & Green, C. (2001). A limited entitlement for community care: How members use services. *Journal of Aging and Social Policy*, 12, 43–64.
- Lubitz, J., & Pine, P. (1986). Health care use by Medicare’s disabled enrollees. *Health Care Financing Review*, 4, 19–31.
- Lynn, J., O’Connor, M., Dulac, J., Roach, M., Ross, C., & Wasson, J. (1999). MediCaring: Development and test marketing of a supportive care benefit for older people. *Journal of the American Geriatric Society*, 47, 1058–1064.
- Moon, M. (2001). Medicare. *New England Journal of Medicine*, 344, 928–931.
- Murray, L., & Shatto, A. (1998). Beneficiary knowledge of the Medicare program. *Health Care Financing Review*, 20, 127–130.
- Rice, T., & Bernstein, J. (1999). Supplemental health insurance for Medicare beneficiaries. *Medicare Brief*, 6, 1–15.
- Rosenbach, M., Acamache, K., & Khanddker, R. (1995). Variations in Medicare access and satisfaction by health status 1991–93. *Health Care Financing Review*, 17, 29–49.
- Scott, J. (1998). Will expansion make Medicare go bust? *Healthcare Finance Management*, 52, 26–27.
- Shea, D., Short, P., & Powell, M. (2001). Betwixt and between: Targeting coverage reforms to those approaching Medicare. *Health Affairs*, 20, 219–230.
- Silverman, M., Lave, J., Musa, D., Lin, C., Lange, J., & Smola, S. (2000). Medicare HMOs: The experience of older African Americans and whites. *Journal of Health and Social Policy*, 12, 1–21.
- Vistnes, J., & Banthin, J. (1997–1998). The demand for Medicare supplemental insurance benefits: The role of attitudes toward medical care and risk. *Inquiry*, 34, 311–324.
- Vladeck, B. (2001). Learn nothing, forget nothing—The Medicare Commission redux. *New England Journal of Medicine*, 345, 456–458.
- Wilensky, G. (2001). Medicare reform—Now is the time. *New England Journal of Medicine*, 345, 458–461.
- Wilson, J. (1998). Medicare managed care: Consumers’ perspectives. *Clinical therapeutics*, 20, 1263–1276.

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