

# Low-Income Employees' Choices Regarding Employment Benefits Aimed at Improving the Socioeconomic Determinants of Health

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Socioeconomic factors play an important role in determining health status.<sup>1,2</sup> Low-income individuals have higher mortality rates than higher-income individuals, even when health insurance is universally available.<sup>3</sup> This reality has led many countries in the Organization for Economic Cooperation and Development (e.g., the United Kingdom, Canada, Sweden, and Norway), as well as developing countries (e.g., Mexico and Chile), to propose public programs to improve socioeconomic factors that contribute to health.<sup>4-7</sup> Such public policy approaches are unlikely to be forthcoming in the United States, at least in the near future. A focus on market-based strategies, along with federal and state budget deficits, makes it improbable that either federal or state governments will quickly champion new programs aimed at promoting the health of low-income populations in the United States.

In light of this reality, employment benefits might serve as a vehicle for improving the health of these populations. This approach could be advantageous from both employers' and employees' points of view. For employers, improved employee health may enhance productivity, reduce absenteeism, and reduce health insurance costs.<sup>8-10</sup> For employees, improved health could augment well-being, lifespan, and economic prospects. Nonetheless, efforts to improve employee health through employment benefits may seem prohibitively costly. We have therefore conducted research aimed at identifying health-promoting employee benefits that would be consonant with employees' preferences and comparable in cost to currently provided fringe benefits for low-income US employees.

In our study, we offered low-income participants an opportunity to express a preference for employment benefit packages, including health insurance and other benefits aimed at ameliorating socioeconomic factors

**Objectives.** Socioeconomic factors are associated with reduced health status in low-income populations. We sought to identify affordable employment benefit packages that might ameliorate these socioeconomic factors and would be consonant with employees' priorities.

**Methods.** Working in groups (n=53), low-income employees (n=408; 62% women, 65% Black) from the Washington, DC, and Baltimore, Md, metropolitan area, participated in a computerized exercise in which they expressed their preference for employment benefit packages intended to address socioeconomic determinants of health. The hypothetical costs of these benefits reflected those of the average US benefit package available to low-income employees. Questionnaires ascertained sociodemographic information and attitudes. Descriptive statistics and logistic regression analysis were used to examine benefit choices.

**Results.** Groups chose offered benefits in the following descending rank order: health care, retirement, vacation, disability pay, training, job flexibility, family time, dependent care, monetary advice, anxiety assistance, wellness, housing assistance, and nutrition programs. Participants varied in their personal choices, but 78% expressed willingness to abide by their groups' choices.

**Conclusions.** It is possible to design employment benefits that ameliorate socioeconomic determinants of health and are acceptable to low-income employees. These benefit packages can be provided at the cost of benefit packages currently available to some low-income employees. (*Am J Public Health.* 2007; 97:1650-1657. doi:10.2105/AJPH.2006.091033)

that influence health. We report on their priorities regarding these benefits.

## METHODS

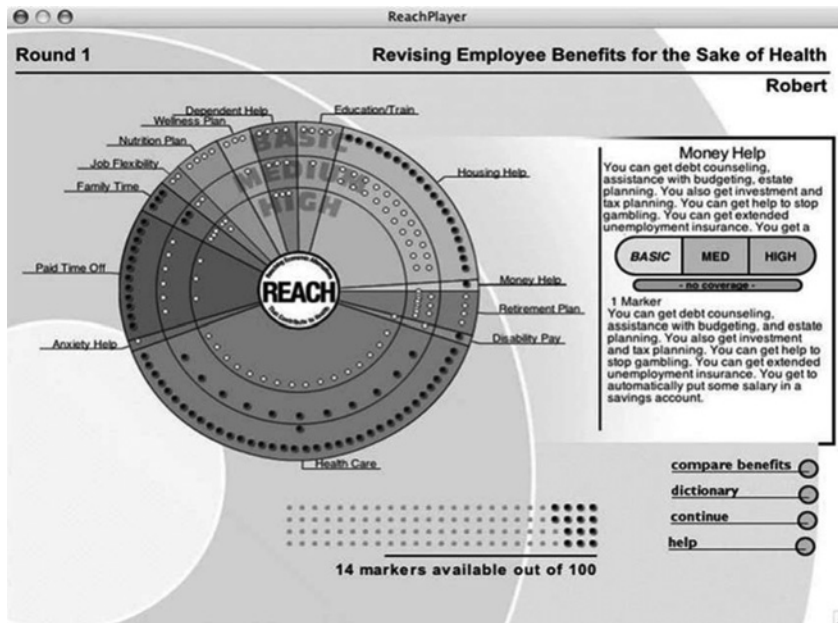
### Participants

Low-income residents of Washington, DC, Baltimore, Md, and surrounding counties were recruited primarily through newspaper advertisements and posted advertisements at health care facilities, public schools, stores, and local employers. People were eligible if they earned less than \$35 000 per year, which was 3 times the national poverty threshold in 2003 (rounded to the nearest \$1000). People earning more than \$35 000 were eligible if their total household income was less than 3 times the national poverty threshold for a household of their size.<sup>11</sup> Individuals (n=408) were invited to take part in groups (consisting of 3-12 participants).

The groups (n=53) were led by a trained facilitator and a trained assistant. Group sessions were held at the National Institutes of Health Clinical Center between March and October 2005. Participants were paid \$75 in compensation.

### Study Instrument

This study employed REACH (Reaching Economic Alternatives that Contribute to Health), a computerized decision tool designed to allow laypeople to express a preference for services such as employment benefits within a fixed budget (the REACH exercise is available from M.D. upon request). REACH is based on the CHAT (Choosing Healthplans All Together) exercise, which was developed, tested, and used primarily to allow the public to prioritize health insurance benefits.<sup>12-14</sup> The REACH exercise was developed by the researchers at the National Institutes of



**FIGURE 1—A screenshot of the REACH (Reaching Economic Alternatives that Contribute to Health) exercise board.**

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The first step of the exercise involved an exercise board shaped like a pie chart in which 13 employment benefit categories were represented in slices of the pie (Figure 1). There were up to 3 levels of coverage (basic, medium, and high) for each benefit category, although certain categories had fewer available levels. Participants were told that the exercise was designed to identify their priorities among those employment benefits that might contribute to their health. They were given an information sheet explaining briefly, in lay language, the health impact of the various benefits. Although they were told to consider the health impact of their choices, they were allowed to select benefits for other reasons. They could also forgo assigning any number of markers and instead choose hypothetically to receive additional, taxable, take-home pay instead. Participants made their selections by distributing markers at the bottom of the computer screen among the “holes” on the board. Participants were

also able to read about individual benefit categories on the REACH screen before making their selections (Table 1). All materials were written to be understood at a sixth-grade reading level.

Each participant was given a total of 100 markers, intended to represent \$11 600. This amount represents the projected average annual benefit cost (excluding small companies that do not offer employment benefits<sup>15</sup>) for US employees earning \$25 000 per year. This earning level was chosen because we assumed that it would match that of the survey population. Certainly, many low-income employees receive few or no benefits beyond legal mandates. However, a very small budget for benefits would have restricted the value of the survey. Although this decision led to a relatively high benefit-to-income ratio, such a ratio is common for large employers as well as for many smaller employers. On the basis of this approach, the average monthly benefits budget was \$967. Each marker represented 1% of the available funds, so each had a value of \$9.67 per month.

Participants were instructed to make choices 4 times in the course of the exercise:

first, on their own in order to design a benefit package for themselves and their immediate family or significant others; second, in groups of 3 to make benefits for members as a company; third, as an entire group, through a facilitated discussion, to design employment benefits that a state might mandate for all its employees; and finally, on their own once again for themselves and their families.

After the first and second set of choices, participants were randomly assigned “Life Event” scenarios describing life stressors such as illnesses, social difficulties, or family problems; these scenarios included the consequences of the coverage level they had selected or declined for themselves. Participants read a Life Event and commented to the group about their reactions to it in light of their coverage choice. For example, a Life Event scenario labeled “Money in the Bank” stated, “You are very bad at saving money. Your bank account is always empty. If you chose Money Help, you have a payroll savings plan. It takes money out of your paycheck each week and puts it in the bank. You feel relieved. It will help in emergencies.”

The REACH exercise, along with pre- and postexercise surveys, took approximately 2.5 hours to complete.

### Determination of Benefit Options

To determine which benefit options to offer, we (1) reviewed the literature to identify employment benefits associated with evidence of a positive health impact (an annotated bibliography is available on the REACH exercise CD), (2) surveyed prevalently offered employment benefits,<sup>15</sup> (3) considered which benefits had the best evidence of associated improvement in health outcomes, and (4) added benefits not currently available but considered by experts to be useful interventions for improving health. The final benefit list, as described to study participants, is shown in Table 1. (A more technical description of the benefits is available on the REACH exercise CD).

Actuarial costs of individual benefits were projected from the following surveys: the Marsh and Mercer Human Resource Consulting 2003 Employers’ Time-Off and Disability Programs Survey; Mercer Human Resource Consulting 2003 National Survey of

**TABLE 1—Details of Employment Benefits Offered in the REACH Exercise: Washington, DC, and Baltimore, Md, Area, 2005**

Type of Coverage	Level of Coverage and Explanation		
	Basic	Medium	High
<b>Anxiety help</b>			
This program helps to find treatment for personal problems that can affect your job. It helps with problems like alcohol and drug abuse. It helps with marital problems, family troubles, stress and violence at home.	This program helps you cope with anxiety. It also offers stress management. You learn to meditate. You learn to think and act in a more relaxed way. You also take part in a work/life program that offers career counseling. It makes you healthier and more productive. (1 marker)		
<b>Dependent help</b>			
You can get help paying for dependent care.	Your employer provides a subsidy or voucher to help you pay for childcare while you are at work. You get free help finding good childcare. Your boss provides temporary childcare when your usual childcare isn't available. (4 markers)	You get all the basic dependent care help. In addition, your boss provides childcare before and after school while you work. You get help finding care for a disabled parent. (4 + 3 markers)	You get all basic and intermediate dependent care help. In addition, you get college scholarships and supplemental education and recreational programs for your children. (4 + 3 + 3 markers)
<b>Disability pay</b>			
You get insurance that pays some of your wages if you are sick or hurt and can't work.	You get short-term disability pay that lasts up to 1 year. (1 marker)	You get short-term disability pay. You also get long-term disability pay. It pays 40% of wages for more than 1 year. (1 + 1 markers)	You get short-term disability pay. In addition, you get long-term disability pay. It pays 60% of wages for more than 1 year. (1 + 1 + 1 markers)
<b>Family time</b>			
You get paid leave to take care of a sick family member or partner. You get paid leave for the birth of a child.	You get 3 days of paid leave to take care of a sick family member or partner. Mothers get 3 months paid leave for birth and care of a child. (3 markers)	You get 5 days of paid leave to take care of a sick family member or partner. Mothers get 3 months paid leave for birth and care of a child. Fathers get 1 month paid leave. Parents seeking adoption get 3 months paid leave. (3 + 2 markers)	You get all the basic and intermediate benefits. In addition, you get 2 days a year to attend child-related functions and 1 day a year for a family physical. In addition, you can accumulate paid leave time to care for a disabled or frail parent. (3 + 2 + 3 markers)
<b>Health care</b>			
Health insurance.	You pay \$25 for office visits, \$500 for hospital stays, and up to \$50/month for generic drugs. You need a referral to see a specialist who is in your insurance plan. Your insurance covers only emergency care provided outside your plan network. (37 markers)	You pay \$20 for office visits, \$350 for hospital stays, and up to \$25/mo for generic drugs. You don't need a referral to see a specialist in your insurance plan. Your insurance covers only emergency care provided outside your plan network. (37 + 11 markers)	You pay \$15 for office visits, \$0 for hospital stays, and up to \$13/mo for generic drugs. You don't need a referral to see a specialist in your insurance plan. Your insurance covers 80% of care provided out-of-network. In addition, you get dental and vision benefits. (37 + 11 + 16 markers)
<b>Housing help</b>			
Loans, grants, and other payments to help pay for housing. Able to affordably rent from your employer.	You can get loans, grants, and other payments to help pay for housing. (19 markers)	You can get loans, grants, and other payments to help pay for housing. In addition, you can rent from your employer at an affordable price. (19 + 22 markers)	
<b>Job flexibility</b>			
Untaxed payment for travel to work. Flexible working hours. Help paying for public transportation to work. Help paying for travel to work in your own car.	You get untaxed payment for travel to work. You can have some choice about what time you start and quit work. There are some times all workers must be present. (2 markers)	In addition, you can get help paying for public transportation to work. (2 + 2 markers)	In addition, you can get some pay for travel to work in your own car. (2 + 2 + 3 markers)

*Continued*

TABLE 1—Continued

Money help				
You can get debt counseling, assistance with budgeting, estate planning. You also get investment and tax planning. You can get help to stop gambling. You can get extended unemployment insurance. You get a savings account.	You can get debt counseling, assistance with budgeting, and estate planning. You also get investment and tax planning. You can get help to stop gambling. You can get extended unemployment insurance. You get to automatically put some salary in a savings account. (1 marker)			
Nutrition plan				
An inexpensive cafeteria at work. Counseling about a healthy diet.	A self-service restaurant at work where you can buy food at reduced cost. A counseling program where a dietician teaches about healthy eating. You learn about vitamins, minerals, and other important foods. You learn how to lose weight and how to handle food allergies. (4 markers)			
Paid vacation				
Paid sick leave. Other paid time off.	You get 10 days of paid vacation. You get 4 days of paid leave for sickness, injuries unrelated to work, or pregnancy. (12 markers)	You get 15 days of paid vacation. You get 6 days of paid leave for sickness, injuries unrelated to work, or pregnancy. (12 + 6 markers)	You get 15 days of paid vacation and 6 days of paid sick leave. In addition, you can take time off for unexpected personal matters. You get bereavement leave if there is a death in your family. (12 + 6 + 3 markers)	
Retirement plan				
Money put in an account by your boss for your retirement.	Your employer puts a fixed amount of money in an account for your retirement. It is saved and invested for you. (4 markers)	Your employer puts a fixed amount of money in an account for your retirement. It is saved and invested for you. You will receive a pension benefit when you retire. The value of this benefit is determined by a formula. (4 + 11 markers)		
Training and school				
On the job training. Professional development program. Mentoring program for new workers.	You take courses and workshops that help you learn job skills while you are working. You gain knowledge that prepares you for another job or to move to a manager position. When you start a new job a more experienced worker acts as a role model and teaches you. (4 markers)	In addition to basic benefits, you get up to \$ 2000 help pay for school tuition for yourself. (4 + 1 markers)		
Wellness plan				
A program that teaches healthy lifestyles; counseling to quit smoking; free vaccinations.	You get membership in an exercise center. You have access to a nurse advice hotline to help you manage minor illnesses and health problems. (3 markers)	In addition to basic benefits, you are in a program that teaches healthy lifestyles to prevent illness. You take classes on nutrition, exercise, and health education. You learn to stop smoking. You get free shots to prevent the flu and other infections. (3 + 1 markers)		

Note. REACH = Reaching Economic Alternatives that Contribute to Health, a computerized decision tool designed to allow laypeople to express a preference for services such as employment benefits within a fixed budget. The explanations of benefits are those provided in the REACH exercise; for an explanation of the REACH exercise and the markers used, see the "Methods" section. The number of markers (total n = 100) required to choose a level of benefit is given in parentheses. Flags were cumulative, and participants had to assign markers to lower levels before they could choose higher levels of benefits.

Employer-Sponsored Health Plans<sup>16</sup>; and the US Chamber of Commerce 2003 Employee Benefits Study.<sup>17</sup> Because these surveys were from 2003, they were adjusted by assuming annual increases in salary of 3%, in net medical costs of 10%, and in net dental costs of 7%. Costs for retirement and disability benefits were adjusted for an income of \$25 000. For retirement benefits and long-term disability, the average cost was calculated on a prorated basis. For short-term disability, the average cost was adjusted to reflect disability benefit minimums and state-mandated benefit levels.

The relative costs for each category were rounded to the nearest 1% so they could be selected with the markers. The 13 benefit categories at their highest level were estimated to have a total value of \$ 21 344 and thus comprised 184 holes on the exercise board. The 100 allotted markers thus allowed for coverage of 54% of the available benefits in the exercise.

### Additional Survey Instruments

Participants were asked pre- and postexercise questions to ascertain their (1) sociodemographic characteristics, including race/ethnicity, gender, income, education, and current work; (2) health insurance coverage status and annual health-related costs; (3) health risk factors; (4) self-rated health status; and (5) attitudes toward health and employment benefits. Attitudinal items included the following statements that participants were asked to rate (from “strongly disagree” = 1 to “strongly agree” = 5): “My health depends on how good my health insurance is”; “My health depends on making good lifestyle choices”; “My health depends on my income”; “The employment benefits I receive should match my personal needs”; “I would like to decide for myself what employment benefits I receive.” The postexercise questionnaire repeated the attitudinal items and asked participants how informative and easy they considered the REACH exercise; again, the 5-point rating scale was used. Finally, they were asked if they would be willing to accept their group’s employment benefit plan.

### Statistical Analysis

A sample size of 400 was estimated to have the power to detect significant differences

in participant choices. We compared attitudes before and after the exercise using the paired *t* test. Associations between participant characteristics and individual choices were examined using the Pearson  $\chi^2$  test. Results were calculated as the percentage choosing each benefit, first overall and then by the individual characteristics of the participants (gender, race/ethnicity, age, and education). To examine whether the bivariate results were confounded by any of these characteristics, we used logistic regression models to calculate adjusted percentages for 2 of the outcomes: choice of training and job flexibility. A model was fit for each outcome and participant characteristic, adjusted for the remaining characteristics as potential confounding variables. Because these 2 outcomes were common, we chose to report the results as adjusted percentages rather than as odds ratios, because odds ratios would overestimate the size of the effect. For all analyses based on outcomes for the final round, we adjusted the standard errors for intraclass correlation because of any group effect. This intraclass correlation was negligible.

Data were stored in an Excel program (Microsoft Corp, Redmond, Wash) linked to the REACH exercise. Data were analyzed with SAS version 9.1 (SAS Institute Inc, Cary, NC).

## RESULTS

### Participant Characteristics

Fifty-three groups, comprising 408 participants, were convened. Participants’ mean age was 39 years. Approximately 62% were women, and 65% were Black (Table 2). Fifty-eight percent were single or never married, and 53% had 1 or more dependents. Seventy-nine percent had health insurance; 38% had spent over \$ 500 out-of-pocket for health care in the last year. The predominant level of education was some college or a 2-year college degree, and the predominant income range was \$ 15 000 to \$ 35 000.

### Employment Benefit Choices

In aggregate, individual participants initially chose employment benefits in the following descending rank order: health care, paid vacation, retirement, disability pay, job flexibility, training, family time, monetary

**TABLE 2—Sociodemographic Characteristics of Study Participants in the REACH Exercise: Washington, DC, and Baltimore, Md, Area, 2005**

	Study Participants, No.	%
Age, <sup>a</sup> y		
18–30	118	28.9
31–40	85	20.8
41–50	117	28.7
51–60	73	17.9
> 60	15	3.4
Women	...	61.5
Race/ethnicity		
Hispanic	22	5.8
White	83	20.3
Black	264	64.7
American Indian/ Alaska Native	8	2.0
Asian	13	3.2
Native Hawaiian/ Pacific Islander	4	1.0
Other	29	7.1
Insurance source		
No health insurance	87	21.3
Employer, or spouse’s, partner’s, or parent’s employer	176	43.1
Medicare	37	9.1
Medicaid	45	11.0
Veterans Administration/ military	22	5.4
Student insurance	10	2.5
Other insurance	36	8.8
Marital status		
Single/never married	231	58.3
Married	59	14.9
Partnered	17	4.3
Separated/divorced	75	18.94
Widowed	14	3.5
Unknown	12	2.9
Dependents <sup>b</sup>		
0	185	47.4
1	68	17.4
2	65	16.7
3	38	9.7
4	25	6.4
≥5	9	2.3
Unknown	18	4.4

Continued



**TABLE 2—Continued**

Out-of-pocket health expenses within last year, \$		
0	52	13.7
<500	152	40.0
500 to 2499	108	28.4
2500 to 4999	24	6.3
≥5000	14	3.7
Not sure/missing	58	14.8
Educational attainment		
8th grade or less	1	0.3
Some high school	18	4.6
High school graduate or GED	78	20.1
Some college or 2-y degree	153	39.4
4-y college degree	83	21.4
Partial or completed graduate or professional degree	55	14.2
Missing	20	4.9
Household income, \$		
0-7499	26	6.6
7500-14999	65	16.5
15 000-34 999	221	56.2
35 000-59 999	65	16.5
≥60 000	16	4.1
Missing	15	3.7
Self-assessed health status		
Excellent	79	20.0
Very good	152	38.5
Good	111	28.1
Fair	48	12.2
Poor	5	1.3
Missing	13	3.2

Note. GED = general equivalency diploma.  
<sup>a</sup>Mean age was 39.61 years (±12.18 years).  
<sup>b</sup>Mean number of dependents was 1.17.

advice, wellness plan, dependent care, housing assistance, anxiety assistance, and nutrition programs (Table 3). Group choices were similar to those of individuals in aggregate, with health care, disability pay, paid vacation, retirement, job flexibility, and family time (in descending rank order) being ranked highest (Table 4). When we compared final individual choices with those of the groups, individuals ranked education and training higher than the groups did.

In bivariate analysis, comparison of men and women showed that women were more likely to initially choose family time and

**TABLE 3—Percentage of Study Participants Choosing Each Benefit and Benefit Level in the REACH Exercise: Washington, DC, and Baltimore, Md, Area, 2005**

Benefit	Initial Choice, %				Final Choice, %			
	None	Basic	Medium	High	None	Basic	Medium	High
Health care	8	24	37	31	5	16	41	38
Paid vacation	13	34	21	32	9	41	31	19
Retirement	13	38	49	... <sup>a</sup>	9	37	54	...
Disability pay	20	20	19	41	13	13	26	46
Job flexibility	28	36	22	14	29	36	24	11
Training	29	22	49	...	28	21	51	...
Family time	36	24	23	17	32	32	26	10
Money advice	56	44	...	...	58	42	...	...
Wellness	58	22	22	...	67	19	14	...
Dependent care	58	20	12	10	49	28	15	7
Housing assistance	66	28	6	...	77	20	3	...
Anxiety assistance	66	33	...	...	63	27	...	...
Nutrition programs	67	33	...	...	81	19	...	...

Note. REACH = Reaching Economic Alternatives that Contribute to Health, a computerized decision tool designed to allow laypeople to express a preference for services such as employment benefits within a fixed budget. "First choice" indicates the benefit package individual participants preferred before they participated in a facilitated group discussion; "final choice" indicates the package they chose after the group discussion. For details, see "Methods" section. Ellipsis (...) indicates that benefit was not available at this level.

**TABLE 4—Comparison of Ranking of Benefits Chosen by Groups and Individuals Participating in the REACH Exercise: Washington, DC, and Baltimore, Md, Area, 2005**

Rank	Group Choice	Initial Individual Choice	Final Individual Choice
1	Disability pay, health care, paid vacation <sup>a</sup>	Health care	Health care
2		Retirement, paid vacation	Retirement, paid vacation
3			
4	Retirement	Disability pay	Disability pay
5	Job flexibility	Job flexibility	Training
6	Family time	Training	Job flexibility
7	Training	Family time	Family time
8	Dependent care	Money advice	Dependent care
9	Anxiety assistance	Dependent care, wellness	Money advice
10	Money advice		Anxiety assistance
11	Wellness program	Anxiety assistance, housing assistance	Wellness program
12	Nutrition programs		Housing assistance
13	Housing assistance	Nutrition programs	Nutrition programs

Note. REACH = Reaching Economic Alternatives that Contribute to Health, a computerized decision tool designed to allow laypeople to express a preference for services such as employment benefits within a fixed budget. "First individual choice" indicates the benefit package individual participants preferred before they participated in a facilitated group discussion; "final individual choice" indicates the package they chose after the group discussion; "group choice" indicates package chosen by groups. For details, see "Methods" section.

<sup>a</sup>Where a ranking includes more than 1 benefit, the listed benefits were chosen by the same percentage of participants.

training than were men; in the final round, men's and women's choices did not differ significantly (data available as supplement to the

online article available at <http://www.ajph.org>). Comparison of racial/ethnic groups revealed that in the initial round, Blacks were

less likely than were Whites to select health care and more likely to select housing; in the final round, Blacks were more likely than were Whites to choose training and housing. Comparison of benefit choices among young (aged <30 years), middle-aged (30–49 years) and older ( $\geq 50$  years) study participants revealed that younger participants were much more likely than older participants to initially choose health care, job flexibility, and family time; in the final round, they were significantly more likely to choose health care, disability insurance, training, job flexibility, family time, dependent care, and wellness programs. Having no more than a high school education was associated with greater initial selection of dependent care and housing assistance and with lower final selection of disability insurance, training, and job flexibility (data available as supplement to the online article available at <http://www.ajph.org>).

As with benefit selection, the inclination to spend all available resources (100 markers) for employment benefits varied with participant characteristics. Older and Black participants were more likely to elect fewer benefits and receive additional, taxable take-home pay than were other groups.

In logistic regression modeling of the choice of 2 benefits—training and job flexibility—we found that in the initial round, women were still more likely than were men to choose training (75% vs 65.3%;  $P=.043$ ) and young participants were more likely to choose flexibility than were older participants (85.2% vs 68.6% and 62.7% for middle-aged and older participants, respectively;  $P=.001$ ). The adjusted relationship between race and flexibility was slightly weaker ( $P=.09$ ). At the final round, adjusting for these variables eliminated the slight difference between men and women in the choice for training, but actually strengthened gender differences in the choice of flexibility, with men more likely to select job flexibility than women (78.0% vs 69.0%;  $P=.07$ ).

Pre- versus postexercise response to attitudinal items on the 1- to 5-point scale (5=strongly agree) were as follows: “My health depends on how good my health insurance is,” 2.71 vs 3.26 ( $P<.001$ ); “My health depends on making good lifestyle choices,” 4.13 vs 4.40 ( $P<.001$ ); “My health depends

on my income,” 2.93 vs 3.22 ( $P<.001$ ); “The employment benefits I receive should match my personal needs,” 3.98 vs 4.10 ( $P=.036$ ); “I would like to decide for myself what employment benefits I receive,” 4.21 vs 4.41 ( $P<.001$ ).

In the postexercise questionnaire, participants considered the exercise informative ( $4.36 \pm 0.79$ ) and easy ( $4.28 \pm 0.86$ ). Seventy-eight percent were willing to accept their group’s employment benefit plan.

## DISCUSSION

These results indicate that when given the opportunity to choose, low-income employees emphasize benefits that offer financial security in the face of sickness, disability, or retirement; flexibility in the workplace; and the opportunity for educational advancement. Although interventions that might directly improve their health, such as wellness and nutrition programs, were options at their disposal in this exercise, most chose to rely on their own resources to meet their needs for healthy eating and exercise. Although individuals, in aggregate, chose similarly to groups, there were significant differences in choices of employment benefits, particularly among participants of different ages.

The results also indicate that these low-income employees understood that their economic status, personal lifestyle choices, and health insurance all contributed to their health. Participation in the exercise furthered their recognition of these influences. They were interested in having their employment benefits meet their needs. They expressed both a desire to participate personally in setting priorities for what benefits they would receive and a willingness to accept a benefit package that they designed with other employees. These findings lend support to the concept of using employment benefits as an approach to improving the health of low-income employees and engaging them in the design of their benefits to accomplish this goal.

This study had several limitations. The exercise involved hypothetical choices that might not reflect real choices were an opportunity to actually arise. Nonetheless, the facilitators’ experience was that the participants were avidly engaged in the process and could

strongly relate to the topic in a manner that reflected serious consideration of the issues. Secondly, the study population was not a random sample of low-income employees, as is usually the case when group exercises are conducted that must be scheduled according to participants’ availability. Nonetheless, the sample did have a demographic composition similar to that of the Washington, DC, and Baltimore population in terms of its minority representation.<sup>18</sup>

Despite these limitations, our findings, which identify those health benefits that are most important to low-income employees, can promote the development of affordable employment-based strategies for ameliorating socioeconomic factors known to affect their health. Even though employers are under pressure to cut employment expenses, a compelling practical case can be made for offering health-promoting employment benefits. Employers may have an economic interest in endorsing employment benefits for several reasons<sup>19</sup>; to the extent that their employees are healthy, absenteeism is likely to be lower, job performance better, health insurance costs less, and job retention higher. Moreover, benefits often serve as a recruiting tool. As a form of compensation, benefits have the advantage of being tax deductible. Thus, both employers and employees may be receptive to the strategy of offering employment benefits that contribute to health.

Health promotion in the workplace, through either on-site programs or employment benefits, has much to recommend it from a policy perspective. In a political climate generally hostile to extending public welfare interventions, employment benefits might be an effective strategy for improving the health of the less-advantaged members of society. It has been argued that occupation is the most important criterion of social stratification and determinant of socioeconomic groups.<sup>20</sup> Furthermore, it has been suggested that employers are an efficient means of reaching many people given the large amount of time people spend in the workplace.<sup>21</sup> We do not mean to imply that the use of employment benefits as a strategy for ameliorating socioeconomic determinants of health necessarily involves the same strategies or would achieve the same accomplishments as public programs. It is

conceivable, however, that the 2 approaches might complement each other. ■

### About the Authors

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### Contributors

M. Danis originated the study and participated in and supervised all its aspects. F. Lovett and L. Sabik participated in the design of the study, conduct of the data collection, and the editing of the article. K. Adikes participated in the data collection and the analysis and editing of the article. G. Cheng participated in the data collection and the writing of the article. T. Aomo participated in data analysis.

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### Human Participant Protection

This study was approved by the institutional review board of the National Institute of Mental Health.

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