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Insurance Coverage for Weight Loss:

Overweight Adults' Views

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Abstract

Background—Given the prevalence of obesity and associated chronic conditions among U.S. adults, wellness benefits are an increasingly popular approach to promoting weight loss.

Purpose—The goal of the study was to assess overweight and obese adults' beliefs about the helpfulness of insurance coverage of weight loss–related benefits, their willingness to pay for such benefits, and whether these opinions differ by individuals' weight or health insurance type.

Methods—A national survey was fielded in 2012 among non-pregnant, overweight and obese adults who had seen a primary care provider in the past year ($n=600$). Descriptive statistics summarized beliefs about which weight loss–related benefits would be helpful, willingness to pay for such benefits, and agreement about whether health insurers should be able to charge more to obese individuals. Multivariable logistic regression was employed to determine whether beliefs differed by weight category or health insurance type. Analyses were conducted in July 2012.

Results—The majority (83%) of respondents cited a specific benefit as helpful. Those with private health insurance had a higher probability (89%, 95% CI=86%, 93%) of endorsing any benefit as helpful relative to those with other types of health insurance. Being obese relative to overweight was associated with greater support (57% vs 39%, $p<0.05$) for preventing health insurers from charging higher premiums to obese individuals.

Conclusions—In this sample of overweight adults, a large proportion endorsed the value of weight loss–related benefits offered by health plans. However, only about one third were willing to pay extra for them, and half disagreed with the notion that health plans should charge more to obese individuals. Given evidence of their effectiveness, wellness benefits should be offered to all individuals.

Introduction

The high prevalence of overweight and obesity among U.S. adults¹ has been associated with an increased population burden of serious chronic conditions.² In addition to health

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consequences, the economic consequences of obesity have been well documented,^{3–6} with U.S. medical spending due to obesity estimated at \$147 billion in 2008.⁷ In this context, wellness benefits have become an increasingly popular approach that employers and health plans take to attempt to improve enrollees' health and control healthcare costs.^{8,9} Commonly offered weight loss–related wellness benefits include gym membership discounts, lifestyle resources or classes in nutrition, and commercial weight-loss programs.⁸

Wellness benefits have been shown to increase physical activity, reduce the risk of diabetes, and reduce BMI/abdominal obesity measures;^{10,11} they are estimated to save \$3.27 in medical costs for every \$1 spent.¹² Although the majority of literature has focused on evaluating the health effects and costs of wellness benefits offered through private insurance plans or employers, emerging evidence suggests that wellness benefits for weight loss could have similar effects in public health insurance programs.^{13,14}

Under current federal law, group health plans are permitted to offer premium discounts of up to 20% and make such discounts contingent on participation in a wellness benefit or on meeting a health status goal as part of participation in a wellness benefit.¹⁵ At the same time, most states allow health plans to charge higher premiums for or decline to cover obese individuals.¹⁶ Under the Affordable Care Act, as of 2014, group and individual health plans will no longer be able to charge different premiums or deny coverage based on obesity or health status.¹⁷ Group health plans will, however, retain the ability to offer premium discounts contingent on meeting a health status goal as part of a wellness benefit.

Given the prevalence of overweight, obesity, and associated chronic conditions, premium discounts tied to wellness benefits are likely to increasingly affect overweight and obese adults.¹⁸ It is therefore important to understand which specific wellness benefits are perceived to be most helpful by this population. Previous survey research has focused on employees' perspectives about weight management programs and obesity treatment,¹⁹ and beliefs among U.S. adults about employer and public policy strategies to promote obesity treatment.²⁰

No published research of which the authors are aware has examined public support for health insurance coverage of specific types of benefits to promote weight loss. Further, no research has examined differences in beliefs among individuals with differing types of health insurance. This study had three primary aims: (1) To describe overweight and obese adults' beliefs about the helpfulness of insurance coverage for specific benefits and willingness to pay for such benefits; (2) To examine whether differences existed in the reported helpfulness of benefits by BMI or health insurance type; and (3) To examine whether support for the new policy that bars insurers from charging higher premiums based on obesity differed by BMI or health insurance type.

Methods

Survey Development and Implementation

Social Science Research Solutions (SSRS) was contracted to implement a national survey of overweight and obese U.S. adults. The survey instrument was designed by the authors, reviewed for content by experts in the field of obesity research and primary care, and then pilot-tested by SSRS for length and comprehensibility. The survey was revised on the basis of these pilot tests, and the final version included 33 questions.

The fieldwork for this survey was conducted via the Internet by Authentic Response (AR) web panel company, which consists of approximately 4,000,000 registered members. Although some research has suggested that web-based surveys may be biased with respect to

measuring health outcomes,²¹ other studies have suggested that web-based administration is comparable to other modes with respect to respondents' demographics and reported health behavior risks.^{22,23} To improve data validity, AR includes panel members by invitation only and uses algorithms to identify and exclude professional survey-takers.

The panel members were recruited to represent a general U.S. population sample, and data were weighted to address nonresponse bias and to match demographic patterns of the overweight adult population. Panel members were not eligible if they had not seen a primary care doctor within the past year, BMI was <25, or they were pregnant. The sample was intentionally restricted to the overweight/obese population who had a primary care visit in the past year as the survey was jointly interested in perspectives on wellness benefits and weight-related care (which are addressed in other analyses not included here). Of the 1380 panel members who responded to the survey invitation, 335 were excluded since they had not seen a doctor in the past year, 396 did not have a qualifying BMI, and six were pregnant. Survey participants included 600 overweight or obese adults between April 5 and April 13, 2012. (Appendix A, available online at www.ajpmonline.org, contains more information about the panel as well as the survey items.) This study was approved by the Johns Hopkins Bloomberg School of Public Health IRB.

Measures

The outcomes of interest included beliefs about the helpfulness of insurance coverage of specific weight loss–related benefits, willingness to pay for benefits that are perceived as helpful, and beliefs about insurers charging more to obese individuals. To measure respondents' beliefs about the helpfulness of weight loss–related benefits offered by a health insurance plan, they were asked to select which specific benefits they would find most helpful from a list of eight benefits: gym membership discount, commercial weight loss program, weight loss program in a physician's office, classes in nutrition or healthy living, web-based resources for nutrition or healthy living, health coaching, financial incentive for wellness services, or other wellness benefit.

The list of specific benefits was adapted from those used in the Kaiser Family Foundation/Health Research and Educational Trust's annual Employer Health Benefits Survey.²⁴ If a respondent indicated that any benefit would be helpful, they were asked if they would be willing to pay more annually for such a benefit, in increments (\$50–\$99 more, then in \$100 increments up to \$500). A survey question used by Gallup²⁵ was adapted to ask respondents, on a 5-point Likert scale, whether they agreed with the notion that health insurance plans should be permitted to charge greater amounts to individuals who are obese.

Binary variables were created for the three outcomes of interest. First, a variable indicating whether respondents felt any specific benefit was helpful versus reporting that no benefit would be helpful. Second, among those who reported that a benefit would be helpful, a variable was created indicating whether respondents had reported that a specific health benefit would be helpful versus reporting that a financial incentive would be helpful. This distinction was made to examine whether respondents' preferred that a benefit be provided, compared to having a health plan provide financial support for a service they would select. Third, responses to the question regarding whether health insurance plans should be able to charge more to obese individuals were defined as disagreeing or strongly disagreeing, as opposed to agreeing, strongly agreeing, or having no opinion.

The main independent variables of interest were BMI and health insurance type. BMI was calculated based on self-reported height and weight, defined as overweight (BMI 25 to <30) vs obese (BMI ≥ 30). Health insurance type was a categorical variable, self-reported as private insurance; Medicare; Medicaid/CHIP; uninsured; or other insurance (military, charity care,

other volunteered). The survey also asked respondents about their demographic characteristics. Additional covariates used in analyses included gender; age (measured continuously in years); race/ethnicity (non-Hispanic white, non-Hispanic black, or other race); and highest educational attainment (high school diploma or less, some college, or college graduate or more).

Data Analysis

Descriptive statistics were calculated to characterize the study sample on demographic factors, such as age, weight, gender, and race and ethnicity. To verify that the study sample reflected the U.S. population, the same descriptive statistics were calculated using data from the 2010 Behavioral Risk Factor Surveillance System (BRFSS) subset of nonpregnant, overweight and obese individuals (BMI ≥ 25) who reported having a routine check-up in the past year. The BRFSS, like the current study, is a cross-sectional survey that uses self-reported height and weight to measure BMI. Descriptive statistics were then conducted to summarize respondents' beliefs about the helpfulness of specific benefits, their willingness to pay for such benefits, and whether health insurance plans should be able to charge higher amounts to obese individuals.

Multivariable logistic regression was conducted to analyze whether differences in respondents' beliefs existed by weight category (overweight vs obese) or by health insurance type. For each regression model, two independent variables of interest were included: BMI category and health insurance type. Additionally, all regression models controlled for age, gender, educational attainment, and race, as these variables are associated both with BMI and insurance status and are likely to be associated with the outcomes of interest. Because ORs can be difficult to interpret in terms of policy relevance when the outcomes under study are common,^{26,27} average predicted probabilities of outcomes for each independent variable from the regression models are reported. All analyses were conducted in July 2012 using the "SVY" commands in Stata 11; weights were used to account for differential sampling rates.

Results

Table 1 describes characteristics of the survey respondents. The mean BMI was 32, and 51% of respondents were obese. Ninety-one percent of respondents had any health insurance; of those with health insurance, 53% had private coverage, 25% had Medicare, 9% had Medicaid, and 4% had another type of health insurance. Characteristics of the current sample are similar to those of the U.S. adult population using data from the 2010 BRFSS subset of nonpregnant, overweight and obese individuals who reported having a routine check-up in the past year (full results are available in Appendix B, available online at www.ajpmonline.org).

A total of 83% of respondents felt that a specific weight loss–related benefit would be helpful to them (Table 2). Benefits most commonly cited as most helpful were gym membership (27%) and commercial weight loss programs (16%). Taken together, 26% of respondents said that a weight loss program, either in the doctor's office or via a commercial program, would be most helpful. Twenty-seven percent of respondents reported that a financial incentive, rather than a specific weight loss–related benefit, would be most helpful. A majority (66%) of those respondents who indicated that any benefit would be helpful to them reported that they were not willing to pay an additional amount for such a benefit. A plurality (48%) of respondents disagreed or strongly disagreed with the notion that health plans should be able to charge more to obese individuals, 26% agreed or strongly agreed, and 26% had no opinion on this issue.

Figure 1 shows average predicted probabilities of beliefs about the helpfulness of benefits and opinions about whether insurance plans should be able to charge more, by BMI category (overweight vs obese). No significant differences were observed between overweight (86%; 95% CI=81%, 90%) and obese individuals (81%; 95% CI=75%, 87%) in terms of whether they would find any specific benefit helpful. Among those who reported that a benefit would be helpful, overweight (74%; 95% CI=67%, 80%) and obese (71%; 95% CI=64%, 78%) individuals similarly reported preferring a specific health-related benefit to a financial incentive.

Compared with overweight respondents, obese respondents were more likely to disagree or strongly disagree with the notion that health insurance plans should be able to charge higher amounts to obese individuals (57% vs 39%; $p<0.05$). For this opinion question, a sensitivity analysis was conducted by excluding individuals who did not report an opinion on whether insurance plans should be allowed to charge more. Nearly identical effects were observed (results available on request from the authors).

Figure 2 shows average predicted probabilities, by respondents' health insurance type, of beliefs about the helpfulness of insurance coverage of weight loss-related benefits and opinions about whether insurance plans should be able to charge more for wellness benefits. Those with private health insurance had an 89% (95% CI=86%, 93%) predicted probability of reporting that any wellness benefit would be helpful. Those with nonprivate insurance had lower predicted probabilities of endorsing any wellness benefit as helpful. Significantly lower predicted probabilities of endorsing any wellness benefit as helpful were observed among those with Medicare (76%; 95% CI=68%, 85%) and those with other insurance (67%; 95% CI=49%, 86%). No significant differences by insurance type were observed in perceiving that a specific health-related benefit would be helpful compared to a financial incentive. Although those with other insurance had a greater predicted probability of disagreeing that health insurers should be able to charge more, the effect did not persist after excluding those individuals with no opinion.

Non-Hispanic black individuals had a greater probability of endorsing any weight loss-related benefit as being helpful, compared to non-Hispanic white individuals (93% vs 81%; $p<0.05$). Similarly, women were more likely to endorse any benefit as being helpful relative to men (88% vs 79%, $p<0.05$). These findings are notable because black Americans and women belong to groups that may be more likely to benefit from wellness benefits.

Discussion

This national survey of overweight and obese adults found that the large majority (83%) were receptive to insurance coverage of weight loss-related benefits; with gym memberships, financial incentives for weight loss, and commercial weight loss programs most commonly cited as helpful. Fewer respondents (34%) were willing to pay additional premiums for such benefits, however. This is the first survey to measure specific benefits that overweight and obese adults would find most helpful for weight loss. These findings are particularly relevant as policymakers seek ways to reduce obesity-related health consequences and related public spending.²⁸

With respect to the second study aim, lower probabilities of endorsing benefits as helpful among those without private health insurance may suggest that these groups have not had experience with wellness benefits. Although large, private employers commonly offer wellness benefits through their health plans,⁸ public insurers have been less likely to offer wellness benefits for weight loss.¹⁶ This state of affairs may change as provisions of the Affordable Care Act (ACA) promote wellness benefits. The ACA requires health plans to

cover services recommended by the U.S. Preventive Service Task Force,¹⁷ including a new guideline that patients with obesity be offered “intensive, multi-component behavioral interventions” to help them lose weight.²⁹ Additionally, the ACA provides grants for state Medicaid programs to test interventions for chronic diseases, including wellness benefits aimed at helping individuals with weight loss or maintenance.³⁰

With respect to the third study aim, it is striking that 48% of individuals disagreed that insurers should be able to charge more based on an individual’s obesity; 26% agreed, and 26% had no opinion. These results stand in contrast to those of a 2011 Gallup poll, in which 42% of respondents agreed that insurers should be allowed to charge more to obese individuals; 57% disagreed, and 1% had no opinion.²⁵ A key difference between the Gallup poll and this survey is that the current sample was restricted to overweight and obese adults; although, if anything, it would be expected that overweight and obese individuals would be more likely to agree that insurers should be able to charge more based on obesity. It will be important to measure public opinion on this question once the new policy barring insurers from charging higher premiums based on health status is in effect.

Previous surveys have found mixed results with respect to racial and ethnic differences about wellness benefits.^{19,20} This study found that non-Hispanic black individuals had a higher probability of reporting that wellness benefits would be helpful, even after controlling for covariates. A possible explanation for this difference may be confounding of race and SES in national-level data,³¹ meaning that the observed racial difference might reflect a greater receptiveness to wellness benefits for weight loss on the part of individuals who lack community resources to help them lose weight. Further research is needed to explain this finding, particularly to explore whether the observed difference can be explained by social contextual factors.³² Consistent with prior work,²⁰ this study found that women were more likely than men to report weight loss–related benefits as being helpful.

Limitations

Several limitations to this study should be noted. A key limitation is that adults with BMI in the healthy range were not included in the study, so comparisons cannot be made between overweight and non-overweight adults. Despite this limitation, results are informative because overweight adults stand to gain substantial health benefits from weight loss² and may be increasingly offered such benefits as they are promoted under the ACA. The study was a cross-sectional survey of overweight and obese adults, and causality cannot be inferred for differences in beliefs observed by BMI category or health insurance type. Additionally, the study population is restricted to those individuals who reported having a primary care visit in the past year, so findings are not generalizable to those individuals who lack access to health care or choose not to see a physician.

Self-reported height and weight were used to calculate BMI, which typically underestimates true BMI.³³ Recent research, however, suggests that accuracy in self-reported height and weight has been improving over time.³⁴ Finally, the sample size prohibited making more granular comparisons among subgroups; for example, it was not possible to interpret differences between those in the “other insurance” or “other race” category.

Conclusion

This study provides a national snapshot of overweight and obese individuals’ perceptions of insurance coverage of weight loss–related benefits on the cusp of implementation of provisions of the ACA that promote such benefits. Although most respondents believed that insurance coverage of a specific benefit would be helpful for weight loss, preferences differed by health insurance type and demographic characteristics. Future research is needed

to understand how overweight individuals access and use such benefits for weight loss. If wellness benefits, and premium discounts tied to these benefits, are to be successfully used to promote weight loss, it will be important for health plans to offer benefits that overweight adults find helpful and to conduct outreach to ensure that enrollees can access wellness benefits.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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Figure 1.

Predicted probabilities of beliefs about wellness benefits and opinions about insurers charging more to obese individuals, by BMI category

^aVersus financial incentive

*Significantly different than overweight ($p < 0.05$)

Figure 2.

Predicted probabilities of beliefs about wellness benefits and opinions about insurers charging more to obese individuals, by health insurance type

^aVersus financial incentive

*Significantly different than private insurance ($p < 0.05$)

Table 1

Descriptive characteristics of the study sample

	% or M (SE)	<i>n</i>
Mean Age (years)	47 (0.89)	600
Gender		
Male	52	314
Female	48	286
Race		
Non-Hispanic white	76	454
Non-Hispanic black	14	85
Other ^a	10	61
Mean BMI	32 (0.29)	600
Obese	51	306
Insurance		
Private	53	319
Medicare	25	151
Medicaid	9	53
Other ^b	4	22
Uninsured	9	55
Education		
High School diploma or less	33	201
Some college	40	238
College degree or more	27	162

^aOther race includes non-Hispanic Asian, Hispanic ethnicity, American Indian/Alaska Native, Hawaiian/Pacific Islander, or other race volunteered.

^bOther insurance includes military/Veterans Affairs health plans, charity care, or other volunteered.

Note: Percentages may not sum to 100%, due to rounding.

Table 2

Beliefs about helpfulness of wellness benefits and willingness to pay

	%	<i>n</i>
Wellness benefit would be helpful	83	500
Wellness benefit would not be helpful	17	100
Most helpful wellness benefit^a		
Gym membership	27	136
Financial incentive	27	133
Commercial weight loss program	16	80
Weight loss program in your doctor's office	10	48
Classes in nutrition/healthy living	9	46
Web-based resources for nutrition/healthy living	7	35
Health coaching or other benefit	5	21
Willingness to pay annually for wellness benefit (\$) ^a		
0	66	328
50–99	21	106
100–199	8	40
200 or more	5	26
Insurers should be able to charge obese individuals more		
Strongly Agree/Agree	26	158
Neither	26	154
Strongly Disagree/Disagree	48	289

^aIncludes only those who responded that a wellness benefit would be helpful

Note: Percentages may not sum to 100%, due to rounding.