# Are Health Care Professionals Advising Obese Patients to Lose Weight?

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**Context** Implementation of the National Institutes of Health's 1998 guidelines, which recommended that health care professionals advise obese patients to lose weight, required baseline data for evaluation.

**Objectives** To describe the proportion and characteristics of obese persons advised to lose weight by their health care professional during the previous 12 months and to determine whether the advice was associated with reported attempts to lose weight.

**Design** The Behavioral Risk Factor Surveillance System, a random-digit telephone survey conducted in 1996 by state health departments.

**Setting** Population-based sample from 50 states and the District of Columbia.

**Participants** A total of 12 835 adults, 18 years and older, classified as obese (body mass index ≥30 kg/m$^2$), who had visited their physician for a routine checkup during the previous 12 months.

**Main Outcome Measures** Reported advice from a health care professional to lose weight, and reported attempts to lose weight.

**Results** Forty-two percent of participants reported that their health care professional advised them to lose weight. Using multivariate logistic regression analysis, we found that the persons who were more likely to receive advice were female, middle aged, had higher levels of education, lived in the northeast, reported poorer perceived health, were more obese, and had diabetes mellitus. Persons who reported receiving advice to lose weight were significantly more likely to report trying to lose weight than those who did not (OR, 2.79; 95% CI, 2.53-3.08).

**Conclusions** Less than half of obese adults report being advised to lose weight by health care professionals. Barriers to counseling need to be identified and addressed.

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NEARLY ONE FOURTH OF US adults are obese, which is defined as having a body mass index (BMI) of 30 kg/m$^2$ or more[1] and thus are at risk for numerous chronic health conditions.[2] Clinicians treating obese patients have an opportunity not only to improve the health of these individuals but also to affect positively the nation's public health by implementing the *Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults*.[3] In these 1998 guidelines, an expert panel convened by the National Institutes of Health, recommended that all obese persons should try to lose weight and that health care professionals should discuss weight control with their obese patients. This study, using data from 1996 Behavioral Risk Factor Surveillance System (BRFSS), describes the proportion and characteristics of obese persons who received advice about weight loss from their health care professional and determines whether this advice was associated with attempts to lose weight.

## METHODS

The BRFSS is an ongoing random-digit telephone survey conducted by state health departments and the Centers for Disease Control and Prevention.[4] In 1996, all 50 states and the District of Columbia selected independent probability samples of noninstitutionalized adults aged 18 years and older and queried them with a standardized questionnaire. The median cooperation rate (completed interviews/[completed interviews + refusals]) was 78%. Data from states are pooled for this analysis. From the 122 268 persons surveyed, we excluded women who were pregnant (n = 1809) and persons who did not report values for their weight or height (n = 4678). We then used self-reported weight and height to calculate a BMI, weight in kilograms divided by the square of height in meters, and defined those participants with a BMI of 30 kg/m$^2$ or more as obese.[3]

Among 18 827 obese respondents, we excluded those who had missing information on weight control (n = 680) or explanatory (n = 405) variables and those who did not visit their physicians for a routine checkup within the previous 12 months (n = 4907). Our analytic sample consisted of 12 835 participants.

To the question: "In the past 12 months, has a doctor, nurse, or other health professional given you advice about your weight?", respondents were provided with 1 of the following responses; yes, lose weight; yes, gain

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weight; yes, maintain current weight; or no. Participants who reported they were advised to lose weight were classified as having received advice to lose weight. All others were classified as not having received advice to lose weight. We classified those who responded positively to the question, "Are you now trying to lose weight?" as persons attempting to lose weight.

We conducted analyses with SUDAAN[5] to account for weighting and complex sampling. We used multivariate logistic regression to characterize associations between explanatory variables and outcomes.

## RESULTS

Of the obese persons who visited their physician for a routine checkup during the previous 12 months, 42% reported that they had been told by a health care professional to lose weight (TABLE 1). Among factors associated with having received advice, the most notable were the strong associations between measures of health and the reported receipt of advice. Persons with diabetes mellitus vs those without, persons who perceived their health as poor or fair vs those who perceived their health as excellent, and persons with a BMI of 35.0 kg/m$^2$ or higher vs those with a BMI of less had 2 to 3 times the odds of receiving advice.

Participants who reported receiving advice were more likely to be women, have some college education, and live in the Northeast than their counterparts. The proportion of the participants who had received advice to lose weight increased with age up to 60 years, after which the proportion declined.

Two thirds of obese participants reported that they were trying to lose weight. Those whose health care professional told them to lose weight had nearly 3 times the odds of attempting to lose weight than did those who had not (TABLE 2). However, even among those who had received advice and were trying to lose weight, only 56% used the recommended strategy of combining diet and physical activity.

## COMMENT

In 1996, nearly half of obese persons who had visited their physician for a routine checkup during the past 12 months reported receiving advice to lose weight, a finding consistent with the results of Friedman et al.[6] The receipt of advice was associated with health and demographic characteristics of the participant, as well as with reported attempts to lose weight.

**Table 1.** Factors Associated With Receiving Advice to Lose Weight From a Physician or Health Care Professional Among Obese Persons Who Had a Routine Checkup in the Previous 12 Months*

| Characteristic | Unweighted No. | Persons Receiving Advice to Lose Weight, % | Adjusted OR (95% CI)† |
|---|---|---|---|
| Total | 12 835 | 42.4 | |
| Sex | | | |
| Men | 4872 | 40.5 | 1.00 |
| Women | 7963 | 44.0 | 1.12 (1.02-1.22) |
| Age, y | | | |
| 18-29 | 1359 | 31.4 | 1.00 |
| 30-39 | 2346 | 38.8 | 1.36 (1.14-1.62) |
| 40-49 | 2898 | 46.2 | 1.74 (1.47-2.07) |
| 50-59 | 2409 | 50.7 | 2.00 (1.67-2.39) |
| 60-69 | 2097 | 46.4 | 1.66 (1.38-2.00) |
| ≥70 | 1726 | 34.2 | 1.05 (0.86-1.28) |
| Race and ethnicity | | | |
| Non-Hispanic white | 9871 | 42.1 | 1.00 |
| Non-Hispanic black | 1862 | 44.6 | 1.09 (0.96-1.23) |
| Hispanic | 688 | 41.7 | 1.08 (0.89-1.30) |
| Other | 414 | 40.3 | 0.91 (0.69-1.20) |
| Education, levels | | | |
| <High school | 2379 | 42.3 | 1.00 |
| High school diploma | 4505 | 24.1 | 1.05 (0.92-1.19) |
| Some college | 3467 | 43.9 | 1.43 (1.25-1.64) |
| ≥College | 2484 | 46.7 | 1.72 (1.48-2.00) |
| Marital status | | | |
| Never married | 1734 | 38.9 | 1.00 |
| Previously married | 3829 | 42.0 | 0.88 (0.75-1.04) |
| Currently married | 7272 | 43.3 | 1.03 (0.89-1.19) |
| Region | | | |
| West | 2819 | 40.5 | 1.00 |
| North central | 3033 | 24.3 | 0.99 (0.85-1.14) |
| South | 4704 | 43.1 | 1.10 (0.96-1.26) |
| Northeast | 2279 | 46.5 | 1.36 (1.18-1.57) |
| Current smoker | | | |
| No | 10 536 | 42.3 | 1.00 |
| Yes | 2299 | 42.9 | 1.03 (0.92-1.15) |
| Currently has insurance | | | |
| No | 1274 | 42.8 | 1.00 |
| Yes | 11 561 | 42.4 | 0.90 (0.77-1.04) |
| Perceived health status | | | |
| Excellent | 1486 | 29.5 | 1.00 |
| Very good | 3539 | 38.7 | 1.48 (1.28-1.72) |
| Good | 4386 | 42.1 | 1.63 (1.41-1.88) |
| Fair | 2338 | 51.1 | 2.17 (1.84-2.55) |
| Poor | 1086 | 57.3 | 2.61 (2.13-3.21) |
| Body mass index, kg/m$^2$ | | | |
| 30.0-34.9 | 8970 | 36.2 | 1.00 |
| 35.0-39.9 | 2597 | 53.4 | 1.92 (1.73-2.14) |
| ≥40.0 | 1268 | 64.7 | 2.88 (2.48-3.33) |
| Diabetes | | | |
| No | 11 072 | 24.5 | 1.00 |
| Yes | 1763 | 61.4 | 2.01 (1.77-2.29) |

*Obese is defined as body mass index of 30 kg/m$^2$ or more. All data are based on the Behavioral Risk Factor Surveillance Survey, 1996. OR indicates odds ratio; CI, confidence interval.
†Adjusted for all other covariates.

**Table 2.** Association Between Receiving Advice to Lose Weight From a Physician or Health Care Professional and Self-reported Attempts to Lose Weight Among Obese Persons Who Had % a Routine Checkup in the Previous 12 Months*

| Category | Unweighted No. | Persons Trying to Lose Weight, % | Adjusted OR (95% CI)† |
|---|---|---|---|
| Total | 12 835 | 66.9 | |
| Advised to lose weight | | | |
| No | 7440 | 57.6 | 1.00 |
| Yes | 5245 | 79.5 | 2.79 (2.53-3.08) |

*Obese is defined as body mass index of 30 kg/m$^2$ or more. All data are based on the Behavioral Risk Factor Surveillance System, 1996. OR indicates odds ratio; CI, confidence interval.
†Adjusted for sex, age, race and ethnicity, education, marital status, region, perceived health status, insurance status, smoking status, body mass index, and presence of diabetes.

That nearly half of respondents reported being advised to lose weight even before the publication of the NIH guidelines is not surprising because physicians consider issues related to obesity and weight control important.[7,8] However, our results suggest health care professionals may be selective in whom they advise, for 3 reasons: (1) health care professionals may advise about weight loss when they perceive that their patients have weight-related conditions such as diabetes mellitus and could clinically benefit from weight loss[7]; (2) health care professionals may be pessimistic about the ability of their patients to make lifestyle changes[9] and, thus, may target their advice about weight loss to persons they believe most likely to undertake weight loss behaviors such as women,[10,11] those who are highly educated,[10] and those who are most overweight[11]; and (3) health care professionals may be more likely to advise weight loss when they have increased patient contact. Persons who visit physicians more frequently include women,[12] those who are at least middle aged,[12] those who are overweight,[13] and those who have diabetes mellitus.[14]

Our study has several limitations. Patient reports may not necessarily reflect the actions of a physician during office visits. However, unpublished data from the 1995 National Ambulatory Medical Care Survey suggest our estimates may provide a reasonable estimate of physician practices. In this survey, physicians recorded that they counseled about weight reduction during 56% of the general medical examination visits of patients they perceived to be obese. Our sample likely misses marginally obese persons because overweight respondents may have underreported their weight.[15] Since the prevalence of counseling increases with increasing levels of obesity, our estimates may overestimate the true prevalence. Telephone surveys also may overestimate the true prevalence of counseling. Although persons without telephones have similar levels of overweight as persons with telephones, persons without telephones tend to be less educated,[16] a factor associated with lower levels of counseling in our study. Also, of concern is the potential bias caused by those who refused to participate as well as those who refused to respond to questions about weight. Furthermore, because data were collected cross-sectionally, we cannot infer that counseling preceded a patient's attempt to lose weight.

Because weight loss can reduce risk factors for chronic diseases,[3] health care professionals need to discuss weight loss with the 58% of obese patients not currently advised to lose weight. Although limited in number, studies have reported reductions in weight,[17] reductions in fat consumption,[18] and increases in physical activity levels[19,20] by patients who received information briefly in a primary care setting. To increase counseling, perceived barriers such as lack of reimbursement,[21] limited time during office visits,[21] physicians' lack of training in counseling,[21] or physicians' low confidence in their ability to counsel[21] or to change the behaviors of their patients[21-24] need to be addressed.

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