newer agents to help improve the response to insulin or to prevent the rapid breakdown of insulin. **EBDM**

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US Employee Wellness Programs and Access to Obesity Treatment in Employer-Sponsored Health Insurance

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ABSTRACT

Objectives. Under provisions of the Affordable Care Act (ACA), employers may impose substantial penalties on employees who miss specific wellness goals. This study examined the prevalence of employer practices linking wellness programs, goals for weight, and other health indicators, and access to evidence-based obesity treatment.

Methods. The study utilized a representative sample of 9644 US adults designed to match US population demographics based on gender, age, and geographic location in May 2013. Respondents were asked whether their employer (1) requires participation in a wellness program to receive full health benefits, (2) sets goals for weight and other health indicator, and (3) includes coverage for evidence-based obesity treatment in their health plan. Descriptive statistics provided sample characteristics and distribution of all variables. Pearson's chi-square analyses were used to evaluate differences in the responses for each outcome, with further assessment through multivariable logistic regression models.

Results. The study found 16% of employers required participation in wellness programs to receive full health benefits. Most programs set targets for weight and related health indicators, but they did not typically provide coverage for evidence-based obesity treatments.

Conclusions. For people seriously affected by obesity, the coverage gap described here is problematic because substantial improvement in their condition is unlikely without evidence-based treatment.

Introduction

Approximately 36% of US adults are obese, defined by the CDC as having a body mass index (BMI) of ≥30.[1] It is known that persons with obesity have a higher likelihood of having co-morbid conditions such as type 2 diabetes, hypertension, cardiovascular disease, and obstructive sleep apnea. In addition, persons with obesity have significantly higher health-related costs than their normal weight counterparts.[2]

One strategy that has been entertained to reduce obesity and subsequent healthcare costs is the utilization of employer-sponsored wellness programs. More than 60% of Americans receive their health insurance through their employer.[3] Despite the recent recession and implementation of the Affordable Care Act (ACA), employers will likely continue to prevail as the top provider of healthcare insurance to Americans.[4]

Employers have begun to try to manage health costs by addressing their employees' key lifestyle risk factors.[5] In 2005, physical inactivity, overweight, and obesity were associated with more than 20% of health plan healthcare charges and more than 25% of national healthcare charges.[6] Health economists have projected that the total healthcare costs attributable to obesity or overweight will double every decade to 860.7 to 956.9 billion US dollars by 2030, accounting for 16% to 18% of total US healthcare costs.[7]

The ACA includes provisions that permit employers who implement wellness programs to impose financial penalties on employees who do not meet specific health-related goals, including BMI. While these provisions took effect in 2014, a growing number of employers had already begun implementing programs that require employee participation as a condition for receiving more than minimal health benefits.[8] Towers Watson and the National Business Group on Health report that rewards and penalties for health outcomes such as BMI, blood pressure, and cholesterol are growing rapidly and that the proportion of employers using them will approximately double to 28% of employers in 2014 and grow to 68% in 2015.[9]

Yet, evidence of long-term effectiveness for financial penalties based on health outcomes is lacking. Horwitz and colleagues recently reviewed randomized controlled trials of workplace wellness programs and concluded that any savings to employers from these programs are likely to be the result of cost-shifting to employees with higher health risks, such as obesity.[10] Mattke and colleagues recently published a comprehensive analysis of workplace wellness programs and found low participation (10%) and minimal effects (~1 lb/year over 3 years) for interventions targeting obesity.[11]

Concerns about the potential for discrimination against people at increased risk for obesity led the US Departments of Treasury, Labor, and Health and Human Services to issue final regulations for wellness programs under the ACA that include significant protections against these programs being used as a subterfuge for discrimination.[12] For the same reasons, in 2013, the Obesity Society published a position statement recommending against financial incentives or penalties based on an employee's weight or BMI.[13] The objective of the present study was to examine the prevalence of employer practices linking well-

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Contributions
All authors provided substantial contributions to the conception or design of the work, the acquisition, analysis, or interpretation of data for the work; drafting the work or revising it critically for important intellectual content; and final approval of the version to be published.

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TABLE 1. Wellness: What Employers Require

Does your employer require participation in a wellness program before you can get the maximum health benefits they offer?	Yes n (%) (n = 1005)	No/Not Employed n (%) (n = 8466)	*P*
Age			0.0022[a]
18-24	94 (11.14)	930 (13.37)	
25-34	155 (18.36)	1087 (15.63)	
35-44	164 (19.43)	1136 (16.33)	
45-54	202 (23.93)	1551 (22.30)	
55-64	148 (17.54)	1394 (20.04)	
65+	81 (9.60)	858 (12.33)	
Gender			0.0003[a]
Female	386 (44.06)	3712 (50.46)	
Male	490 (55.94)	3645 (49.54)	
Urban Density			0.0392[a]
Rural	106 (10.55)	1121 (13.24)	
Suburban	471 (46.87)	3955 (46.72)	
Urban	428 (42.59)	3390 (40.04)	
Income			0.1565
$0-$49,999	634 (61.85)	5555 (64.66)	
$50,000-$74,999	2454 (30.04)	310 (28.56)	
$75,000+	582 (7.90)	81 (6.77)	

[a]Results refer to statistically significant variables at $P<.05$.

TABLE 2. Characteristics of Those Answering "Yes"

Employer requires participation in a wellness program before you can get the maximum health benefits they offer (n = 1005)	Unadjusted		Adjusted	
	OR	CI	OR	CI
Age				
18-24	1.00	ref	1.00	ref
25-34	1.41[b]	1.08[b], 1.85[b]	1.34[b]	1.02[b], 1.76[b]
35-44	1.42[b]	1.09[b], 1.87[b]	1.38[b]	1.05[b], 1.80[b]
45-54	1.29	0.99, 1.67	1.29	0.99, 1.67
55-64	1.05	0.80, 1.38	1.07	0.81, 1.40
65+	0.93	0.68, 1.28	0.92	0.67, 1.27
Gender				
Female	1.00	ref	1.00	ref
Male	1.29b	1.12b, 1.49b	1.24b	1.08b, 1.44b
Urban Density				
Rural	1.00	ref	1.00	ref
Suburban	1.26[b]	1.01[b], 1.57[b]	1.10	0.87, 1.39
Urban	1.34[b]	1.07[b], 1.67[b]	1.12	0.89, 1.43
Income				
$0-$49,999	1.00	ref	1.00	ref
$50,000-$74,999	1.11	0.96, 1.56	1.10	0.94, 1.30
$75,000+	1.22	0.95, 1.56	1.17	0.88, 1.54

* This model was adjusted for all covariates such as age, gender, urban density, and income, with estimates presented in the relevant columns.
[b]Results refer to statistically significant variables relative to the reference group (REF) at P <.05. Odds Ratio refers to whether respondents with that characteristic are more likely to have an employer that requires wellness plan participation to receive full health benefits.

ness programs to goals for weight and other health indicators and the access of employees in such programs to evidence-based obesity treatment through employer-sponsored health plans.

METHODS

Data Sources. A stratified representative sample of US adults was recruited in May 2013 for an anonymous, voluntary online survey through Google Surveys. As described by McDonald et al,[14] this methodology draws from a broader sample of Internet users and delivers a higher response rate than typical Internet panel surveys and Internet intercept surveys due to the brevity of the questions. Using inferred demographics means that respondents answer only 1 or 2 questions. In a comparison of this methodology with both probability and nonprobability-based Internet panel surveys, the accuracy of results was found to be equivalent or superior. The research performed herein is considered IRB-exempt, as it involves research in which persons complete a survey. The information obtained is recorded in a manner that is unidentified and may not be linked to individual survey respondents.

The general population sample of 9644 adults (POP) was constructed to match US population demographics based upon gender, age, and geographic location. Respondents were asked if their employer:

- Requires wellness plan participation to receive full health benefits
- Sets goals for weight and other health indicators
- Covers evidence-based obesity treatments

The total sample yielded 6608 employed adults (EMP) prepared to answer questions about their employer's wellness programs. Characteristics of the sample are summarized in TABLE 1.

Statistical Analysis. Descriptive statistics were used to provide sample characteristics by whether or not respondent's employer requires wellness plan participation to receive full health benefits. A $P<.05$ determined a significant association. To assess the differences in those whose employer requires wellness plans, multivariable logistic regression models were conducted adjusting for age, gender, urban density, and income. Odds ratios and 95% confidence intervals were reported for each outcome. Frequency distributions were used to determine the prevalence of employers setting goals for health indicators and the prevalence of employers covering evidence-based obesity treatment. All missing variables were removed from this analysis. All analyses were conducted using SAS version 9.2.

RESULTS

TABLE 1 characterizes the overall sample by total survey respondents (POP) and those survey respondents who answered questions about their employer's wellness programs (EMP). TABLE 2 presents the characteristics of those who responded to the question "Does your employer require participation in a wellness program before you can get the maximum health benefits they offer?" by age, gender, urban density, and income. Of 6608 employed adults, 16% reported that their employer required participation in a wellness program to get the maximum health benefit. Persons who reported an employer requirement were more likely to be 25 to 44 years old, male, and urban or suburban.

DISCUSSION

The study found that 16% of employees report that their employer requires them

to participate in wellness programs to receive their full health benefits. Most employees faced with outcome-based incentives in their employer's wellness programs report that weight is the most common target. But most of those employees report not having access to evidence-based obesity treatment in their employer's health plans.

This study has some important limitations. Drawing the sample from Internet users introduces bias because Internet penetration in America is only 78% of adults. Internet users tend to be younger, more educated, and have higher incomes. Participants are recruited from a network of content providers that is large, but cannot represent the full breadth of Internet content available. Demographic data are inferred from IP addresses and cookies. Though this method helps to improve response rates and reduce sampling error, respondents are not explicitly answering questions about demographics as they do in more traditional surveys. This can introduce errors at the level of individual respondents, even though aggregate demographic findings are generally comparable to more traditional methods.

While these results come from a national sample, they rely on the self-reported information provided by survey respondents about their employer's wellness program and coverage of health benefits related to obesity. Some survey respondents may not have been well informed about their employer's wellness program and coverage. The study might have been strengthened by querying the employers of those who responded to the survey to ascertain if the information provided by the employees was congruent.

Nonetheless, to our knowledge, this is the first study which has sought to determine whether employers who require their employees to meet health indicator goals, such as weight loss, provide coverage for their employees to achieve goals. For people seriously affected by obesity, the coverage gap described here is serious because substantial improvement in obesity is unlikely without evidence-based treatment. This is true because obesity and its complications are typically chronic and progressive.[15] Wellness programs may have little impact on costs driven by severe obesity in the absence of access to effective treatment for this chronic disease. **EBDM**

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Community as Part of the Prescription: Social Media in Diabetes Care

KERRI SPARLING; AMY TENDERICH, MA; AND HOPE WARSHAW MMSC, RD, CDE

INTRODUCTION

In April 2015, Kerri Sparling, Amy Tenderich, MA, and Hope Warshaw, MMSc, RD, CDE, participated in the panel discussion, "Community as Part of the Prescription: Social Media in Diabetes Care," during Patient-Centered Diabetes Care, a conference jointly presented by *The American Journal of Managed Care* and Joslin Diabetes Center in Boston, Massachusetts. This article is based on the themes outlined during that session and recent research on the use of social media to improve diabetes management.

Sparling, who was diagnosed with type 1 diabetes (T1D) at age 7, is a diabetes advocate who writes the blog, Six Until Me. Tenderich was diagnosed with T1D at age 37; a technology writer, she founded DiabetesMine, which was acquired this year by San Francisco-based Healthline Networks. Both Tenderich and Sparling are listed among the top online influencers for diabetes by ShareCare.[1] Warshaw is a diabetes educator, dietitian, freelance writer, and the owner of Hope Warshaw Associates, LLC. She was an early adopter of social media and has actively supported the growth and importance of the Diabetes Online Community (DOC) among healthcare providers.

THE IMPORTANCE OF SOCIAL MEDIA IN DIABETES CARE

The use of social media among people with diabetes, and people and professionals who support them, has experienced tremendous growth since its initiation about 10 years ago. This demonstrates the need for clinicians to encourage engagement as complementary to clinical care. People with diabetes, both T1D and type 2 diabetes (T2D), want and need practical information about living with their disease around-the-clock, 365 days a year, as well as feedback from a community of individuals who share similar experiences. Through social media, people with diabetes find their tribe, their peers, and their comrades who are all on a unique journey. Those seeking to connect have a way of finding each other—the Twitter hashtag #DOC allows anyone on Twitter to follow the tweets of the "Diabetes Online Community."[2]

Since social media emerged in 2005[3] the number and diversity of Facebook pages, Twitter accounts and blogs that allow 2-way interaction between the account creator and readers or followers have increased dramatically. A recent report in *Current Diabetes Review* by Hilliard et al on the evolution of the DOC, found more than 1000 Facebook groups with the word "diabetes" as of September 2014, and a weekly 1-hour Twitter forum that draws 60-100 participants. The report also outlined the variety of online communication venues, including social media.[2]

The "Learn, Engage, Connect" resource guide (links to the resource can be found within the blog at http://www.hopewarshaw.com/diabetes-online-community) was developed by members of the DOC

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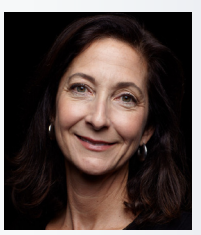
Ms Sparling is a diabetes advocate who writes the blog, Six Until Me. She was diagnosed with type 1 diabetes at age 7. She has been listed as a top online influencer for diabetes by ShareCare.



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Ms Tenderich founded DiabetesMine after being diagnosed with type 1 diabetes at age 37. DiabetesMine was acquired this year by San Francisco-based Healthline. Ms. Tenderich has been listed as a top online influencer for diabetes by ShareCare.

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