

The Role of Disease Management in the Treatment and Prevention of Obesity with Associated Comorbidities

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ABSTRACT

Nearly two thirds of the US population is overweight or obese and those numbers are climbing. Many organizations are beginning to recognize overweight and obesity as severe health threats and to acknowledge that treatment can serve as an important first step in addressing this epidemic. Through its Obesity with Co-morbidities Initiative, the Disease Management Association of America (DMAA) seeks to raise awareness and improve understanding of the role disease management (DM) can play in the treatment and management of obesity with comorbidities. Among the objectives of the Obesity with Co-morbidities Initiative was to develop standard definitions of obesity and obesity with comorbidities and to conduct qualitative research among key DM stakeholders. The first project undertaken and completed by the Obesity with Associated Co-morbidities Steering Committee and work group was to define the term "obesity" for consistent usage within the DM community for the purposes of population-based interventions. As part of this initiative, DMAA partnered with Synovate, a global market research firm, to conduct focus groups and in-depth interviews in order to collect qualitative data on attitudes and practices related to obesity treatment and coverage among key industry stakeholders, including health plans, disease management organizations, employers, and the business community. The findings indicated that obesity was widely recognized as a serious issue, but there remained varying opinions regarding responsibility, health and productivity costs, coverage, and best treatment methods among the participants. DMAA will continue this initiative through 2007 and will continue to develop a knowledge base of obesity guidelines and management practices, create valuable tools and resources including an online resource center, and facilitate partnerships with other organizations involved in the management and prevention of obesity. (*Disease Management* 2007;10:156–163)

AN INDUSTRY PERSPECTIVE ON OBESITY

THE PREVALENCE OF OVERWEIGHT and obesity in the United States continues to grow at a rapid rate. From 1980 to 2000, obesity doubled

in adults aged 20 years and older and tripled in children and adolescents aged 6 to 19 years.¹ Sixty-four percent of US adults are considered overweight, and 30% are obese.² In all, an estimated 97 million adults in the United States are overweight or obese.²

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In addition to those alarming statistics, obesity accounts for more than 280,000 deaths annually in the United States and, if current trends continue, will soon overtake smoking as the primary preventable cause of death.³ Excess weight is not only a major risk factor for premature mortality, but also for cardiovascular disease, Type 2 diabetes, osteoarthritis, certain cancers, and other medical conditions.³ This increase in comorbidities has led experts to estimate that obesity leads to medical costs of about \$90 billion annually.⁴

As excess weight begins to be recognized as a severe health threat, many organizations are starting to acknowledge treatment and prevention of obesity as an important first step in increasing overall health and decreasing health care spending. The World Health Organization (WHO), National Institutes of Health (NIH), Food and Drug Administration (FDA), Centers for Disease Control and Prevention (CDC), Federal Trade Commission (FTC), and the Social Security Administration all define obesity as a disease.⁵

In his 2001 "Call to Action to Prevent and Decrease Overweight and Obesity," then-Surgeon General, David Satcher, M.D., Ph.D., outlined priorities for addressing these issues. He called for changing the perception of overweight and obesity to focus on health, rather than cosmetic issues, and for research to improve understanding of the causes, prevention, and treatment of overweight and obesity, among other actions.⁶ This call to action raises the question of how best to manage an overweight and obese population. One method may be through disease management (DM).

DM, by definition, is a system of coordinated health care interventions and communications for populations with conditions in which patient self-care efforts are significant.⁷ DM relies heavily on a combination of patient education and case management to aid patients in managing their illnesses.⁸ Traditional weight-loss and behavioral change counseling relies on similar interventions to those of DM programs, such as non-physician personnel outreach, often conducted through information technology, mail, or telephonic recruitment and coaching.⁸ A recent study by the US Preventive Services Task Force that reviewed 29 clinical

trials involving weight loss found that no single behavioral intervention seemed to be better than another for weight loss, but, instead, "multimodal" interventions tend to result in more meaningful weight loss.

Currently, several DM programs have already begun to address obesity through programs aimed at other diseases, including diabetes and osteoarthritis.⁹ Drs. Sidorov and Fitzner point out in their 2006 article, "Obesity Disease Management Opportunities and Barriers," that adapting these programs, which encourage body mass index (BMI) reduction, to directly address overweight and obesity would be a natural next step.⁸ One example of this transition is Kaiser Permanente's weight management program utilizing behavioral change techniques, which proved effective in smoking cessation programs.¹⁰

Given the many similarities between the 2 health issues, similar strategies were used to address both. They included telephonic counseling and other forms of support and education.

The Magellan Health Services' obesity management program, Condition Care Management, is another example of an innovative program addressing obesity. The program deals with the emotional barriers to weight loss and includes 4 tiers of interventions: Web-based interactive tools, telephonic support, referrals to behavioral health practitioners, and a bariatric surgery management program.¹¹

The Disease Management Association of America (DMAA) is a non-profit, voluntary membership organization that represents all aspects of the DM community. Among the goals of the DMAA is to educate consumers, payors, providers, physicians, health care professionals, and accreditation bodies on the value of DM and the role it can play in the enhancement of individual and population-based health for the treatment of chronic illnesses. While there are currently a number of chronic conditions acknowledged and addressed by the DM community, DMAA recognizes the need to ensure that obesity receives the same focus and attention. The incorporation of obesity and obesity with comorbidities into the list of other chronic conditions demonstrates DMAA's commitment to apply principles of

DM to its treatment. This commitment resulted in DMAA's Obesity with Co-morbidities Initiative.

DM is continuously evolving and shifting from disease-specific interventions toward a more holistic, population health management approach.¹² DMAA and Sanofi-Aventis recognize that this shift calls for a better understanding of obesity and the role that DM can play in the management of the condition, as well as those comorbidities and risk factors that are closely related to obesity. As a result of this recognition, a collaborative effort was formed, and the Obesity with Associated Co-morbidities Initiative was developed with funding from Sanofi-Aventis.

The goal of the initiative is to educate the industry on the role DM can play in obesity management and prevention by raising awareness about the impact of obesity on the clinical status and health care costs of populations, identifying and disseminating information on best practices or outcomes-based results in the management of obesity, and facilitating and promoting health outcomes research.

In October 2005, DMAA convened a high-level Steering Committee, comprised of experts in the obesity and DM fields, to guide the initiative, exchange ideas, and provide strategic direction. The Steering Committee identified a number of key initiatives that will be carried out throughout the course of the initiative, beginning in 2005. These include defining obesity and obesity with associated comorbidities; conducting qualitative research among key stakeholders in the DM community; conducting a literature review to gain a better understanding of obesity risk factors and related conditions, assessment, and management; hosting a summit focusing on the treatment and prevention of obesity; developing a comprehensive, online resource center for obesity information dissemination; and publishing an article series in the journal *Disease Management*.

DEFINING OBESITY

The first project undertaken and completed by the Obesity with Associated Co-morbidities Steering Committee and work group was to de-

fine the term "obesity" for consistent usage within the DM community for the purposes of population-based interventions. While substantial work has been done to clinically define obesity, this new definition, targeted toward the DM community, was released in May 2006 and combines the traditional assessment of obesity based upon BMI with more recent consensus on the relevance of waist circumference. The DMAA definition reads:

Obesity: The most widely used metric for identifying obesity is having a BMI greater than 30. Waist circumference is also being recognized as an important factor in assessing obesity. Men with a waist circumference of 40 inches or greater, and women with a waist circumference of 35 inches or greater, are considered obese.²

Building off that definition, the initiative itself became formally defined with the release of the Obesity with Associated Co-morbidities definition:

Obesity with Associated Co-Morbidities: Higher body weights are associated with an increase in mortality from all causes. Obese individuals with comorbidities are those who are at the highest risk because they tend to have multiple risk factors. Being overweight or obese substantially increases the risk of chronic conditions and illnesses such as hypertension, dyslipidemia, Type 2 diabetes, coronary artery disease, stroke, gallbladder disease, osteoarthritis, and sleep apnea and respiratory problems, as well as cancers of the endometrium, breast, prostate, and colon.²

The work group and Steering Committee believe that by recognizing the central role obesity plays in the development of these illnesses, better care can result.

QUALITATIVE RESEARCH TO GAIN INDUSTRY PERSPECTIVE

There is a substantial body of research on the health effects of obesity, as well as treatment

outcomes. However, little has been done to understand the perspectives of health plans, disease management organizations (DMOs), employers, and the business community on obesity, obesity treatment, and coverage.

As part of this initiative, DMAA partnered with a major, global market research firm, Synovate, to collect qualitative data on attitudes and practices related to obesity treatment and coverage among key industry stakeholders. As opposed to more analytical, quantitative methods, focus groups allow for a broader discussion of perceptions held by the respondents.^{13,14}

Five specific objectives were identified for the purpose of the qualitative research. These included identifying employer concerns regarding health issues of obese employees; identifying what aspects of service to consider when shopping for obesity programs, what programs were available, and program specifics; understanding overweight and obese population identification for the purposes of treatment and coverage; and assessing current obesity programs and determining what improvements are needed.

Three 90-minute focus groups were conducted at the 2005 Disease Management Leadership Forum in San Diego. Each focus group included approximately 12 participants representing managed care professionals, DMOs, employers, academic institutions, and others. In addition to the focus groups, 14 in-depth interviews were conducted during the same period among the same groups of industry stakeholders. Respondents were recruited from lists provided by DMAA.

Synovate staff analyzed data gathered from the focus groups and the in-depth interviews and provided DMAA with a report of directional findings. The overarching theme among all respondents and all subjects was an existing lack of consistency and direction in the treatment of overweight and obese populations. Respondents generally recognized overweight and obesity as serious health concerns with potential impacts on health care costs, and expressed their desire for leadership from the DM community, health plans, and the federal government.

The first objective of the research was to gain an understanding of employer-specific ques-

tions and concerns regarding obesity. The focus groups and in-depth interviews included representatives from the employer community. Data gathered from the focus groups and interviews suggested that the majority of employers failed to recognize the health risks and costs associated with obesity and comorbidities.

In addition, most employers continued to resist taking responsibility for their employees' problems with obesity. Data gathered suggested that employers see obesity as a condition that is the employee's responsibility and a result of individual lifestyle choices. They also expressed a belief that obesity treatment is outside the scope of necessary benefits coverage. Participants did acknowledge the success of several programs, which tended to be limited to larger employers with relatively stable workforces.

Responses also indicated that employers are generally intent on limiting health care expenditures and view coverage for obesity and related health issues as a source of cost increases. The most promising programs cited by participants were characterized by a commitment from top management, meaningful incentives to reward employees, and measurable return on investment. Participants indicated that evidence linking weight loss to increased productivity and reduced absenteeism also would make a strong case for coverage and help reverse current trends in employer attitudes toward obesity and weight management. As one participant noted:

"Employers want to get the cost of care down. If they can see that coming from obesity programs, OK. Otherwise, it's the employee's responsibility."

The most common theme among all employers was confusion surrounding obesity management. Employers reported feeling the need to do something, but did not know what. They seemed to be looking to health organizations for answers. This project will address this confusion by educating employers and other payers about the clinical and financial outcomes of obesity management programs, as well as highlighting successful programs.

The second objective for the research was to understand what service issues were most important to the business community in the selection of obesity programs. Focus group and interview participants representing the business community expressed several concerns in this area. Participants noted that many current obesity programs do offer incentives, such as team weight-loss competitions, that—although relatively inexpensive and positive gestures—ultimately help few employees. In addition, many types of preventive programs offered for obesity generally are not covered by health care programs, which tend to offer more reimbursement for acute illness.

Some employers are beginning to offer wellness programs to prevent obesity. But for existing weight management programs, respondents indicated that more emphasis needs to be placed on educating participants and families about a healthful diet, in addition to the promotion of exercise and education about the health risks of obesity. The DMAA obesity initiative plans to develop an online resource site to benefit all obesity stakeholders, including consumers.

The third objective was to gain a better understanding of current obesity programs and details of each to increase the knowledge base of current practices in obesity management. Participants gave several examples of comprehensive obesity programs offered by managed care and DMOs. DMOs have begun inquiries and task forces to create such programs, but most are still in the early stages of development. Most existing programs are components of programs that manage other diseases. Many will reimburse participants for a portion of the cost of outside weight-loss programs, such as Weight Watchers. Others take a public service approach designed to encourage overall healthy habits rather than reduce claims expenses.

Participants suggested that behavioral modification models, which often succeed when applied in an obesity management program, seem inappropriate in the traditional medical setting. They explained that implementing an effective program requires a total commitment from all involved. The entire organization needs to be informed about it, and individual patients have

to be self-motivated. Experience has shown that physicians face challenges in this area. As explained by 1 focus group member:

“Diet and exercise are what doctors recommend for everything, but it rarely gets done. We need to get this out of physicians’ hands. They need to refer to centers of excellence to help doctors with their patients. And doctors need training about how to talk to patients about it and how to refer them. The demand for this would be incredible. There are not enough providers, so you’d need to restructure the [primary care physician] role to do this.”

Despite the challenges and inertia, participants cited a few examples of bold, innovative programs, often driven by top management. One example was of a Michigan employer who stopped hiring smokers and gave the entire workforce 18 months to stop smoking. The same company is now attacking obesity the same way. It has implemented a high-deductible program in which participants must demonstrate they are setting performance goals to improve their health. If they opt out, they pay a higher monthly premium.

Other examples offered by participants included an organization that provides services directly to self-insured employers, including an initial health risk assessment (HRA), health coaches assigned to the highest risk individuals (up to 100 employees with BMIs greater than 35), and exercise programs that are part of the company’s culture and enthusiastically endorsed by top management. Program duration is 1 year, after which the HRA is administered again to measure progress.

In another example, employees were rewarded points for exercising a certain amount each week. The individual with the most points after 10 weeks received an extra day of vacation. Half of the company’s 4000 employees participated in the program. The 100 who qualified to receive health coaching were identified within the first day of sign-up, and 70 remained with the program throughout its duration.

These examples, along with others obtained through a review of the published literature, will be included in the online resource center

as examples of innovative weight management programs.

The fourth objective of the research was to understand how the industry identifies overweight and obese individuals. This information was taken into account during the development of the standard DM definitions of obesity and obesity with associated comorbidities.

Participants agreed that identifying candidates for weight management programs can be difficult because most personal health data is self-reported and individuals tend to underestimate their weight by as little as a few pounds and as much as 100 pounds. If height and weight data exist in claims data, it would be feasible to calculate a BMI. There was unanimous agreement among focus group participants that BMI needs to become a vital sign measurement, like blood pressure. It should be tracked, charted, understood, and measured at every physical.

Unfortunately, such data are rarely captured for most members, except those currently enrolled in DM programs. Another measure used to identify overweight and obese individuals is waist circumference, which is a more accurate assessment of obesity but highly variable and dependent on the training and consistency of the person taking the measurement. One focus group participant explained the problem with identifying the population:

"We can't tell who is obese from the claims coding. Few actually use the code. Sometimes we use sleep apnea as a surrogate, as well as metabolic syndrome, though that is also underutilized. When you enroll new members in a health plan, you don't capture height and weight, plus it's self-reported and therefore inaccurate. BMIs can be deceiving for physically fit people and people of color, particularly south Asians whose risks for Type 2 diabetes and coronary artery disease occur at lower BMIs."

Participants all agreed that HRAs capture height and weight and can therefore provide basic BMI measurements that can identify high-risk individuals. HRAs also record biometric information, such as low-density lipo-

protein/high-density lipoprotein, triglycerides, and blood pressure, and therefore seem to be an important first step in establishing baseline metrics for stratifying members to qualify for the most intensive interventions.

Participants expressed that while height and weight are usually recorded in electronic health records, these tools are hardly ubiquitous at this point. They were hopeful that over the next few years, as use of electronic health records becomes more widespread, practitioners could use them to track patients' BMIs, assuming that the doctors capture this information.

One participant pointed out that there is a code for obesity in most health information technology systems, but doctors rarely use it. Other focus group participants stated that some primary care physicians are unaware that a separate code exists, and others believe that using the obesity code will result in a rejection of their claim. While some plans do reimburse for the code, counseling and dietician services often are not covered. One participant said:

"Most claims exclude obesity treatment, so if the code is used, it's not the only one or the first one. They'll code for whatever gives them the best reimbursement opportunity. It's never the first code, maybe the third or fourth sometimes."

The fifth and final research objective was to challenge participants to describe the ideal program for managing overweight and obese populations. There was general agreement among participants that the ideal program needs to be highly flexible and adaptable to a wide variety of needs and circumstances. Some members are motivated to take control of their health and may need only an office sponsorship of a third-party weight-loss program or an at-lunch exercise group. On the other extreme are those whose only real option is bariatric surgery. Another category is those individuals who are in denial about their weight and not yet ready to change. In the end, the participants agreed that there can be no cookie-cutter approach to obesity management:

"As with other DM programs, an obesity DM program should be population-based,

longitudinal, and even more flexible and tailored to the needs of the individual. There should be at least 4 levels, based on a variety of factors. It slides up or down on a continuum from lifestyle to clinical complexity. Employers don't want to pay for a program that provides expensive services that they don't use or need."

All participants recognized there is no quick fix. Maintaining a healthy weight can be far more difficult and problematic than losing weight. Participants suggested that the ideal program should focus on long-term results, be locally administered, and include personal interaction by trained professionals. Several added that the ideal program would involve registered dietitians, physical trainers, and others, employing proven and accepted best practices, or may involve health coaches who stay in contact periodically by phone for a year or more.

Participants also agreed that physicians should receive training and incentives to educate patients and refer them, when necessary. One participant pointed out that in other areas, primary care practitioners have responded well to such initiatives through quarterly "quality bonus" programs. For weight management, the bonus could be tied to the number of patients who know their BMI, who have been taught ways to lose weight, or who have been referred to a dietician or physical therapist.

"Physicians don't have the time or training to deal with behavior change. The most successful programs involve support groups, whereas the doctor/patient interaction is one-on-one, very ineffective for behavior change."

Employer participants suggested that obesity should be considered analogous to alcohol and drug abuse. They cited a number of useful parallels: a reluctance to talk about the condition, denial of and dishonesty about it, and a tendency to underestimate its severity. They also said the ideal program would include in-person, work site communications with employees about how to change their behavior.

SUMMARY

Despite growing acceptance of obesity as a disease deserving attention, and initiatives of some health plans and DMOs to develop programs, much work remains to be done. Unlike smoking cessation and antismoking campaigns, efforts to combat obesity are hampered by confusion and a lack of leadership and unified common purpose. Many employers remain focused on containing health care costs and are not yet convinced that covering obesity treatment is in their best financial interests, or even their responsibility. Most others view obesity as a public health issue that will require comprehensive and cooperative efforts of government, education, business, and health care professionals. Mixed signals in American culture tend to confound efforts to control and manage obesity, and while barriers do still exist, there are obesity programs that can point to early successes.

MOVING FORWARD

DMAA will move forward with this initiative using the information gathered through the qualitative research, literature review, and Web site development in 2005 and 2006 to further the research agenda developed by the Obesity with Associated Co-morbidities Steering Committee. To continue to develop a knowledge base of obesity guidelines and management practices, a comprehensive literature review will be conducted to identify common elements and best practices in published literature and original research.

To facilitate information dissemination, an online resource tool will be developed and several articles will be submitted for publication as follow-up to this one as an introduction. Finally, solidifying relationships with physicians and employer groups, as well as collaborating with and surveying members in the DM community also will be vital to the success of this initiative, the acceptance of obesity as a chronic illness, and the increased availability of obesity management programs. With proper treatment and education, the US population can reverse the growing trend toward overweight and obesity.

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POTENTIAL CONFLICTS OF INTEREST

Article expresses the views of the Disease Management Association of America. Authors are employed by the Disease Management Association of America.

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