

# Best Practice for Obesity and Weight Management: Finding Success through Linking Effective Gastric Bypass Surgery Policy and Health Management

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## ABSTRACT

Obesity is a health issue of epidemic proportions in the United States, creating a health and financial burden for Medicare, Medicaid, and commercial populations alike. While obesity has been linked to an increased risk for any number of health conditions, including heart disease, diabetes, and certain cancers, even a moderate weight loss can mitigate some of the negative medical consequences of unhealthy weight. Obese individuals are often unsuccessful at meeting their weight loss goals for a variety of reasons. Many are increasingly looking to gastric bypass surgery as an easy-fix weight loss solution without fully addressing underlying issues for the original weight gain and failures with previous attempts to lose weight. Because of this, over the past five years an increase in gastric bypass surgeries has resulted in cases with poor outcomes and a subsequent reaction by health plans and employers across the country to eliminate coverage. Others have determined that, while exclusion is not the answer, neither is coverage as standard policies allow. Instead, these groups are opting to implement best practice programs that merge individualized counseling, nutritional education/planning, and physical activity goals with specific policy changes. Evidence has shown that they are achieving success in managing obesity and its impact on healthcare costs and outcomes. (Disease Management 2006;9:182–188)

## INTRODUCTION

**O**BESITY is a health issue of epidemic proportions in the United States. Before 1980, obesity rates remained stable, at about 15% of the population. In the following two decades, however, the number of Americans defined as clinically obese raced upward. Currently, an estimated 27% of the US population is obese, and an additional 34% is overweight.<sup>1</sup> This increase has

been fueled primarily by processed foods, extra-large portions, and a more sedentary lifestyle.<sup>2,3</sup>

Obesity, now defined as a disease by the Centers for Medicare and Medicaid Services (CMS), is recognized as a major contributor to rising healthcare costs. If beneficiaries qualify, Medicare pays for the Roux-en-y bypass surgery, open and laparoscopic biliopancreatic diversion, and laparoscopic adjustable gastric banding. The obese individual is more likely to de-

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velop heart disease, hypertension, diabetes, a variety of cancers, depression, arthritis, and low back injury among a host of other illnesses and medical difficulties, along with their associated healthcare costs and loss in work performance.

### COST OF OBESITY

In 2000, overweight and obese Americans cost the US economy an estimated \$117 billion, according to a 2001 US Surgeon General report. Of that total, \$61 billion covered indirect costs, such as lost work time, disability, and lost income due to premature death.<sup>2</sup>

Another epidemiological study found that obese workers are 1.74 times more likely to experience high levels of absenteeism, defined as more than 7 days in 6 months.<sup>4</sup> Kenneth Thorpe, Ph.D., with the Department of Health Policy Management at Emory University, cites obesity as the cause of more than a quarter of the phenomenal growth in healthcare spending over the past 15 years. Dr. Thorpe found that, from 1987 to 2001, medical bills for obese people constituted a 27% growth in overall healthcare spending, due to a rise in the number of obese Americans and higher treatment costs for those patients. He also reported that treating obese patients was 37% more expensive than medical care for healthy-weight people.<sup>2</sup>

### IMPACT OF SUCCESSFUL WEIGHT MANAGEMENT

On the positive side, even moderate weight loss for the clinically obese can mitigate many of the negative medical consequences of unhealthy weight. Research studies indicate that moderate weight loss has resulted in reducing and eliminating sleep apnea, angina, diabetes, and hypertension. A maintained weight reduction of 16% markedly counteracted the development of diabetes over eight years of follow-up, indicating that sufficient weight loss can decrease the incidence of Type II diabetes. Following satisfactory weight loss, medical comorbidities in one study either improved (47%) or resolved (43%).<sup>1</sup>

The State of Oklahoma conducted a pilot program involving a group of 7,500 employees.

Using a call center–delivered lifestyle management program, they were successful in achieving a mean weight loss of 12 pounds in overweight/obese employees and lowering health claims by 31% among employees who completed one year of program participation. Based on the favorable results of the pilot program, the State of Oklahoma expanded the provision of lifestyle management services to all 35,000 state employees in 2006.

### SURGICAL INTERVENTION

While good nutrition and physical activity are often the preferred methods of weight management, individuals who are clinically considered to be morbidly or extremely obese also turn to bariatric surgery as an option. Designed for those individuals who have had multiple failures at more conservative, nonsurgical approaches to weight loss, the goal of surgery is to induce and maintain long-term weight loss of at least 50% of the preoperative body weight.

In 1996, approximately 20,000 surgeries were performed per year in the United States. That number climbed, in 2003, to more than 100,000.<sup>5</sup> One contributing factor to the rise in popularity of a surgical approach to weight loss may be the “celebrity factor,” referring to the media attention afforded celebrities (eg, NBC *Today Show* weatherman Al Roker, Randy Jackson from the TV show *American Idol*) who have undergone the procedure. Unfortunately, their stories often highlight only the successful loss of weight, rather than fully covering the surgical risks and significant lifestyle changes involved.<sup>6</sup> This media attention inaccurately portrays bypass surgery as a “quick fix.”

The reality can be markedly different. Surgical risks can include failures associated with staple line disruption, anastomotic leak, or stenosis. These complications have been seen in 43% of patients with vertical banded gastroplasty and in 23% of those with gastric bypass.<sup>5</sup>

Lifestyle change issues tend to occur due to unrealistic patient expectations. Gastric bypass surgery forces many of the same behavior modification techniques that are found in any sensible diet program. The difference is that the surgical modifications made to the digestive

system mean a patient must be prepared to adhere to a strict diet and supplement regimen for the rest of his or her life. This often requires that the patient find new ways of interacting with food, people, and social situations. If patients are unable to make appropriate lifestyle changes, they run the risk of weight gain, and health and emotional issues.

### DETERMINING A COVERAGE POLICY

When complications are minimal and the patient is fully compliant with the treatment regimen, surgery can be a cost-effective treatment for obesity and a life-saving procedure for some patients.

It was this thinking, as well as a response to the growing number of obese individuals, that led CMS in 2004 to implement a national coverage determination that allows gastric bypass surgery if the surgery is medically appropriate for the individual and is performed to correct an illness that caused the obesity or was aggravated by the obesity.<sup>1</sup> A patient must meet criteria for age, weight, medical necessity, and the inability to lose weight following other weight-reduction diets. The expectation was that surgery would have a beneficial impact on costs and outcomes.

Instead, for many employers, health plans, and patients, the reality is that the high costs of complications and poor outcomes resulting from surgery—including lack of sustained weight loss and death—seemed to outweigh the benefits. Blue Cross Blue Shield of Florida doubled the amount spent for gastric bypass surgery to about \$17 million from 2003 to 2004. Blue Cross Blue Shield of North Carolina likewise reports that 495 gastric bypass surgeries were performed compared with 75 just 2 years before, and during the first 6 months of 2004 reported that 340 underwent the procedure.<sup>7</sup>

These poor outcomes and economic burden are the likely cause of a reaction by others to exclude coverage. Health Plans such as Cigna, Blue Cross Blue Shield of Florida, Blue Cross Blue Shield of South Carolina, and Blue Cross Blue Shield of Nebraska, among others, dropped coverage, as did employers such as the State of South Carolina. Mercer Human Re-

sources Consulting reports from a 2003 survey that 52% of self-insured employers with more than 500 workers do not cover the surgery.<sup>8</sup>

Others recognize that exclusion of this potentially life-saving procedure is not the answer, but neither is coverage as standard policies allow. Although standard policies are typically clinically sound, they often lack fundamental elements, such as access to appropriate, accountability behavior change-based weight management programs, incentives for participating in appropriate interventions, and documented proof of failed attempts in appropriate weight management programs. The absence of these important components leads to a failure to achieve desired outcomes. Instead, these groups are including coverage but revising their policies for a more cost-effective approach geared towards achieving desired health results with optimal financial outcomes.

### BEST PRACTICE CASE STUDY: MEDICORP HEALTH SYSTEMS, INC.

One such example is MediCorp, a self-insured 28-facility healthcare system based in Northern Virginia with about 3,000 employees. This employer reported surging from 0 to 16 gastric bypass surgery cases among their insured employee (Associate) population in one year, several of which cost in excess of \$100,000 each. In response, MediCorp researched MedPar data for four other hospitals in their service area to establish a center of excellence for patient referral. What they also found was increased utilization of gastric bypass surgery among those providers—escalating from 22 cases in 2001 to 147 a year later.

Medicorp recognized that it would be ineffective to eliminate surgery as a benefit. Obese Associates were incurring costs from unhealthy weight paired with diabetes, heart disease, cancer, sleep apnea, depression, arthritis, back pain, lost productivity, and other job issues. Instead, Medicorp's solution was to implement a program to reduce the number of inappropriate gastric bypass surgeries, control high costs, and improve outcomes (including the reduction or elimination of comorbidity, medications, and medical, pharmacy, and disability

costs). The program is unique in that it melds a gastric bypass surgery policy with health promotion requirements through a clinically sound approach that includes compliance monitoring, patient accountability, and behavioral change support through trained counselors. Highlights of the policy include requiring participation in and compliance with a designated weight management program for six months, a sleep apnea evaluation if needed, a psychiatric evaluation, and approval for surgical readiness. In addition, each member must speak with at least three people who have already had the surgery and attend at least one support group meeting. It is important to note that physicians are supportive of the process as it helps to ensure that their patients are physically and mentally prepared for the surgery—should the patient proceed.

The program is available for any Associate or covered spouse/dependent who is 100 pounds overweight, or has a body mass index (BMI) of 40 or greater, or a BMI of 35 or greater with a comorbid condition (eg, high blood pressure, diabetes) despite following standards of care. The weight management program includes weekly weigh-ins with a behavior modification session, sound nutrition with portion control, consumption of five to nine fruits/vegetables a day and 64 ounces of water daily; and an exercise program that gradually increases activity to four miles daily, five times a week. The program includes group support meetings; individual monthly meetings about motivations, causes, goals, and obstacles with a trained counselor applying behavioral change communication techniques that support lasting change; and a quarterly Associate assessment, including review of medication changes, waist measurement, body fat analysis, sick days, and physician visits.

If the patient is fully compliant with the weight management program for six months and elects to continue with gastric bypass surgery, the program submits approval for surgery, a surgery date is set, and the patient meets with the treating physician to go over diet instructions, and presurgery physical and surgery orders. MediCorp program staff then follows the patient post-surgery for six months.

Pre- and post-surgery (if surgery is pursued), the program monitors, assesses, and assists progress and compliance with lifestyle changes, proper nutrition, and physical activity in order to sustain healthy weight. MediCorp pays for the program as long as the Associate or covered dependent is compliant. In the event of noncompliance, a pre-authorized payroll deduction form is submitted to have all fees deducted over time from the Associate's paycheck.

### MEASURING SUCCESS: PROGRAM EVALUATION AND REPORTING

Critical to effective evaluation of the MediCorp program, or any program, is the establishment of program objectives and performance targets as well as baseline claims data analysis, to estimate potential savings through return on outcomes (ROO) and return on investment (ROI). Also of value are medical assessments, with particular attention paid to comorbid conditions that increase the risk for surgery. Group data from histories, physical examinations, and laboratory tests to identify the presence of coronary heart disease (CHD), other atherosclerotic processes, additional risk factors for CHD, and other obesity-related conditions that may benefit from weight loss; enable more detailed analysis of program results. Psychological assessment data to quantify those who may react adversely after surgery because of psychiatric problems (such as severe depression, suicidal ideation, substance abuse, or inadequately treated psychosis) adds yet another layer of measurable potential cost savings.

Above all, it is critical to maintain appropriate databases to document ROO and ROI. As the saying goes, *"You can't manage what you can't measure."* To that end, critical elements for program evaluation are enrollment forms and ongoing program contact that properly documents compliance, subsequent approval, and referral for surgery, should the patient satisfy the criteria and still desire to undergo the procedure.

MediCorp's program evaluation, using techniques such as those described above, documented improved health status as well as cost

savings resulting from policy revision and a supportive program. Results include:

- Prior to policy revision, a baseline analysis of claims identified 0 surgeries in 2001 and 16 patients who had gastric bypass surgery in 2003. Several cases had claims in excess of \$100,000 resulting in average costs of over \$40,000/surgery. These surgeries resulted in complications, disability, and one death. MedPar data from three regional hospitals showed a similar trend from 22 cases in 2001 to 147 gastric bypass procedures in 2002. Since the policy change and program implementation, almost all participants in the program have elected not to proceed with the surgery due to successful weight loss through the accountability behavior change support program. To date, 14 Associates are pre-authorized for the surgery and to date MediCorp has not paid for any surgeries. Patients have maintained their weight loss for two years and counting.
- Since implementation, MediCorp has documented avoiding payment for 12 surgeries out of 14 cases. Eleven elected against surgery due to achieving healthy weight goals through the program, and two are in the beginning stages. One was not compliant, dropping out following a 34-pound weight loss and, due to a variety of reasons, elected to self-pay for surgery. This patient is now a spokesperson for the program, even though this patient did not experience any significant complications from the surgical procedure.
- \$432,138 net savings in their 2004 benefit year, following implementation of the program in January 2004. Calculations are based on analysis of medical and pharmacy claims along with program data and on documented avoided surgeries and the average cost per surgery at the time the study was conducted; net the cost to deliver the program.
- Savings are understated as disability loss, reduction or elimination of medications and comorbid conditions, and reduced utilization of the healthcare system were not factored into the cost savings analysis but have

been documented through program and biometric assessment data. MediCorp is evaluating the additional savings and benefits, incorporating these elements into the analysis by studying multiyear participant pre- and post-program prescription, medical, and disability costs and days, biometric indicators, clinical diagnoses, functional status, perception of health, and satisfaction measures over time. Over a five-year period, study group data will be compared to a matched control group identified through health risk assessment and biometric screening. The evaluation covers data analysis pre policy and program entry, stabilization, and post program entry. Results will be compared to the surgical intervention group pre and post program availability.

- Weight losses of 172, 125, and 135 pounds, and numerous 100- and 60–95-pound weight losses.
- MediCorp's weight management program costs \$662 annually per participant.
- Improvement in productivity, decrease in lost work time, blood pressure, diabetes and chemotherapy medication, and a slight decrease in frequency of physician visits has occurred.
- Self-esteem and sense of well-being increased in all participants.

#### VARIATIONS ON THE BEST PRACTICE MODEL

Others are taking action by tailoring the policy, program, and incentives to their unique populations' needs. Although MediCorp's policy included mandatory participation in and compliance with the weight management program for coverage approval of gastric bypass surgery, and a policy of payroll deduction for cost of the weight management program if not compliant; other employers are not making participation and compliance mandatory. Other organizations are waiving co-pays and deductibles to provide incentives for participation in weight management programs to ensure "healthy and appropriate" use of the surgery.

### PARADIGM SHIFT

Whether an organization takes MediCorp's mandatory approach or an incentive-based approach, effectively addressing rising obesity rates and the associated health risks and costs; must entail a paradigm shift in policy and program development among employers and health plans. Rather than creating policies and programs independently of one another, or eliminating coverage altogether, both policies and corresponding programs must have their structures and purposes intertwined to work together to motivate and provide appropriate interventions. Policies must be appropriately written and communicated to the covered population. Initial data indicates that best practice includes both policy revision incorporating coverage for obesity-related treatments to ensure appropriate candidates tailored to their BMI level, along with provision of a well-designed weight/obesity management intervention.

### SOURCES OF INTEREST

- American Obesity Association: [www.obesity.org](http://www.obesity.org)
- Institute for Healthcare Communication (behavior change): [www.healthcarecomm.org](http://www.healthcarecomm.org)
- Behavioral risk factor surveillance survey: <http://apps.nccd.cdc.gov/brfss/index.asp>
- Disease Management Association of America: [www.dmaa.org](http://www.dmaa.org)
- Healthy 2010 Goals: [www.healthypeople.gov](http://www.healthypeople.gov)
- National Health and Nutrition Examination Survey (NHANES). Available at: [www.cdc.gov/nchs/nhanes.htm](http://www.cdc.gov/nchs/nhanes.htm)
- INTERxVENT USA, Inc.: [www.interventusa.com](http://www.interventusa.com)
- MediCorp, Inc.: [www.medicorp.org](http://www.medicorp.org)
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- Estimate the cost of obesity to your company: [http://www.healthybodyweight.com/obesity\\_cost\\_calculator.html?53L3ci73d=1686](http://www.healthybodyweight.com/obesity_cost_calculator.html?53L3ci73d=1686)

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