

Obesity in the Medicare Population: Opportunities for Cost Savings

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Obesity in the United States has been deemed an epidemic by the Centers for Disease Control. The high rates of obesity among Medicare beneficiaries and the high cost of providing medical care to obese individuals create an enormous financial burden on the federal government. Weight loss among the obese elderly population offers substantial Medicare savings. This document examines the prevalence and budgetary impact of obesity in Medicare and presents evidence from a recently released MGA report quantifying savings from reducing obesity among seniors by reducing the incidence of costly comorbidities.

OVERVIEW

- Over 40% of U.S. adults age 65–74 are obese, compared to 35% of U.S. adults overall (*Fakhouri et al. 2012 and Ogden et al. 2014*).
- Obesity contributes to the incidence of numerous other chronic diseases, each with its own cost burden and impact on the U.S. economy. Among the Medicare population 65 years and older, chronic diseases associated with obesity are very prevalent. According to Medicare (*CMS 2012*):
 - + 61% of beneficiaries have high blood pressure
 - + 48% have high cholesterol
 - + 34% have heart disease
 - + 31% have arthritis
 - + 28% have diabetes
- Obesity contributes \$50 billion to Medicare costs annually (*CBO 2014 and Finkelstein et al. 2009*).
- The fraction of Medicare spending attributable to obesity varies considerably by state, with a high of 10.2% in Ohio and a low of 5.2% in Hawaii (*Trogdon et al. 2012*).

EFFECTIVE INTERVENTIONS CAN REDUCE COSTLY COMORBIDITIES

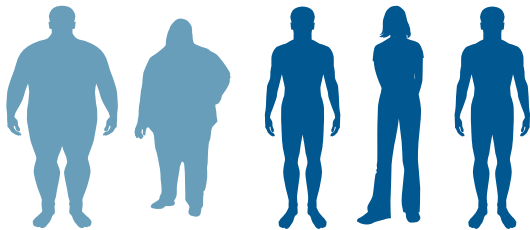
- While many private health insurers cover weight-loss interventions including medicines and surgery, Medicare Part D does not cover prescription weight-loss drugs.
- A recent Matrix Global Advisors study (*Brill 2014*) finds that a 10% reduction in the obesity rate among the elderly population would yield considerable savings by reducing the annual incidence of five comorbidities. Estimated Medicare savings are:
 - + \$281.5 million for type 2 diabetes
 - + \$138.9 million for hypertension
 - + \$45.7 million for osteoarthritis
 - + \$42.2 million for colorectal cancer
 - + \$11.5 million for breast cancer
- Other recent research confirms the potential for large cost savings from weight loss.
 - + 4.2% weight loss among overweight and obese adults age 60–64 who are either prediabetic or at risk of cardiovascular disease could yield gross Medicare savings of \$3.8 billion–\$4.7 billion over ten years (*Thorpe and Yang 2011*).

PART 1: 40% OBESITY PREVALENCE AND \$50 BILLION OBESITY COST IN MEDICARE

Obesity Prevalence in Medicare

Obesity prevalence—the share or proportion of a population that is obese—is 40% among adults age 65–74. (See Chart 1.) This compares to an obesity rate of 35% among U.S. adults overall. Older women used to outpace older men in obesity prevalence, but in the last fifteen years, obesity has increased among older men but remained steady among older women (Fakhouri et al. 2012).

CHART 1. 2 OUT OF 5 ADULTS AGE 65-74 ARE OBESE



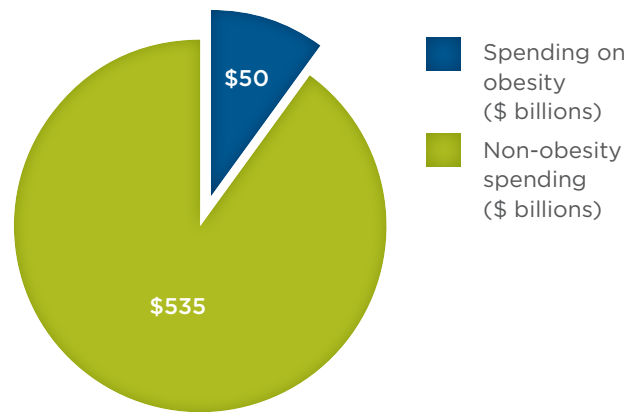
Source: Fakhouri et al. 2012.

Obesity Costs Borne by Medicare

Health care costs associated with obesity are responsible for 8.5% of total annual Medicare spending (Finkelstein et al. 2009). By this measure, approximately \$50 billion of the \$585 billion in Medicare spending in 2013 (CBO 2014) is attributable to obesity. (See Chart 2.)

More recently, health economists estimated the cost impact of obesity by state and found significant variation (Trogon et al. 2012). For example, Medicare costs attributable to obesity are highest in California (\$3.4 billion annually), and lowest in Wyoming (\$35 million annually). The fraction of Medicare spending attributable to obesity also varies considerably, with a high of 10.2% in Ohio and a low of 5.2% in Hawaii.

CHART 2. OBESITY IS RESPONSIBLE FOR \$50 BILLION (8.5%) OF THE \$585 BILLION IN ANNUAL MEDICARE SPENDING



Source: Finkelstein et al. 2009 and CBO 2014.

Obesity and Comorbidities in Medicare

Obesity, a chronic disease itself, contributes to the incidence (the risk of acquiring a disease in a given time period) of numerous other chronic diseases such as diabetes, cardiovascular disease (CVD), osteoarthritis, and certain cancers. The direct cost of these diseases is enormous and highly associated with obesity. For example, nearly half of all U.S. adults with CVD are obese, and CVD costs nearly \$200 billion annually (Go et al. 2014).

Both the prevalence and incidence of comorbidities are higher among the elderly than among U.S. adults generally. For example, the prevalence of diabetes among all U.S. adults is 12.3%, while the prevalence among those 65 and over is 25.9% (CDC 2014). And new cases of diabetes in 2012 totaled 7.8 for every thousand U.S. adults and 11.5 for every thousand adults age 65 and over (Ibid.). On top of this, comorbidities are typically more expensive to treat among the elderly. For example, the annual per-person medical cost among U.S. adults with diabetes is \$6,414 but \$9,061 among adults with diabetes age 65 and over (Dall et al. 2009). This means that Medicare bears a disproportionate share of the health care costs associated with obesity and its comorbidities.

PART 2: WEIGHT LOSS CAN CREATE MEDICARE SAVINGS

Weight-Loss Interventions

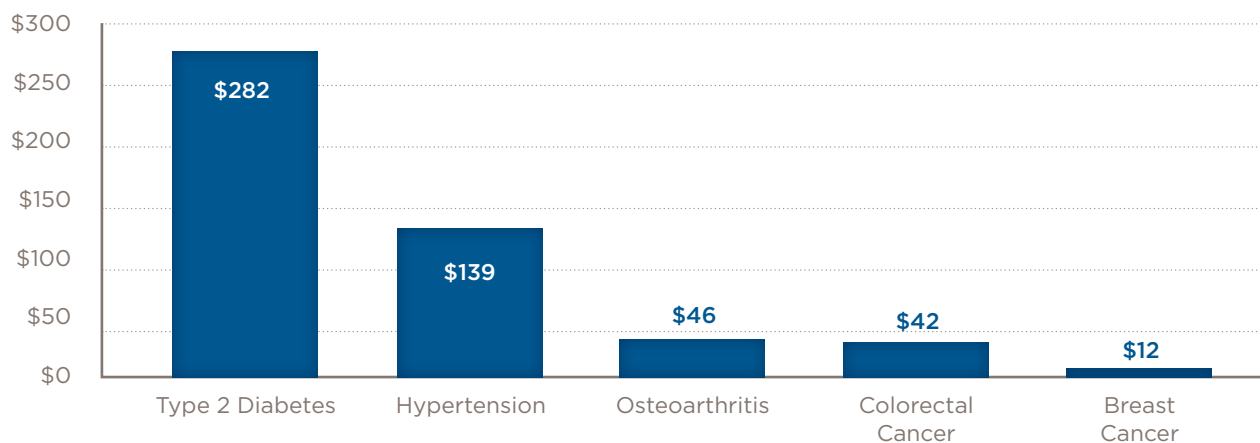
Weight-loss interventions include pharmaceuticals, surgery, diet and exercise, and medical weight-loss programs. Some of these interventions are covered by insurance while others are not. Notably, prescription weight-loss medicines are not covered under Medicare Part D, excluding one potential method for achieving weight loss in this demographic.

While each type of treatment yields different successes and carries different risks, in all cases, successful weight loss is associated with improved health outcomes and reduced risks of comorbidities, which translate into savings. Because the prevalence and incidence of comorbidities are generally higher among the elderly, the savings opportunity from reducing obesity is greater in the Medicare population than it is in the U.S. adult population as a whole.

New Analysis: Medicare Savings Achievable Through Weight Loss

Weight loss among the obese can both reduce the severity of comorbidities in people who are already afflicted and prevent comorbidities before they develop. A new analysis conducted by Matrix Global Advisors (MGA) estimates potential savings — for the U.S. health care system as a whole and for Medicare in particular — from the latter (*Brill 2014*). Specifically, the analysis models potential savings from preventing the development of five comorbidities by reducing the U.S. obesity rate by 10%. MGA calculates the new annual incidence for each comorbidity following a 10% drop in the obesity rate and estimates the savings that would be realized for the people who will not develop the disease in question as a result of weight loss. For each of the five modeled comorbidities, estimated Medicare savings in one year range from \$11.5 million from the prevention of breast cancer to \$281.5 million from the prevention of type 2 diabetes. **(See Chart 3.)** Estimates reflect gross savings since they do not include the cost of interventions.

CHART 3. MEDICARE SAVINGS FROM PREVENTING ONSET OF SELECTED COMORBIDITIES THROUGH OBESITY REDUCTION AMONG 65+ POPULATION (\$ MILLIONS/YEAR)



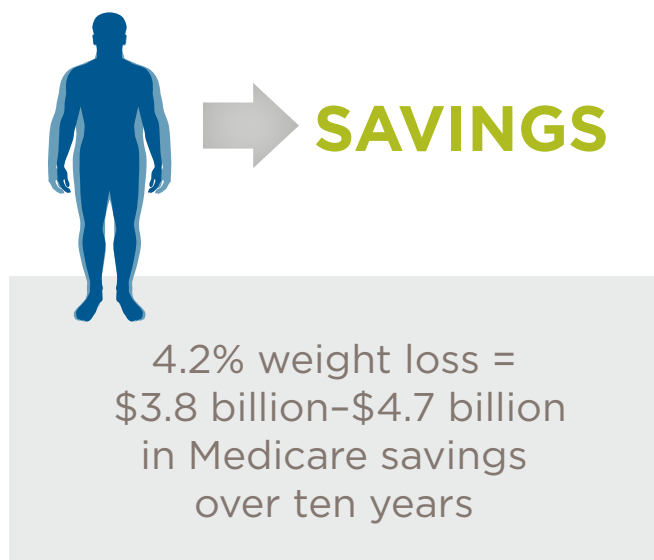
Note: Estimates should not be added as there may be some overlap of risk factors for the various diseases.
Source: Alex Brill, "Health and Economic Benefits of Weight Loss among Obese U.S. Adults," Matrix Global Advisors, LLC, August 2014.

Existing Evidence of Medicare Savings from Weight Loss

A 2011 *Health Affairs* study examined the impact of 4.2% weight loss among overweight and obese adults age 60–64 who are either prediabetic or at risk of cardiovascular disease (Thorpe and Yang 2011). Depending on levels of participation in the weight-loss program under examination, gross savings of \$3.8 billion–\$4.7 billion would accrue to Medicare over ten years. (See Chart 4.)

A recent analysis in *Health Economics Review* estimated that Medicare would achieve gross savings of \$7,446–\$10,126 per person over ten years from obese beneficiaries' losing 10% of their body weight (Thorpe et al. 2013).

CHART 4. WEIGHT LOSS AMONG OVERWEIGHT AND OBESE ADULTS AGE 60–64 YIELDS SUBSTANTIAL SAVINGS FOR MEDICARE



Source: Thorpe and Yang 2011.

SOURCES

- Brill, Alex. 2014. "Health and Economic Benefits of Weight Loss among Obese U.S. Adults," Matrix Global Advisors, LLC, August.
- Centers for Disease Control (CDC). 2014. *National Diabetes Statistics Report: Estimates of Diabetes and Its Burden in the United States*.
- Centers for Medicare and Medicaid Services (CMS). 2012. *Chronic Conditions among Medicare Beneficiaries, Chartbook: 2012 Edition*.
- CBO. 2014. "The Budget and Economic Outlook: 2014 to 2024." February.
- Dall, Timothy M., Sarah Edge Mann, Yiduo Zhang, William W. Quick, Rita Furst Seifert, Jaana Martin, Eric A. Huang, and Shiping Zhang. 2009. "Distinguishing the Economic Costs Associated with Type 1 and Type 2 Diabetes," *Population Health Management* 12, no. 2 (April): 103–110.
- Fakhouri, Tala H. I., Cynthia L. Ogden, Margaret D. Carroll, Brian K. Kit, and Katherine M. Flegal. 2012. "Prevalence of Obesity among Older Adults in the United States, 2007–2010," *NCHS Data Brief*, no. 106 (September).
- Finkelstein, Eric A., Justin G. Trogon, Joel W. Cohen, and William Dietz. 2009. "Annual Medical Spending Attributable to Obesity: Payer- and Service-Specific Estimates," *Health Affairs* 28, no. 5 (September/October): w822–w831.
- Go, Alan S., et al. 2014. "Heart Disease and Stroke Statistics — 2014 Update: A Report from the American Heart Association," *Circulation* 129, no. 3 (January 21): e28–e292.
- Ogden, Cynthia L., Margaret D. Carroll, Brian K. Kit, and Katherine M. Flegal. 2014. "Prevalence of Childhood and Adult Obesity in the United States, 2011–2012," *The Journal of the American Medical Association* 311, no. 8 (February 26): 806–814.
- Thorpe, Kenneth E., and Zhou Yang. 2011. "Enrolling People with Prediabetes Ages 60–64 in a Proven Weight Loss Program Could Save Medicare \$7 Billion or More," *Health Affairs* 30, no. 9 (September): 1673–79.
- Thorpe, Kenneth E., Zhou Yang, Kathleen M. Long, and W. Timothy Garvey. 2013. "The Impact of Weight Loss among Seniors on Medicare Spending," *Health Economics Review* 3, no. 7 (March 20).
- Trogon, Justin G., Eric A. Finkelstein, Charles W. Feagan, and Joel W. Cohen. 2012. "State- and Payer-Specific Estimates of Annual Medical Expenditures Attributable to Obesity," *Obesity* 20, no. 1 (January): 214–20.