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Implementing USPSTF Recommendations on Behavioral Counseling for Cardiovascular Disease

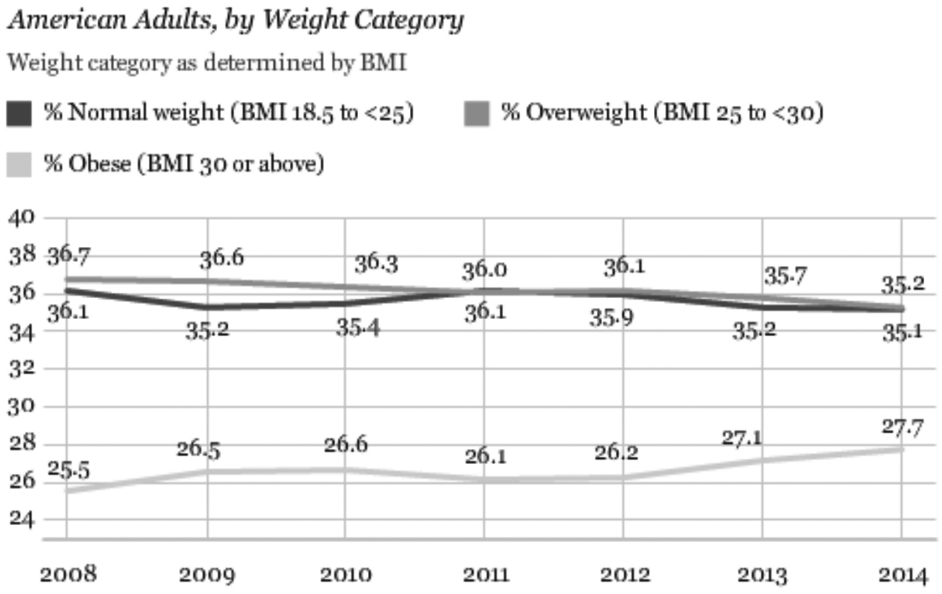
By Ed Cymerys and Sean Duffy

Edward C. Cymerys, FSA, MAAA, is an independent consultant in San Francisco and also serves as corporate strategy advisor and chief actuary for Collective Health, Inc. He can be reached at *edwardcymerys@gmail.com.*

Sean Duffy is the co-founder and CEO of Omada Health (omadahealth.com), a San Francisco-based provider of innovative, scalable and cost-effective online behavior change programs that address the growing epidemic of chronic disease. He can be reached at *sean@omadahealth.com.*

In 2009, the Centers for Disease Control and Prevention (CDC) labeled chronic disease the "public health challenge of the 21st century." Their report detailed the corrosive effects—for both individuals and society—of a series of creeping epidemics: obesity, diabetes, heart disease, and other conditions caused primarily by lifestyle or behavior. Three of four Americans will die prematurely of a disease that could have been prevented by changing unhealthy habits.

These trends aren't new, especially when it comes to obesity; 78.6 million Americans are now considered obese (body mass index > 30), with 60 percent of all Americans falling into either overweight or obese categories based on BMI.



Source: Gallup-Healthways 2014 Well-Being Index. U.S. Obesity Rate Inches Up to 27.7% in 2014. Accessed February 2015. *http://www.gallup.com/poll/181271/obesity-rate-winches-2014.aspx?utm_source=CATEGORY_WELLBEING&utm_medium=topic&utm_campaign=tiles.* Jan. 26, 2015.

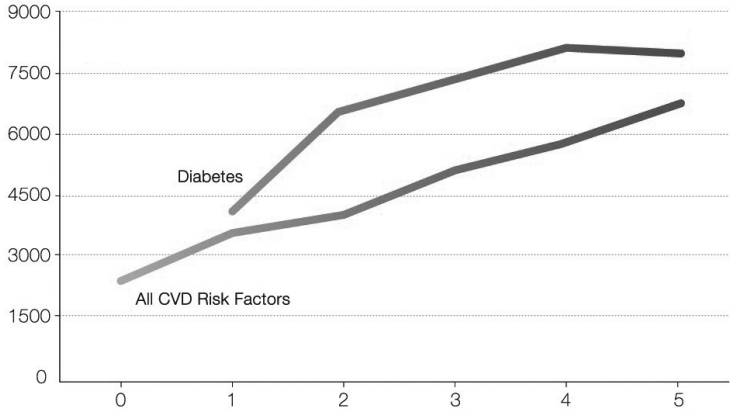
After a stunning 37 percent increase from 1998 to 2006, obesity rates have continued to rise. While middle-aged adults currently have the highest rates of obesity, rates among teenagers and children are equally alarming, especially in some regions of the country. Obesity-related conditions like Type 2 diabetes, heart disease and stroke represent some of the most pervasive and deadly diseases in the United States.

Health plan actuaries understand obesity both as the health crisis it is, but also as a key cost driver for their plan beneficiaries. CDC estimates that direct medical costs for obese individuals are $1,723 per year higher than for those of normal weight.[1] That's without considering additional health care costs based on conditions connected to obesity—conditions that now affect 34 percent of Americans. Individuals with other obesity-related metabolic syndromes can cost plans an additional $4,000 or more per year when compared to those in normal weight ranges.

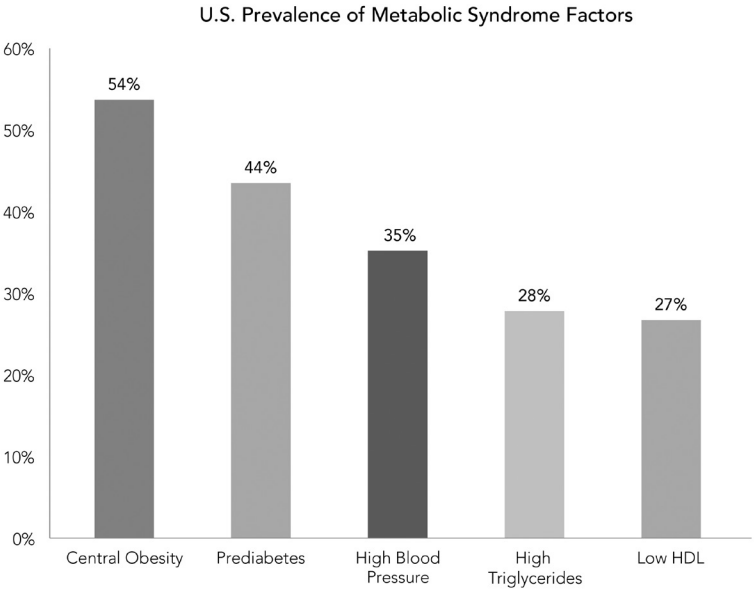
Health care policy experts agree that the key to reversing trends on obesity, obesity-related conditions, and other chronic diseases is behavior and lifestyle change. Policies incentivizing these types of treatment options are finally beginning to catch up to the need. In the process, these policy shifts are creating opportunities for health plan actuaries to deliver solutions that improve both the health of their beneficiaries and the financial health of their plans.

Last year, the U.S. Preventive Services Task Force (USPSTF)—an independent body of primary care physicians, scientists, and other medical professionals empowered by the Affordable Care Act to better integrate preventive care into commercial health plans—took a critical step in addressing the obesity epidemic in America. In August 2014, the USPSTF issued a final recommendation that doctors should provide or refer overweight or obese individuals with any other cardiovascular disease risk factors for "intensive behavioral counseling" to promote healthy diet and physical activity. The USPSTF assigned this recommendation a "B" rating—meaning that for *any commercial health plan (CHP) year beginning August 2015 or later, behavioral counseling must be covered as a preventive benefit*. CHPs with plan years beginning on Jan. 1 will need to comply with the recommendation by January 2016.

This requirement represents a challenge for many plans, but an opportunity for others. Actuaries will play a key role instituting this new preventive benefit—and can do so in a way that both provides effective interventions for beneficiaries and remains cost-effective for their plans. This will include evaluating which programs should be implemented, along with estimating the cost and benefits of these programs over time.



Source: Boudreau, D.M., D.C. Malone, M.A. Raebel, et al. Heath Care Utilization and Costs by Metabolic Syndrome Risk Factors. Metabolic Syndrome and Related Disorders 2009; 7(4):305-14.



Source: Analysis of NHANES Data, 2005-2012. Prediabetes prevalence based on FPG or A1c.

In its final recommendation on the topic, the USPSTF relied heavily on evidence from a landmark trial first published in the early 2000s—the Diabetes Prevention Program (DPP). The study tested how intensive exercise and dietary counseling could delay the onset of Type 2 diabetes among those already designated "prediabetic." The study included more than 3,000 participants, divided into three segments —those receiving lifestyle interventions, those receiving medication and nothing else, and those receiving a placebo. The study ultimately concluded that lifestyle interventions were the most effective treatment—lowering the incidence of Type 2 diabetes by 58 percent when compared to the placebo group (and besting the medicated segment). In follow-up analyses of DPP data, participants in the lifestyle intervention trial also saw an improvement in high blood pressure, triglycerides, HDL cholesterol, and other risk factors for heart disease. In 2010, based on the results of the study, Congress authorized the CDC to create a National Diabetes Prevention Program, and establish standards that meet the DPP criteria.

In its August recommendation, the USPSTF specifically cited the DPP as a potential solution for those individuals needing intensive behavioral counseling.

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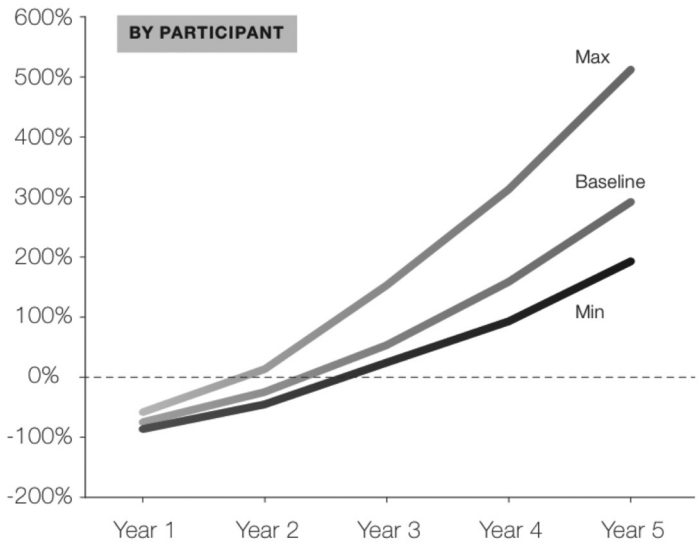
However, to date, the DPP has only been offered in face-to-face settings—limiting its scope and reach for large population segments, and making it costly for health plans to initiate their own programs. While some health plans have developed their own versions of the DPP, these programs have been both costly and largely ineffective in reaching the needed populations. But just as the USPSTF has made these types of interventions mandatory preventive care benefits, the federal government has offered commercial plans an innovative way to comply.

In January 2015 the CDC broadened the DPP criteria, recognizing online and digital programs for the first time. These programs still must meet the clinical standards of the DPP—a rigorous set of criteria that requires licensed DPP programs to meet or exceed the standards achieved by the in-person DPP. But the CDC has recognized the power of the digital health industry in addressing one of the nation's most pressing health programs, and a new branch of medicine—digital therapeutics—may hold the key to delivering lifesaving interventions to those who need them the most.

Digital therapeutics deliver clinically proven behavioral interventions over an Internet connection. In telemedicine, technology acts as a delivery channel for medical treatment; in contrast, digital therapeutics leverages the unique opportunities created by technology, integrating design and behavioral insights to motivate effective lifestyle change. Additionally, digital therapeutics track and collect data, allowing operators to effectively measure outcomes of their programs.

As the USPSTF mandate takes effect later this year, the CDC's embrace of digital tools provides a potential road map for health plans and actuaries to comply with the upcoming guidance. Sean Duffy—CEO of Omada Health, a former M.D./MBA candidate at Harvard with a degree in neuroscience from Columbia University, and co-author of this article—was one of the first to effectively translate behavioral interventions like the DPP to an online setting. Developing his company's first digital therapeutic, he focused on small-group support, personal health coaching, personalized and engaging design, DPP curriculum adherence, and progress tracking—leveraging unique aspects of the technology to enhance key elements of successful behavioral interventions with the company's first product, *Prevent*.

Projected Cumulative % Return on Investment (ROI) of the *Prevent* Program



Source: Omada Health Prevent Health Economic Monograph. December 2014.

In his book *Leaders Make the Future*, Bob Johansen of the Institute for the Future makes the case that industries should nurture companies that benefit multiple players within the same ecosystem. As chronic conditions like Type 2 diabetes become major cost drivers for health plans, multiple players within the health care industry have a vested interest in developing and scaling the most effective preventive behavioral intervention tools possible. Managed care companies across the health care landscape can benefit from an independent actor developing scalable solutions that prevent beneficiaries from developing costly and deadly chronic conditions. This is exactly the reason some, like Kaiser Permanente, have put capital into health venture funds: to seed companies that can develop treatments that bend the cost curve across the industry.

Health plan actuaries are beginning to model the economics of intensive behavioral counseling solutions, as well as the implementation of interventions that must be both effective *and* cost-effective. Now is the time for actuaries to be proac-

tive—discussing how plans will meet the coming requirements, and deciding whether to build programs from scratch, or to employ solutions proven effective. Digital therapeutics offer the opportunity to deliver results that are both clinically validated *and* provide demonstrable economic benefits for beneficiaries and plans alike. Initial economic projections for the digital therapeutic pilots, like Omada's *Prevent*, demonstrated a break-even at the end of year 2 and a projected savings of $1,300 to $3,500 over five years.

Health plan actuaries will be charged with evaluating the effects of the new USPSTF requirements, and options for compliance. Digital therapeutics offer the opportunity to deliver clinically validated results — including better health outcomes for beneficiaries, and lower cost outlays for plans.

END NOTES

1. Tsai, A.G., D.F. Williamson and H.A. Glick. Direct Medical Cost of Overweight and Obesity in the USA: A Quantitative Systematic Review. *Obesity Reviews* 2011; 12(1):50-61.