



Advancing High Performance Health

Obesity Care Model  
Collaborative: Case Study

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# *Advocate Aurora Health*



## Organizational Profile

Aurora Health Care, Inc. joined AMGA's Obesity Care Model Collaborative in 2017, at which time the organization was a Milwaukee-based, not-for-profit, integrated healthcare system serving 31 counties within its footprint across southeastern Wisconsin. Operations included 15 hospitals and 185 clinics staffed by 1,516 employed physicians, 70 pharmacies, and more than 30,000 employees. Services were delivered to 1.2 million individual patients annually with 91,000 inpatient discharges, 2 million hospital and outpatient visits, and 4 million ambulatory care visits.

In 2018, Aurora Health Care merged with Advocate Health, a Chicago-based not-for-profit healthcare system, doubling the footprint of the organization across the Wisconsin and Illinois territories. Advocate Aurora Health is one of the 10 largest not-for-profit, integrated health systems in the United States and a leading employer in the Midwest with more than 70,000 employees, including more than 22,000 nurses and the region's largest employed medical staff and home health organization. A national leader in clinical innovation, health outcomes, consumer experience and value-based care, the system serves nearly 3 million patients annually in Illinois and Wisconsin across more than 500 sites of care. Advocate Aurora is engaged in hundreds of clinical trials and research studies and is nationally recognized for its expertise in cardiology, neurosciences, oncology and pediatrics. The organization contributed \$2.1 billion in charitable care and services to its communities in 2018. Their mission is to help people live well.

Aurora's journey with weight management started in 2010 when Dr. Melanie Smith, a primary care provider, requested an evidence-based, medically managed weight loss program to offer to her high body mass index (BMI) adult patients with obesity-related comorbidities. The internal research team was tasked to find a program that met Dr. Smith's criteria and proposed a lifestyle intervention program with published outcomes offered through Health Management Resources (HMR). The first HMR Program for Weight Management within Advocate Aurora Health launched in the fall of 2010 and significant patient outcomes immediately occurred (published in the April 2014 *Group Practice Journal* (see Appendix, page 16). Outcomes were shared across the organization and caught the attention of the Employee Wellness division. In 2013, System Wellness included the HMR Program into the

## Acronym Legend

- ALT:** Alanine Aminotransferase
- AOM:** Anti-Obesity Medication
- AST:** Aspartate Aminotransferase
- CDC:** Centers for Disease Control and Prevention
- CGCAHPS:** Clinician and Group Consumer Assessment of Healthcare Providers and Systems
- CME:** Continuing Medical Education
- EHR:** Electronic Health Record
- HMR:** Health Management Resources
- PROM:** Patient Reported Outcome Measure
- PDSA:** Plan, Do, Study, Act
- SMART:** Sensible Meals, Activity, Rest/Reflection Together.
- TOPS:** Taking Off Pounds Sensibly
- WWAD:** Walk With A Doc

new Healthy Weight Initiative as an option to all employees (and eventually spouses) on the health plan. The Healthy Weight Initiative included annual BMI screenings of all employees and spouses on the health plan and offered incentives to participate in a sponsored weight management activity, including the HMR Program. The data collected through these screenings analyzed against the medical claims data produced evidence of cost savings:

- For every one-point increase in BMI, healthcare costs increase by \$168. Therefore, every one-pound decrease in weight prevents \$20 of healthcare costs.
- Specifically, the HMR Program intervention produced a 45.3% savings on medical claims and 34% savings on pharmacy claims.

This data was shared at the 2017 Annual AMGA Conference and additional outcomes were published in the December 2016 issue of the *Journal of Occupational and Environmental Medicine* (Appendix, page 21).

Following the 2017 AMGA Conference, Aurora was accepted to participate in the Obesity Care Model Collaborative in an effort to translate the employee BMI initiative outcomes into the treatment of patients with obesity. The selected pilot site was a primary care clinic in Germantown, Wisconsin, located within a metropolitan statistical area of 1.58 million

residents that encompass a mix of urban and rural settings and socioeconomic ranges. The organization treats approximately 500,000 unique patients annually in this metropolitan area. A 2016 report from the Centers for Disease Control and Prevention (CDC) identified 70% of the U.S. population as overweight or obese, so it can be applied that approximately 350,000 patients treated by the organization could benefit from a comprehensive weight management program in addition to other community members.

Five primary care providers and several specialties including chiropractic, rehab, and integrative medicine offer services at the Germantown North Clinic. Several weight management programs were identified:

- Behavioral modification through the HMR Program and health coaching through integrative medicine health coaching
- Surgical bariatric procedures offered at two nearby medical centers, both accredited as a Comprehensive Bariatric Center of Excellence
- Pharmacotherapy and counseling offered through obesity-certified providers

In addition to the pilot site, the physician champion for the project practices at the Burlington Clinic, located about 50 miles southwest in a rural market. Several of the interventions were similarly implemented and additional learnings were observed from her practice as well.

## Executive Summary

Weight management treatment options have been available throughout the organization, but with limited integration. The organization's goal is to identify gaps in treatment, opportunities for integration, and secure resources toward a systematic approach in reducing the BMI of patients.

This will be achieved through the work of a new executive leadership-sponsored and physician-driven Weight Management Steering Committee tasked to develop an integrated obesity medicine program for the entire health care system. The committee consists of bariatricians, bariatric surgeons, advanced practice practitioners, gynecologists, HMR specialists, and a surgeon certified in obesity medicine, along with IT, administrative, population health, and

operational support. The committee is working on a directory for referrals throughout the system, smart sets and templates, sharing guidelines and establishing best practice standards. There are also efforts to gain anti-obesity medicine coverage, as current coverage is limited. A BMI learning platform was developed to house webinars and other media to educate providers. The vision is to have a virtual hub of providers with enough saturation within each market to achieve adequate access to treat patients with obesity and prevent obesity.

## Obesity Program Goals and Measures of Success

It is evident that obesity is a growing problem impacting the well-being of patients and healthcare costs. However, there is no current strategy to treat obesity across the organization. Through a focused effort on treating obesity in the primary care setting, the anticipated outcome is to have a solution for making a bigger impact on patients with obesity. Achieving the following will support the development of a formal strategy:

- Organizing the resources and programs available by the organization and community, defining gaps in treatment options, and proposing evidence-based solutions for system-wide adaption
- Providing education on obesity medicine, obesity bias, and available treatment options for increased referrals and treatment
- Incorporating more weight maintenance pharmacotherapy to reduce recidivism in current weight management programs to maintain the health benefits long term
- Building better patient access to the treatment options to increase program utilization and outcomes
- Expanding the care team through use of a Weight Management Navigator
- Defining tracking mechanisms for obesity medicine and patient outcomes to allow for greater buy-in and more dedicated resources to support the weight management service line
- Implementing and expanding a childhood obesity pilot program

## Data Documentation and Standardization

Several tools or metrics were identified to help standardize obesity treatment:

- Electronic orderables in the Epic electronic health record (EHR) allow providers to refer patients to medical weight management, bariatric surgery, and nutrition services.
- As of 2019 a new BMI initiative, tied to the Centers for Medicare and Medicaid STAR rating, was rolled out for primary care. This includes two elements:
  - o Patients with class 3 obesity require an obesity diagnosis
  - o Any adult with a BMI over 30 requires a documented plan of care at their annual physical; the treatment plan can include follow-up with the primary care provider or referral to treatment
- An obesity registry within Epic is available
- Tracking anti-obesity medication prescribing trends

## Population Identification

The target provider audience includes primary care providers and specialties that refer to primary care for weight management. The target patient audience is adults with a BMI over 30, identified at their primary care visit. Additionally, development of a childhood obesity program in Burlington, Wisconsin, utilized medical record data to target a specific child-aged population with a BMI within the top 95th percentile in the Burlington-area catchment.

## Interventions

### Community

Aurora Health Care has a variety of community programs and partnerships fostered through the Community Relations division. A gap analysis of the local community offerings and activities revealed a need to offer more consistent weight management-related programs easily referable by providers.

#### 1. Identify and Promote Community Offerings

Current programs, such as TOPS (Taking Off Pounds Sensibly), Weight Watchers, local fitness centers, and ad hoc cooking classes are examples of programs that are offered within the communities served. The cooking and educational

classes are promoted by the Community Education and Community Relations teams through a newsletter, an online events landing page on the organization's website, and through flyers at local public venues. These programs vary across different markets and programming is not consistent. Commercial offerings, such as Weight Watchers and classes at the local fitness centers, are not typically promoted throughout the organization, with some exception to the YMCA evidence-based programs such as the Diabetes Prevention Program.

Although the events are promoted throughout the community, there is a gap in educating and communicating these events to providers with intent to refer their patients. Attempts to bridge and maintain communication had failed, so the project team worked with providers and known resources in the community to develop a resource list (to include community-based programs) that can be offered to patients during their medical visits. These programs, along with the organization's programs and well-known digital resources, are included on a patient handout (Appendix, page 25). A provider version with referral instructions was also created and posted within each exam room to help practitioners discuss the options and make referrals when possible.

#### Next steps include:

- Expanding the resource sheet to all patient service markets. This will require research within each region to identify programs and community resources relevant to the geography that is being served.
- Partnering with the marketing department to upgrade the flyer to a branded informational brochure available as a print and digital resource.
- Integrating the resources into an Epic Smart Set will allow providers to easily add these resources to the patient's after-visit summary when a flyer isn't available. This will also be recorded in their chart as to whether the patient received these resources and documented in their care plan if they have a BMI greater than 30.

#### 2. Offer Physician-Led Events Direct to Community—Partner with Walk with a Doc

Through cataloging the available internal and external resources and programs, it was evident that there were few programs bridging the pilot group of providers and the community. It became a priority to offer a community event connected to the clinical team.

Interest was expressed by the project physician champion and a physician at the Germantown Clinic pilot site to each lead a monthly walk through the Walk with a Doc (WWAD) organization, a national walking program with over 500 chapters. Membership includes the benefit of marketing under the national name, advertising through their webpage and utilization of their marketing templates, and participant liability insurance. A WWAD chapter is required to host a monthly provider-led walk with a brief health talk to start the event. Indoor and outdoor locations must be predetermined to accommodate all weather types.

The Burlington and Germantown Chapters began in late fall of 2018. To market the program, flyers were created for each site to post around the clinic and providers and staff at each clinic were encouraged to refer their patients to this monthly walking event. Also, the Aurora social media team posted a series of Facebook event ads and the walks were posted on the external [Aurora.org/events](http://Aurora.org/events) webpage and promoted on waiting room TV screens (Appendix). Additionally, the local news channels featured a press release announcing the program launch.

Offering the program at two sites allowed for several PDSA (Plan, Do, Study, Act) cycle analyses to compare effectiveness of timing, promotions, and ways to increase engagement from both providers and participants.

## Results

- The Burlington chapter had over a dozen walkers at their first event, and attendance grew to 20-30 participants per walk (see Appendix). Physician and staff support have been strong due to rotating clinicians committed to host each walk through the scheduled calendar year. The host clinician promotes their upcoming walk, drawing in new participants and expanded word of mouth.
- The Germantown chapter has struggled to gain more than three participants at a walk. There is little engagement from the other clinicians and staff at the clinic, limiting the word of mouth.

## Lessons Learned

- An active physician champion who is willing to market the event and engage colleagues is essential to build excitement in the community and attract more participants.

- Securing a full year of various clinicians to lead the walk and health topic will engage new participants each month. This is due to each clinician's motivation to promote their own walk while attracting attendees interested in their unique health topic (see Appendix, page 12).
- Location is key. The Burlington chapter is at the community high school, offering one convenient and well-known location for both the outdoor walks (track) and inclement weather (internal corridors). The Germantown chapter utilized the YMCA, about 15 minutes from the clinic. This led to challenges such as patients not having the comfort and familiarity of the location if they were not YMCA members.
- Timing is key. The Burlington chapter is held at 9:00 a.m. on Saturdays, which seems to accommodate more participants' availability. The Germantown chapter is only offered during the workweek, trialed on Thursday mornings at 7:00 a.m. to accommodate those before work and Tuesdays at noon to try to accommodate the lunch hour and attract facility employees. Neither workweek days nor times have produced high participation.

## Next Steps

- Across the organization, more providers are expressing interest in starting their own WWAD chapter so that they may connect with their patients and community outside of their visits. Patients in other markets who can see the marketing for these events are commenting that they would like this type of offering in their community. To respond to the demand from clinicians and community, expansion of more WWAD chapters is in consideration.
- Due to the required annual WWAD chapter fee, the healthcare system is exploring their own liability insurance and considering rebranding the walking program as a healthcare system program, eliminating the need to participate as a WWAD chapter and avoid those fees.

## Organization

### ***Develop System-wide Multidisciplinary Weight Management Steering Committee***

Recent implementation of a care management BMI Initiative to better diagnose high BMI patients and create a plan of care for any adult with a BMI over 30 led to the realization

that providers need more resources to be effective. Provider training, referral mechanisms, patient educational materials, and medical record documentation tools need to be made accessible to primary care providers.

In 2019, primary care provider leaders known for their passion in obesity medicine were tasked to develop a multidisciplinary strategy for treating weight management across the healthcare system. This was matched with executive leaders sponsoring administrative partnership to support the clinical team. The primary goal is to improve the availability of services offered for obesity while formalizing the resources and ease of referrals to accommodate the new BMI Initiative. The core clinical team includes the interim leader of Primary Care, the Collaborative's Physician Champion, and a nurse practitioner. All have completed or are in process of completing the American Board of Obesity Medicine certification. These providers started by first canvassing the organization to identify providers practicing obesity medicine or having a connection to weight management and sent invitations to join the steering committee.

## Challenges

### 1. Identifying Multidisciplinary Steering Committee

**Team Members.** Historically, Aurora Health Care has not recognized weight management as a service line. Any weight management services offered were at a local level and often not integrated into the system's services or throughout the care delivery footprint. Identifying obesity medicine providers and weight management programs was a manual process relying mostly on word of mouth and by search on the American Board of Obesity Medicine online directory. As awareness of this committee has expanded, new providers continue to request inclusion by their own participation or through a proxy on their team. It is anticipated that the team will continue to expand over time.

**2. Formalizing a productive work team.** Organizing this group of providers and expanding to other essential roles, including operations, has been a slow process due to the limited time available of the clinical providers. The steering committee plans to increase meeting cadence to include regular phone-based meetings and occasional in-person meetings, as well as establish work team subcommittees to accomplish the goals of the committee. This is being matched with an administrative team to support the goals of the clinicians and develop a business case to obtain resources for sustainability.

## Next Steps

The steering committee is receiving support to leverage the existing programs and tools available, and as a result, several tactics are being implemented to support the committee goals:

### 1. Create a standardized Smart Set available in Epic to all providers.

Providers, especially primary care providers, are constantly tasked to adhere to new initiatives to improve care management measures. Smart Sets, designed within the EHR to assist providers in being effective and efficient, are great resources to help providers address care management priorities at the patient visit. A Smart Set for BMI, currently in development, will help the provider with referral to treatment and follow-up on the treatment plan. The Smart Set can provide patient education, available resources, and even order referrals. The following items are being considered for inclusion into the Smart Set:

- a. Weight Management Resources Sheet, by location (see Appendix)
- b. Variety of patient education handouts on weight management topics such as specific diet and nutrition information, physical activity, etc. The intent is to include existing evidence-based documents.
- c. Referral options directly through the Epic Orderable, to include service to:
  - Medical Weight Management and HMR Program
  - Dietician Services
  - Bariatric Surgery
  - Endocrinology
  - Integrative Medicine
- d. Inclusion of behavioral health is being considered due to a shortage in access. Solutions such as virtual visits, group visits, and other possibilities are under consideration.

### 2. Development and enhancement of the medical weight management orderable.

In 2014, the HMR Program was among the first weight management program to expand across multiple sites throughout the organization. It became necessary to streamline the way providers could make a referral to the

program, regardless of location. This launched the first attempt to develop a medical weight management orderable in Epic.

The Epic Advisory team required inclusion of more than one type of weight management program in such an orderable. At this time, several individual weight management programs existed throughout the organization. It was decided that to be included in the orderable, the program needed to be medically managed, evidence-based, and have a solution for managing the inbound referrals through the Medical Weight Management work queue within a timely manner.

Over time, the increasing orders started to outgrow the number of referrals able to be managed within a reasonable timeframe. It was uncovered that over the years, some of the programs either no longer existed or providers left the organization with no replacement identified to cover their services. A second attempt was made to clean up the programs listed by defining and accurate program description and accountability for managing the work queue.

Now, a third attempt is being made to enhance the orderable. The goal is to more clearly categorize the type of treatment options and be inclusive of the growing number of providers offering obesity medicine (see Appendix). Again, each provider and program will be vetted against criteria and have staff available to manage referrals within 72 hours. Including referral to the Weight Management Navigators is also being considered.

### **3. Expanding awareness of American Board of Obesity Medicine certification**

A registry of existing American Board of Obesity Medicine (ABOM) certified providers was created and will be internally updated annually using the “Find a Physician Diplomat” feature on the ABOM website (ABOM.org). This registry serves as a list of experts in the field to call on as the strategy for weight management is developed. It has also been effective at educating leadership of the growing field of weight management as a certified specialty. This is helpful when asking leadership to support the provider in completing the ABOM coursework and obtaining the board certification or certificate as weight management treatment expands.

### **4. Support providers by expanding the care team: Weight Management Navigators**

In working with the pilot group of primary care providers, barriers were identified around how and if the providers address weight management in their visits with patients with obesity. This included time restrictions in the visit, discomfort in talking to patients about weight, lack of awareness of treatment options available, and limited knowledge of what the treatment programs entail, among others. Research led to the conclusion that these barriers can be addressed through use of a Weight Management Navigator role. Essentially, the Weight Management Navigator is an expert on local programs and resources available so that they can triage patients into an appropriate program option. The navigator continues an ongoing cadence of follow-up with the patient while communicating progress to the care team (see Appendix). If a patient is not successful through a treatment intervention or drops out of treatment, the navigator will then aid them in finding another option.

The initial pilot included limited hours through existing nurses with experience in weight management. The current goal is to expand the service to additional sites to work with more patients and collect more data. Several next steps are needed to gain evidence that this role is effective at making an impact for the patient, providers, and organizational outcomes.

#### **Next Steps**

1. Train additional employees to pilot the navigator role in new clinics and markets to grow the referring provider base and number of patients contacted. Also, consider expanding to non-clinical roles to assist with the job functions that do not require a clinical degree, such as scheduling and health coaching.
2. Utilize the population health module in Epic for more effective and meaningful charting and reduce redundancies between paper and electronic processes utilizing the following:
  - a. Case management documentation through episodes of care tied specifically to obesity treatment.
  - b. Track patient outreach through encounters, scheduled calls, and follow-up cadences—removing the manual tracking to a documented and automated tool.

- c. Build a reporting workbench report through the longitudinal plan of care—used to pull reports by episode of care and sorted by many factors, such as provider, biometrics, BMI, etc.
3. Integrate health coaching into the navigator process, utilizing employed health coaches or through digital health coaching.
  4. Track outcomes to gain leverage for more resources to build a business case for a centralized Weight Management Navigator.
    - a. Number of orders, no-show rate, completion rate
    - b. Number of calls and completed touchpoints to indicate workload ratios
    - c. Conversion to a program (e.g., HMR, dietician, surgery, bariatrician and external programs)
    - d. Outcomes such as percent of initial body weight lost, BMI change, A1C improvements
  5. Expand access to the navigator through inclusion in the medical weight management orderable.

## **Care Team**

### **Increase Awareness and Understanding of Obesity Medicine**

The Weight Management Steering Committee will also influence how providers understand obesity medicine. The goal is to increase education and awareness of obesity medicine through Continuing Medical Education (CME) and clinical events. Throughout the course of the collaborative, attempts were made to educate providers on topics such as motivational interviewing and anti-obesity medications. The most successful way to achieve audience with providers was through standing department meetings. This strategy is time-intensive when considering the hundreds of sites and thousands of providers within the organization. To reach more providers and increase engagement, it was determined necessary to offer web-based learning, resources, and CME for the presentation topics. Partnering with Clinical Medical Education, the process for adding new topics and setting up webinars for future broadcast on the internal intranet was created. A dedicated learning platform page for BMI resources will include the following for providers:

- Educational patient handouts on BMI and weight management

- Podcast series on weight management topics and treatment updates
- Motivational Interviewing curriculum
- Educating providers on anti-obesity medications and treatment options
- Webinars on weight management programs, some with CME (see Appendix, page 12)

## **Patient/Family**

### **Adding Weight Management Specialty to the Provider Profile**

Identifying clinicians in weight management has proved challenging for both the internal providers and the patients. The provider profiles were updated to include weight management for those clinicians providing evidence-based treatment. Now, when patients use the “Find a Doc” feature online, they can identify which providers are weight management specialists (see Appendix, page 13).

### **Integrating Body Composition Scales into Obesity Medicine**

When patients are working on weight management, it is important to also highlight measurable changes other than weight loss. Often, as patients become more active and start to replace body fat with lean muscle, they will plateau on the scale. This can be discouraging for patients and cause for patients to discontinue their efforts. Measuring additional biometrics during weight management counseling can be motivating for the patient while providing insights for the clinician. Body Composition Scales are currently being vetted through the organization and are recommended in the practice of obesity medicine. A current vendor of scales for the organization is proposing a project to link all current scales and body composition devices to Epic for better utilization of the data.

### **Introducing Childhood Obesity Treatment: SMART**

Understanding children are developing adult diseases, it's important to treat childhood obesity as a form of primary prevention. Currently, there are few, if any, treatment options available for primary care providers to refer their obese child and adolescent patients throughout the legacy Aurora locations. Dr. Melanie Smith has collected research to propose an evidence-based program called SMART: Sensible Meals, Activity, Rest/Reflection Together. Dr. Smith was honored for

her work in obesity medicine and received honoree funds to support this program pilot. She also secured volunteers from the clinicians and specialists required for the curriculum.

Under specifications of the funds, the pilot is currently only available for patients referred to Aurora that meet criteria. There will be no charge for the program itself. Referrals for patients aged 9-13 with a BMI above the 95th percentile will qualify. Prior to induction, baseline labs will be obtained from the primary care provider as well as a height, weight, and waist circumference.

The childhood obesity program pilot will launch on September 17, 2019, at the Burlington Wellness Center equipped with a small kitchen near the meeting room. The program will run for six weeks with a monthly support group to run for the subsequent ten months. A primary caregiver is required to be present on the first day to sign liability forms and to participate throughout the program. The groups will meet twice weekly with a weekend assignment for each family.

Tuesday classes will consist of three 30-minute sessions by a dietician, behavioral specialist, and physical trainer. Thursdays will include a 60-minute session on nutrition followed by a 30-minute physical activity. Nutrition education will focus on healthy foods, snacks, stoplight diet, healthy cooking, shopping, and not eating after dinner. The behavioral component will focus on readiness to change, motivational interviewing, and cognitive behavioral therapy. The physical activity will focus on a fun family activity.

There will also be two shared medical visits per the six-week program on Tuesdays. The primary care providers will perform less than 10-minute visits assessing blood pressure, heart, lungs, and addressing any acute medical issues. The behavioral specialist will also meet with the primary caregivers during the six weeks.

Outcomes will be measured:

- Labs at baseline, six months, and one year: lipid profile, thyroid-stimulating hormone (TSH), and insulin level
- Height, weight, and waist circumference will be checked at baseline, three weeks, and six weeks
- Weekly fruits/vegetables and water intake, and quantitative changes in “steps” will be monitored and recorded through My Plate

A second location will pilot in 2020 using the same template as the Burlington pilot, with modifications made as needed. It is anticipated that the outcomes of the pilot matched with the needs-based assessment of the community will provide enough evidence for the organization to adopt this pilot program as an ongoing treatment option for childhood obesity expanded throughout the organization.

## Outcomes and Results

AMGA provided all healthcare systems involved in the Obesity Care Model Collaborative with seven measures to track during the collaborative. It started with baseline data (October 1, 2016-September 30, 2017), followed by quarterly reporting from the first quarters of 2018 through the second of 2019. Filters were put in place including patient age (18-79 years old) and visit type, along with removing pregnant, deceased, and hospice patients. While one of the measures looked at the system patient population, the rest looked specifically at the chosen pilot site population at the Germantown North clinic, with its five family practice doctors. As Dr. Melanie Smith is Aurora’s physician champion for the Collaborative, it was decided to also look at her measures at the Burlington Clinic as a comparison as well. The providers were educated on the measures at the start of the first quarter of 2018 and were given periodic updates on results.

**Measure 1:** Determined the prevalence of overweight and obesity among Aurora Health Care system patients, and then among the pilot site patients. Prevalence stayed fairly steady for this measure for the system and the pilot site when comparing baseline to later quarters, ranging from 77% to 81% of patients having a BMI level that was considered overweight or obese.

**Measure 2:** Calculated the average number of coded obesity-related complications among six specified diagnoses (type 2 diabetes, dyslipidemia, hypertension, obstructive sleep apnea, osteoarthritis, and nonalcoholic fatty liver disease) by weight class for pilot site patients with a BMI of 25 or higher. This was determined by looking for these complications’ ICD-10 diagnosis codes on a patient’s claims during the reporting period. The purpose of this measure was not for there to be a change in the existence of these conditions but to increase claim documentation of these complications during the collaborative. Since the reporting period for the baseline was a year, compared to the following reporting periods being quarters, patients in the baseline had more opportunities

for a claim to show up with one of these obesity-related complications. Therefore, baseline data was not compared to quarterly data.

As shown in the Appendix, there was a slight increase among three of the four weight classes in the second quarter of 2019 to compared to the first quarter of 2018 at the pilot site. The average number of coded complications for Dr. Smith's patients also increased from the first quarter of 2018 to the second of 2019 for all weight classes and was higher than the pilot site's patients (see Appendix, pages 13-14).

**Measure 3:** Calculated the percentage of patients at the pilot site with a BMI of 30 or higher who have been documented as having an obesity diagnosis (ICD-10 diagnosis codes: E66.01, E66.09, E66.2, E66.8, E66.9) in their claim. When looking by weight class (see Appendix), the pilot site has seen improvement in the coding of obesity in patients' claims for obesity class 3 from Quarter 1, 2018, to Quarter 2, 2019 (baseline data not included for the same reasons given as in Measure 2). There was a large amount of education and questions regarding this topic at the pilot site, which may have been one of the reasons for the improvement. Another possible reason is that Advocate Aurora Health instituted a new system-wide shadow measure at the beginning of 2019, mandating the usage of obesity diagnosis codes for patients in obesity class 3. Dr. Smith's patients also saw increases in this measure among all weight classes, and were higher than the pilot site (see Appendix, page 15).

**Measure 4:** Determined the percentage of pilot site patients with a BMI of 25 or higher who have been assessed for obesity-related complications over the past year (one test, TSH, is over five years). This included seven tests individually, and then the percentage of patients who received all seven tests. The seven tests include: Blood pressure; HbA1c or fasting plasma glucose; HDL cholesterol; triglycerides; TSH; serum creatinine; and aspartate aminotransferase (AST) or alanine aminotransferase (ALT).

The percentage of pilot site patients who received all seven assessments declined a small amount (~4%) from baseline to Quarter 2, 2019, particularly among patients in the overweight weight class. There was education given to the providers as to why these seven assessments were chosen, but due to there being contradictory requirements/guidelines from various medical associations, this was a hard measure to convince the pilot site providers to prioritize.

However, when looking at provider-level data, there was some improvement, with the two newer providers having large improvements (up 33% depending on weight class). These improvements are hidden when looking at the pilot site in total though, due to a more experienced provider—who had higher rates of testing—retiring halfway through the collaborative. There were also some improvements among pilot site patients by weight class for individual assessments, such as TSH and serum creatinine (see Appendix, page 14).

Dr. Smith's patients were increasingly tested for all seven assessments in three of the four weight classes throughout the collaborative, at higher rates than the pilot site (see Appendix).

**Measure 5:** This was a Patient Reported Outcome Measure (PROM) survey with 24 questions regarding the patient's feelings about their obesity and how it affects their quality of life, offered to patients with a BMI of 30 or higher. Two rounds of this survey were conducted, with the goal to get at least 50 completed surveys from the same patients during these two rounds. The first round occurred during Quarter 1, 2018, and the second round occurred nine to 15 months after the first round—roughly around the first and second quarters of 2019. The surveys were delivered by hand during office visits. The PROM survey initially was only conducted at the pilot site, but as there was difficulty getting enough completed surveys, it was decided to also distribute these surveys to Dr. Smith's patients.

The first round of surveys resulted in 127 surveys being distributed, with 86 surveys being returned, a response rate of 68%. The second round had 67 surveys distributed to patients in this same group, with 44 being returned, a response rate of 66%. Of these patients who took both rounds, their average scores didn't change, with a difference of zero for the obesity-related problem scale, and a difference of +1 (more positive feelings) for the obesity and weight loss quality of life instrument.

**Measure 6:** Looked at weight change over time among pilot site patients with a BMI of 25 or higher, excluding bariatric surgery patients. As the initial patient visit had to take place nine to 15 months prior to the reporting quarter, any results from collaborative education would only first start to be seen in Quarter 1, 2019, as provider training first started in Quarter 1, 2018. However, many initiatives were only starting to be discussed and imagined in the first quarter of 2018, and

therefore wouldn't show up as potential weight loss until later in 2019.

Pilot site patients have generally done worse in Quarter 2, 2019, than previous quarters on average—particularly those with obesity class 1—with fewer patients losing weight, or if they had lost weight, losing a smaller percentage of their weight (see Appendix).

Conversely, Dr. Smith's patients with overweight or obesity lost weight more often in Quarter 2, 2019, compared to previous quarters on average (other than obesity class 1), as shown in Appendix.

**Measure 7:** Showed the percentage of patients with obesity who have been prescribed an anti-obesity medication (AOM). This was a very low percentage of patients throughout the collaborative, both among pilot site patients and Dr. Smith's patients, with the highest prescription rate in Quarter 2, 2019, among the weight classes being 3%. One of the providers at the pilot site who had higher prescribing rates for AOM retired half-way through the collaborative, which explains some of the lack of growth.

**CGCAHPS** (Clinician and Group Consumer Assessment of Healthcare Providers and Systems): Survey results were additional measures that were tracked, specifically the questions “In the last 3 months, did you and anyone on your healthcare team talk about a healthy diet and healthy eating habits?” and “...talk about the exercise or physical activity you get.” This was looked at among all patients answering the survey (not by weight class) among pilot site patients and Dr. Smith's patients. These questions were selected as it was unlikely the other measures would show improvement if diet and exercise weren't discussed during the patient visit.

There was initially an increase in the percentage of pilot site patients saying yes to both questions during the first six months of the collaborative, when the provider education was most on top of the providers' minds, but as the provider training ended, the survey results returned to where they were originally. When asked for feedback on the results, one provider admitted that, a couple of months after training, he didn't think about discussing obesity during patient visits as there were so many other clinical things he had to discuss.

## Lessons Learned and Ongoing Activities

Aurora Health Care has several evidence-based treatment options for weight management, yet the integration, awareness, and accessibility of these programs across the organization needs strategic and operational support. Work will continue to be done toward the identified gaps in obesity treatment:

- Enhancement of referral tools for providers and resources available to patients
- Education and awareness of obesity medicine to providers
- Extension of the care team through a Weight Management Navigator
- Development and expansion of childhood obesity treatment
- Integration of behavioral health into more treatment options to ensure psychological treatment is available. For example, integrate training in cognitive behavioral therapy to health coaches to free up behavioral health professionals to treat patients with obesity and another mental health disease.

As the merged healthcare system, now Advocate Aurora Health, continues to harmonize the service offerings across the expanded footprint, efforts will unite in shaping a comprehensive weight management strategy. This continued work will shape the definition of what is needed to effectively offer an obesity medicine treatment. A collective voice from the physician-led Weight Management Steering Committee paired with a business plan for systematic rollout will implore executive leadership to elevate weight management to a strategic priority. This support is required to procure the right mix of resources while scaling up throughout the organization. Obesity is a multifactorial disease that will take a very integrated system to treat.

## WWAD participants at Burlington High School



## Introductory course on obesity medicine for .25 CME, housed on the internal CME learning platform

# INTRODUCTION TO OBESITY MEDICINE: ONLINE MODULE

OVERVIEW

FACULTY

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REGISTER

A modern approach for the primary care provider when dealing with obese patients. Topics covered will be:

- Defining obesity as a disease
- The epidemiology of obesity
- Health care costs for patients with obesity
- Therapeutic approaches in treating obesity

### TARGET AUDIENCE

This course is intended for Family Medicine, Infectious Disease, and Preventive Medicine.

### LEARNING OBJECTIVES

At the end of this session, learners should be able to:

1. Recognize obesity in their patients and diagnose the disease.
2. Communicate the health care implications of obesity to patients
3. Identify appropriate treatment options and patient resources

### COURSE SUMMARY

Available credit:	
0.25 AMA PRA Category 1 Credit™	
0.25 Attendance	
Course opens:	08/21/2019
Course expires:	08/21/2022
Cost:	\$0.00

TAKE COURSE ▶

Rating: ☆☆☆☆☆

Bookmark course

Example of weight management classification on the provider profile under “Find a Doc” on the organization’s webpage



**Smith, Melanie A. - DO**  
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**Specialties**  
 Family Medicine  
Weight Management  
Aurora Health Care Medical Group Provider ⓘ

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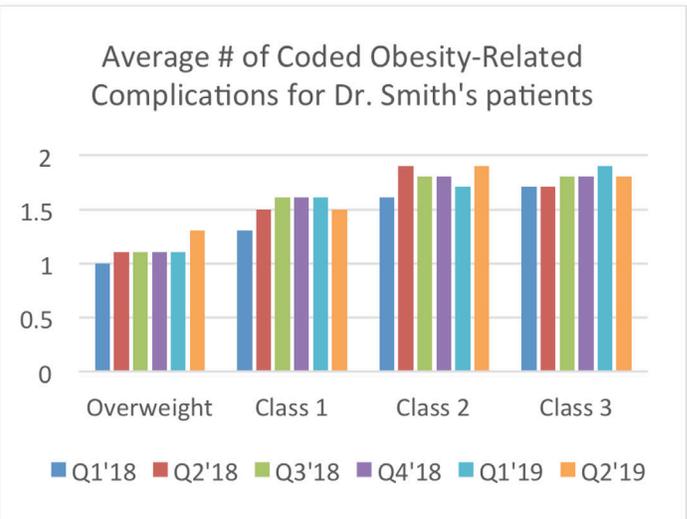
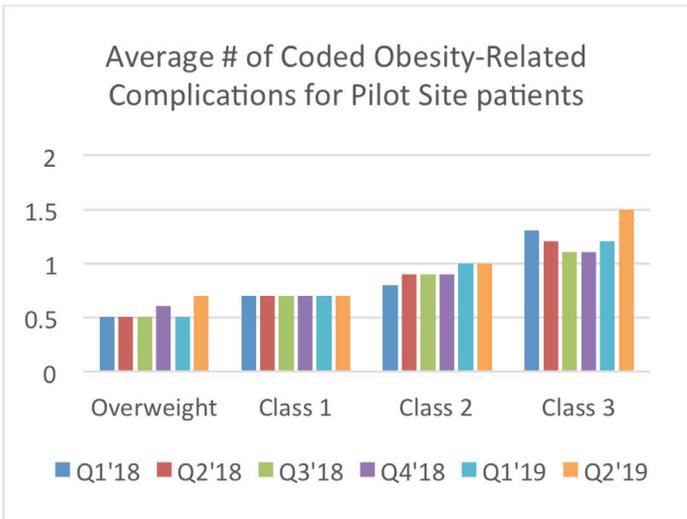
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Aurora Health Care Medical Group Provider ⓘ

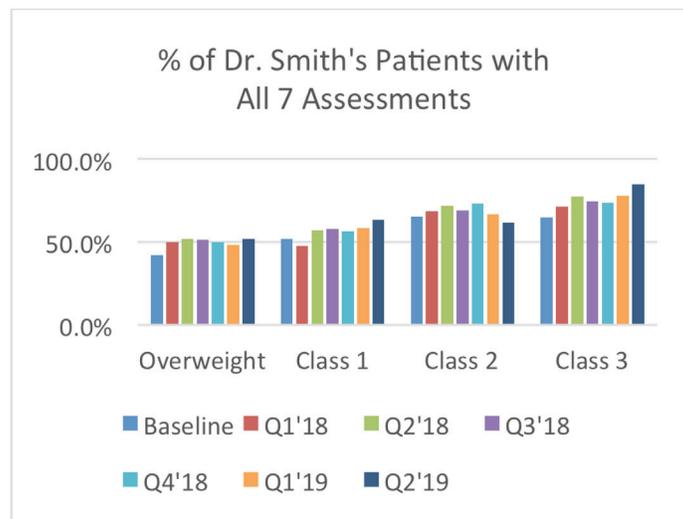
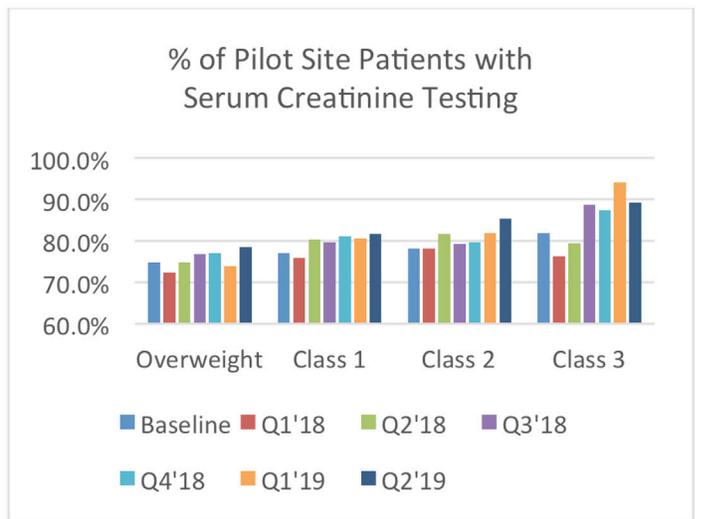
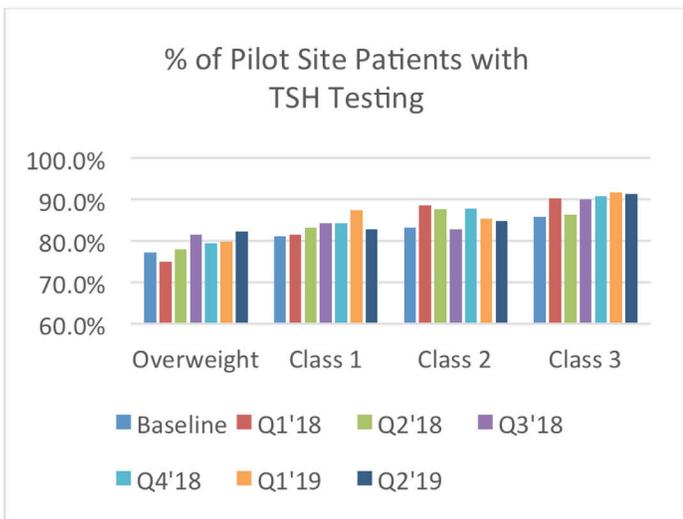
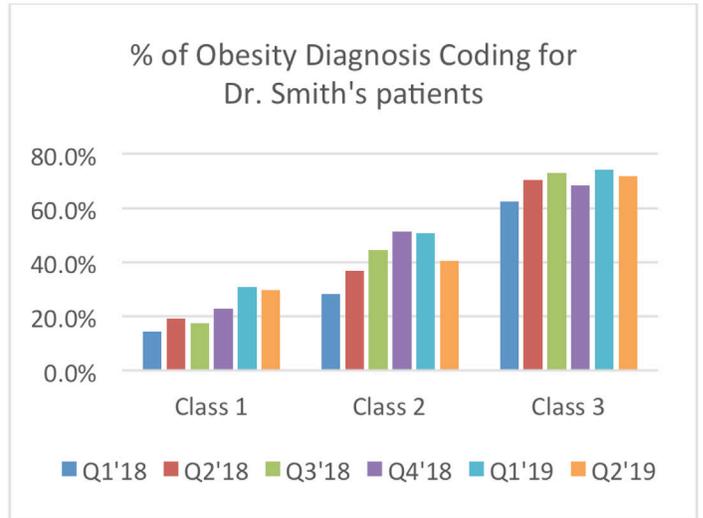
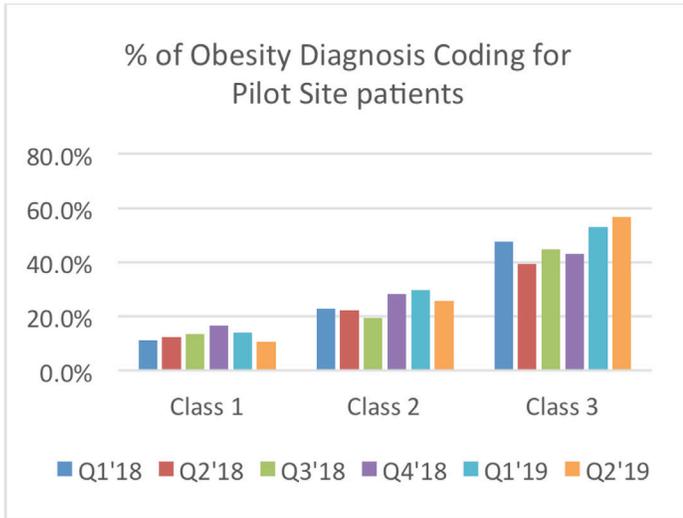
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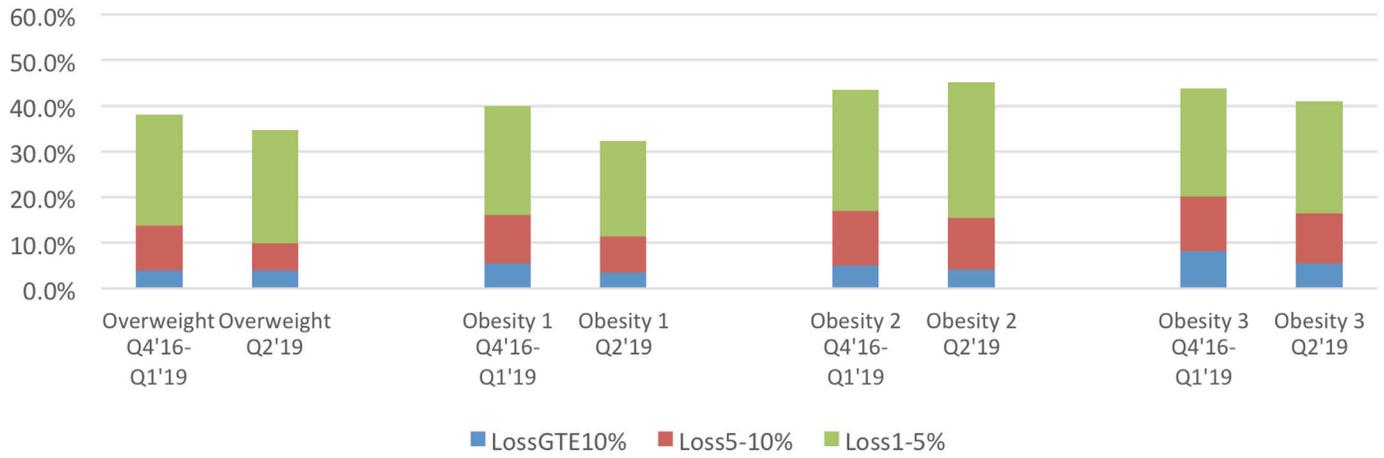
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# Appendix



## Pilot Site Average Patient Weight Change Percentages

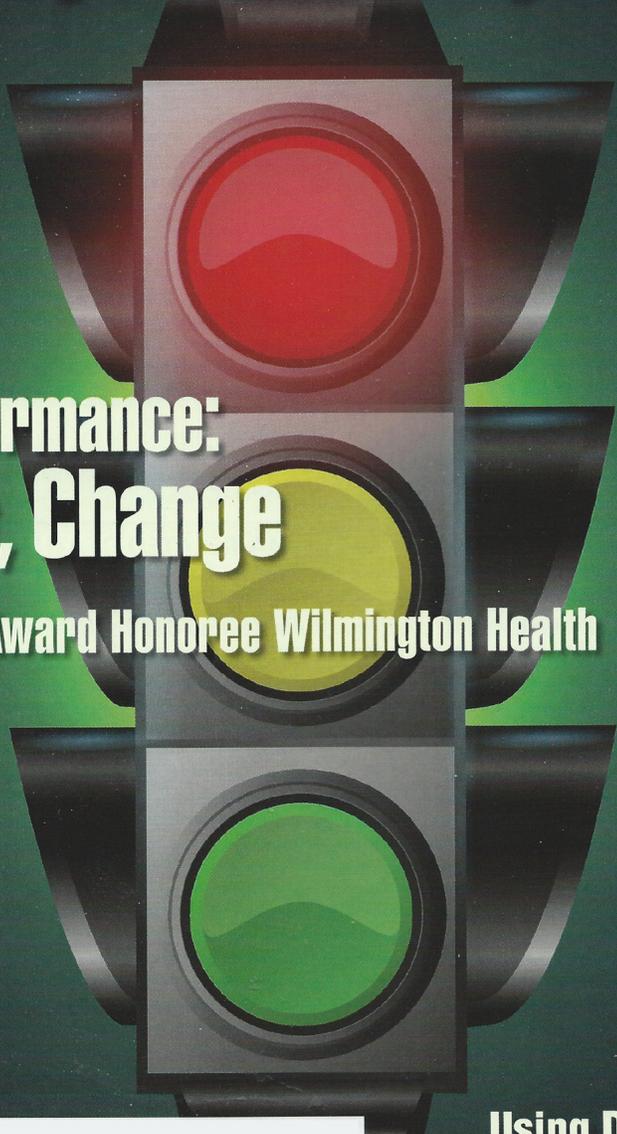


## Dr. Smith Average Patient Weight Change Percentages



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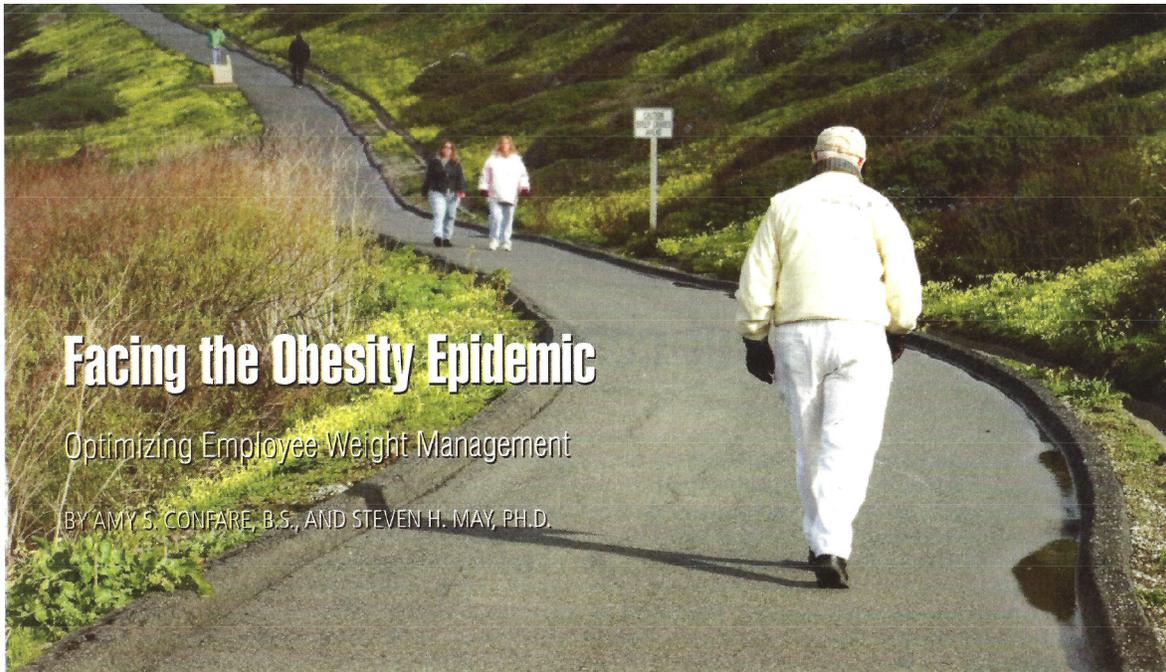


## High Performance: Ready, Set, Change

2013 Acclaim Award Honoree Wilmington Health

Using Data Analytics  
for Population Health

Sharp Community  
Medical Group:  
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## Facing the Obesity Epidemic

Optimizing Employee Weight Management

BY AMY S. CONFARE, B.S., AND STEVEN H. MAY, PH.D.

Aurora Health Care®, an integrated health system serving 31 counties and 90 communities throughout eastern Wisconsin and northern Illinois, is on an aggressive timeline to improve the health and well-being of patients, employees, and their family members. With more than 30,000 employees, it is the second largest employer in Wisconsin. Established as a not-for-profit in 1984, Aurora consists of 15 hospitals, 159 clinic locations, approximately 1,600 employed physicians, 70 pharmacies, and the Aurora Visiting Nurse Association.

This article reviews the rationale for Aurora adding a structured, data-driven, weight-management intervention into the existing wellness offerings and the outcomes obtained.

*Aurora Health Care adds a data-driven, weight-management intervention into its wellness offerings.*

As an indicator of the magnitude of the issue of healthcare costs, the estimated total net amount spent on medical care and prescriptions for covered employees in 2011 was nearly \$250 million. Using an online calculator,<sup>1</sup> Aurora estimated the implementation of a high-impact wellness program could save approximately \$97 million over six years. Aurora leadership agreed it was critical to add an intensive weight-management intervention that demonstrated measurable outcomes.

### Impact of Obesity

As with many organizations concerned about escalating healthcare costs, in 2009 Aurora began implementing a variety of wellness initiatives to improve employee health. These included smoke-free campuses along with smoking cessation assistance, healthier cafeteria options, health risk appraisals (HRAs), and other preventative initiatives. Additional wellness initiatives were included in subsequent years, including a focus on body mass index (BMI) in 2013.

BMI is a number calculated from a person's weight and height (formula: weight (kg)/[height (m)]<sup>2</sup>).

BMI provides a reliable indicator of body fatness for most people and is an inexpensive and easy-to-perform method of screening for weight categories that may lead to health problems. Normal weight is a BMI of 18.5–24.9, overweight 25.0–29.9, and obesity  $\geq 30.0$ .<sup>2</sup>

The United States is undeniably facing a national epidemic of obesity, with 68.8 percent of Americans overweight or obese.<sup>3</sup> According to a recent study, obesity now accounts for almost 21 percent of U.S. healthcare costs—more than double previous estimates.<sup>4</sup> Medical costs are \$2,741 higher (in 2005 dollars) in obese, relative to non-obese, individuals. Nationwide, this cost projects to \$190.2 billion per year, exceeding even the healthcare costs associated with smoking.

While weight losses of 5–10 percent of initial body weight can offer clinically significant benefits, greater weight losses (such as those obtained in intensive, structured programs) are often required to reach a healthy weight and reduce comorbid conditions.

After researching medically managed weight-management options in 2009, Aurora selected Health Management Resources® (HMR®) based on its research-based program, structure, weight loss and weight-maintenance phases, and effective published outcomes.<sup>5,6</sup> Published data on the weight outcomes of HMR programs are aligned with medical guidelines and consistent with interventions for the management of obesity as outlined by the U.S. Preventive Services Task Force in 2012.<sup>7</sup>

In 2010, a clinic-based HMR program opened at the Aurora Clinic in Burlington, Wisconsin. The clinic offers a variety of programs as well as medical supervision for weight management. Based on the success of the clinic program, Aurora expanded the weight-management offering with HMR's remote, phone-based Healthy Solutions® at Home program in January 2013.

## The Program

The HMR Program (both clinic and remote, phone-based) focuses on three measurable lifestyle behavior changes, with defined minimums:

1. 2,000 kcals of physical activity per week
2. Five one-cup servings of vegetables and fruits per day for some weight-loss options and all maintenance programs
3. Use of HMR meal replacements—a selection of entrees, shakes, cereal, and soup (five per day in weight loss and two suggested per day in weight maintenance)

Weekly group attendance is required in both program options along with a midweek check-in phone call to report specific levels of their lifestyle behaviors achieved by midweek. Participants self-monitor these lifestyle behaviors using a simplified record-keeping system. The ease and simplicity of the tracking system helps to increase compliance and facilitate behavioral changes.

## Employee Engagement

Aurora's change from a disease-focused to a wellness-focused healthcare organization represented a significant cultural change. Not all publicity from the local media was positive. However, the Aurora leadership supported this change as the right direction to take.

Realizing there could be resistance to participate in the weight programs among employees, Aurora CEO Nick Turkal, M.D., supported the BMI initiative with clear communications. In his blog to employees he stated, "Some people won't like this push, but like smoking, we owe it to our organization and the patients we care for, to correct the problem that is impacting our budgets, our health, and our ability to model healthy

behaviors to our patients."

Extensive marketing channels were used to engage employees including flyers, posters, and e-mails. An effort was made to engage employees at their local healthcare sites, including, for example, 175 visits from the System Wellness Team to promote healthy eating. Aurora sent out communications to all physicians and had a story on the internal intranet for all employees to learn more about the HMR program, including three videos (one featuring the president of HMR and two additional patient testimonials).

## Wellness Credits

To incentivize the highest level of compliance with the wellness initiatives, Aurora established a system of wellness credits for reduced insurance premiums (see "Wellness Credits Overview as of 2013").

When the BMI focus was added in 2013, employees underwent BMI screening by employee health nurses at each healthcare site with over 450 dates/times to complete this task. Those with a BMI >30 kg/m<sup>2</sup> (35.3% of those screened by April 2013 were obese) were given information about five BMI Alternative Activities that Aurora had vetted as having quality outcomes. These alternative activities included programs commonly available in commercial programs and an option offered through the Employee Assistance Program. Employees selecting one of these approved programs were not required to lose weight or reduce their BMI to qualify for wellness credit but were required to demonstrate participation. Employees who elected to lose weight on their own could qualify for the credit if they reduced weight by 5 percent (requiring a reweigh to confirm if they met their goal).

Employees who elected to participate in the HMR program qualified for the wellness credit if they attended 10 of 12 weekly classes (clinic or remote), submitted weekly exercise and food logs, and purchased the required amount of meal replacements. In addition, employees were offered a 25 percent rebate on their meal replacement costs if they participated in 10 of 12 weeks of classes. Given the outcomes obtained from the HMR clinic program, Aurora believed that incentivizing employees based on participation alone could yield the substantial BMI reductions sought.

## Significant Outcomes

Both clinic and remote treatment options were effective in providing clinically significant weight losses at 45.2 and 24.1 pounds, respectively (see Table 1). In each case, patients participating in the program for 10 or more weeks achieved weight loss greater than 10

percent of initial body weight (IBW), which exceeds what most guidelines promote as clinically important (>5% IBW) (see Table 1). The average weight loss per week in the first 10 weeks (-2.5 lbs. in the clinic and -1.9 lbs. per week in the remote program) are higher than the total weight loss reported for many other weight loss programs<sup>8</sup> (see Figure 1).

Importantly, the phone option enrolled nearly five times the number of patients, indicating the need for easily accessible programs to reach employees across large geographies. Participants in both the clinic and phone program demonstrated high compliance with lifestyle-change behaviors, including vegetable and fruit consumption (36 and 39 full-cup servings per week) and physical activity (2,027 and 1,896 kcals per week).

The research team at Aurora is actively engaged in determining the financial impact of the 2013 Healthy Weight Activities. Overall, employees were highly satisfied with the BMI Alternative Activities. In terms of the HMR program, 92.1 percent of 40 employees responding to a survey said they were satisfied or very satisfied with the rate of their weight loss. Eighty-six percent responded that they would recommend this weight management program to friends, family, and co-workers.

**TABLE 1**  
**Clinic & Remote Program Data by Weeks Completed**

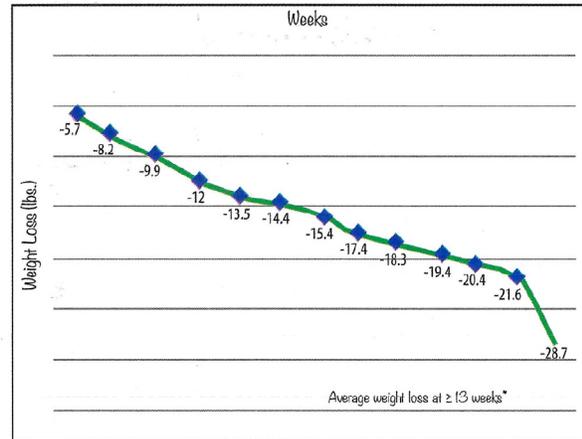
Measure (averages)	Completed	≥10 weeks	Completed
	Burlington Clinic*	Healthy Solutions at Home	Healthy Solutions at Home
N	19	76	30
Weeks in program	24.9	16.1	4.6
Start weight (lbs)	230.7	214.2	229.8
Total weight loss (lbs)	45.2	24.1	13.2
% initial weight loss	16.9%	11.1%	5.8%
BMI change	-7.0	-3.9	-1.9
Weekly vegetable & fruit (full-cup servings)	36	39	38
Weekly physical activity (kcals)	2,027	1,896	1,922
Weekly weight loss (lbs)	-1.8	-1.6	
Weekly weight loss in first 10 weeks (lbs)	-2.5	-1.9	

**Note:** These are ongoing treatment programs with some patients still actively participating and continuing to lose weight.

\* Clinic data includes employees who opted for a medically supervised, more restrictive diet, which may contribute to the weight-loss differences observed in the clinic vs. remote programs. Clinic participation was on average 8 weeks longer than remote participation, which may also account for some of the difference in overall weight loss and change in BMI.

The data reflect employees (n=125) who enrolled between February 1 and September 30, 2013, the first year both HMR options were included in the BMI focus.

**FIGURE 1**  
**Healthy Solutions at Home: Cumulative Weekly Weight Changes**



## A Critical Link

Most employers are concerned about the health of their employees, rising healthcare costs, and the increasing impact of obesity on these costs. A range of weight-management options for employees may be necessary, including intensive programs that demonstrate effective outcomes. Those programs yielding clinically important weight loss may be essential to reach health and economic objectives. Aurora Health Care implemented an intensive medical weight-loss program in a clinic and remote model, both of which support employee access and utilization. Adding incentives by linking wellness objectives to employees' health insurance premiums was critical to increasing participation and impacting a greater portion of the employee population. Basing incentives on participation may be possible with a data-driven weight-management program that can demonstrate substantial outcomes.

The remote program alone, delivered here as Healthy Solutions at Home, provides clinically relevant weight loss offering a useful option for those companies that may not have the infrastructure for, or proximity to, a clinic-based program.

Aurora Health Care is integrating HMR, both clinic and remote programs, throughout its healthcare system as well as offering both treatment options to insurance plan partners. Given the access to medical supervision, the clinic program is particularly well-suited to employees with comorbid conditions or more complicated medical histories, while the remote program can be made available to employees across a wide area.

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*Amy S. Confare, B.S., is integration analytics manager, Aurora Health Care®, Milwaukee, Wisconsin, and Steven H. May, Ph.D., is director of behavioral medicine, HMR Weight Management Services Corp., Boston, Massachusetts.*

## Wellness Credits Overview as of 2013

For employees in the Aurora Accountable Care Network (AACN), wellness credits were divided into three components, to be reflected in reduced 2014 premiums.

1. Complete HRA plus an online coaching session related to overall health
2. Certify as tobacco-free
3. Meet BMI target (BMI <30 kg/m<sup>2</sup>) or complete 1 of 5 BMI Alternative Activities

Each component counted as 1/3 toward health insurance premium savings, as follows:

Credit per pay period*	Enrolled caregiver only*
\$13.33	Completes HRA
\$13.33	Is tobacco-free
\$13.33	Completes BMI component

\*Spouses in AACN need only certify as tobacco-free to receive credit at this time.

## Weight Loss Associated With Employee Income in an Incentivized Employee Wellness Program

Jennifer T. Fink, PhD, Jennifer Rich, MPH, David R. Smith, MD, MPH, Maharaj Singh, PhD, Kelly Sutton, MBA, George Mueller, PhD, Doug M. Ihrke, PhD, Jessica L. Skalla, BA, and Ron A. Cisler, PhD, MS

**Objective:** We examined the relationship between the type of incentivized wellness program and employee weight loss and the effects of participant income. **Methods:** We retrospectively examined employees who participated in one of six weight loss wellness programs, which were categorized for the present analysis: reweigh/body mass index, Coaching, and Weight Watchers/Meal Replacement. Those who participated were eligible for a \$350/year insurance premium discount. **Results:** Employees in the low-income category of \$45K or less participated at a higher rate, however, did not lose as much weight as those participants in the higher income categories of \$70K or more. We found a positive association with weight loss in two of the categories, reweigh/body mass index, and Weight Watchers/Meal Replacement programs. **Conclusion:** Wellness programs have a significant impact on employee weight loss, but this relationship may vary across the income level of participants.

Obesity is recognized as a major health issue in the United States, with an estimated additional annual per person health care cost of \$1091.<sup>1</sup> Compared with normal-weight individuals, obese patients have 46% greater inpatient costs, 27% more physician visits, and 80% increase in prescription expenditures.<sup>2</sup> Obesity is simultaneously a major health challenge and opportunity for health care workers.<sup>3</sup> Health care costs are increasing for employers and employees; a novel approach to improve health and decrease health care and insurance expenditures is to encourage employees to adopt healthier lifestyles and reduce their body mass index (BMI).

This evaluation is significant to the debates in health care policy, including the Patient Protection and Affordable Care Act (ACA) that was implemented in early 2014 and its provisions on employee wellness programs (EWPs); reference Section 2705 of the ACA that includes a potentially momentous specification. According to the ACA,<sup>4</sup> employers may use up to 30% of the total amount of an employee's health insurance premiums, and up to 50% for smokers, to provide outcome-based wellness incentives. There is little written about the effectiveness of ACA-supported financial incentives in promotion of a sustained weight loss program in a large employed population. A recent review noted that there was limited information regarding the impact of large incentives on health

### Learning Objectives

- Discuss the features and outcomes of an incentivized program in which employees were offered a choice of different types of weight loss programs.
- Summarize the study findings on the association between employee income, program participation, and weight loss achieved.
- Discuss the implications for designing and offering incentivized employee wellness programs.

outcomes.<sup>5</sup> In a large Pennsylvania health system, participation in an EWP was associated with a 10% to 13% health cost reduction compared with nonparticipant, nonemployee members of the health plan.<sup>6</sup>

Previous research suggests that financial incentives can facilitate weight control; however, variables in populations, incentive size, reward schedule, and sustainability make further interpretation difficult.<sup>7</sup> In the United States, approximately 80% of large employers were applying incentives to encourage healthy behavior in 2014.<sup>8</sup> There are fewer small businesses that employ EWPs; the Patient Protection and Affordable Care Act (Section 10408) attempts to close this gap, by authorizing \$200 million for short-term grants to small employers that initiate new comprehensive wellness programs.<sup>9</sup> Reward incentives can "be in the form of a discount or rebate of a premium or contribution, a waiver of all or part of a cost-sharing mechanism (such as deductibles, copayments or co-insurance), the absence of a surcharge, or the value of a benefit that would otherwise not be provided under the plan."<sup>4</sup> A large Integrated Health System (IHS) in Southeast Wisconsin provides a financial incentive in the form of a discount on the employee's contribution to health insurance of \$350 per year, and 25% reimbursement to the employee for the cost of the wellness activities that have a cost associated with them. This study examines the association between type of wellness program and employee weight loss, and the modifying effects of participant income on this association.

### METHODS

We retrospectively examined the IHS employees who participated in one of six different weight loss programs from 2013 to 2014. Data for this analysis were provided by IHS Employee Health Information System (EHIS), a secure database that houses all employee health information for the company. On-site nurses performed initial measurements and BMI calculations, informed the employees of their results, and advised the employees of their alternative activity options (ie, weight loss programs). Results of the weigh-in were recorded in EHIS.

Both the 2013 and 2014 results were pulled from EHIS and then merged using a common identifier. This analysis was conducted on 2279 employees who participated in a wellness program and had their weight recoded in both 2013 and 2014. Weight difference (in pounds) for each participating employee in the year 2013 and early 2014 was calculated. This variable was then

From the Aurora Health Care, Inc. (Drs Fink, Smith, Singh, Ms Sutton, Drs Mueller, Cisler), Center for Urban Population Health (Drs Fink, Cisler), Zilber School of Public Health (Drs Rich, Cisler), Department of Health Informatics & Administration, University of Wisconsin-Milwaukee (Dr Fink, Ms Skalla, Dr Cisler), Department of Population Health Sciences, University of Wisconsin-Madison (Dr Cisler), Department of Public and Nonprofit Administration (Dr Ihrke), and Urban Studies Program, University of Wisconsin-Milwaukee, Milwaukee, Wisconsin (Dr Ihrke).

George Mueller reports that a relative is employed by Aurora Health Care. Authors Skalla, Fink, Rich, Smith, Singh, Sutton, Ihrke, and Cisler no relationships/conditions/circumstances that present potential conflict of interest. The JOEM editorial board and planners have no financial interest related to this research.

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TABLE 1. Characteristics of the Participants by Weight Difference in Pounds From 2013 to 2014

	Total (N = 2,959)	Loss Weight (N = 1,765)	Maintained Weight (N = 48)	Gained Weight (N = 919)	P
Age (Mean, SD)	48.6 (11.2)	48.7 (11.3)	46.3 (10.3)	48.4 (10.7)	0.2382
Gender					0.5994
Female	2,418 (88.6%)	1,557 (57.1%)	44 (1.6%)	817 (30.0%)	
Male	311 (11.4%)	208 (7.6%)	4 (0.1%)	99 (3.6%)	
Race/Ethnicity					0.0479
Black	202 (7.4%)	123 (4.5%)	9 (0.3%)	70 (2.6%)	
White	2,394 (87.7%)	1,555 (57.0%)	37 (1.4%)	802 (29.4%)	
Other	133 (4.8%)	87 (3.2%)	2 (0.1%)	43 (1.6%)	
Participant's income					0.1149
<45K	1,286 (47.1%)	816 (29.9%)	29 (1.1%)	441 (16.2%)	
45K–70K	1,172 (43.0%)	761 (27.9%)	18 (0.7%)	393 (14.4%)	
>70K	271 (9.9)	188 (6.9%)	1 (0.0%)	82 (3.0%)	

categorized into three groups to reflect whether the employee lost weight, maintained weight (2013 weight was equal to 2014 weight), or gained weight. Table 1 presents employee characteristics on the basis of weight difference. In our analyses, age was treated as a continuous variable. Gender was defined as male or female, race/ethnicity was categorized as Black, White, or other, and participant income was based on job category and was categorized as lower (<\$45K per year), medium (\$45K to \$70K per year), or higher (>\$70K per year).

Following the initial weigh-in, the six weight loss programs were offered from January to September of that same year. Programs offered included 12 weeks of documented participation in (1) self-directed loss of 5% total body weight; (2) behavioral coaching by the employer's Employee Assistance Program; (3) on-line digital coaching offered by the employer's Employee Assistance Program; (4) Weight Watchers group meetings; (5) Weight Watchers online; or (6) Healthy Solutions at Home weight loss/meal replacement program (HMR Weight Management Services Corp., Boston, MA).

After 4 to 6 months, all employees with a BMI at least 30 kg/m<sup>2</sup> were offered an opportunity to be remeasured to satisfy the alternative activity of losing 5% of body mass and qualify for the premium discount. Also at this time, employees who provided documentation of completion of one of the other five alternative activities qualified for the premium discount.

For this analysis, the six weight loss programs were recategorized into three program types, reweigh/BMI (representing a free and self-motivated program), Coaching (representing free and assisted weight loss programs), and Weight Watchers/Meal Replacement (representing programs that cost the most but had

the greatest assistance). Table 2 represents the distribution of employee characteristics by program type. Chi-square tests were calculated to examine the association between characteristics and program type.

Logistic regression was used to test the relationship between program types and weight loss. This study restricted the analyses to only those that lost weight between 2013 and 2014 (n = 1765). Due to the non-normality of this subset of the data, weight loss was log transformed and the transformation was used for the remainder of the analyses. To determine whether participant income changed the effects of program type on weight loss, we stratified our models on the basis of participant income level (low, medium, or high). The beta estimates, along with their corresponding standard errors (SEs), were computed in each model. All statistical computation was done using R statistical software. Our institutional review board (IRB) determined this project did not constitute human subject research; therefore, IRB approval was not required.

RESULTS

Out of the total number of individuals who participated in a wellness program and had their weight recorded in both 2013 and 2014, 65% lost weight. Age was distributed evenly across weight groups (Table 1) and across program type (Table 2). Focusing on participant income, we see that approximately 30% of lower income and 28% of medium-income individuals lost weight in the study (Table 1). Table 2 suggests that all participant characteristics (age, gender, race/ethnicity, and participant income) were associated with the type of weight loss program selected by employees.

TABLE 2. Characteristics of the Participants by Program Type, 2013 to 2014

	Total (N = 2,959)	Reweigh/BMI (N = 2,005)	Behavioral Coaching (N = 397)	WW/Meal Replacement (N = 488)	P
Age (Mean, SD)	48.6 (11.2)	48.1 (11.4)	50.2 (10.7)	49.3 (10.7)	0.0003
Gender					<0.001
Female	2,611 (88.2%)	1,726 (58.3%)	397 (13.4%)	488 (16.5%)	
Male	348 (11.8%)	279 (9.4%)	41 (1.4%)	28 (0.9%)	
Race/Ethnicity					0.0007
Black	229 (7.7%)	173 (5.8%)	34 (1.1%)	22 (0.7%)	
White	2,581 (87.2%)	1,722 (58.2%)	379 (12.8%)	480 (16.2%)	
Other	149 (5.0%)	110 (3.7%)	24 (0.8%)	14 (0.5%)	
Participant's income					0.0233
<45K	1,411 (47.7%)	984 (33.3%)	212 (7.2%)	215 (7.3%)	
45K–70K	1,250 (42.2%)	834 (28.2%)	181 (6.1%)	235 (7.9%)	
>70K	298 (10.1%)	187 (6.3%)	45 (1.5%)	66 (2.2%)	

TABLE 3. Predictors of Weight Loss Among Participants From 2013 to 2014

Parameters	Estimate	Odds Ratio	95% CI for Odds Ratio	P
Age	0.0066	1.007	0.999–1.014	0.0773
Gender (ref. = Female)				
Male	−0.0255	0.975	0.752–1.264	0.8477
Race (ref. = Other)				
White	−0.0521	0.949	0.651–1.384	0.7866
Black	−0.2159	0.806	0.506–1.281	0.3611
Weight loss (ref. = Reweigh/BMI)				
Behavioral coaching	−0.8730	0.418	0.335–0.521	<0.001
WW/Meal replacement	−0.4764	0.621	0.504–0.764	<0.001
Participant income (ref. = >70k)				
<45K	−0.2333	0.733	0.547–0.983	0.0381
45k–70k	−0.2333	0.792	0.591–1.061	0.1184

95% CI, 95% confidence interval; BMI, body mass index; Ref., reference category.

Table 3 summarizes stratified analyses. Among lower income individuals, age and program type were significant in predicting weight loss, using an alpha cutoff of 0.05 (Table 3). Compared with Coaching programs, the reweigh/BMI and Weight Watchers/Meal Replacement programs represented a 36% and 60% change in weight loss, respectively, controlling for covariates. Similar associations were found among participants with medium-level income. The reweigh/BMI and Weight Watchers/Meal Replacement programs represented a 29% and 44% change in weight loss, respectively, compared with Coaching programs, controlling for covariates. However, results differed among higher income individuals. The model for higher income participants indicates that no variables were significant (at the 0.05 cutoff) in predicting weight loss, although the reweigh/BMI program was very close to significance.

### DISCUSSION

Weight loss was positively associated with program type, specifically reweigh/BMI and Weight Watchers/Meal Replacement. Participants with an income of \$45K or less were more likely to participate, but compared with participants with income over \$70K, less likely to lose weight. The differences seen here on program type and income related to the weight loss are significant because a new study reveals that life expectancy increased continuously with income. Between the top 1% and bottom 1% of the income distribution, life expectancy differed by 15 years for men and 10 years for women. The second major conclusion is that inequality in life expectancy increased between 2001 and 2014; individuals in the top 5% of the income distribution gained around 3 years of life expectancy, whereas individuals in the bottom 5% experienced no gains. Certain subgroups of individuals such as nonprofessionals, blacks, and individuals with lower education levels were less likely to work in companies that offered any type of health promotion program for their employees.<sup>10</sup>

The problem of unequal access to health promotion programs at the worksite level of participation was the pattern that emerged from these data. When programs were available in their companies, for example, blacks reported the highest participation levels among all racial/ethnic categories.<sup>11</sup> If EWP offered incentives based on income, this disparity could shrink. There are suggestions that reducing the gap of longevity could come from local policy initiatives. One conclusion being that for lifestyle wellness programs to be successful, appropriately targeting higher risk individuals and those with low income, must be well designed and implemented to account for behavioral economic response to stimulate sustained weight loss and improved health. The health benefits thus achievable may be

greater in lower income than in higher income populations—both because lower income people would place greater value on the same level of incentive and because their rates of poor outcomes tied to behaviors such as smoking tend to be higher.<sup>12</sup>

Given the linkage between income and life expectancy, it is imperative that efforts be made to address these discrepancies. Employers have an opportunity to motivate and improve outcomes for employees through EWPs, especially for those in lower income brackets. In general, research suggests that financial incentives are most effective when they are used to motivate people to effect simple, distinct actions, such as nudging people to participate in specific health promotion programs.<sup>13</sup> Incentives can also reinforce existing motivation. Financial incentives advance motivation toward behavior modification, relating to a healthier lifestyle; there is now a clear possibility of changing that pushes people further toward lifestyle transformation. Behavior modification has several stages, from pre-contemplation to actual contemplation; financial incentives reinforce the commitment to actually change a behavior. There is also evidence that the healthiest employees are the most agreeable to participate, further acknowledging the need to incentivize those who are unhealthy.

Lower income employees find greater value from financial incentives through EWPs; employers of all sizes should take advantage of the resources available specific to the Patient Protection and Affordable Care Act; the positive weight loss and healthy behavior modification is likely to narrow the disparities seen from the longevity gap in the US. Thus the efforts to improve healthy behaviors via EWPs may result in personal wellbeing for participants and a reduction in morbidity. This is in conjunction with a reduction in the costs of employer provided healthcare, consistent with an overall improvement in financial efficiency.

### CONCLUSIONS

This study sets out to test the association between wellness programs and employee weight loss, and the modifying effects of participant income on this association, within a large IHS employees' dataset. Our analyses suggest that employees most likely to participate in a wellness program secure an income of \$45K or less per year; however, the weight loss experienced was insignificant. The weight loss programs predicted whether employees across all incomes lost weight, with participants in the reweigh/BMI category significantly more likely to lose. Individuals who made over \$70K per year were less likely to participate in an EWP; however, these participants lost the most weight.

There are limitations to this study. Annual income was not recorded in this study. Therefore, participant income was measured

by self-reported job category. An Internet search was performed on each occupation listed and the average annual salary for each job was recorded. Given occupation salary often varies across location, this measure of income may have biased our results. The way weight loss was categorized may have affected the results of this study. An individual was said to have maintained their weight if their 2013 weight was equal to their 2014 weight. This criterion may have been too strict and thus excluded potential individuals from the category, which may have affected the subsample of individuals that we used in our analyses. In addition, there may have been other covariates that affected an individual's weight loss that were not controlled for in this analysis. Therefore, residual confounding may be a problem in the study.

The results of this study can be generalized to companies with demographics similar to that of a large, urban, IHS. Further studies will need to be carried out in order to assess the degree to which an individual's income modifies the effect of a wellness program on their weight loss.

The success of incentivized EWP depends crucially on how the incentives are timed, distributed, and framed. There are numerous factors that make up insurance-premium adjustments, the most common implementation mechanism, but according to Volpp et al, this option is the least effective dollar for dollar. An additional important behavioral economics concept is mental accounting; this refers to the idea that employees are inclined to group financial receipts and payments. For example, the effect of payments weakens when they are bundled into loftier amounts of money. In the HIS case, they are providing a discount on health insurance that employees will not see until the following year. According to Lowenstein et al, "A \$100 discount on premiums may go unnoticed, whereas a \$100 check in the mail may register as an unexpected windfall. Increases or decreases in insurance premiums that are deducted from periodic paychecks will probably be less salient and effective than similar financial incentives provided separately."<sup>12</sup>

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## Weight Management Programs and Resources Greater Milwaukee North

### AURORA HEALTH CARE EVIDENCE-BASED TREATMENT OPTIONS

Program	Description	It might be for you if:	Learn More
<b>Bariatric Surgery</b>	<p>Requirements for surgical considerations:</p> <ul style="list-style-type: none"> <li>• BMI ≥ 40, or more than 100 pounds overweight</li> <li>• BMI ≥35 and at least one or more obesity-related co-morbidities</li> <li>• Inability to achieve a healthy weight loss sustained for a period of time with prior weight loss efforts</li> </ul>	<i>You have tried and failed at losing weight.</i>	Summit: 262-434-7277 Milwaukee: 414-219-2000 Oshkosh: 920-907-7420 Burlington: 262-767-6000
<b>Diabetes Support Group</b>	Free monthly support group for diabetic patients, led by a member of the diabetes education team.	<i>You have diabetes, support someone with diabetes, or want to learn more.</i>	414-586-5722
<b>HMR Program for Weight Management</b>	<p>Fast weight loss achieved using nutritionally complete HMR Meal Replacements with high-touch health coaching and weekly group classes. 12 months of maintenance recommended after transition from HMR meals.</p> <p><i>\$13-\$14 per day for food during weight loss</i></p>	<i>You are ready to make permanent behavior changes, participate in group classes and use Meal Replacements.</i>	Germantown: 262-532-7507 West Bend: 262-338-7104 Milwaukee: 414-219-4241 Burlington: 262-767-8306 *Telephonic option also available
<b>Licensed Integrative Health Coaches</b>	<p>With a health coach experienced in helping people lose weight, set achievable health and wellness (nutrition, exercise, sleep, stress) goals while identifying obstacles &amp; celebrating successes.</p> <p><i>\$249/package of 4 phone or video chat visits</i></p>	<i>You want a 1-on-1 coach who addresses you as a whole and helps you make lasting lifestyle changes.</i>	414-219-5944 <a href="mailto:Lifestyle@aurora.org">Lifestyle@aurora.org</a> <a href="http://www.Aurora.org/healthcoach">www.Aurora.org/healthcoach</a>
<b>Medical Weight Management</b>	Certified bariatrician performs clinical assessment with nutritional and educational counseling while monitoring medications. Possible use of weight loss medications.	<i>You are looking for individualized assessment and ongoing medical management.</i>	<u>New Berlin:</u> 262-827-3636 (Dr Kim) <u>Summit:</u> 262-434-5000 (Dr Garza – bariatric dept.) <u>Oshkosh, Fond du Lac &amp; Neenah:</u> 920-303-8700
<b>Registered Dietitian</b>	General nutritional assessment, diabetes & renal support, allergies and healthier eating patterns. Pediatric services available. No disorder patterns treated.	<i>You are ready to take an individualized approach to how you improve your diet.</i>	Physician referral required
<b>WALC (Weight and Lifestyle Change Program)</b>	<p>For patients at least 3 months post-bariatric surgery. Monthly weigh-in and group session focusing on healthy behavior change topics.</p> <p><i>\$75 for 3 months, Sinai Medical Center</i></p>	<i>You have had bariatric surgery.</i>	Jan Klosowski: 414-219-4263

## COMMUNITY-BASED AND EXTERNAL RESOURCES

Program	Description	Learn More
<b>Health Coaching – WI School of Massage Therapy</b>	Individual or group coaching, support groups, specialized classes e.g.: healthy cooking, grocery shopping & kitchen de-cluttering. <i>\$49 and up</i>	Germantown: 262-250-1276 <a href="mailto:mary-mack@live.com">mary-mack@live.com</a>
<b>Silver Sneakers</b>	Includes unlimited access to participating gyms and fitness centers for seniors (65+) through their insurance plans (many Medicare Advantage plans and others).	For coverage: 866-584-7389 <a href="http://www.silversneakers.com">www.silversneakers.com</a>
<b>TOPS</b>	Join a local chapter or become an online member. Weekly meetings provide a supportive, educational environment. <i>\$32 annual fee, \$5 monthly fee</i>	<a href="http://www.Tops.org">www.Tops.org</a> or call Aurora Menomonee Falls: 414-235-4195
<b>Weight Watchers</b>	Join a local chapter or become an online member with online apps to help meal plan & stay on track. <i>\$4 - \$13 weekly</i>	<a href="http://www.WeightWatchers.com">www.WeightWatchers.com</a>
<b>YMCA &amp; WAC Fitness Centers</b>	Nutrition and Fitness Classes – membership fees and a la carte fees will vary by class and location	WAC: 262-255-5700 YMCA: 262-255-9622

## SOCIAL SUPPORT

App Name	Description	Learn More
<b>FatSecret</b>	Focuses on providing its users with social support. It allows you to log your food intake, monitor your weight and interact with other people through its community chat feature.	<a href="http://www.fatsecret.com">www.fatsecret.com</a>
<b>LOSE IT!</b>	Focuses on calorie counting and weight tracking. Track your food intake and portion sizes by taking pictures on your phone and scanning food product bar codes.	<a href="http://www.loseit.com">www.loseit.com</a>
<b>Noom</b>	The app has three main functions: It helps you set a weight-loss goal and see your progress; it tracks your food intake to help keep you accountable; and it logs your exercise. A group of experts tailors your needs based on your goals. Fees apply.	<a href="http://www.noom.com">www.noom.com</a>
<b>MyFitnessPal</b>	Calculates your daily calorie & nutrient needs and allows you to log what you eat throughout the day from a nutrition database of over 5 million different foods.	<a href="http://www.myfitnesspal.com">www.myfitnesspal.com</a>
<b>SparkPeople</b>	Allows you to earn points by logging your daily meals, weight and exercise with their user-friendly tracking tools. Also provides access to exercise demos.	<a href="http://www.sparkpeople.com">www.sparkpeople.com</a>

# Appendix D

## Digital display for waiting room televisions

### You're invited to Walk With a Doc!

Join Dr Michael Otte the 3rd Tuesday of each month

**12:00 p.m.**

Aurora Germantown North Clinic

- Sign-up in lobby at Noon
- Walk will stay local, at own pace
- Wear comfortable shoes

**Cost:** Free



Go to [aurora.org/events](http://aurora.org/events) and search keyword: **WWAD** | 262-532-7600

## Facebook event

A screenshot of a Facebook event page. On the left is a navigation menu with 'Events' selected. The main content area features a teal-tinted image of people walking with the text 'YOU'RE INVITED TO WALK WITH A DOC'. Below the image, the event title 'Walk with a Doc' is shown for September 17, hosted by Aurora Health Care. It includes buttons for 'Interested', 'Going...', and 'Share'. The event details specify 'Sep 17 at 12:00 PM - 1:00 PM' and the location 'Aurora Medical Center, N112W17975 Mequon Rd, Germantown, Wisconsin 53022'. At the bottom, there are tabs for 'About' and 'Discussion'.



Melanie Smith, DO  
 WWAD Physician Leader & HMR Medical Director

Get out, get active & enjoy good conversation. Learn about a current health topic, then spend the rest of the hour enjoying a walk at your own pace & distance with medical providers.

This community event is **FREE** and all are welcome!

**Every 3rd Saturday of the Month from 8:30-9:30am**

**Burlington High School - 400 McCanna Parkway - Burlington, WI**



*Aurora Medical Center®*

# walk WITH a DOC

educate. exercise. empower.

<b>January 19</b>	<b>Why Immunize?</b> Theresa Hewitt, NP	<b>July 20</b>	<b>Benefits of Exercise for Dementia</b> Jolanta Twardy, MD
<b>February 16</b>	<b>How our mind impacts our bodies.</b> Caryn Bird	<b>August 17</b>	<b>Concussions</b> Marty Baur, MD
<b>March 16</b>	<b>How to reduce your cardiovascular risk.</b> Randy Schmidt, MD	<b>September 21</b>	<b>Low Impact Exercises</b> Cristina Muresanu, DO
<b>April 20</b>	<b>Better Nutrition, Better Eyes</b> Mark Brower, MD	<b>October 19</b>	<b>Colorectal Screening</b> Ben Pastika, DO
<b>May 18</b>	<b>Exercise &amp; Pregnancy</b> Scott Beatse, MD	<b>November 16</b>	<b>Hit the pause button on screen time.</b> Vickie Bleser, NP & Julie Klein, MD
<b>June 15</b>	<b>Spine Health: Maximize your quality of life</b> James Webley, Chiropractor	<b>December 21</b>	<b>Am I having an MI (heart attack)?</b> Stephen Welka, DO



# Appendix F

## CURRENT:

**SERVICE TO MEDICAL WEIGHT MANAGEMENT** ✓ Accept ✗ Cancel

Process Inst: All Medical Weight Management Programs are physician directed.  
\*\*HMR (Health Management Resource) Program for Weight Management -- Intensive multicomponent behavioral interventions through weekly group classes and 1:1 health coaching with nutritionally complete meal replacements. Initial and routine evaluations provided by the medical team. After weight loss, the patient transitions off meal replacements and participates in a minimum of 12 months of maintenance counseling for long-term sustainability. HMR services not billed to insurance, discounted cash rates offered.  
\*\*Bariatric Clinical assessment -- with the use of possible weight loss medications, nutrition counseling, educational counseling.  
\*\*Medical Weight Management -- Clinical assessment with the use of low-carb diet and modification as indicated, nutrition & educational counseling and weight loss medications.

If you are looking for other types of Medical Weight Management programs please consider Service To: Endocrinology, Diabetic Education, Nutritional Counsel, or Bariatric Surgery

Type of weight management program:

Location:

Priority:

Class:

Comments:

Referral: Location/POS:  From:  # of Visits:   
To:  Expiration Date:

Show Additional Order Details

**Next Required** ✓ Accept ✗ Cancel

# Appendix F

## PROPOSED UPDATES:

### Process Inst:

All Medical Weight Management Programs are physician supervised.

**HMR (Health Management Resources):** Lifestyle interventions through health coaching & weekly group classes, using nutritionally complete meal replacements. Medical supervision of co-morbidities. After weight loss, transition from meal replacements through 12 months of maintenance counseling. HMR services not currently billed to insurance, discounted cash rates offered. Telephonic program also available.

**Medical Weight Management with Bariatrician:** Clinical assessment with nutritional, lifestyle interventions, and other education with possible use of weight loss medications.

*If you are looking for other types of Medical Weight Management programs please consider SERVICE TO: ENDOCRINOLOGY, DIABETIC EDUCATION, NUTRITION, INTEGRATIVE HEALTH COACH, BARIATRIC SURGERY*

### Type of Weight Management Program: **Consider adding Weight Management Navigator Option**

HMR (Health Management Resources)

Medical Weight Management w/ Bariatrician

Location:

Burlington

Germantown

Milwaukee-Sinai

West Bend

Oshkosh

HMR (Health Management Resources)

Medical Weight Management w/ Bariatrician

Location: **(will add from ABOM provider list)**

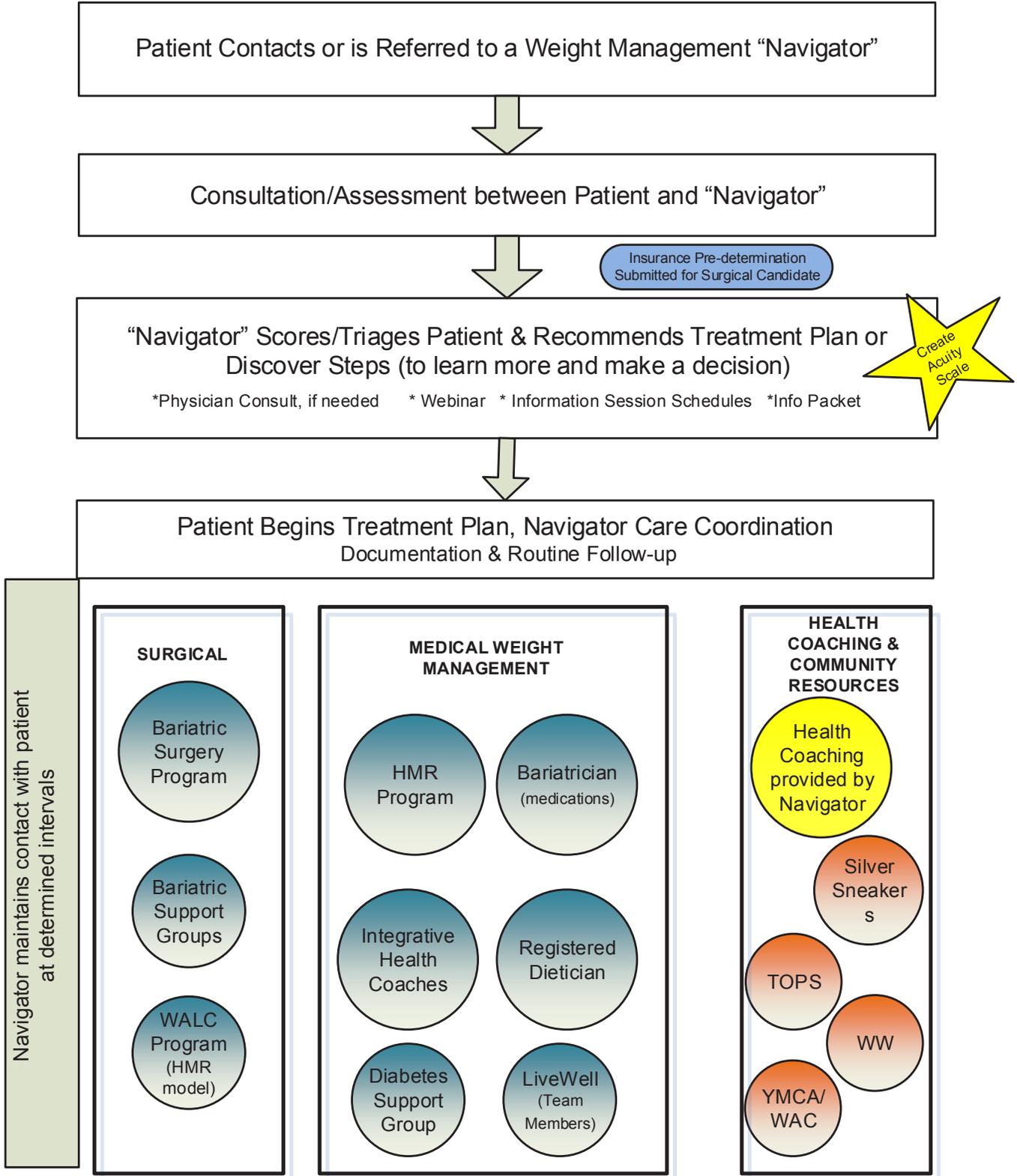
Burlington/Walworth

New Berlin

Oshkosh/Fond du lac/Neenah

Summit/Waukesha

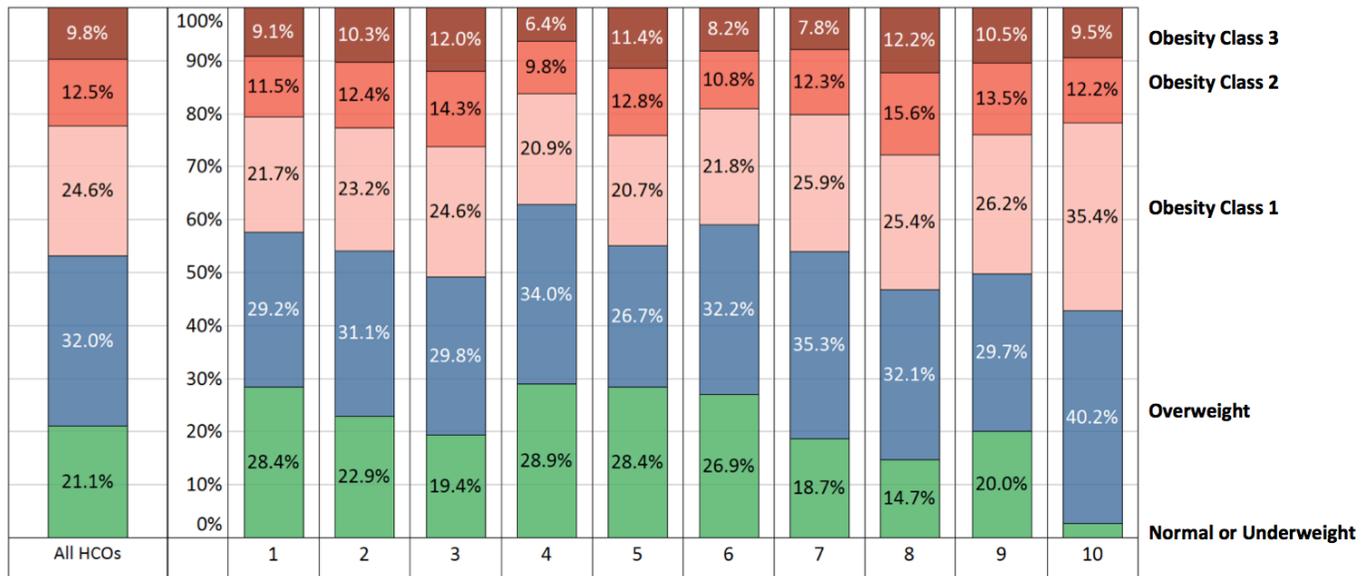
## Aurora Comprehensive Weight Management Program: By Market



## Final Data Report from AMGA Obesity Care Model Collaborative

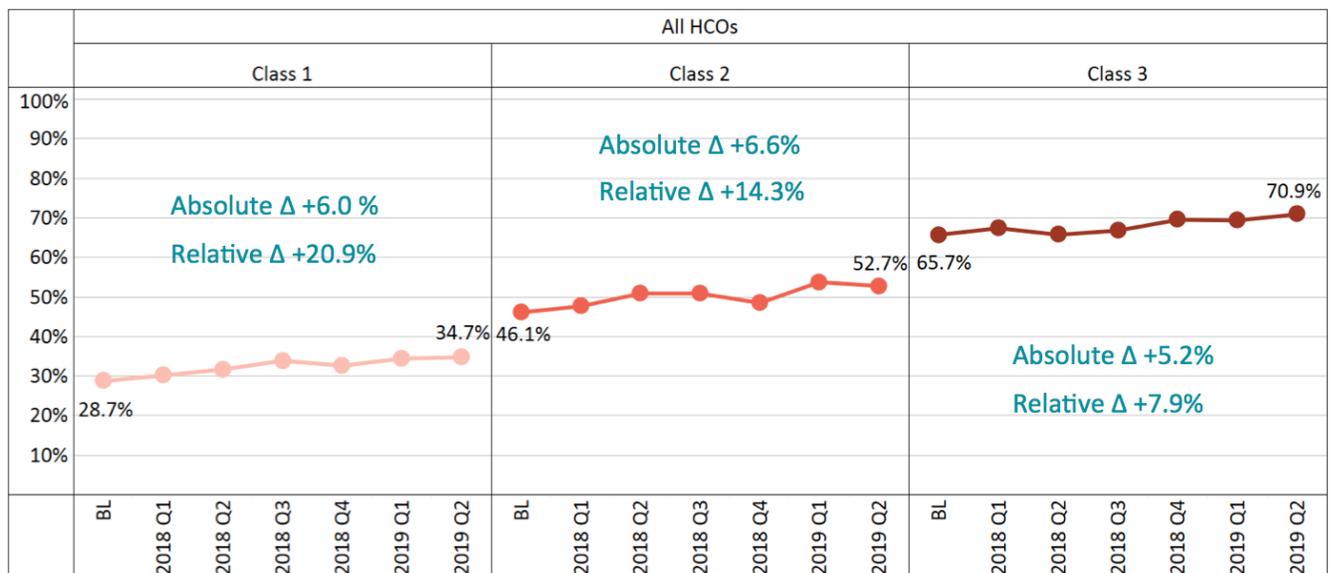
### Prevalence of Overweight and Obesity: 2019 Q2

Targeted clinics for OCMC (~122,000 total patients)



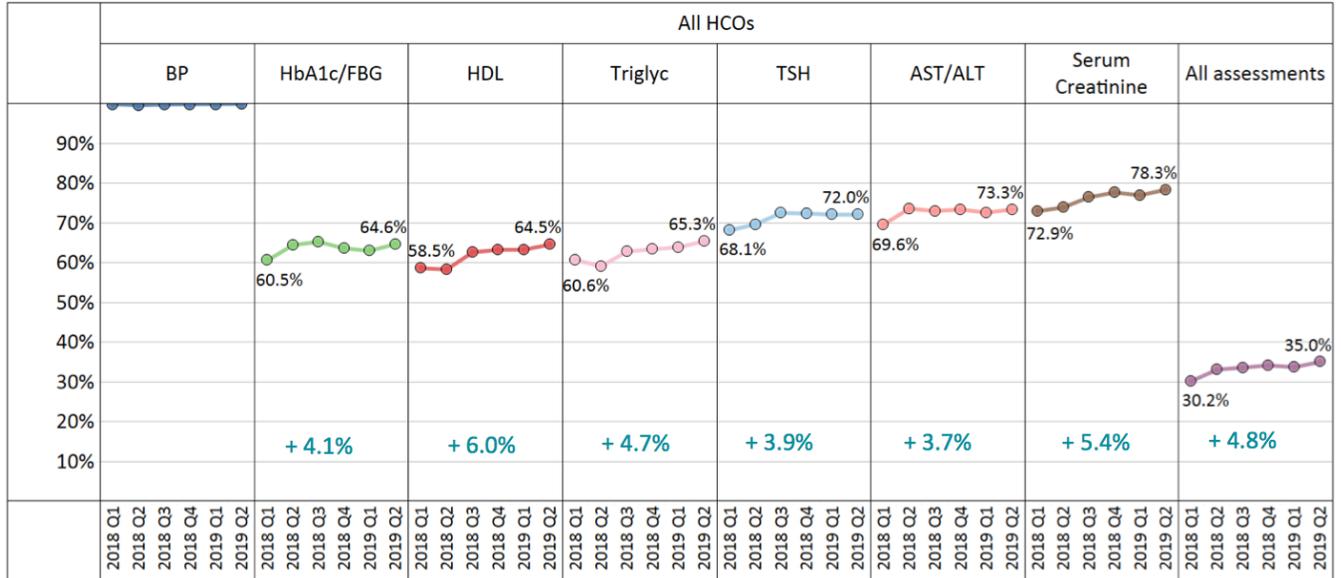
### Collaborative Performance: Documentation of Obesity Diagnosis

- Proportion of patients with BMI ≥ 30 who have a documented obesity diagnosis in Targeted Clinics
- ICD10: E66.01, E66.09, E66.2, E66.8, E66.9



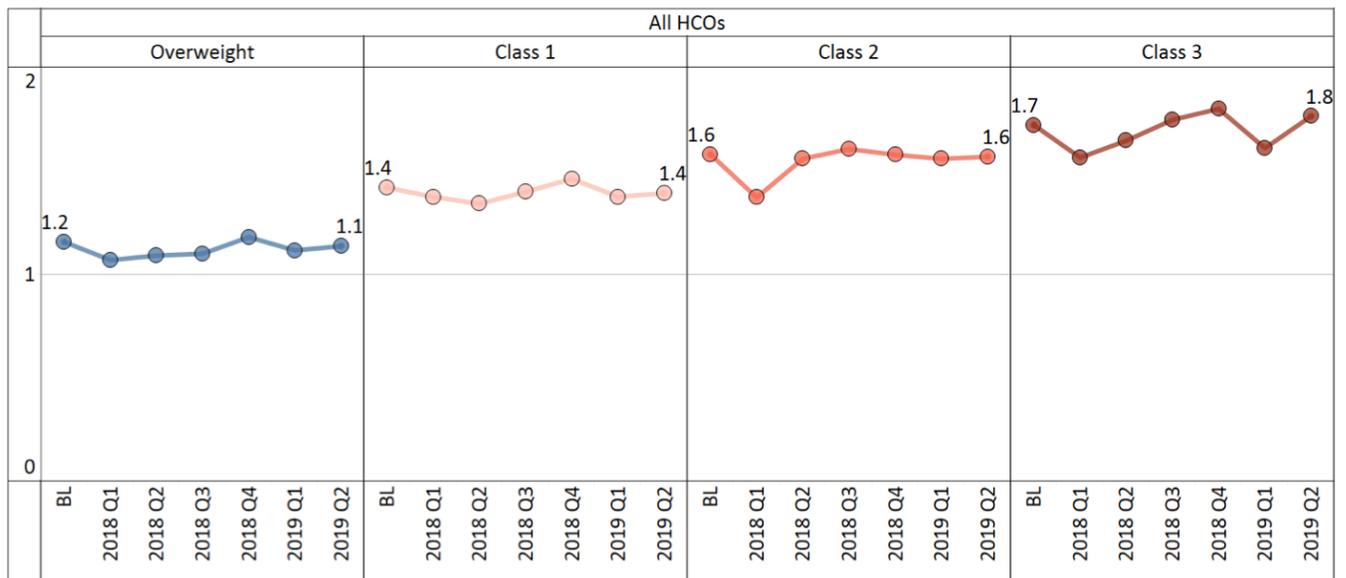
## Assessment for Obesity-Related Complications

- Proportion of patients (BMI ≥ 25) with select laboratory assessments by reporting period, in Targeted Clinics
- ALL assessments remain low but overall improvement since 2018 Q1
- HDL and Serum Creatinine demonstrated some of the largest absolute improvements; 6% and 5%, respectively



## Average Number Obesity-Related Complications Per Patient

- Average Number of obesity-related complications per patient (BMI ≥ 25) by weight class and reporting period
- 6 complications: Type 2 Diabetes, Dyslipidemia, Hypertension, Obstructive Sleep Apnea, Osteoarthritis, Nonalcoholic Fatty Liver Disease



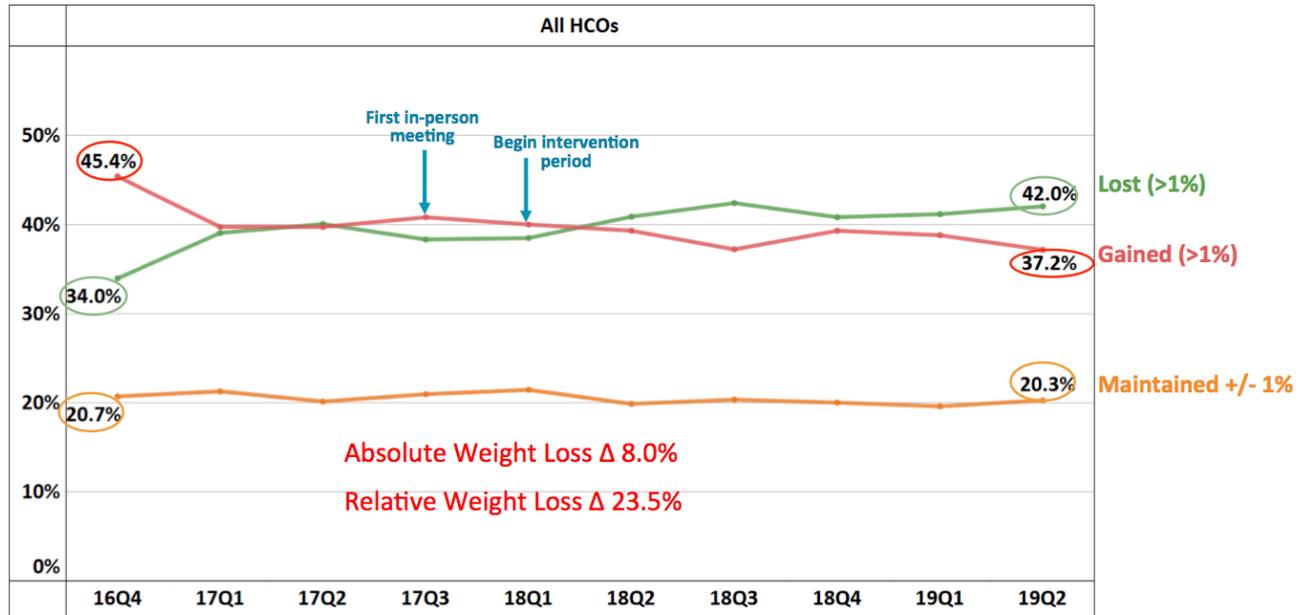
## Obesity-Related Problem Scale

HCO	Pre-Surveys	Post-Surveys	Response Rate	Met Goal Pre	Calculated $\Delta$
9	81	43	64%	Y	Y
5	19	19	24%	N	Y
3	44	7	54%	N	N
8	53	8	60%	Y	N
4	155	NA	73%	Y	N
10	96	NA	98%	Y	N
2	53	NA	100%	Y	N

## Obesity and Weight Loss Quality of Life Instrument

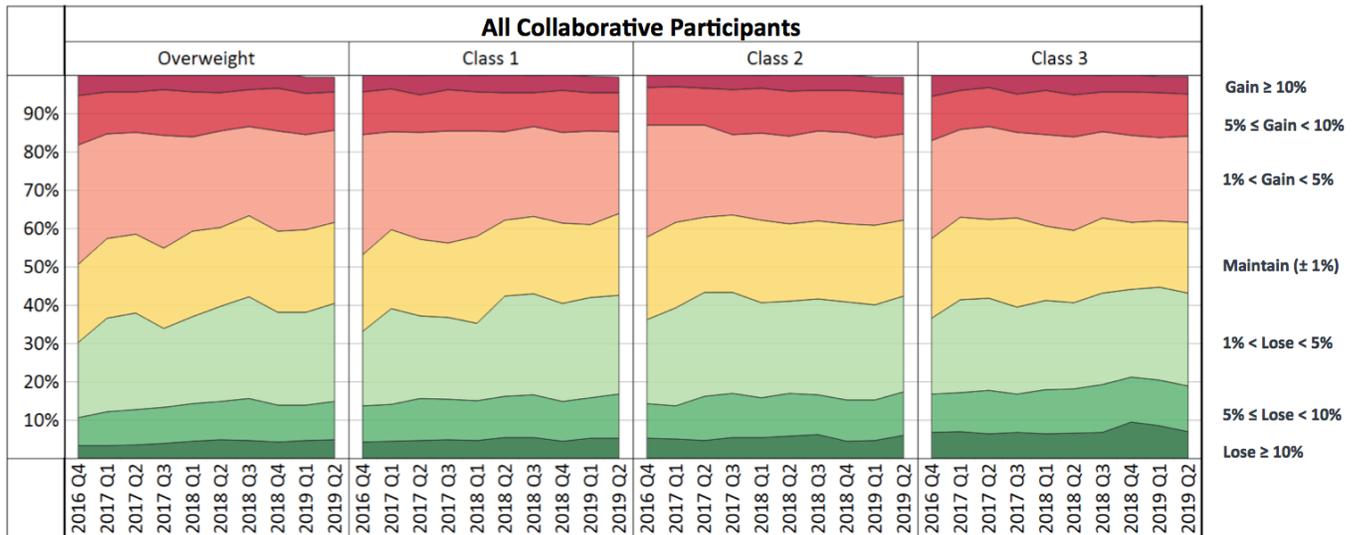
HCO	Pre-Surveys	Post-Surveys	Response Rate	Met Goal Pre	Calculated $\Delta$
9	86	44	68%	Y	Y
5	19	19	24%	N	Y
3	44	7	54%	N	N
4	155	NA	73%	Y	N
10	96	NA	98%	Y	N
2	53	NA	100%	Y	N

## Proportion of patients (BMI ≥ 25) by weight change category and reporting period



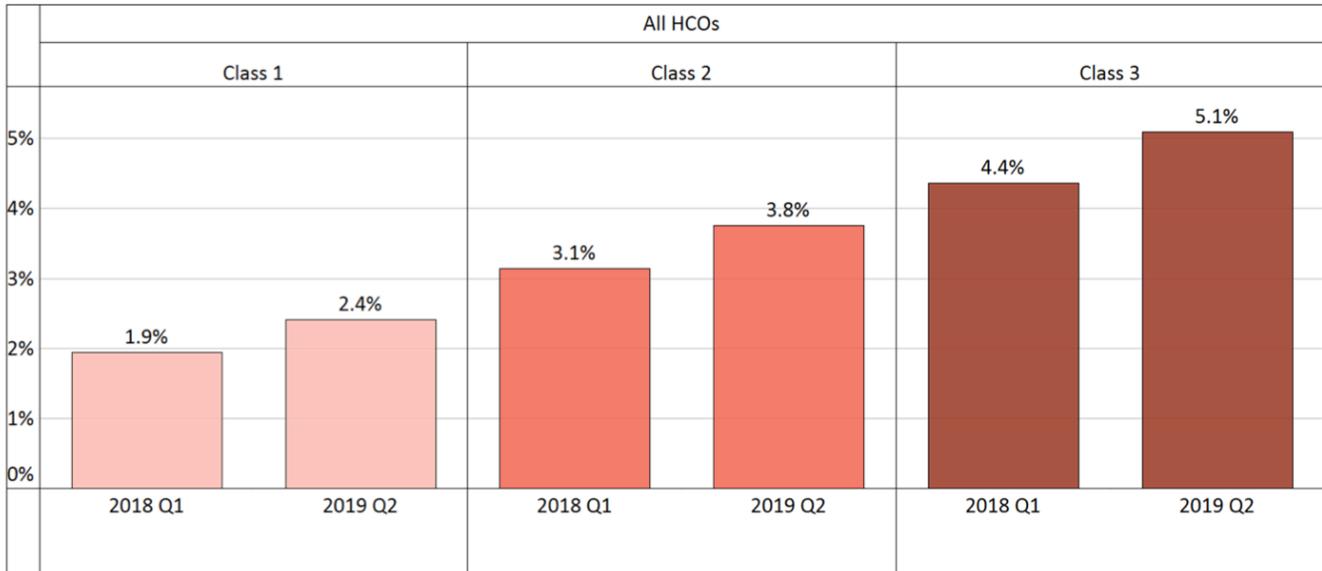
## Measure 6: Proportion of Patients by Percent Weight Change

- By reporting period, weight class and 7 weight categories



## Prescribing Anti-Obesity Medications

- Proportion of patients seen during the time period who have an active Rx for an anti-obesity medication
- Patient-weighted average across all organizations



## Project Team



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