



Advancing High Performance Health

Obesity Care Model  
Collaborative: Case Study

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# *Mercy Clinic East Communities*



## Organizational Profile

An integrated system based out of St. Louis, Missouri, Mercy Clinic East Communities (Mercy East) was established in 1842. The system comprises five acute care hospitals, one heart hospital, one rehab hospital, a children's hospital, one virtual care command center, four outpatient surgery centers, 340 physician practices, and 112 clinic locations (see Appendix). Other statistics for Mercy East are as follows:

### Medical staff and co-workers

- 20,000 co-workers, including 800 integrated physicians

### Utilization (fiscal year 2017)

- 1,390 staffed beds
- 10,134 births
- 52,131 surgeries
- 59,679 inpatient discharges
- 3,812,183 outpatient/office visits
- 182,321 emergency department visits
- 27 Internal Medicine Clinics (86 Providers)
- 44 Family Medicine Clinics (including two At Work Clinics for direct contracts and 114 providers)
- 11 Primary Care Clinics (28 providers)

## Pilot Profile

There were three pilot clinics. One of these three pilot clinics was where Mercy East's weight and wellness center was established, which was the reason it was selected to be among the clinic pilot site locations. It was an incentive for this group to get first access for their patients to the weight and wellness clinic.

### Pilot Clinic Sites

1301071, STLMLC FAMILY MED CLYTN CLRKSN STE 330, Mercy Clinic Family Medicine Clayton Clarkson Ste 330

- Mark Houston, M.D.
- Timothy Murphy, M.D.
- Jeremy Oliver, D.O.
- Mojdeh Zahedi, M.D.
- Christina Blaesing, FNP

## 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

1301073, STLMLC INT MED CLYTN CLRKSN STE 320, Mercy Clinic Internal Medicine Clayton Clarkson STE 320

- Margaret Edwards, D.O.
- David Schlitt, M.D.
- Christine Sigman, M.D.
- Margaret Whitcraft, M.D.
- Christina Blaesing, FNP

1301072, STLMLC INT MED CLYTN CLRKSN STE 340, Mercy Clinic Internal Medicine Clayton Clarkson STE 340

- Jeffrey Faron, M.D.
- Mark Faron, M.D.
- Michael Treisman, M.D.
- Johanna Schuessler, PA
- Megan Voigtman, NP

Patients served from October 2016 through September 2017

- Overweight: 5,078
- Class 1: 3,007
- Class 2: 1,292
- Class 3: 921

## Executive Summary

Mercy East has been focused on bringing obesity medicine to the St. Louis region. Through this Collaborative, establishing a medical weight management clinic and increasing awareness of obesity medicine in primary care became Mercy East's top goals. The medical weight management clinic is in the same building as the pilot sites, which allowed those providers to refer their patients to the clinic for additional weight loss guidance. Providers also received continuing education on obesity medicine, smart phrases, and resources. In the process of opening the clinic this overshadowed efforts to fully integrate obesity medicine in to Mercy East's primary care clinics. With the focus on growing the medical weight management practice, Mercy East also expanded its bariatric surgery coverage and continues to plan future locations for medical weight management and bariatric services around its east community. As these clinics become better established, this will open avenues to reassess the needs of primary care physicians (PCPs) and how we can better help with obesity medicine in their practice.

## Obesity Program Goals and Measures of Success

### Goals and Objectives

Mercy East's program goals included bringing obesity care to the forefront of Primary Care in St. Louis, which was not present before or prior to establishing the Weight & Wellness Clinic. To accomplish this, the organization designated establishing a weight management program as its main initiative and measure its success through percentage of weight loss, increased use of medications, and referrals to bariatric surgery.

## Data Documentation and Standardization

A best practice alert (BPA) for a regional employer with a direct contract was designed in Epic electronic health record (EHR) to meet contract requirements for this accountable care organization (ACO) population and to alert providers to counsel patients at a body mass index (BMI) of 30 or above and refer to nutrition or weight management services.

Provider performance and compensation was based on addressing multiple assessments and screenings. BMI Assessment and Follow-up Plan must be completed to reach 90% or greater.

The following Smartphrases provided direct links for providers to share with patients during an encounter and print on the after-visit summary. They were as follows:

- WTLGENERALTIPS, for general healthy eating ideas
- WTLRECIPE, for cookbooks and websites with healthy recipes
- WTLSNACKCALORIE, snacks under 200 calories and snacks 200-300 calories
- WTLSNACKLIST, for list of healthy snack ideas

## Population Identification

Denominator: Patients aged 18 to 79, as of the first day of the reporting period, with one or more face-to-face visits/encounters in an ambulatory setting with a primary care provider during the reporting period. For measures 2, 3, 4, 6, the denominator was stratified by weight class.

## Interventions

### Background

Mercy East identified diabetic patients through the diabetic registry in Epic. While over a third of the adults in the United States have obesity and this number continues to grow. Focusing on Mercy East Community primary care practices, obesity statistics are as follows:

- 59,343 adults with BMI between 30-34
- 30,295 adults with BMI between 35-40
- 1,926 children (under age 18)
- 24,469 adults with BMI > 40
- 1,457 children (under age 18)
- 2,098 coworkers with BMI > 35

Additionally, Mercy Clinic East Communities looked at the entire East Communities in each measure/category. In fiscal year 2017, a total of 590 bariatric procedures were performed.

In building a business case for opening the weight and wellness clinic and eventually bariatric centers of excellence, a market analysis was performed to project future demand and need for bariatric services and surgeries in the Mercy footprint. With that in mind, it's anticipated that bariatric procedures will increase by 15% for fiscal year 2018.

### **Community Intervention**

Community oriented goals included the development of a working list of groups that provide community services and reaching out to community organizations on services that can be promoted to patients. Once partnerships and agreements are formed, Mercy East planned to develop and maintain a database of community services.

Mercy East was successful in creating a working list of community resources available to be shared with PCPs and offices. Its pediatric group is currently reaching out to different organizations to create relationships to be able to partner with Pediatric PCPs.

An additional goal was to add a page on weight and wellness on the website for community resources, as well as create handouts to give to patients on resources and create Epic smart sets on community resources. While the resource list was created, it hasn't yet been turned into a patient handout or link on Mercy East's website. Provider resources and information was distributed via email newsletter to all providers (the "Monday Morning" email). Resources were provided during a provider continuing medical education (CME) event on obesity as well.

### **Organization**

Mercy East hired an office navigator/medical assistant, a full-time nurse practitioner, and dietician, and also provided an extra level of care by opening a clinic for PCPs as additional support for patients with obesity.

Mercy East also wanted to develop workflows for the treatment of obesity, develop smartsets in Epic to provide clear steps for patient care, and create a registry to track patients with obesity. A workflow and smart phrases were created in a Weight and Wellness clinic, but not in the PCP clinic, although the smart phrases are also available for them to use. For Medicare patients, Mercy East's system has a BPA fire in Epic for all patients with a BMI >40 or BMI > 35 + comorbidities. In terms of developing an obesity algorithm intended as the standard of practice for the treatment of

obesity, Mercy East is in discussions on several different apps that can be used for the primary care patients with obesity, which are still being reviewed with Mercy East's contracts and legal team. Therefore, a full obesity algorithm is still in need of development for providers.

### **Care Team Intervention**

In addition to the community interventions listed above, Mercy East started tracking referrals to the clinic each month, as well as new patient visits, in order to address the goal of developing a referral process and guidelines for the Weight and Wellness clinic. The clinic is fully up and running with 1.5 full-time equivalent (FTE) nurse practitioners, one FTE registered dietician, and four physicians providing part-time patient care and supervision. The second location opened in the Four Rivers region with one nurse practitioner, two registered dietitians, and one physician providing supervision and patient care. Mercy East is planning to expand its Weight and Wellness information to all providers in primary care, streamlining obesity care, through the use of templates, smartsets, premade handouts, and an easy referral process to specialists.

### **Patient/Family Interventions**

Mercy East offers free health and wellness classes for the public and has created a community resource toolkit. Technology has also been implemented to enable online sign-up for classes and bariatric seminars. The organization will also host a support group starting in August 2019. Work continues on app development to support patients and provide two-way communications for support and tracking of patient outcomes/engagement in the program, as well as bariatric post-surgery support.

Mercy East was unable to get support and buy-in from any of the patients who were approached about serving as patient champions in the planning process. However, there are now several patients who have lost 80-100 pounds in the Weight and Wellness clinic that are going to be speaking at free patient classes to help provide encouragement and support to other patients.

Among educational materials and initiatives Mercy East developed were free classes for patients with information on Weight and Wellness clinic's website. These occur four times a month—two evening and two daytime sessions. Fliers for classes and rack cards, which were passed out to PCPs in pilot

sites, were also created. The Obesity Action Coalition's health and wellness guides were distributed to PCP clinics, which has had great feedback. Additionally, bariatric seminars have been initiated, led by a recently hired bariatric surgeon, and support groups for patients (both surgical and medical weight loss) are currently being created.

## Outcomes and Results

Mercy East has seen positive weight loss outcomes from its efforts. For details on outcomes, see the Appendix.

### Measures

One of the most promising results was the increase in prescribing of anti-obesity medications in class 2 and 3. Usage of anti-obesity meds resulted in the following:

- Class 1: remained the same
- Class 2: 6.2% to 8.9%
- Class 3: 11.6% to 14.0%

## Lessons Learned and Ongoing Activities

Mercy East's journey through the AMGA collaborative was unique in that the system was working on setting up a specific clinic for obesity care in addition to focusing on the primary care treatment of obesity. So, there was something of a split focus during the collaborative. Mercy leadership at high levels supported the opening of the obesity clinic, and adding initial staff was relatively easy, with a nurse practitioner, registered

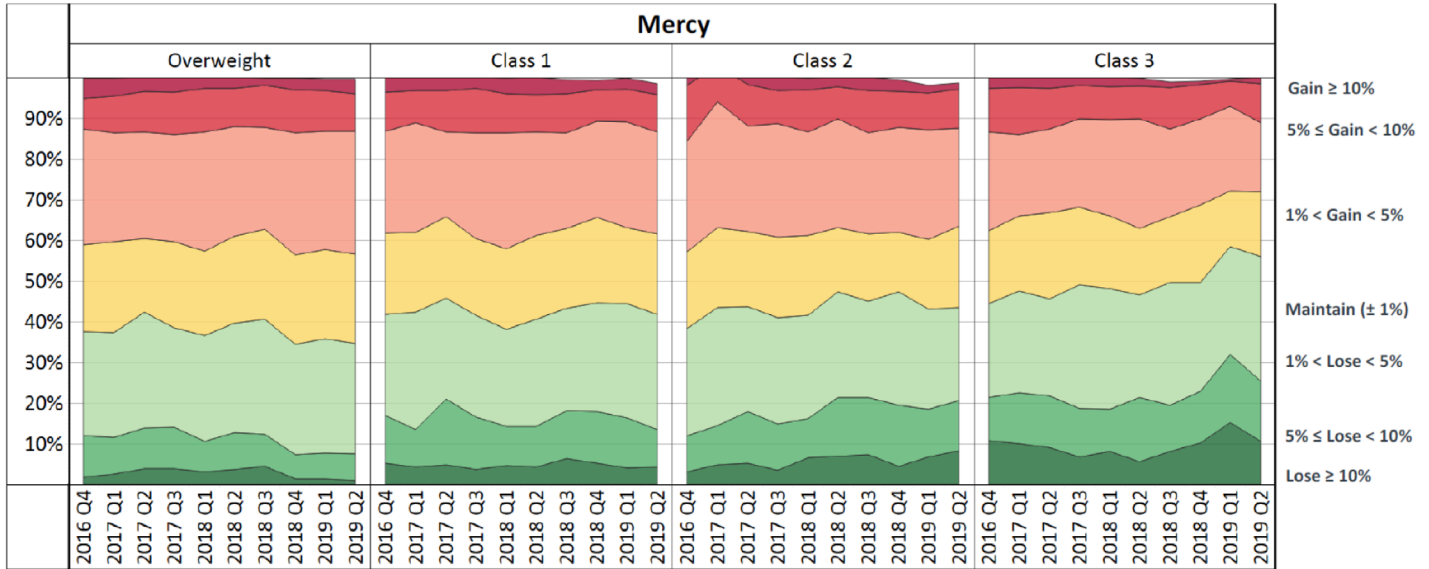
dietician, and medical assistant/navigator being hired. However, any expansion beyond that was very difficult to get approved. The clinic has been very successful with a waiting list of patients from the very beginning. This focus on the obesity clinic has at times overshadowed work toward helping Mercy East's primary care physicians treat obesity. However, it has been an incredible resource for physicians to have. It has helped make physicians more open to anti-obesity medication as they have seen successes and given them an additional resource to offer their patients.

It was also learned in this process that getting things approved and moving forward at a system level is an extremely slow process. There are small changes that can be implemented nimbly, but larger things take much more time than expected. For example, it was relatively easy to pull off a CME night for Mercy East physicians and other providers without much difficulty, but getting behavioral health integrated into obesity treatment has been in process for over a year.

Next steps for Mercy East include continuing CME events so as to educate more and more providers, increase patient satisfaction, word-of-mouth, and testimonials, and bring on more bariatric surgeons. In the future, plans entail having a Weight and Wellness clinic associated with each bariatric surgery site—St. Louis (March 2018), Washington (Feb 2019), and Kirkwood (to be determined)—to scale the program across multiple geographical service locations to better serve patients from different areas and align them with providers in their area.

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

- By reporting period, weight class and 7 weight categories

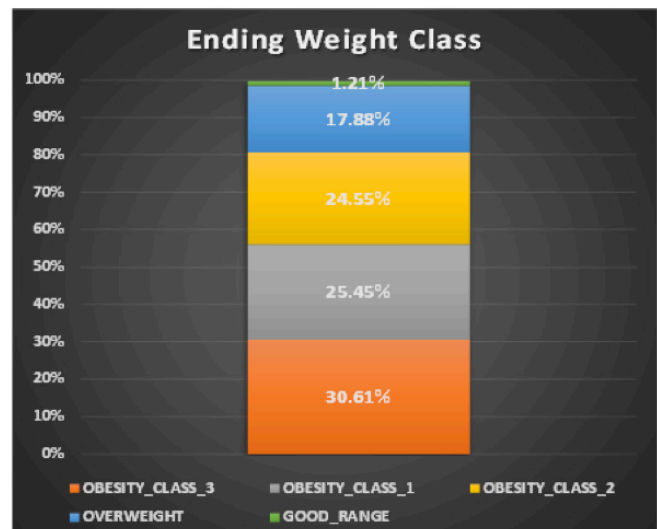
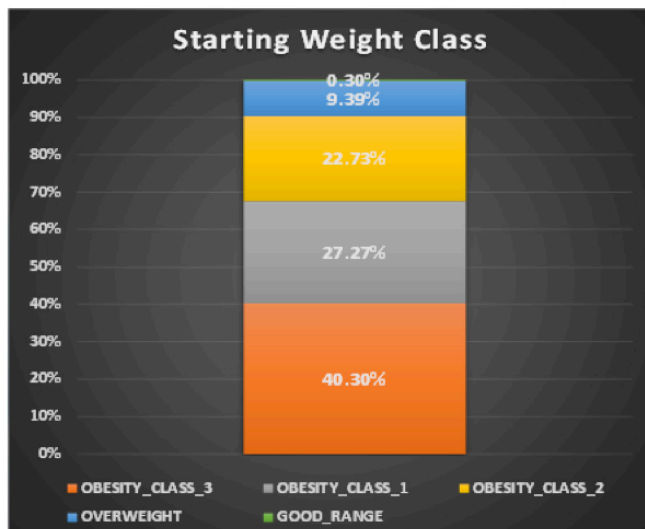


## Changes in weight class from initial to final visit between the dates 03/01/2018 and 04/30/2019



### Initial Visits

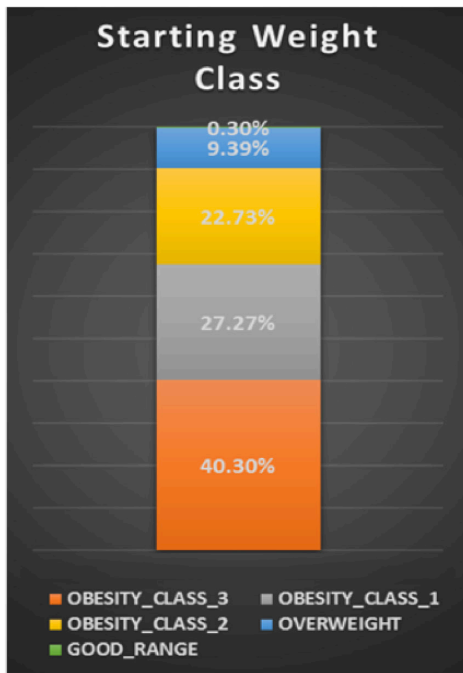
### Final Visits



\* Good Range = BMI < 25



## So where did they move?

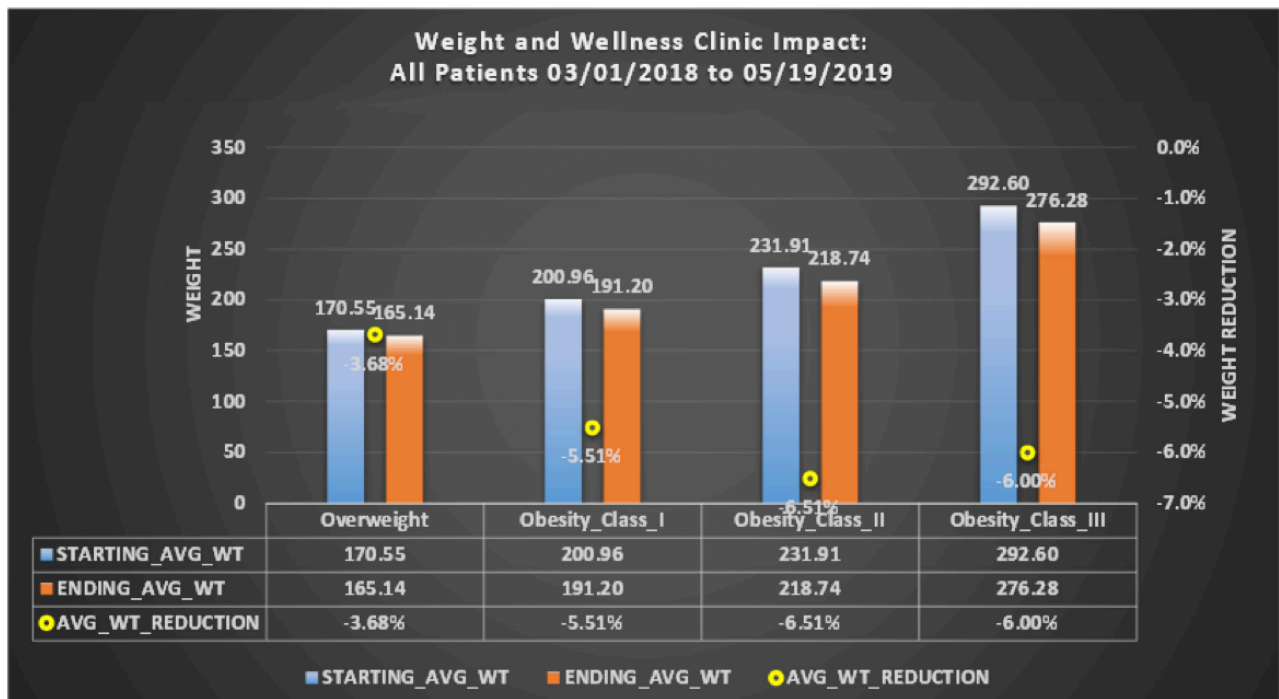


<b>Good Range (0.30% initial)</b>
• 100% remained in class
<b>Overweight (9.39% initial)</b>
• 87% remained in class
• 8% moved down to Good Range
• 6% moved up to Obesity Class 1
<b>Obesity Class 1 (22.73% initial)</b>
• 62% remained in class
• 1% moved down to Good Range
• 33% moved down to Overweight
• 3% moved up to Obesity Class 2
<b>Obesity Class 2 (27.27% initial)</b>
• 57% remained in class
• 1% moved down to Good Range
• 3% moved down to Overweight
• 32% moved down to Obesity Class 1
• 7% moved up to Obesity Class 3
<b>Obesity Class 3 (40.30% initial)</b>
• 72% remained in class
• 3% moved down to Obesity Class 1
• 26% moved down to Obesity Class 2



### Weight Class Movement Over Measurement Period

## All Patients Utilizing Weight and Wellness Clinic



## East Community

### Hospitals & Ambulatory Sites

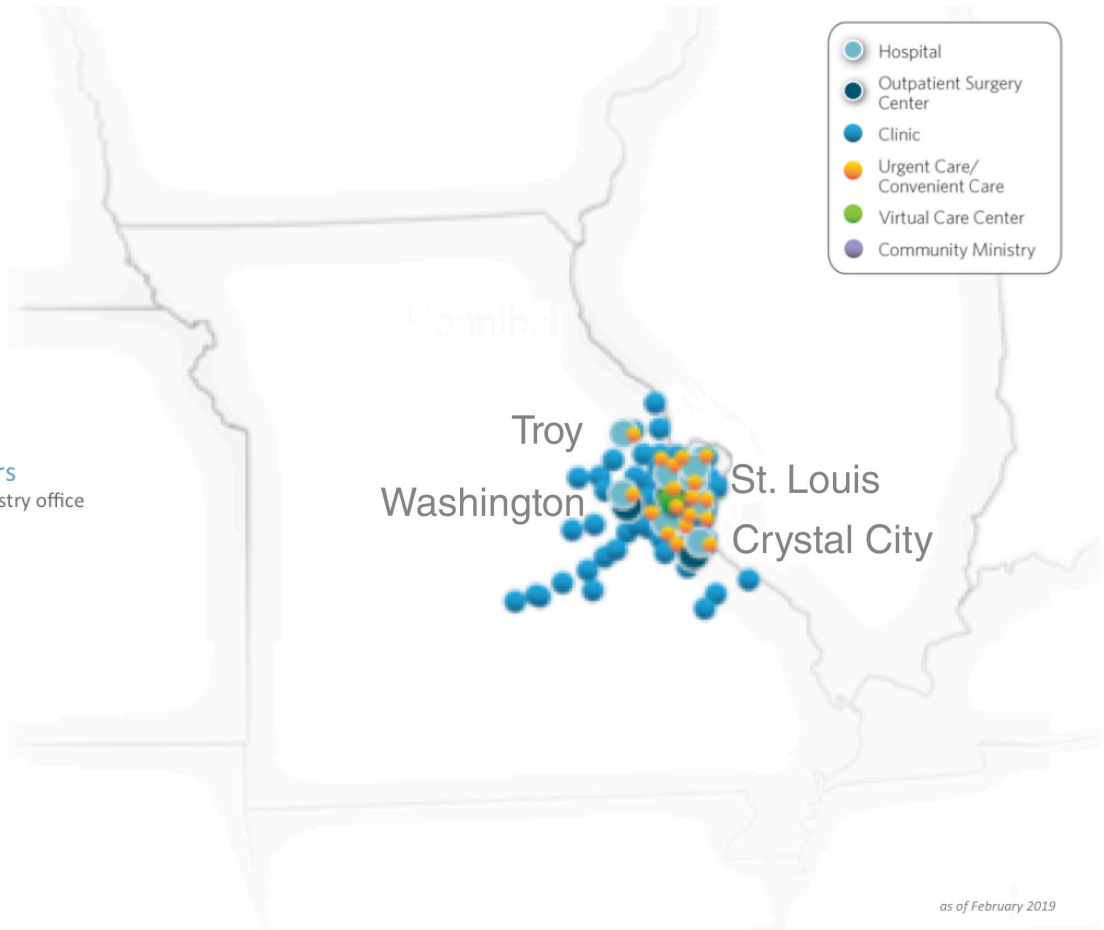
- 5 acute care hospitals
- 1 heart hospital
- 1 rehab hospital
- 1 children's hospital
- 1 virtual care command center
- 340 physician practices
- 112 clinic locations
- 3 outpatient surgery centers
- 17 urgent care sites
- 4 convenient care centers

### Medical Staff & Co-workers

- 21,500+ co-workers including ministry office
- 1,000+ integrated physicians
- 500+ advanced practice clinicians

### Utilization FY18

- 1,469 staffed beds
- 10,929 births
- 62,704 surgeries
- 85,323 inpatient discharges
- 4,116,757 outpatient/office visits
- 243,710 ED visits



as of February 2019



## Mercy Clinic East Communities System

# Mercy East Community



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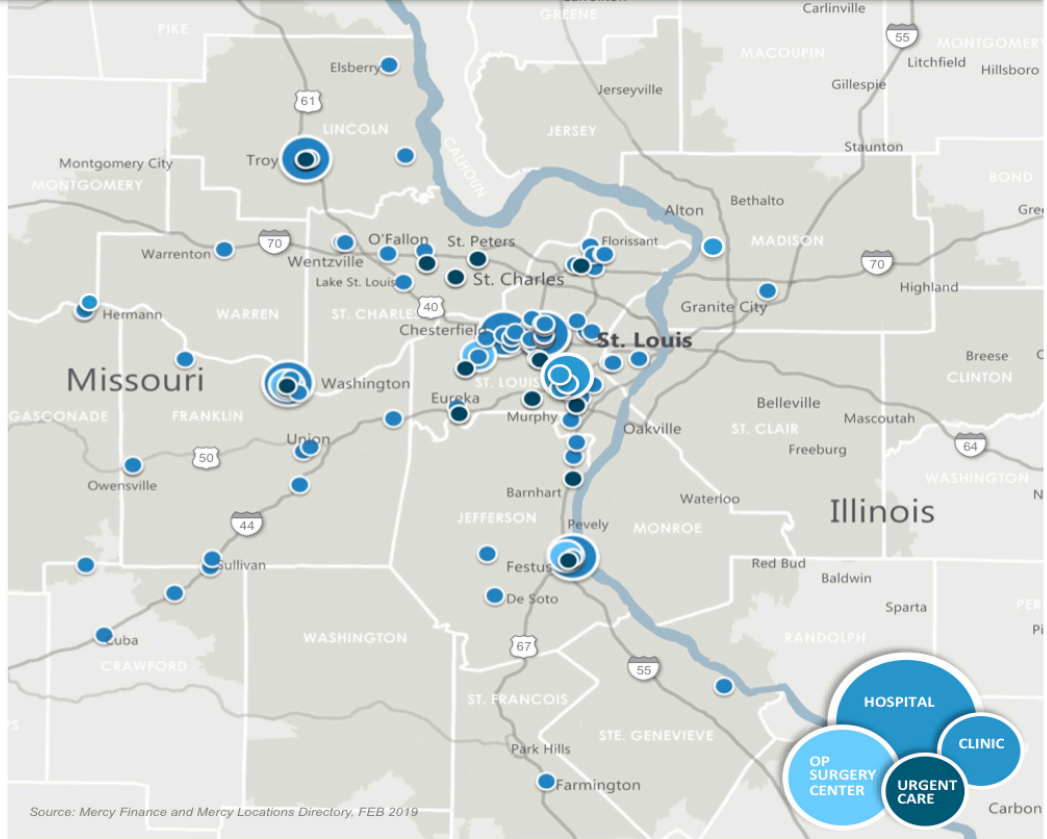
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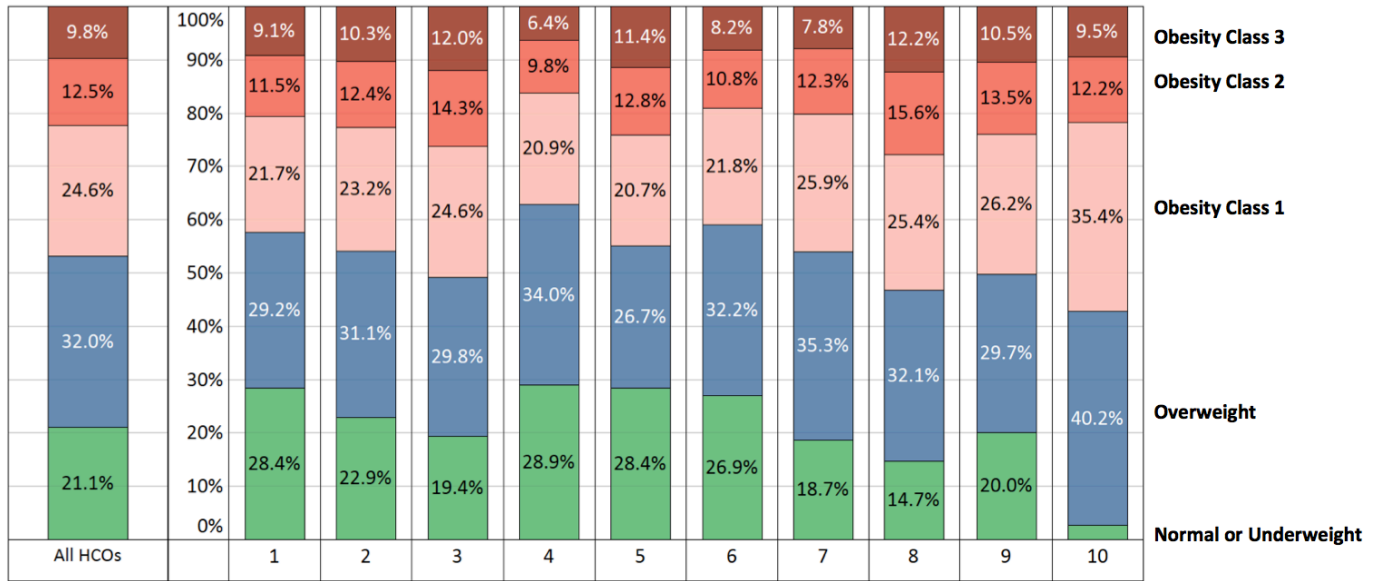
Source: Mercy Finance and Mercy Locations Directory, FEB 2019

## Mercy Clinic East Communities System (Cont.)

## Final Data Report from AMGA Obesity Care Model Collaborative

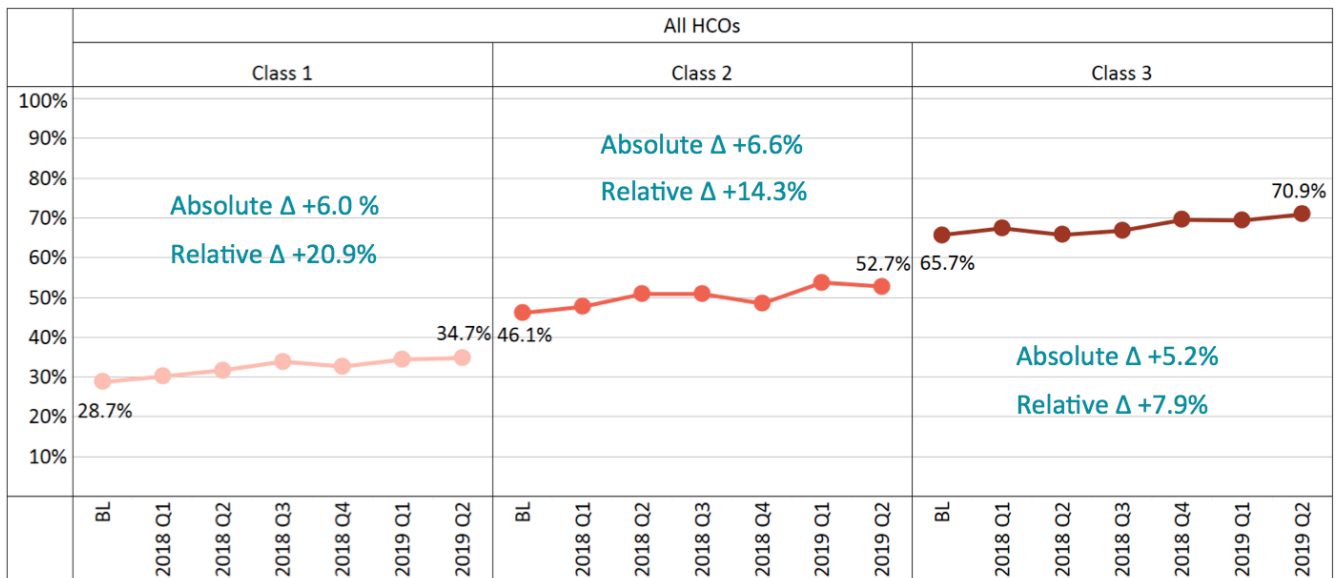
### Prevalence of Overweight and Obesity: 2019 Q2

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



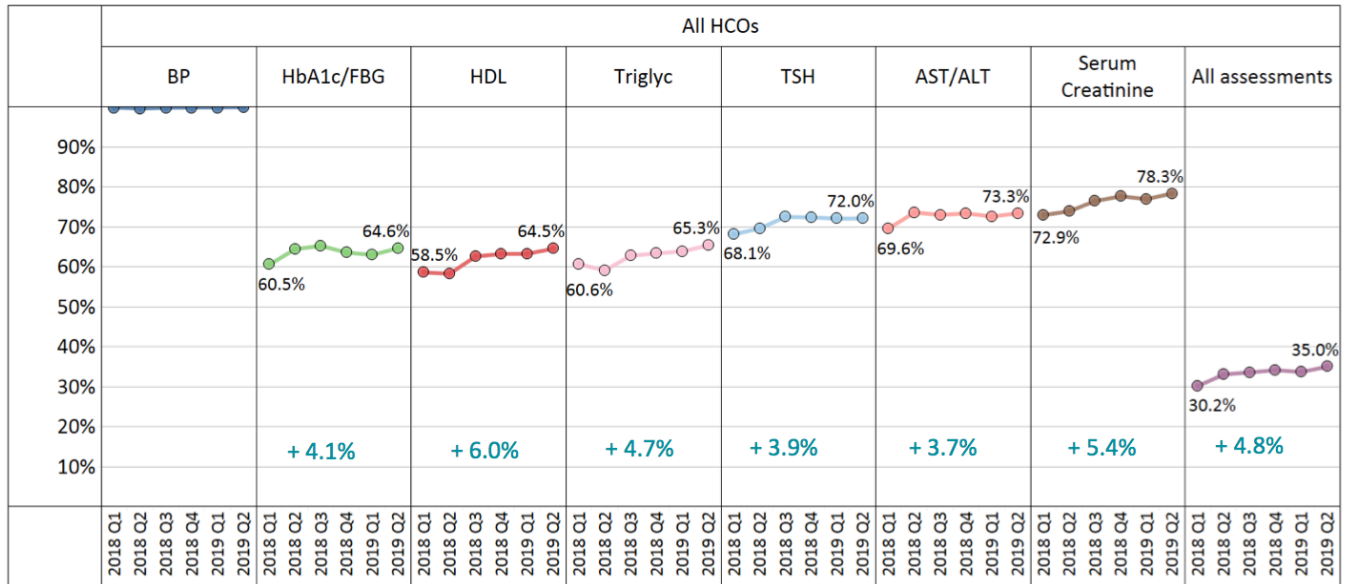
### Collaborative Performance: Documentation of Obesity Diagnosis

- 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



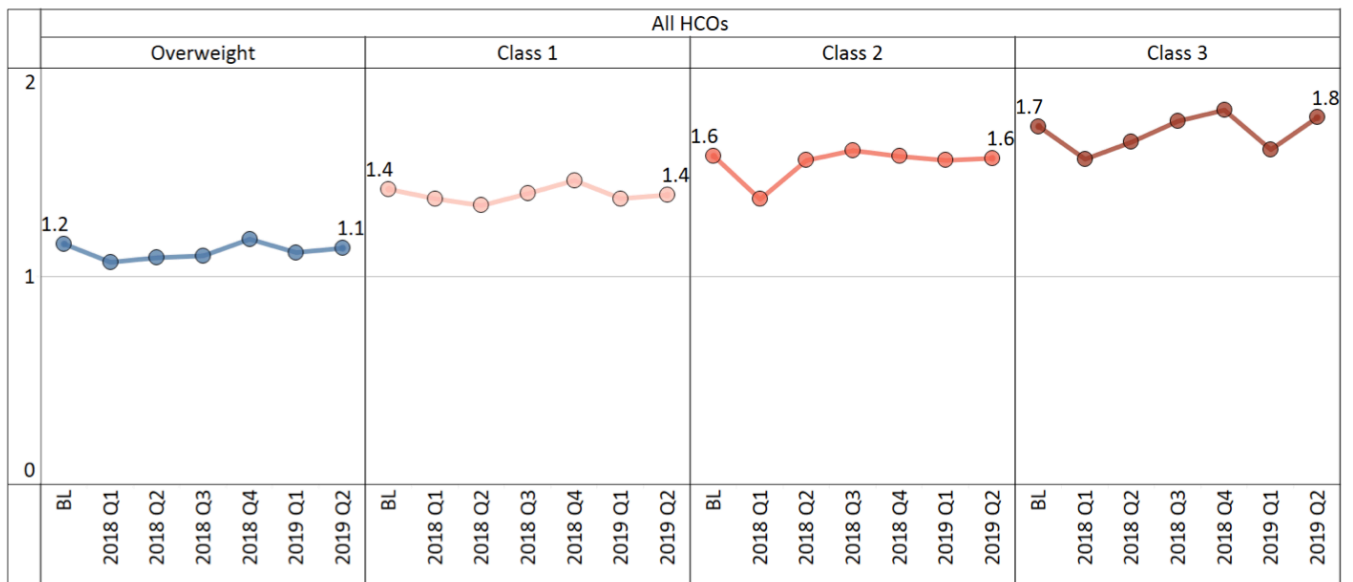
## Assessment for Obesity-Related Complications

- 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



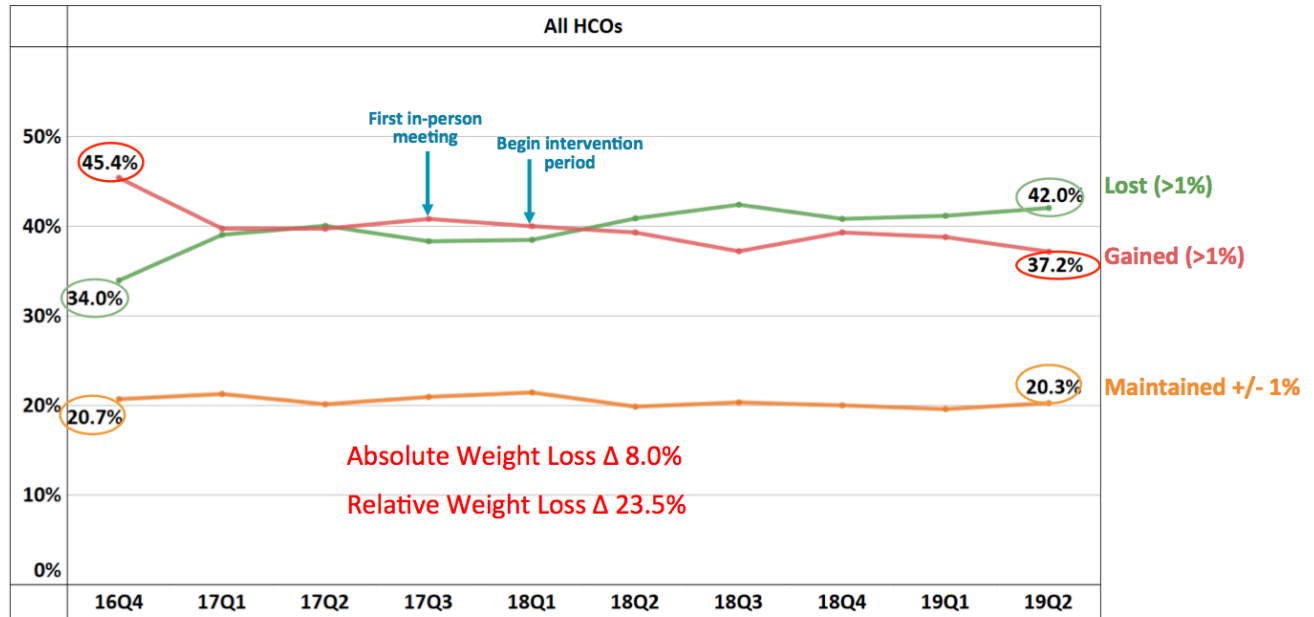
## Obesity-Related Problem Scale

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

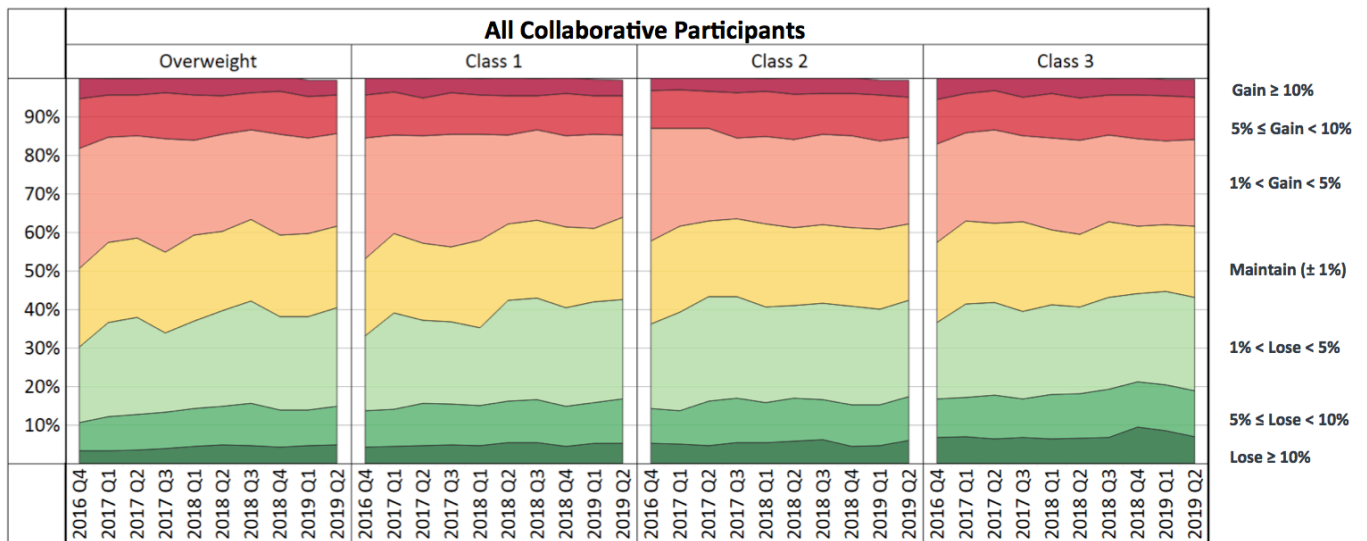
HCO	Pre-Surveys	Post-Surveys	Response Rate	Met Goal Pre	Calculated $\Delta$
9	86	44	68%	Y	Y
5	19	19	24%	N	Y
3	44	7	54%	N	N
4	155	NA	73%	Y	N
10	96	NA	98%	Y	N
2	53	NA	100%	Y	N

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



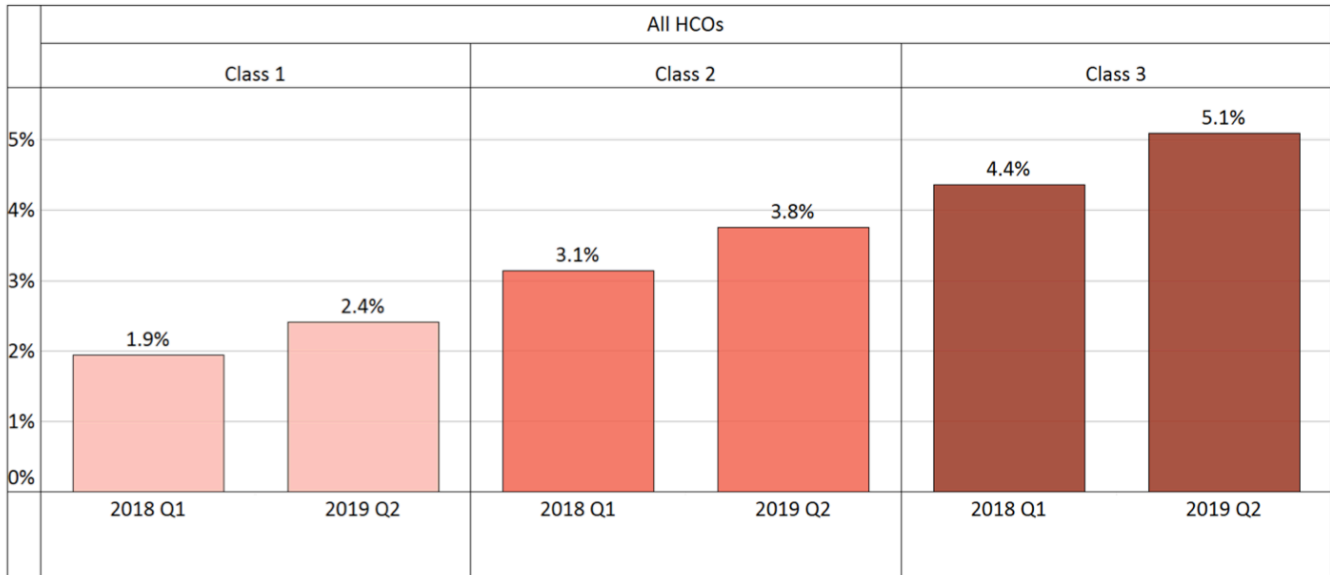
## Measure 6: Proportion of Patients by Percent Weight Change

- 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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