AMGA™

Advancing High Performance Health

**Obesity Care Model
Collaborative: Case Study**

*Confluence
Health*

Organizational Profile

The origins of Central Washington Hospital date to the early 1900s with the establishment of Central Washington Deaconess Hospital and St. Anthony's Hospital. The two organizations merged in 1974 to form Central Washington Health Services Association. The St. Anthony's facility was renamed Rosewood Hospital in 1974, and the facilities combined their operations at the remodeled and expanded Rosewood Hospital site under the name Central Washington Hospital. The Wenatchee Valley Clinic was founded in 1940. The philosophy was that patients were best served when they had easy access to other specialists under the same roof. In 2012, the two organizations began the process of affiliating, which was finalized in July 2013. Collectively known as Confluence Health, the resulting integrated healthcare delivery system includes two hospitals, more than 40 medical specialties, and primary care in 12 communities across North Central Washington. With more than 270 physicians and 150 advanced practice clinicians, Confluence Health is the major medical provider between Seattle and Spokane. In 2017, Confluence Health provided over 873,000 outpatient visits, 1.2 million operating room minutes, 13,600 surgeries, and 47,000 acute patient days.

Pilot Profile

A work group of stakeholders in obesity care in the outpatient setting began meeting around six months prior to starting the pilot program. Stakeholders included certified dieticians, behavioral health, the Quality department, IT, administration, physiatry and primary care, and, intermittently, several specialists and the Confluence Health patient advocate council. During this phase, Confluence Health started to develop the key components that were felt necessary to improve obesity care in the primary care setting. There were three family physicians in separate clinical sites interested in becoming local champions of this process and were working toward obesity medicine board certification. These three sites became the pilot practices. Using PDSA (Plan, Do, Study, Act) cycles, all tools (referral processes, Epic documentation, and patient handouts) were trialed for six months prior to system-wide rollout.

Acronym Legend

BMI: Body Mass Index
BPA: Best Practice Alert
CME: Continuing Medical Education
PCP: Primary Care Physician
PDSA: Plan, Study, Do, Act

Executive Summary

The vision of Confluence Health is to see decreasing rates of obesity in North Central Washington by transforming the treatment of obesity using all available evidence-based treatments. Using a collaborative approach and attempting to maintain consistent messaging, certified dieticians, behavior health providers, and nurse case managers were made available to help. Partnering with community-based organizations, using medical weight-loss therapies in primary care provider (PCP) clinics, and establishing a centralized weight management center with procedural interventions provided a continuum of directed care. The main thrust of interventions focused on provider and staff education: providing a simplified algorithm; education on the changing paradigm of obesity treatment; a patient roadmap; behavioral and psychological factors in obesity; calorie recommendations; common nutritional approaches; coding tip sheets; exercise prescription forms; a pharmacotherapy information sheet on anti-obesity medications; common medications associated with weight gain and pediatric guidelines; and counseling handouts. These tools were all compiled into a handbook and visits were made to each primary care site for a presentation and educational talk.

The three pilot champions provided consultative help through email, phone calls, and an opportunity to shadow on visits for providers that felt uncomfortable at first. The measures of obesity diagnosis on the problem list and use of anti-obesity medicines were tracked at each site to gauge effectiveness in changing provider behavior. Ongoing education and feedback will continue in the form of a quarterly newsletter to primary care providers.

Obesity Program Goals and Measures of Success

There is now an Epic best practice alert (BPA) triggered for elevated body mass index (BMI), and an obesity registry has been started in Epic's Healthy Planet to begin tracking ongoing obesity treatment data. Epic smart forms and dot phrases have been developed and shared.

Interventions

Background

Confluence Health uses an administrative management system based on the Toyota/Virginia Mason system. Using Lean techniques and PDSA cycles to improve and evaluate interventions led to iterative improvements in most of the tools and discarding of unhelpful processes. Through a thoughtful gap analysis, there is persistent movement to close the identified gaps in care. An action plan was developed to outline the path toward closing those gaps.

Community

Local gyms and trainers were identified and approached, giving feedback on the Exercise Prescription tool while trying to improve communication regarding activity. A support group was started at the local library and was open to anyone from the community. A list of other community resources was developed.

Organization

Confluence Health approached the initiative from a primary care perspective—that a clear majority of obesity care needs to happen in the PCP office and tools need to be developed to treat obesity effectively. However, through the gap analysis, it became apparent that both a centralized weight management center with access for consultative help and procedural-based options needed to be integrated with better medical therapy in existing PCP clinics.

Presentations at the board level were made on goals and successes of the program to ensure complete organizational buy-in. An insurance verification specialist was also added given the complexity and lack of coverage in many insurance plans for dietary consultation for obesity. It was found that many tools are only in English, leaving many patients with less options for help; that gap has not been fixed yet.

Other system changes included regional continuing medical education (CME) talks that were organized for primary care on the changing paradigm of obesity treatment. Specialized equipment was purchased, including a body composition scale, indirect calorimeter for ongoing care and evaluation, and medical office equipment designed for patients with obesity. A referral process was established from specialty departments seeking help for preoperative optimization. Confluence Health also recruited staff and implemented a new bariatric surgery program to act synergistically with medical weight management.

Care Team

A simplified algorithm was developed to help guide coordination with the multidisciplinary team and case study examples of each pathway presented. Physician champions at multiple primary care sites were also identified, and information on appropriate diagnosis codes from billing and coding departments along with a coding tip sheet were distributed to all providers.

The team emphasized the obesogenic effect of many common medications and provided education on use of anti-obesity medication and the effectiveness of treatment; additionally, the team tracked usage as a surrogate measure of change in treatment behavior and emphasized accurate placement of diagnosis of obesity on the Epic Snapshot problem list.

Patient/Family

All patient handouts, the patient roadmap, and shared decision making tools were evaluated and improved by input from the patient advocacy committee.

Outcomes and Results

As seen in the Appendix, the health system was able to achieve an absolute weight loss of 7.1%, which has been shown to significantly impact overall health costs for any health system.

In tracking the data, there was a correlation between better weight loss and an actual diagnosis of obesity on the patient's problem list. Confluence Health was able to consistently improve the accurate placement of the diagnosis throughout the collaborative (see Appendix).

Confluence Health tracked the actual number of anti-obesity medication prescriptions as a surrogate of how effective the system was in changing providers' perceptions and behavior toward the treatment of obesity. As seen in the Appendix, the pilot participants had significant changes in prescribing; there was modest but significant change system-wide

Lessons Learned and Ongoing Activities

Among the lessons learned was that a percentage of providers will resist change in the treatment of obesity in any organization. Ongoing reinforcement of treatment and evidence-based approaches help defuse this. It is hard to change behavior and preconceived ideas of providers and staff. Additionally, patients are lost to follow-up frequently, and there is a need to develop better techniques to help patients stay on course through the long process of weight loss and
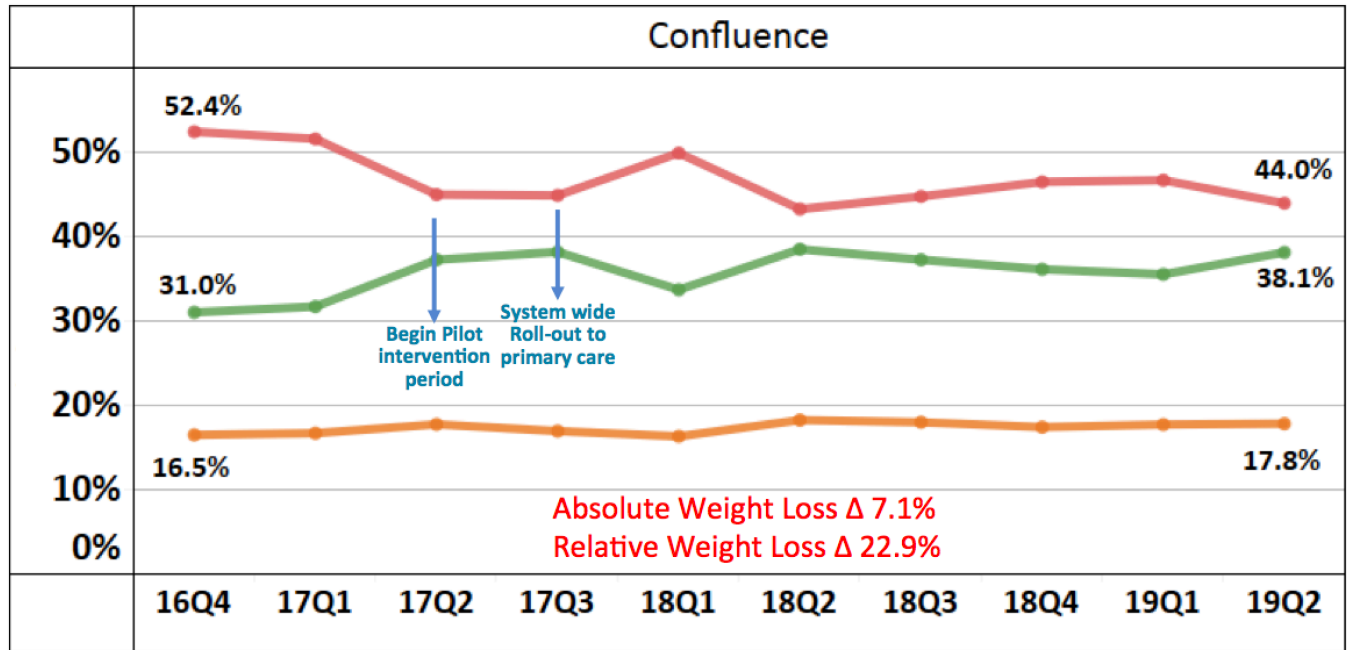
maintenance. Another lesson learned was that it is hard to show the results of weight loss interventions on data extracted from Epic on a population.

Confluence Health will continue to track data on how the organization is impacting the disease of obesity. For example, the system will be developing a more robust way of utilizing its new Obesity Registry for better population health.
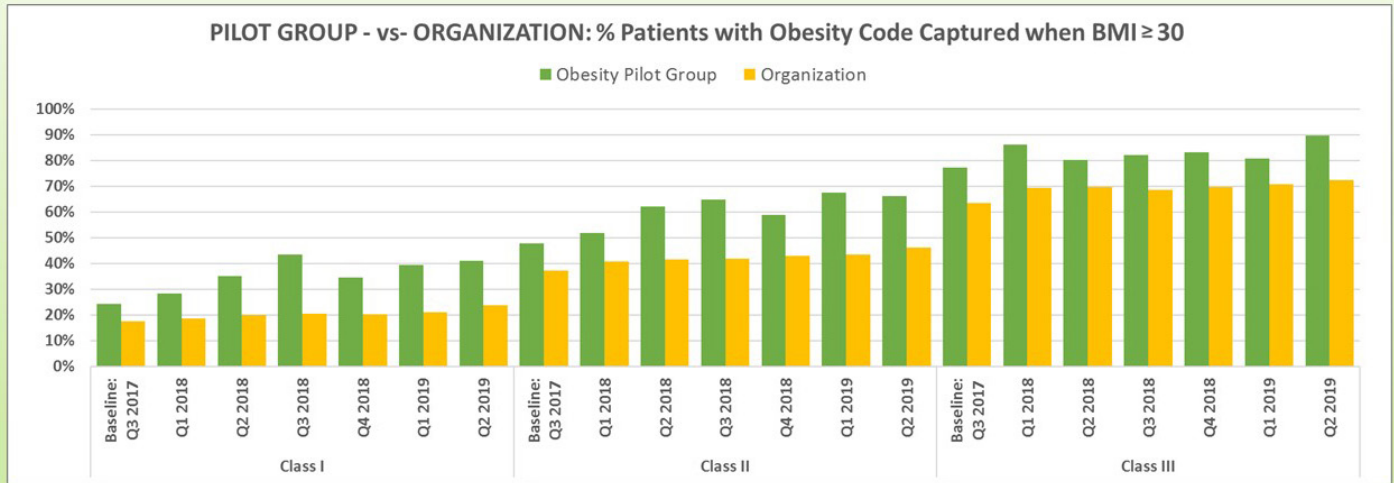
Confluence Health will also continue to educate providers and staff on the new paradigm of obesity treatment and plan on continuing a quarterly newsletter to facilitate dissemination of current information.

Finally, Confluence Health will seek to continue to close the gaps in obesity care from community programs to primary care offices to procedural interventions and back again as the organization develops more robust treatments for this chronic disease.

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

Confluence

52.4%

50%

44.0%

40%

31.0%

30%

Begin Pilot intervention period

System wide Roll-out to primary care

38.1%

20%

16.5%

17.8%

10%

Absolute Weight Loss Δ 7.1%

0%

Relative Weight Loss Δ 22.9%

| 16Q4 | 17Q1 | 17Q2 | 17Q3 | 18Q1 | 18Q2 | 18Q3 | 18Q4 | 19Q1 | 19Q2 |

Obesity Coding Change: Quarterly Progress

PILOT GROUP - vs- ORGANIZATION: % Patients with Obesity Code Captured when BMI ≥ 30

Obesity Coding Change: Baseline to Final Measurement

PILOT GROUP - vs- ORGANIZATION: % Patients with Obesity Code Captured when BMI ≥ 30
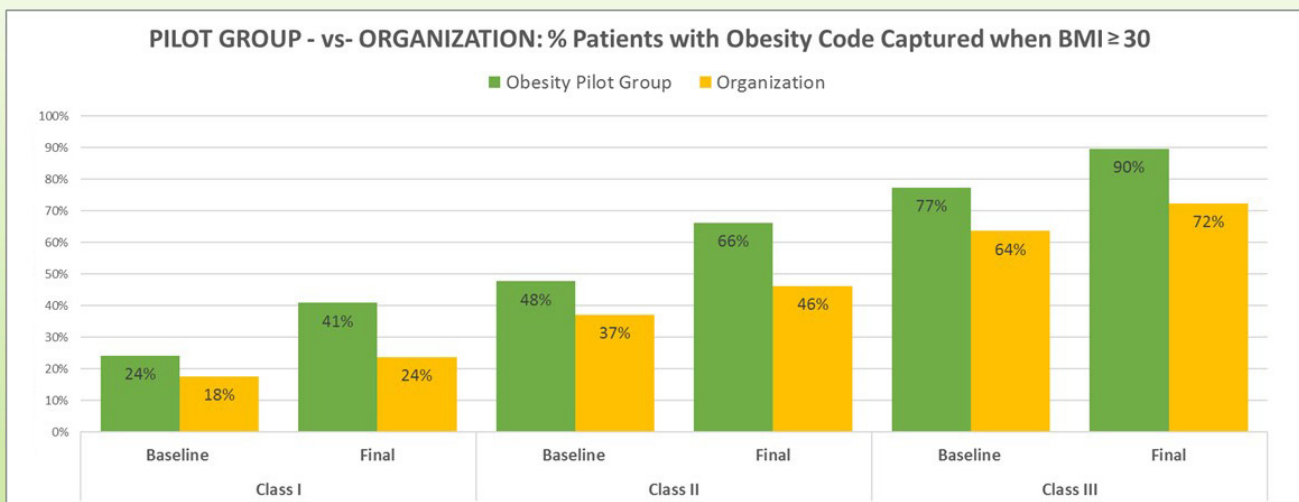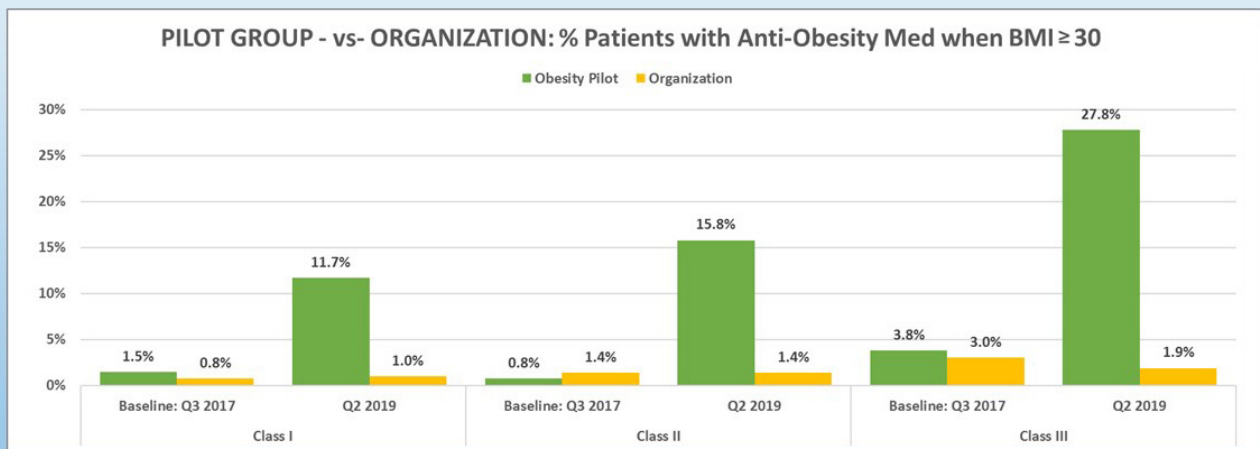
Obesity Medication Rx: Quarterly Progress
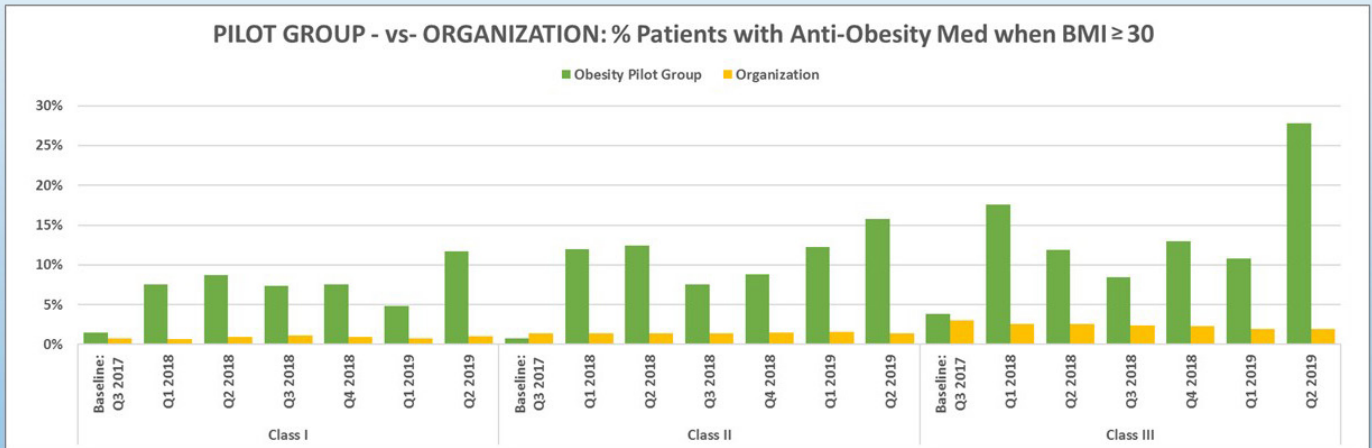
Obesity Medication Rx: Baseline to Final Measurement
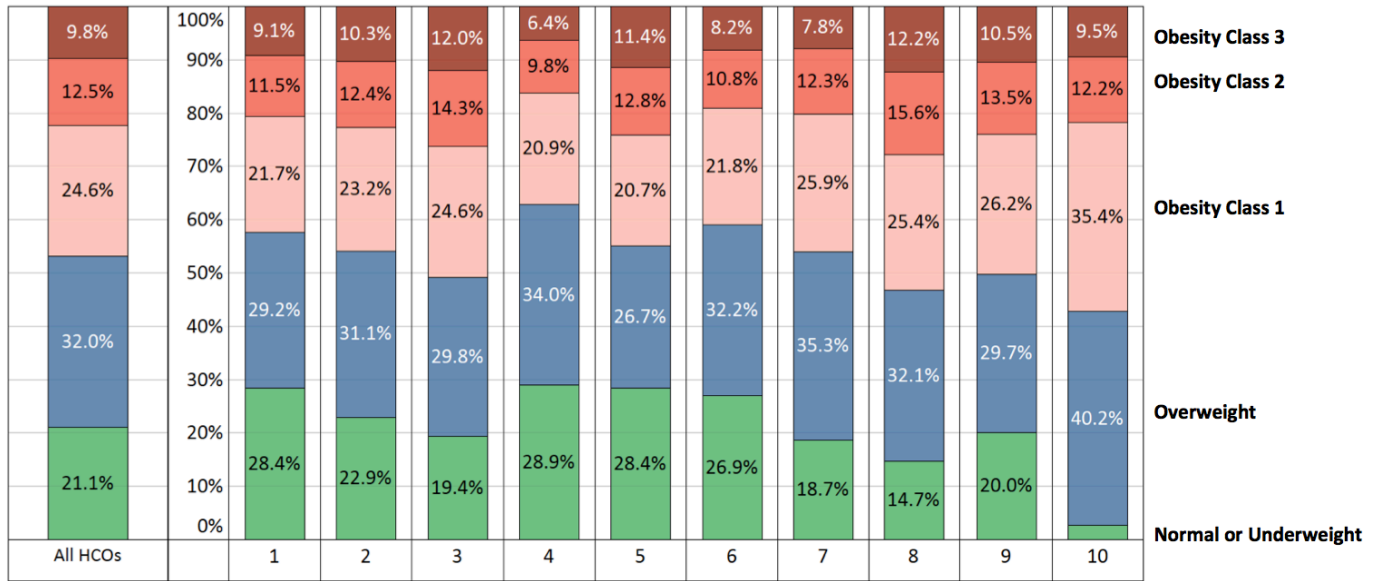
**Final Data Report from AMGA Obesity Care Model Collaborative**

Prevalence of Overweight and Obesity: 2019 Q2

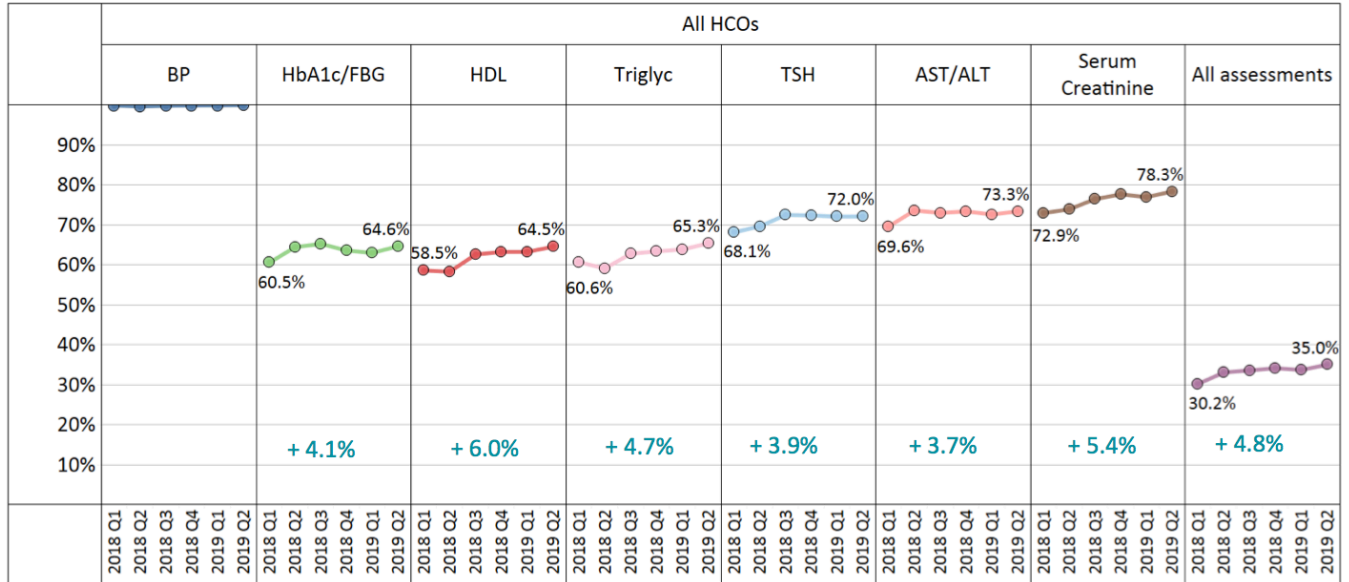Targeted clinics for OCMC (~122,000 total patients)

Collaborative Performance: Documentation of Obesity Diagnosis

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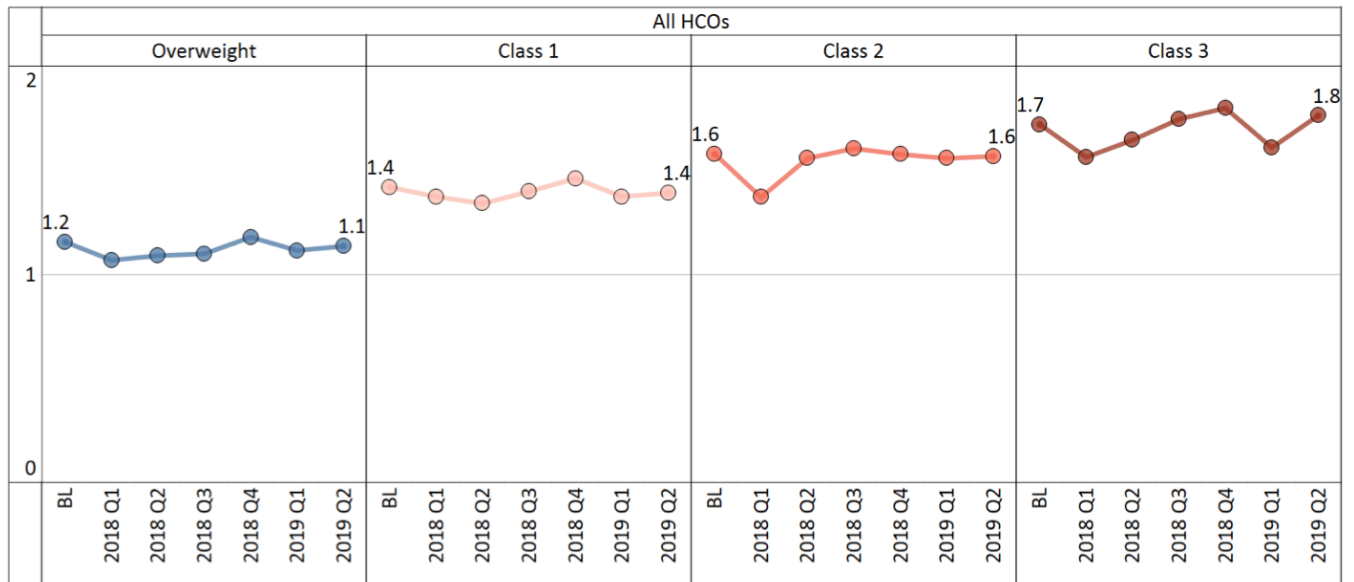- ICD10: E66.01, E66.09, E66.2, E66.8, E66.9

Appendix
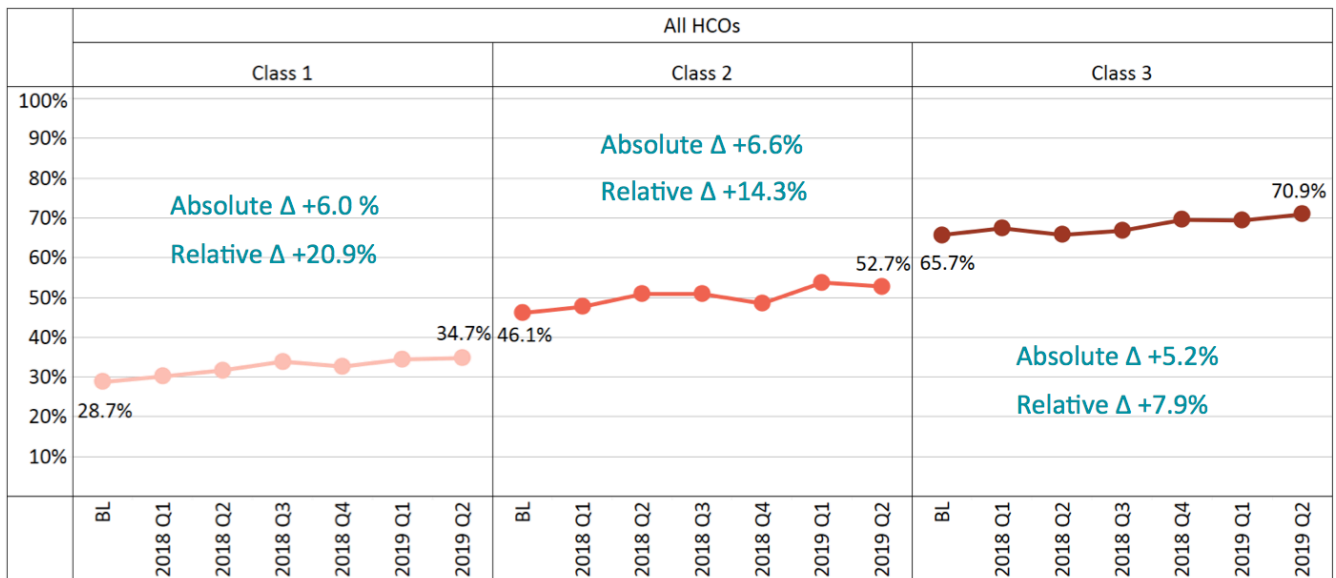
Assessment for Obesity-Related Complications

- 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

Chart: "All HCOs" — proportion of patients with select laboratory assessments by reporting period (2018 Q1 – 2019 Q2)

Assessment	Baseline	End	Change
BP	~97%	~97%	
HbA1c/FBG	60.5%	64.6%	+ 4.1%
HDL	58.5%	64.5%	+ 6.0%
Triglyc	60.6%	65.3%	+ 4.7%
TSH	68.1%	72.0%	+ 3.9%
AST/ALT	69.6%	73.3%	+ 3.7%
Serum Creatinine	72.9%	78.3%	+ 5.4%
All assessments	30.2%	35.0%	+ 4.8%

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

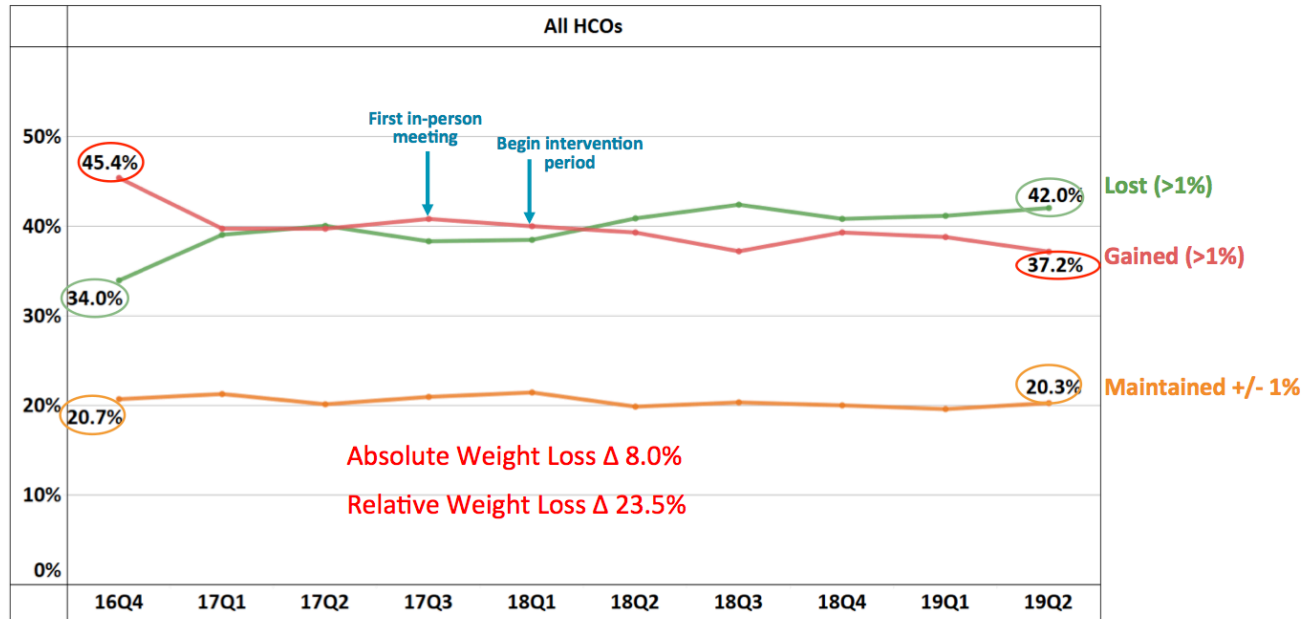Chart: "All HCOs" — average number of obesity-related complications per patient by weight class (BL, 2018 Q1 – 2019 Q2)

Weight Class	Baseline	End
Overweight	1.2	1.1
Class 1	1.4	1.4
Class 2	1.6	1.6
Class 3	1.7	1.8

Obesity-Related Problem Scale

HCO	Pre-Surveys	Post-Surveys	Response Rate	Met Goal Pre	Calculated △
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 △
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

All HCOs

Absolute Weight Loss Δ 8.0%

Relative Weight Loss Δ 23.5%

- 45.4%
- 34.0%
- 20.7%
- First in-person meeting
- Begin intervention period
- 42.0% Lost (>1%)
- 37.2% Gained (>1%)
- 20.3% Maintained +/- 1%
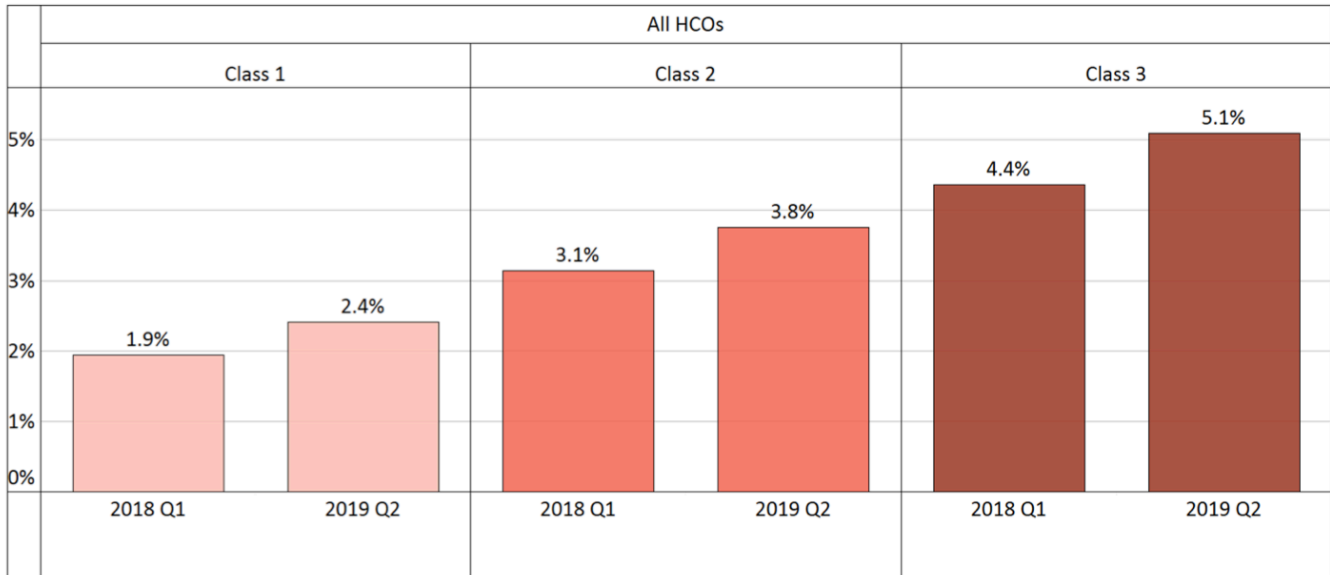
16Q4 17Q1 17Q2 17Q3 18Q1 18Q2 18Q3 18Q4 19Q1 19Q2

Measure 6: Proportion of Patients by Percent Weight Change

- By reporting period, weight class and 7 weight categories

All Collaborative Participants

Overweight | Class 1 | Class 2 | Class 3

- Gain ≥ 10%
- 5% ≤ Gain < 10%
- 1% < Gain < 5%
- Maintain (± 1%)
- 1% < Lose < 5%
- 5% ≤ Lose < 10%
- Lose ≥ 10%

2016 Q4 2017 Q1 2017 Q2 2017 Q3 2018 Q1 2018 Q2 2018 Q3 2018 Q4 2019 Q1 2019 Q2
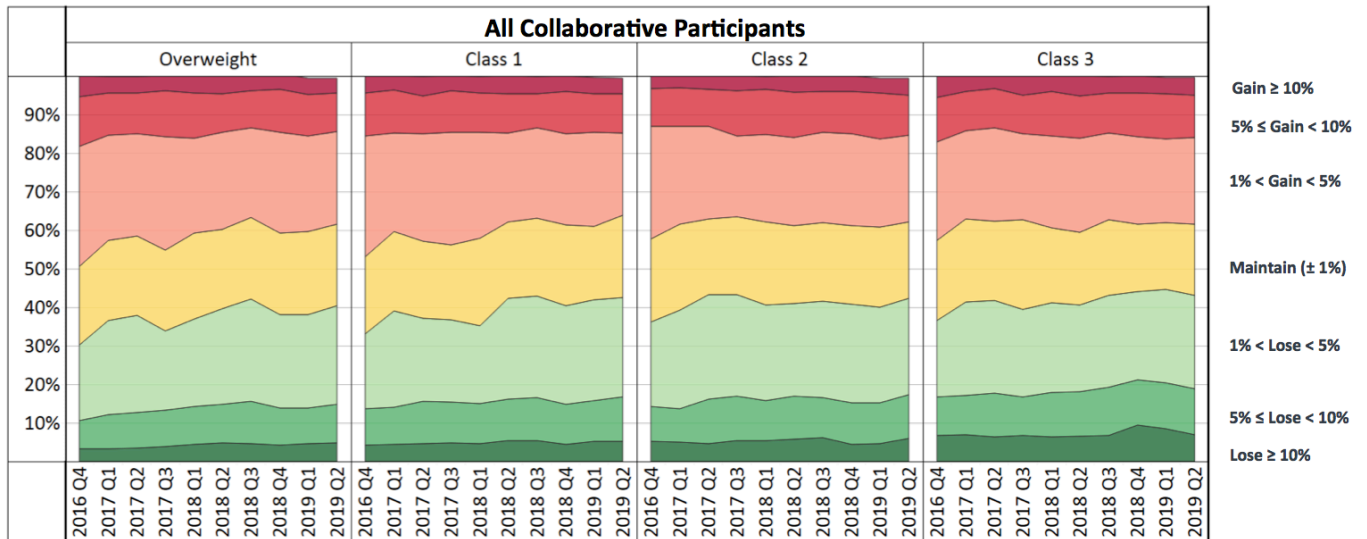
Prescribing Anti-Obesity Medications

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

All HCOs

Class 1		Class 2		Class 3	
2018 Q1	2019 Q2	2018 Q1	2019 Q2	2018 Q1	2019 Q2
1.9%	2.4%	3.1%	3.8%	4.4%	5.1%

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Project Team

Primary Care Champions
Andrew Toth, M.D.; Tyler Sherman, D.O.; Bethany Lynn, M.D.

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