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Correspondence Memorandum

Date: January 20, 2022

To: Group Insurance Board

From: Renee Walk, Lead Policy Advisor
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Office of Strategic Health Policy

Subject: 2020 Benefit Change Review: Bariatric Surgery

This memo is for informational purposes only. No Board action is required

Background

In 2019, the Department of Employee Trust Funds (ETF) proposed adding coverage of bariatric surgery to all health insurance plan designs offered by the Group Insurance Board (Board) (Ref. GIB | 05.15.2019 | 8C). This benefit had been covered in the past only by the Access Plan, a nationwide preferred provider organization (PPO) plan. In 2018, as part of a bid to simplify benefits overall, the Access Plan's benefits were standardized to the benefits offered by Uniform Benefits (UB), the coverage offered by all other regional health maintenance organizations (HMOs) in the Board's program (Ref. GIB | 02.08.2017 | 8C). This resulted in bariatric surgery no longer being covered under any benefits offered by the Board.

Bariatric surgery continued to be an often-requested benefit from both members and the provider community. In response to these requests to restore coverage, ETF reviewed and proposed restoring coverage. This memo provides a summary of that review and factors leading to the recommendation to change, the coverage that was ultimately implemented, and what is known to date about the impacts of this benefit change.

Health Benefit Change

Following requests for consideration, ETF reviewed the most recently available literature related to bariatric surgery and its effects on both near and long-term health. Wisconsin Medicaid has long covered bariatric surgery as a benefit due to the positive health impacts to members that extend beyond simple weight loss—many members with comorbid diabetes experience improvement in that condition following surgery, even if they regain weight. In addition to improved patient health outcomes, bariatric surgery has been shown to reduce the overall cost of care for members due in part to improvement of comorbid conditions.

ETF offered three options to the Board for allowing bariatric surgery coverage:

Reviewed and approved by Eileen K Mallow, Director, Office of Strategic Health Policy Electronically Signed 01/28/2022

Eileen K Mallow

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GIB	2.16.22	7A

1. Cover only surgeries for members with a body mass index (BMI) of 35 or higher.
2. Cover surgery and weight loss services for members with BMI of 35 or higher.
3. Cover surgery and weight loss services as approved by health plans.

A BMI of 35 was the point at which the preponderance of literature seemed to show greater benefits for surgery versus other weight management approaches. The bariatric surgery itself is only one component of the successful procedure—evidence-based protocols require patients to receive a variety of services, including nutritional and other mental health counseling, to help ensure patients are prepared and that no other conditions exist that should be treated first. Because of these two factors, ETF recommended Option 2 to the Board. Through discussion, the Board approved Option 2 with the note that, if health plans had existing evidence-based criteria that would allow surgery for BMIs of less than 35, they would be allowed to do so. All bariatric surgeries, regardless of BMI, require prior authorization by the health plan. This change to UB was implemented for program year 2020.

Bariatric Surgery Types and Coverage Criteria
As required by the Group Health Insurance Program (GHIP), all plans cover bariatric surgery when a member has a BMI of 35 or greater. Plans do have differing prior authorization requirements, however, which could play meaningfully into how many surgeries are covered, for whom, and when.

ETF reviewed available criteria or summaries of criteria from all health plans participating in the GHIP. All plans indicated that they covered sleeve gastrectomy and Roux-en-Y gastric bypasses, two types of bariatric surgery. The majority also covered biliopancreatic diversion with duodenal switch (BPD/DS) and lap bands. These four procedures make up the most common types of surgeries. The only real disputed coverage area appeared to be in vertical gastric banding; only a few plans covered this procedure and only in limited circumstances. One plan indicated specifically that this procedure is no longer the standard of care. These surgeries range in how physically intensive they are, riskiness, and reversibility[1]. These factors may play into the cost of these surgeries, both for the procedure and follow up care needs.

Half of the plans do not allow bariatric surgery coverage for BMIs lower than 35. Of those that do, all require members to also have a diagnosis of Type 2 Diabetes with uncontrolled high blood sugar in order to qualify for surgery. Otherwise, plan preparatory requirements were generally similar; most require that a member meet with a multi-disciplinary care team before surgery, including assessments from a nutritional counselor and a behavioral health counselor. A few plans require that members are alcohol and drug free for at least six months before surgery, and tobacco free for at least six weeks to three months before surgery. Several plans also require that no eating disorder diagnosis be present, or that prior diagnoses be treated before

[1] Mayo Clinic. Bariatric Surgery. Retrieved January 20, 2022 from https://www.mayoclinic.org/tests-procedures/bariatric-surgery/about/pac-20394258.

consideration for surgery. These requirements are echoed in Wisconsin Medicaid criteria and are aimed at reducing poor post-surgical outcomes.

Members who are seeking bariatric surgery can work with their providers to request the prior authorization criteria from their health plan. ETF recommends members do this in coordination with their providers so that they can ensure that all steps required are taken and appropriately documented for the prior authorization request.

Experience
ETF used the data available in DAISI, the data warehouse provided by IBM Watson Health, to examine the GHIP's bariatric surgery experience to date. ETF used the following selection criteria, based upon the prior authorization requirements provided by the health plans, to select a comparable cohort for study.

Population Group Demographics & Experience
Based on bariatric surgery criteria provided by the health plans and medical claims experience, only 7,832 members in 2020 and 7,176 members in 2021 were eligible for bariatric surgery; these numbers represent roughly 4.5% of members in each year. Of those eligible, 59% were female. Members who met the eligibility criteria had threefold higher IBM-assigned risk score (255) than members who do not meet eligibility criteria (77). Concurrently, eligible members had an average total allowed per member per year (PMPY) cost that was three times that of a non-eligible member. Table 1 below shows the compared risk, costs, and utilization of members in the eligible versus non-eligible groups.

Table 1. GHIP Members by Eligibility for Bariatric Surgery, Associated Use and Costs, 2020

Population Group	Average Risk Score*	Average Total Allowed PMPY**	Average Pharmacy Scripts Per Year	Average Medical Visits Per Year	ER Visits per 1,000	Admits Per 1,000
Not Eligible	77	$5,415	11	8	196	37
Eligible	255	$18,341	30	18	551	167

* Average concurrent rescaled relative risk score
** Outliers, based on total allowed amount (medical and pharmacy) were removed from each of the populations so the financial and utilization metrics are not skewed by extreme high-cost members.

Beyond overall higher use, the specific needs of bariatric surgery-eligible members differed from the non-eligible group. Table 2 below shows a comparison of the top 10 clinical conditions in each group.

Table 2. Top 10 Clinical Conditions, Bariatric Surgery Non-Eligible v. Eligible, 2020-2021

Top 10 Clinical Conditions	
Not Eligible	Eligible
1. Eye Disorders	1. Diabetes
2. Arthropathies/Joint Disorders	2. Arthropathies/Joint Disorders
3. Spinal/Back Disorders, Low Back	3. Hypertension
4. Spinal/Back Disorders, Ex Low	4. Respiratory Disorder
5. Depression	5. Eye Disorders
6. Hypertension	6. Spinal/Back Disorders, Low Back
7. Anxiety	7. Lipid Disorders
8. ENT Disorders	8. Osteoarthritis
9. Gastrointestinal Disorders	9. Gastrointestinal Disorders
10. Lipid Disorders	10. Cardiovascular Disorders

Bariatric Surgery Experience

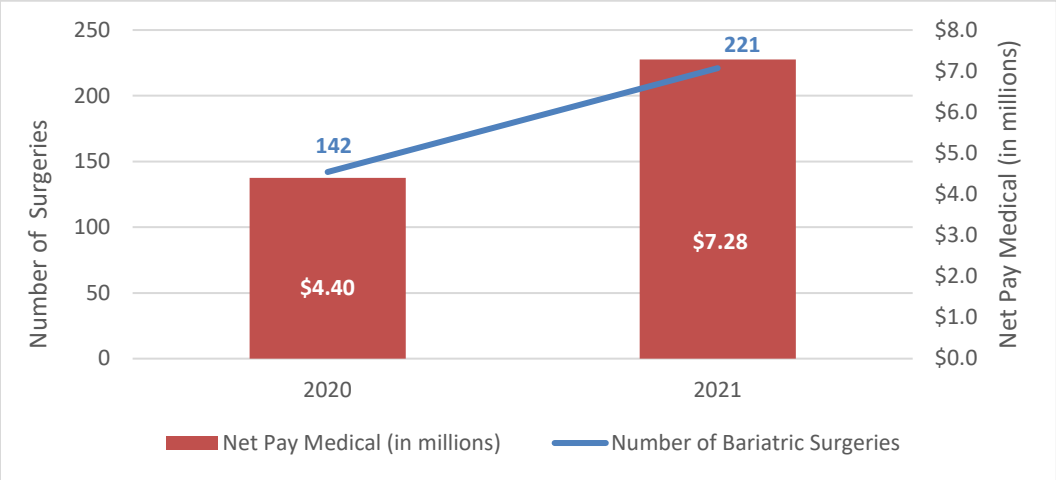
Of the members who had bariatric surgery in 2020 and 2021, 80% were female. 95% of surgeries were performed inpatient, with an average net pay for medical services of $31,890 per patient. The average net paid for bariatric surgeries performed in outpatient hospitals was $15,914. Some of this difference may be due to the higher cost of the inpatient setting itself, more invasive surgeries, and higher patient risk requiring inpatient surgeries; higher risk patients may not be able to have surgery done in outpatient settings.

Chart 1 below shows the number of bariatric surgeries performed in each year. 2021 data is only partial: results include claims incurred through August and paid through November. Regardless of the missing final months, the reader can see a substantial increase in the number of surgeries performed in 2021 over 2020. This is likely attributable in part to delayed care due to the pandemic, and in part due to pre-surgical requirements that take between six months and a year to be satisfied by members.

Two of the Board's contracted health plans did not have any members receive bariatric surgery in the two prior years studied. For all other health plans, less than 1% of their membership had a bariatric surgery in either year. Due to the small number of total surgeries and the small number of surgeries per plan, ETF has not provided a breakdown of surgeries by plan in this memo.

The total cost of bariatric surgery to the GHIP was also small. Chart 1 shows the cost increases proportionally to the number of surgeries. Bariatric surgeries cost GHIP plans a total of $4,400,551 in 2020 and $7,278,715 in 2021. For all health plans, excluding the two that had no bariatric surgeries in either year, the total net pay for bariatric surgery was less than 1.20% for any plan. ETF also looked at whether any plan had substantially more surgeries than another; according to the available data, there was no plan that was more disadvantaged by high volume use than any other plan.

Chart 1. Bariatric Surgery Utilization & Costs, 2020 - 2021



Anticipated Outcomes Based on Research

As part of the justification to the Board in adding this benefit, ETF looked at the possibility of recovering the cost of surgeries due to improvement in health outcomes and reduced utilization of chronic condition management services.

One matched-cohort study showed that, for patients with type 2 diabetes, those who underwent bariatric surgery reduced their insulin use to 43% by the third month post-surgery, versus a utilization rate of 84% in the control group. At month 6, only 28% of surgery patients still had a diagnosis of diabetes, compared to 74% of the control group. The authors estimated that the costs of the surgery were fully recovered 26 months after the surgery took place[2]. Another study that looked specifically at adolescent patients showed that those who had gastric bypass were able to maintain substantial weight loss after five years, with remissions of diabetes and hypertension that happened at higher rates than an adult cohort to whom they were compared[3].

The Institute for Clinical and Economic Review (ICER) provided its most recent review of obesity management, including bariatric surgeries, in 2015. In it, ICER provides an analysis of the short- and long-term economic impacts of weight loss treatments. The literature review attempts to capture both the positive impacts such as disease remissions and improved overall quality of life, as well as negative impacts such as the quality-of-life reductions associated with surgery, complications, adverse events, and death. For each of the surgeries covered by GHIP plans, ICER found a reduction in BMI

[2] Klein, S., Ghosh, A., Cremieux, P., Eapen, S., & McGavock, T. (2011, March 1). Economic Impact of the Clinical Benefits of Bariatric Surgery in Diabetes Patients With BMI ≤35 kg/m2. Wiley Online Library. https://onlinelibrary.wiley.com/doi/full/10.1038/oby.2010.199

[3] Inge, T., Courcoulas, A., Jenkins, T., Michalsky, M., Brandt, M., Xanthakos, S., et. al. (2019, May 16). Five-Year Outcomes of Gastric Bypass in Adolescents as Compared with Adults. NEJM. DOI: 10.1056/NEJMoa1813909

that was greater than that for standard, non-surgical care. BMI changes were the most significant in patients with BMI of 40+, as were cost-effectiveness values.[4]

The Board's coverage has only been in place since January 2020, a notably unusual year for all types of elective surgeries. The Board might expect to begin to see reductions in some of the services associated with diabetes management for members who had their surgeries in 2020, but according to the literature more would be expected in the years to come.

Next Steps

Despite being implemented in 2020, data on bariatric surgery outcomes and costs are still relatively new. ETF will continue to analyze this data as more becomes available. In particular, ETF plans to provide additional analysis on a per-procedure basis, so that differences in outcomes for different surgery types are more visible. ETF plans to bring another review of this benefit to the Board in 2023. At that time, ETF hopes to have enough available data to create cohort study groups for the eligible and non-eligible populations, and to follow each group's cost, quality, and health outcomes. ETF also plans to provide a deeper review of cost and utilization by bariatric surgery type, as well as any discernible health impacts by surgery type. In future years, ETF also hopes to be able to better state whether the return on investment anticipated by the literature is demonstrated in the Board's population.

Staff will be available at the Board meeting to answer any questions.

[4] Institute for Clinical and Economic Review. (2015, August 14). Controversies in Obesity Management. Retrieved January 20, 2022 from http://icerorg.wpengine.com/wp-content/uploads/2020/10/CTAF_OM_Final_Report_081015.pdf