

Prevalence and Comorbid Condition Trends for Obesity Within US Self-Insured Employers

Richard A. Brook, MS, MBA¹⁻²; Ian A. Beren, BS³; Eric M. Rosenberg, MA⁴;
Chester Bernie Good, MD, MPH⁵; Samuel K. Peasah, PhD⁵.

¹Better Health Worldwide, Newfoundland, NJ. ²The National Payor Roundtable, Glastonbury, CT. ³Workpartners, LLC, Loveland, CO.

⁴Workpartners, LLC, Pittsburgh, PA. ⁵Center for High-Value Health Care, UPMC Health Plan, Pittsburgh, PA.

Background

- Obesity is a significant burden on the US health care system. An estimated \$168 billion—16.5% of US health expenditures—is spent annually to treat obesity and obesity-associated comorbid conditions. Bariatric surgery is a well-documented treatment for obesity that leads to considerable weight loss and health improvement.¹
- The demonstrated efficacy of glucagon-like peptide-1 (GLP-1) agonists for obesity-management and weight loss has driven patients to seek diagnoses (Dx) to access these medications.²
- The short term costs of these new medications have changed change coverage policies, our findings suggest these drugs may reduce overall.

Objectives

- Describe the trends in obesity diagnosis, GLP-1 use, costs (pharmacy, medical and absence), comorbid conditions in employees and covered-spouses.

Study Population

- The Workpartners Research Reference Database (RRDb)³⁻⁵ contains claims for US employees linked to their dependents within all 50 states from 2001 to present and includes over 5.5 million employees and dependents with medical and pharmaceutical claims, and for employees:
 - Enhanced demographics (including race, marital status, salary, job type, full/part-time status, exempt/non-exempt status)
 - Absence and disability (short- and long-term), Family Medical Leave Act (FMLA) claims including durations and payments
- See online supplemental materials for additional RRDb information.

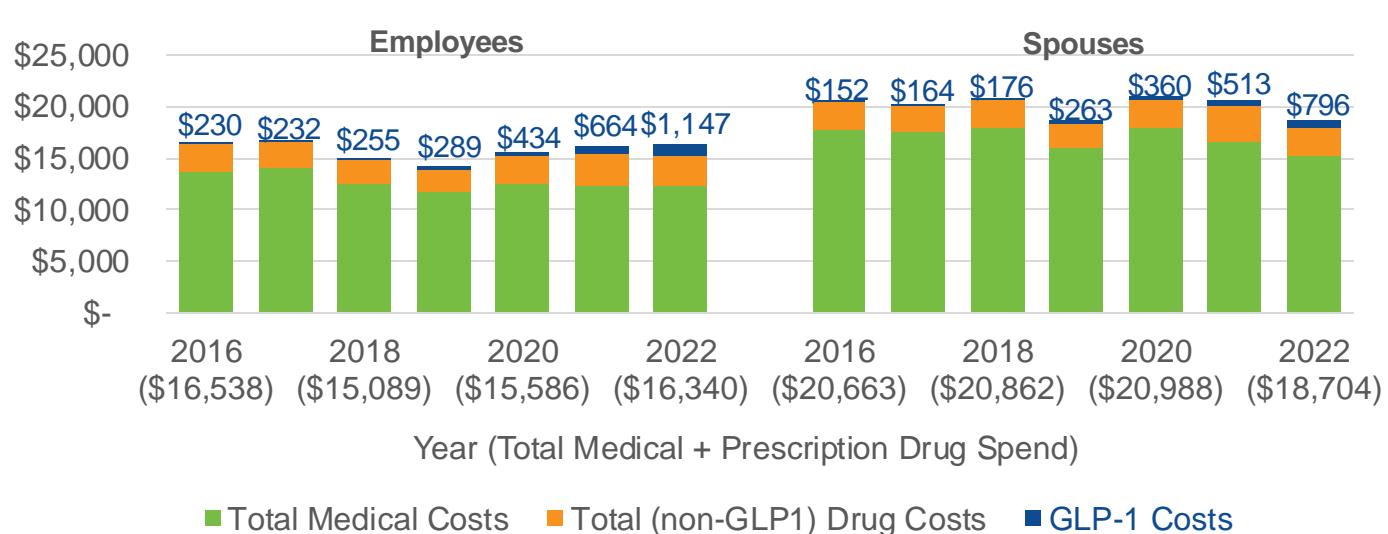
Methods

- Retrospective analysis of US patients in the RRDb (2016-2022).
- Patients with paid claims for obesity were identified by ICD-10 codes.
- Patients were assigned to annual employee and spouse cohorts based on initial obesity Dx (index) year.
- All patients has >1 year continuous data following initial Dx and data in 2022.
- Analysis focused on annual obesity: prevalence, demographics, obesity- and total-medical-costs, GLP-1 and total drug costs, % receiving GLP-1s and obesity drug therapy, % undergoing bariatric procedures, % with a type II diabetes (T2DM) or sleep apnea diagnosis.
- Analyses also looked at annual trends and patients continuing GLP-1 therapy year-2.
- Per patient per year (PPPY) costs adjusted to December 2023 US dollars.

Results

- A higher percentage of diagnosed employees and spouses were female.
- Average age for employees with obesity diagnosis was younger than spouses similarly diagnosed.

Total PPPY Medical, (GLP-1 and Non-GLP1) Rx Costs

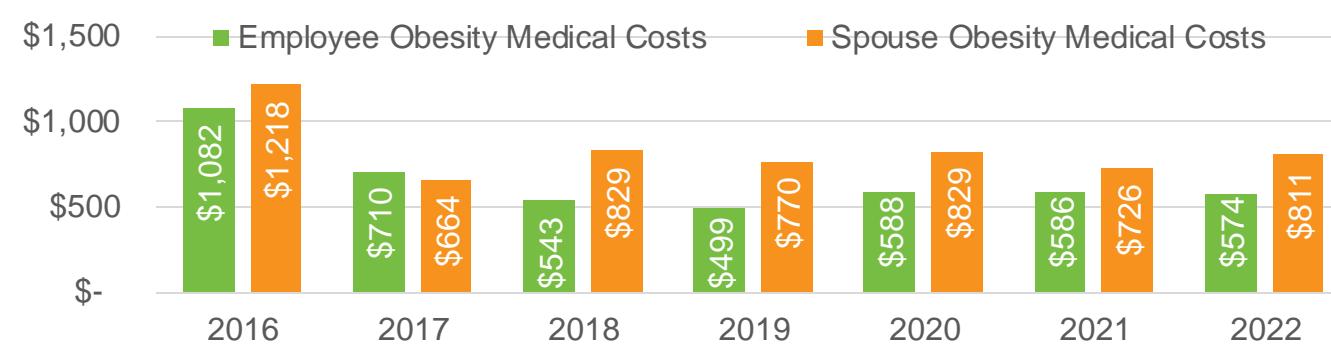


- Obesity prevalence increased from 4.8% in 2016 to 6.4% in 2022.*

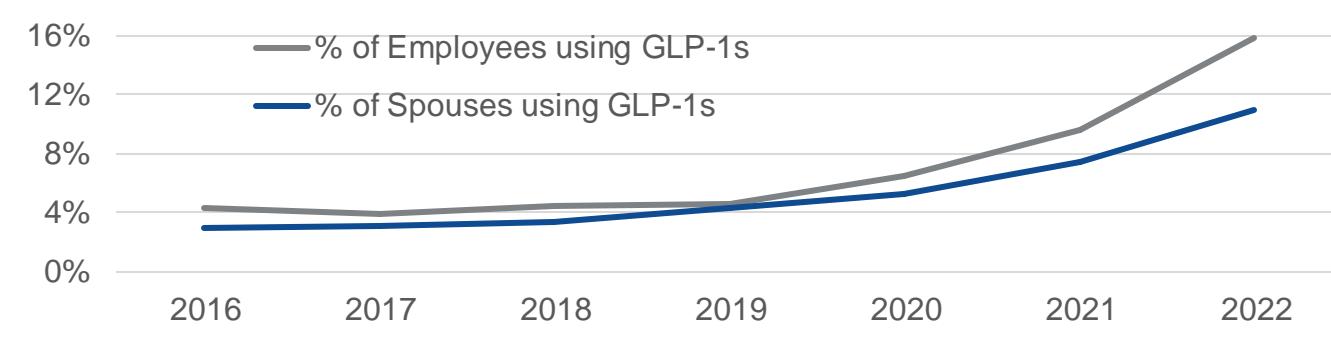
Results (continued)

- Obesity PPPY medical costs had decreasing trends for employees from \$1,082 to \$574 and for spouses from \$1,218 to \$811.*
- Use of GLP-1s consistently increased from 2016 to 2022 for employees from 4.3% to 15.8% and for spouses from 3.0% to 10.9%.*

Obesity PPPY Medical Costs by Year



Employees and Spouses using GLP-1s



Patients diagnosed with obesity	Year of Initial Diagnosis						
	2016	2017	2018	2019	2020	2021	2022
Employees, N per year (total = 63,196)	13,186	10,251	9,038	8,223	7,076	7,775	7,647
Average Age at index date, in years	46.7	46.6	45.8	45.7	45.6	45.4	45.4
Percent female, %	60%	58%	57%	57%	59%	59%	59%
Spouses, N per year (total = 31,330)	6,894	5,253	4,490	3,960	3,433	3,681	3,619
Average Age at index date, in years	48.3	48.4	47.9	47.9	47.9	48.1	47.8
Percent female, %	67%	66%	65%	65%	62%	63%	65%

- The % of GLP1 users continuing in year-2 increased from those initially diagnosed in 2016 from 73%→84% in 2022.*
- Employee absence costs and days decreased from 2016 to 2021 (\$2,738→\$1,168, 9.8→5.3 days) and increased in 2022 (\$1,212, 7.1 days) likely reflecting return to work-based utilization.*

Conclusions

- Among self-insured employers, the prevalence of obesity increased during the study, but is low compared with overall US reports of >20%.⁶
- The utilization and cost of glucagon-like peptide-1 agonists (GLP-1s) have been increasing in 2019, but medical costs remain flat or decreasing.
- Further research needed to determine:
 - If those diagnosed with obesity are the most severely obese, or randomly represent those seeking treatment
 - If persistence with GLP-1s beyond year 1 translates into additional savings
 - The impact of the decline in obesity on all direct costs and indirect costs and lost time for benefits such as Workers Compensation, Family Medical Leaves, short- and long-term disability

References

- Weiner JP, et al. *JAMA Surg*. 2013 Jun;148(6):555-62. doi: 10.1001/jamasurg.2013.1504.
- Liu Y, et al. *Am J Clin Nutr*. 2023 Sep;118(3):614-626. doi: 10.1016/j.ajcnut.2023.04.017.
- Judy J, et al. *J Med Econ*. 2024 Jan-Dec;27(1):941-951.
- Brook RA, et al. *Postgrad Med*. 2015 Jun;127(5):455-62.
- Hendin B, et al. *J Health Econ Outcomes Res*. 2023 Apr 13;10(1):91-101.
- Adult Obesity Prevalence Maps. US Dept of Health & Human Services; 2023.

*See charts in online supplemental materials.

