

BACKGROUND

- Semaglutide and tirzepatide are two treatments used to manage blood glucose levels in patients with type 2 diabetes (T2D) and have also been approved for weight loss.¹
- While efficacy and safety profiles of these treatments have been established in clinical trials, patient characteristics and effectiveness in treatment of T2D in the real-world setting are not well understood.

OBJECTIVES

- The objective of this research was to characterize type 2 diabetes (T2D) patients initiating semaglutide and tirzepatide and to describe subsequent weight loss and change in body mass index (BMI) in the real-world setting.

METHODS

- Electronic health records from 6 integrated delivery networks within the OMNY Health real-world data platform from 2017 to 2024 were accessed.
- Patients were included if they ever had a diagnosis code for T2D, initiated semaglutide or tirzepatide, had an assessment of weight or BMI at treatment initiation, and had at least 1 follow-up assessment.
- Weight status at treatment initiation was categorized using BMI per international guidelines as follows²:
 - < 18.5: Underweight
 - 18.5 to < 25: Healthy weight
 - 25 to < 30: Overweight
 - 30 or above: Obese
- The following weight-related outcomes were evaluated at 3, 6, 9, and 12 months after treatment initiation:
 - Change in absolute weight
 - Change to a healthier BMI category (e.g., obese to overweight, overweight to healthy weight, etc.)

REFERENCES

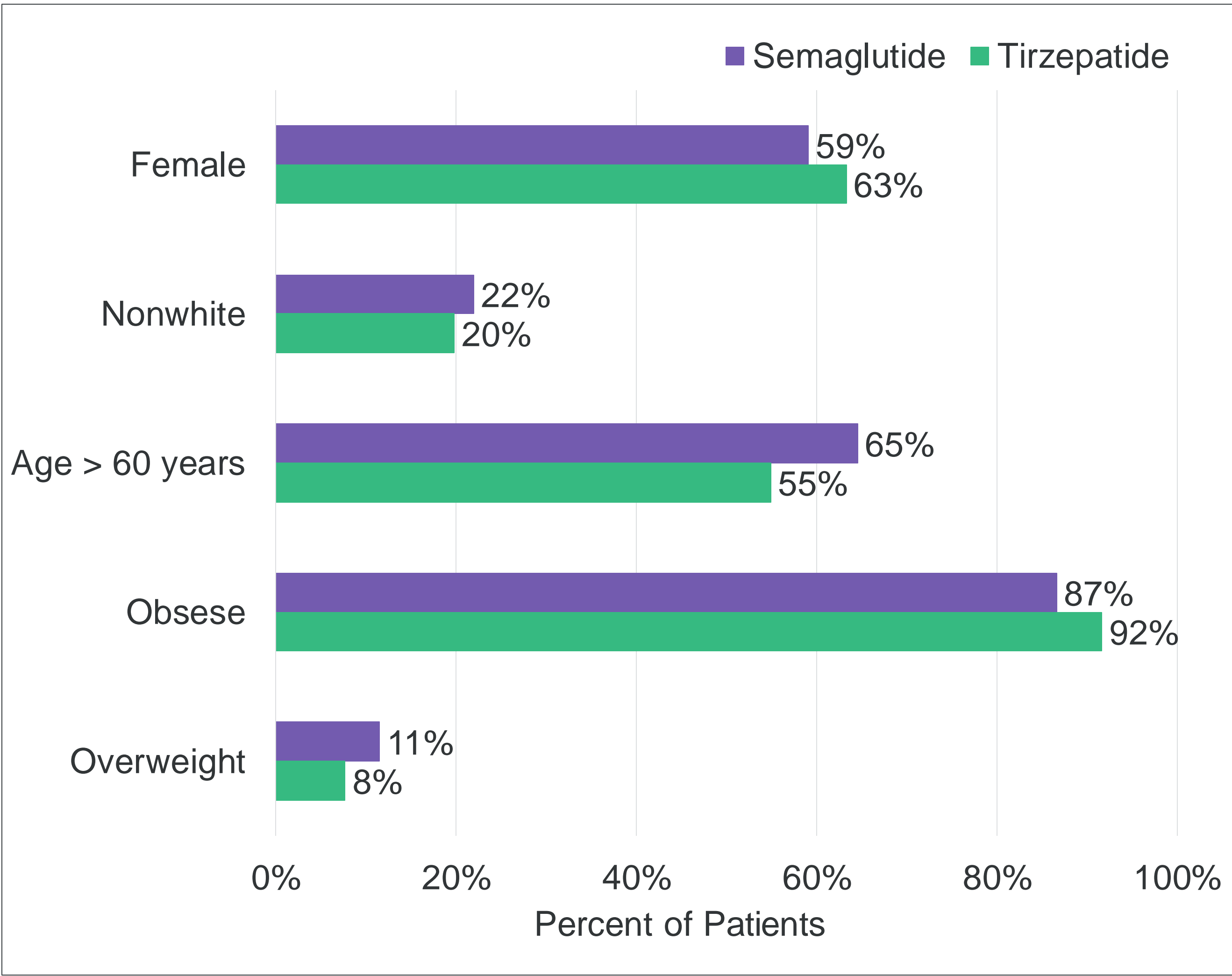
1. Frías JP, Davies MJ, Rosenstock J, Pérez Manghi FC, Fernández Landó L, Bergman BK, Liu B, Cui X, Brown K; SURPASS-2 Investigators. Tirzepatide versus Semaglutide Once Weekly in Patients with Type 2 Diabetes. N Engl J Med. 2021 Aug 5;385(6):503-515.

2. Centers for Disease Control and Prevention.
https://www.cdc.gov/healthyweight/assessing/bmi/adult_bmi/index.html

RESULTS

- Of over 1.5 million T2D patients:
 - 148,687 had a prescription for either semaglutide or tirzepatide
 - 99,026 had a weight or BMI assessment at treatment initiation
 - 13,053 (10,530 semaglutide, 2,523 tirzepatide) had at least 1 follow-up assessment that occurred at the 3-, 6-, 9-, and/or 12-month mark (+/- 1 month)
- Patient characteristics at baseline are summarized in Figure 1:
 - Distributions of gender (60% female) and race (22% nonwhite) were similar between semaglutide and tirzepatide patients.
 - A higher proportion of semaglutide patients were ages > 60 years (65% vs. 55%)
 - At treatment initiation, 88% of patients were obese, and 11% were overweight.

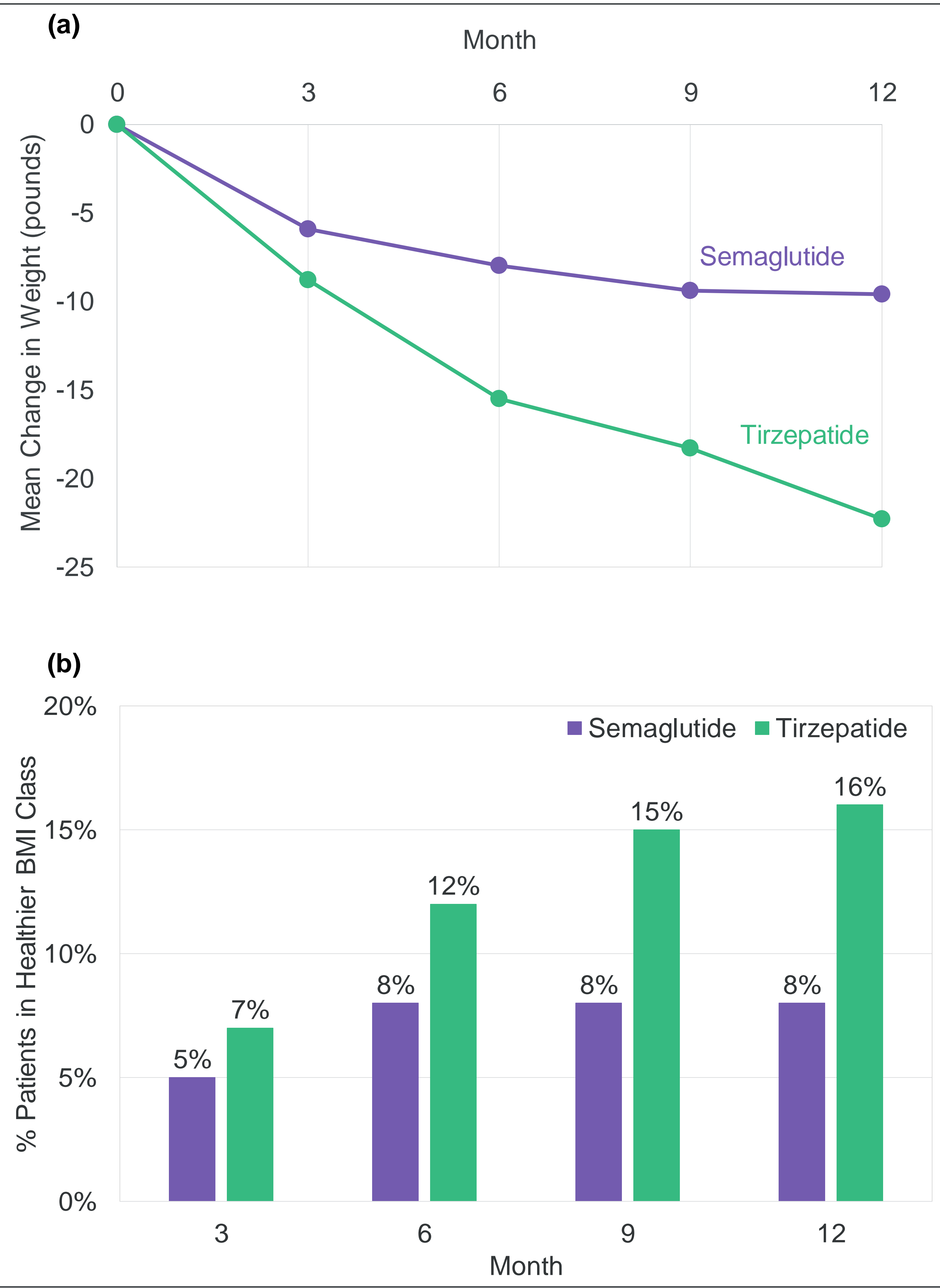
Figure 1: Patient Characteristics at Treatment Initiations



Note: Percentages were based on non-missing data.

- Weight-related outcomes are summarized in Figure 2:
 - Mean weight loss (semaglutide/tirzepatide) from treatment initiation was 6.6 (5.9/8.8), 9.5 (8.0/15.5), 10.7 (9.4/18.3), and 11.2 (9.6/22.3) pounds at 3, 6, 9, and 12 months, respectively.
 - Proportions of patients classified into a healthier weight class (semaglutide/tirzepatide) were 6% (5%/7%), 8% (8%/12%), 9% (8%/15%), and 9% (8%/16%) at 3, 6, 9, and 12 months, respectively.

Figure 2: Weight-Related Outcomes in Patient Population (a) Change in Weight, (b) Classification into Healthier BMI Class



DISCUSSION AND CONCLUSIONS

- Results provide a descriptive insight into the T2D patient experience in the real-world setting.
- Future analyses may include multivariable and/or propensity score analyses for formal treatment comparison.

CONTACT INFORMATION

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