

## Objectives

- We previously reported that the prevalence of obesity (body mass index [BMI]  $\geq 30\text{kg/m}^2$ ) and severe obesity (BMI  $\geq 40\text{kg/m}^2$ ) among hospitalized patients increased steadily between 2017 and 2021 and most notably among 20-39 years old patients.
- With the widespread use of GLP-1 anti-obesity medication, we aimed to update the yearly trend of obesity among hospitalized adult patients between 2021 and 2025.

## Methods

### Data Source

- Geographically diverse, large US hospital and health system-based administrative Premier Healthcare Database (PHD)

### Study Population & Design

- Retrospective cross-sectional study
- Period: Jan 1, 2021 – Dec 31, 2025
- Inclusion criteria:
  - ✓ Aged  $\geq 20$  years on index admission date
  - ✓ Had an inpatient visit at one of the PHD hospitals between January 1, 2021, and December 31, 2025
  - ✓ Had valid height and weight records in PHD
- Exclusion criteria:
  - ✓ Pregnancy-related visit

### Outcomes

- Prevalence of obesity and class III obesity

### Definitions

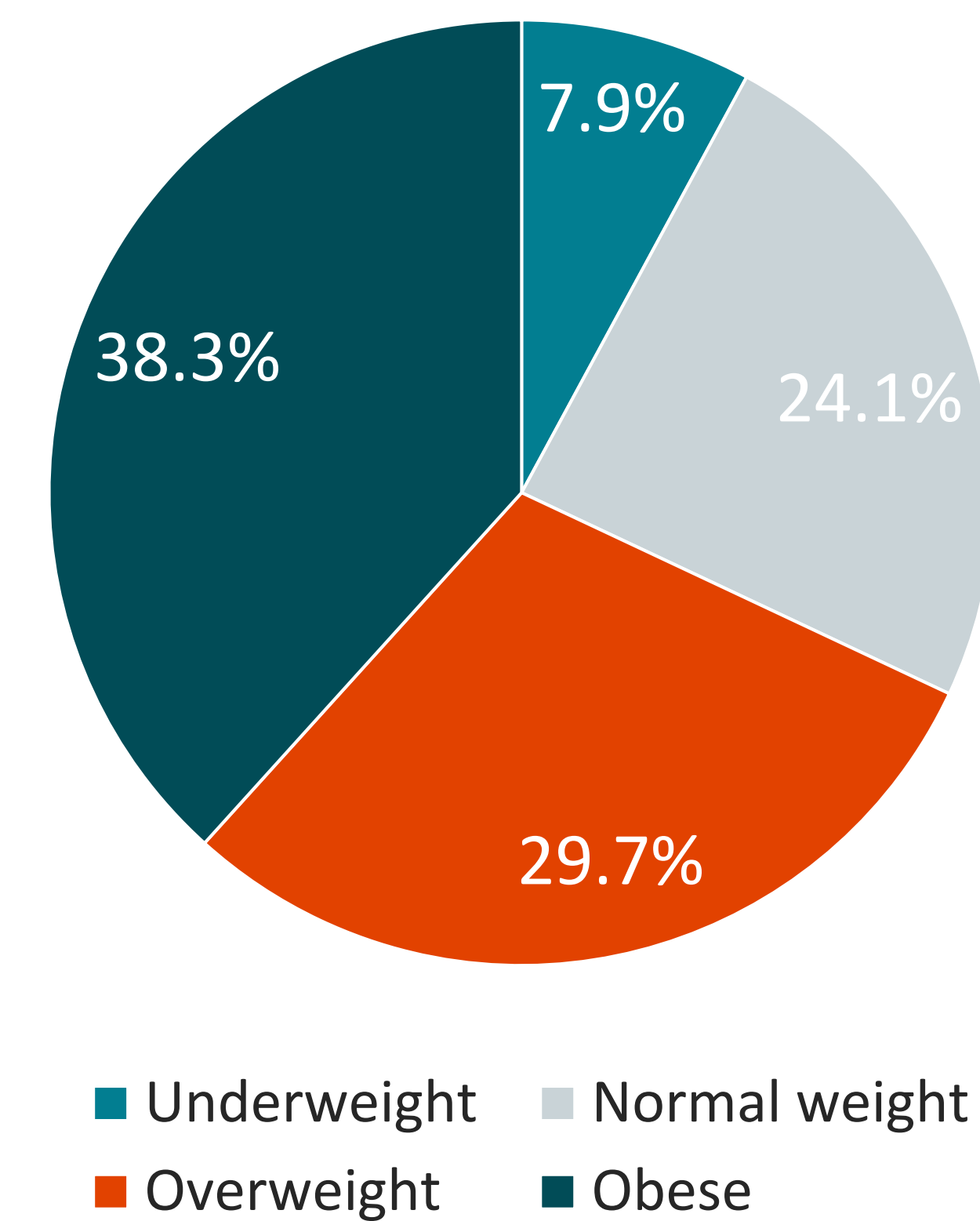
|                   |  |
|-------------------|--|
| Class I obesity   | BMI $\geq 30.0$ and $< 35.0\text{ kg/m}^2$ |
| Class II obesity  | BMI $\geq 35.0$ and $< 40.0\text{ kg/m}^2$ |
| Class III obesity | BMI $\geq 40.0\text{ kg/m}^2$              |

### Statistics

Descriptive statistics are reported using mean (standard deviation) or median (1st quartile, 3rd quartile) for continuous variables and as counts and percentages for categorical variables.

## Results

2,163,987 Eligible patients



Mean (SD) age: 64.2 (17.2) years

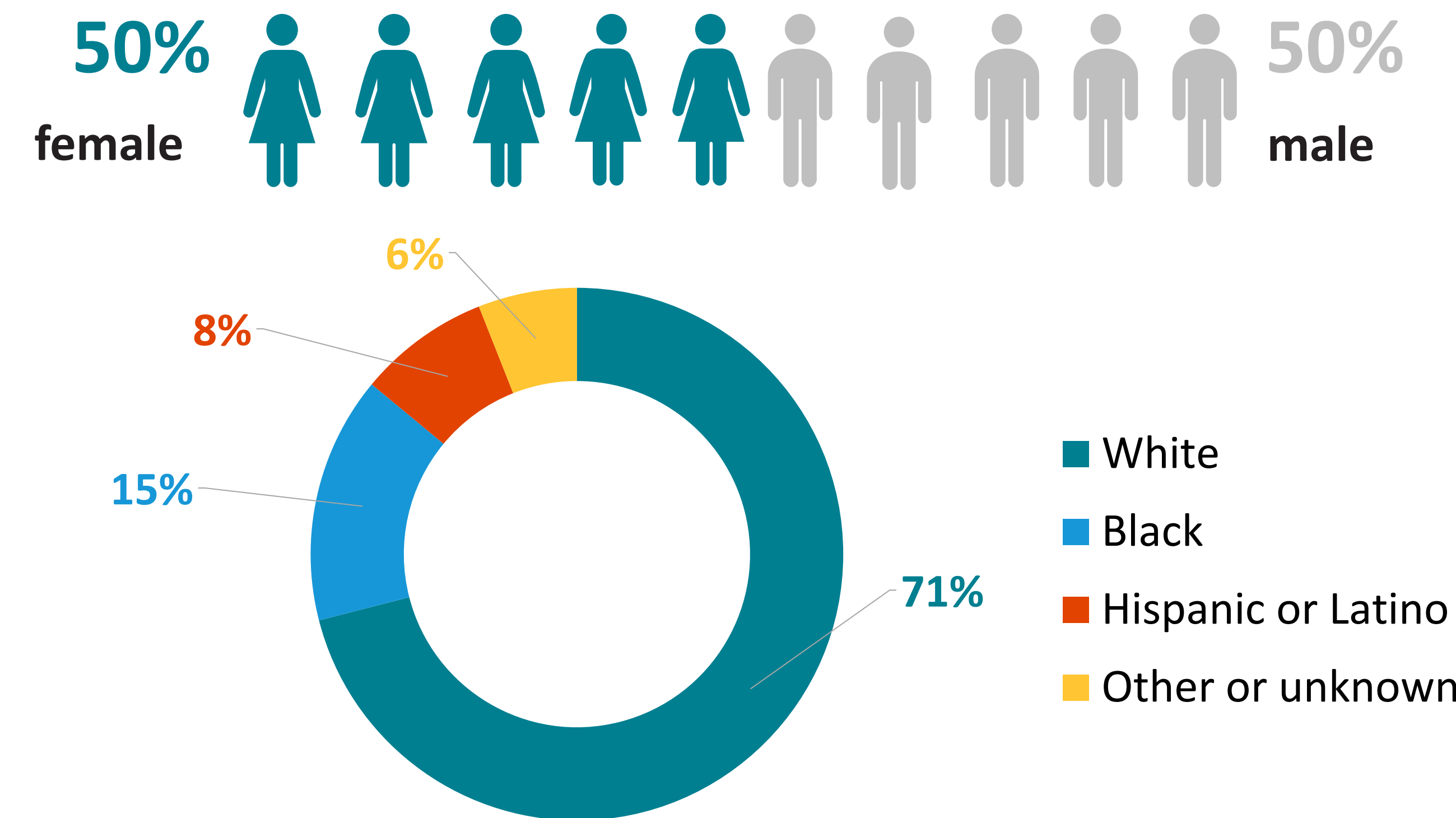
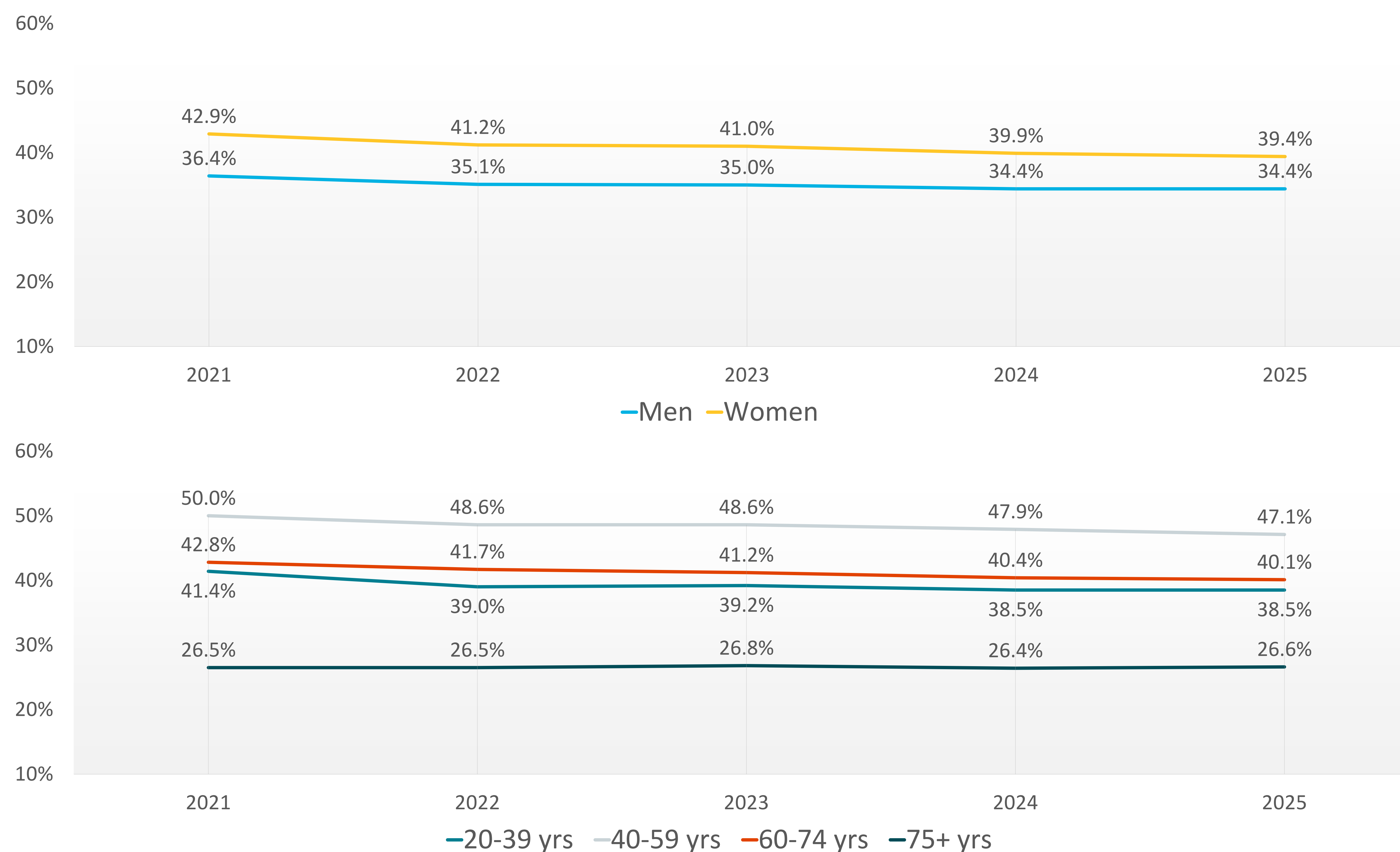


Table. Prevalence of obesity among hospitalized patients between 2021-2025

|                          | 2021<br>(N = 662,217) | 2022<br>(N = 529,687) | 2023<br>(N = 413,077) | 2024<br>(N = 314,793) | 2025<br>(N = 244,213) |
|--------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| <b>Obesity, Overall</b>  | 262,513 (39.6%)       | 202,083 (38.2%)       | 157,051 (38.0%)       | 116,888 (37.1%)       | 90,117 (36.9%)        |
| <b>Class I Obesity</b>   | 129,832 (19.6%)       | 101,884 (19.2%)       | 79,874 (19.3%)        | 60,704 (19.3%)        | 47,047 (19.3%)        |
| <b>Class II Obesity</b>  | 67,479 (10.2%)        | 51,562 (9.7%)         | 40,190 (9.7%)         | 29,775 (9.5%)         | 23,285 (9.5%)         |
| <b>Class III Obesity</b> | 65,202 (9.8%)         | 48,637 (9.2%)         | 36,987 (9.0%)         | 26,409 (8.4%)         | 19,785 (8.1%)         |

Figure. Prevalence of obesity by sex and age group among hospitalized patients between 2021-2025



- Among 2,163,987 hospitalized patients, 38.3% were with obesity (n=828,652). The mean BMI was 29.3 ( $\pm 8.1$ )  $\text{kg/m}^2$  among all patients and 37.1 ( $\pm 7.2$ )  $\text{kg/m}^2$  among patients with obesity.
- Overall, most patients visited a large (500+ beds, 38.2%), teaching (56.6%), and urban (87.2%) hospitals in the South (59.1%). Distribution of hospital characteristics were similar for patients with obesity.
- Between 2021 and 2025, the prevalence of obesity decreased from 39.6% to 36.9% and the prevalence of class III obesity decreased from 9.8% to 8.1% (Table).
- Among men (n = 1,080,112), prevalence of obesity decreased from 36.4% to 34.4% and class III obesity decreased from 7.3% to 6.0%. Among women (n = 1,083,731), prevalence of obesity decreased from 42.9% to 39.4% and class III obesity decreased from 12.4% to 10.2% (Figure).
- No overall decrease in prevalence of obesity was observed among patients in the 75+ years old age group (Figure).

## Conclusions

- The overall prevalence of obesity among hospitalized adult patients between 2021-2025 is 38% and similar to that between 2017-2021.
- Contrary to the trend between 2017-2021, a decrease in the prevalence of obesity was observed overall and across different sex and age groups (with the exception of 75+ years old age group) between 2021-2025, indicating the peak of obesity prevalence in 2021.

## References

- Moon et al. Yearly Trend of Obesity Prevalence among Hospitalized Patients in the United States: 2017-2021 (ISPOR 2023 Poster EPH215)
- Premier Applied Sciences, Premier Inc. Premier Healthcare Database: Data that informs and performs (White Paper). March 2026. <https://offers.premierinc.com/Premier-Healthcare-Database-Download.html>

## Disclosure

This work was funded by Premier Inc. RM, GL, RL, and NR worked on this study as full-time employees of Premier Applied Sciences, Premier Inc.

## Acknowledgement

The authors thank Denise Juliano and Myla Maloney for their support of the study, and the PHD data team for making the data available for analysis.