

# RWD150 Tirzepatide and Weight Reduction Among Individuals Without Evidence of Type 2 Diabetes: Descriptive Results from Optum’s De- identified Market Clarity Data

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## OBJECTIVE

- To describe weight changes among adults with obesity or overweight without diagnosis of T2D taking tirzepatide.

## CONCLUSION

- Descriptive results suggest that tirzepatide use was associated with weight reduction in US adults with overweight or obesity and without a T2D diagnosis code.
- Among the 1117 adults who were AOM-eligible, without T2D diagnosis and filled a prescription for tirzepatide, 68.1% (n=761) were persistent on tirzepatide for ≥6 months.
- Of the 109 patients persistent on tirzepatide for 6 months with weight data available at baseline and 6-months post-index, 79.8% had ≥5% weight reduction, 54.1% had ≥10% reduction, and 28.4% had ≥15% reduction at 6-months post-index.
- The real-world 6-month weight reduction results from this study were generally consistent with those of SURMOUNT-1.

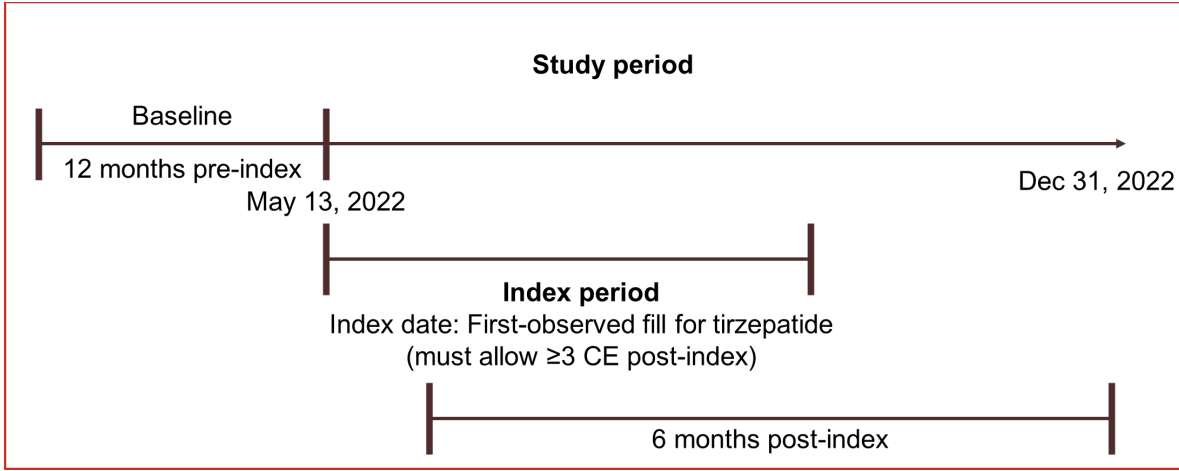


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## BACKGROUND

- Tirzepatide is a once weekly glucose-dependent insulinotropic polypeptide and glucagon-like peptide-1 receptor agonist approved in the US for treatment of type 2 diabetes (T2D) in May 2022 and obesity in November 2023.<sup>1,2</sup>
- Tirzepatide showed substantial weight reduction vs placebo in adults with obesity or overweight in the phase 3 SURMOUNT clinical trials.<sup>3,4,5</sup>
- However, there is a need to understand the impact of tirzepatide on weight reduction in the real-world.
- Tirzepatide was only approved for the treatment of T2D during the index period, therefore any use of tirzepatide by individuals without T2D during this time was off-label and solely at the discretion of their prescribing physician.

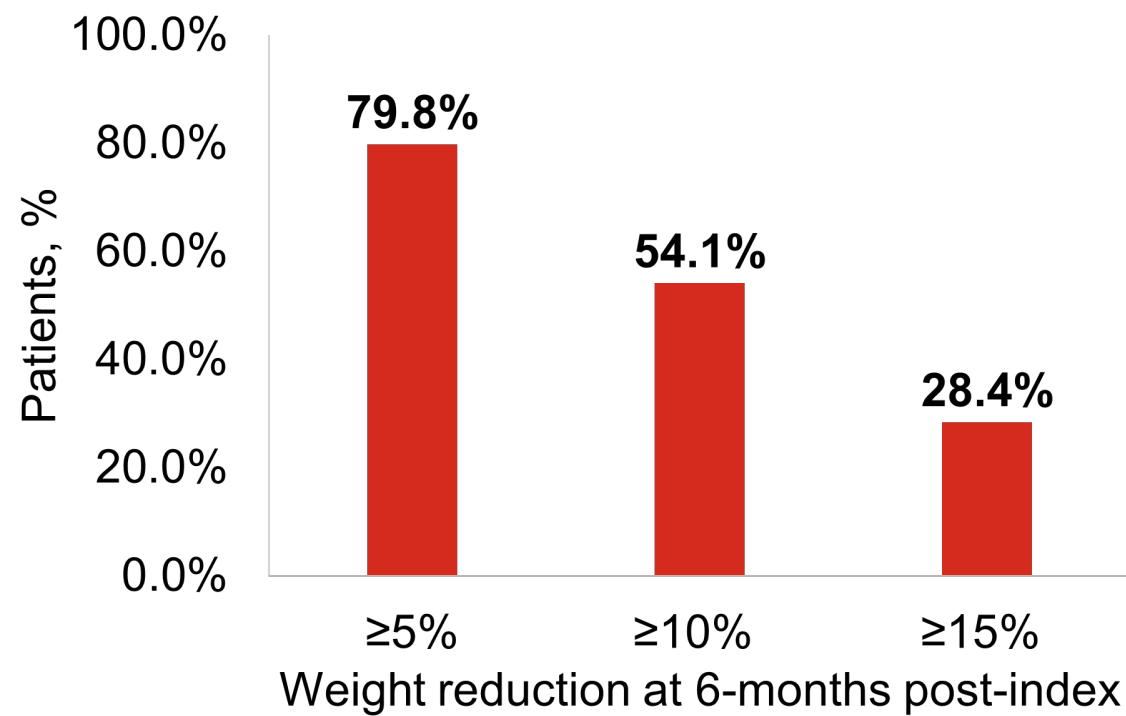
## STUDY DESIGN AND METHODS



- This retrospective, descriptive, US EHR-linked claims-based study was conducted using Optum’s de-identified Market Clarity data.
- Index date was the date of the first observed claim of tirzepatide (National Drug Code for Mounjaro) during the index period (May 13, 2022 – Dec 31, 2022).
- Demographic and clinical characteristics were assessed among adults (≥18 years) without a diagnosis of T2D, who were eligible for anti-obesity medication (BMI ≥30 kg/m2 [obesity]; or BMI ≥27 kg/m2 [overweight] with ≥1 weight-related comorbidity) and had a 6-month follow-up.
- A patient was considered persistent if their maximum gap in the index drug treatment was <60 days.
- Changes in weight were assessed among individuals who were persistent on tirzepatide for ≥6 months and had weight data at baseline and 6-months post-index.

## KEY RESULT

### Weight Reduction from Baseline to 6-Months Post-index



- A total of 109 individuals were persistent on tirzepatide for ≥6 months and had weight data at baseline and 6-months post-index.
- The majority of individuals (79.8%) had ≥5% weight reduction at 6-months post-index.
- Mean weight reduction from baseline to 6-months post index was -11.9kg (-26.2 lbs).

## RESULTS

### Baseline Demographics and Clinical Characteristics

Variables	All patients included (n=1117)	Patients persistent on tirzepatide for ≥6 months (n=761)
Age at index, mean (SD)	46.6 (10.7)	46.8 (10.5)
Female	836 (74.8)	581 (76.4)
Caucasian	914 (81.8)	635 (83.4)
Not Hispanic	922 (82.5)	635 (83.4)
Prescribing provider specialty at index, n (%)		
Primary care provider	832 (79.7)	572 (79.8)
Endocrinologist	76 (7.3)	57 (8.0)
Obstetrician-gynecologist	37 (3.5)	20 (2.8)
Gastroenterology	6 (0.6)	3 (0.4)
Others	78 (7.5)	56 (7.8)
Unknown	15 (1.4)	9 (1.3)
BMI in kg/m², mean (SD)	38.2 (7.4)	38.2 (7.4)
BMI (kg/m²) category, n (%)		
27–<30: overweight	71 (6.4)	50 (6.6)
30–<35: Class 1 obesity	321 (28.7)	220 (28.9)
35–<40: Class 2 obesity	308 (27.6)	214 (28.1)
40+: Class 3 obesity	417 (37.3)	277 (36.4)
Presence of AOMs, n (%)		
Any AOM	202 (18.1)	138 (18.1)
Wegovy	155 (13.9)	105 (13.8)
Saxenda	58 (5.2)	41 (5.4)
Qsymia	11 (1.0)	9 (1.2)
Contrave	18 (1.6)	11 (1.4)
Presence of lifestyle modification for weight reduction	34 (3.0)	22 (2.9)
Presence of bariatric surgery	<5	<5
Presence of non-AOM GLP-1 RA	225 (20.1)	151 (19.8)
Presence of metformin	205 (18.4)	142 (18.7)

AOM, anti-obesity medication; BMI, body mass index; GLP-1 RA, glucagon-like peptide-1 receptor agonist; ORC, obesity-related comorbidity; SD, standard deviation.

- Among the 1117 adults who were AOM eligible without a T2D diagnosis code, had 6-months follow-up, and filled a prescription for tirzepatide, 68.1% (n=761) were persistent on tirzepatide for ≥6 months.
- About 75% of the patients were females, over 80% were Caucasian, had a mean BMI of 38.2 kg/m2 and over 18% had previously used AOMs.

### Obesity-related Comorbidities in Baseline

Variables	All patients included (n=1117)	Patients persistent on tirzepatide for ≥6 months (n=761)
Number of ORCs*, mean (SD)	1.7 (1.5)	1.7 (1.6)
Presence of ORCs*, n (%)		
Any ORC	749 (67.1)	509 (66.9)
Hypertension	405 (36.3)	282 (37.1)
Dyslipidemia	387 (34.7)	270 (35.5)
Prediabetes	260 (23.3)	186 (24.4)
Gastroesophageal reflux disease	191 (17.1)	123 (16.2)
Obstructive sleep apnea	172 (15.4)	115 (15.1)
Male hypogonadism	39 (13.9)	28 (15.6)
Osteoarthritis	97 (8.7)	64 (8.4)
Asthma or reactive airway disease	92 (8.2)	62 (8.2)
Metabolic syndrome	88 (7.9)	53 (7.0)
Osteoarthritis of knee	80 (7.2)	53 (7.0)
Cardiovascular disease	67 (6.0)	49 (6.4)
Polycystic ovary syndrome	49 (5.9)	29 (5.0)
Metabolic dysfunction-associated steatohepatitis or metabolic dysfunction-associated steatotic liver disease	54 (4.8)	40 (5.3)
Urinary incontinence	29 (2.6)	20 (2.6)
Cerebrovascular disease	16 (1.4)	11 (1.5)
Peripheral vascular disease	8 (0.7)	6 (0.8)
Myocardial infarction	<5	<5
Female infertility	<5	<5

\*Does not include osteoarthritis of knee, peripheral vascular disease, cerebrovascular disease, and myocardial infarction. ORC, obesity-related comorbidity; SD, standard deviation.

- Over 65% of the patients had ≥1 weight-related comorbidity.
- Hypertension, dyslipidemia, and prediabetes were the most common comorbidities.

## LIMITATIONS

- Findings should be interpreted considering the limitations generally associated with administrative claims database analyses, including potential coding errors and incomplete data.
- The study results may not be generalizable to all populations because included patients may have different characteristics than those with no health insurance.
- There were only 109 patients that had weight data available at baseline and 6-month post index, so change in weight analyses could only be conducted in this small sample.
  - Patients with and without prior GLP-1 experience were included in these analyses.

### References

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