

Inside the GLP-1 Boom: Trends in Off-Label Use from Inovalon's Primary Source Data



GLP-1 agonists, like semaglutide (Ozempic), are changing the face of diabetes care while also gaining traction for off-label use.

Using Inovalon's MORE² Registry®, the largest primary source patient dataset, and advanced analytic solutions, we examined patient and provider characteristics associated with off-label usage. From a 256% increase in off-label prescriptions to a notable shift in patient demographics, the data reveals who is driving this surge and why.

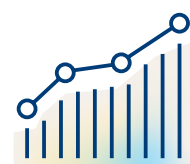
Learn which patients are most likely to receive these prescriptions, who's writing them, and what this could mean for the future of healthcare.

Data from 2022–2023

34% of GLP-1 agonist prescription fills in 2023 were for plan members without diabetes, up from 22% in 2022.

Prescription fills for patients without diabetes (off-label use) **tripled** between 2022 and 2023.

Key Insights from 2018 – 2022



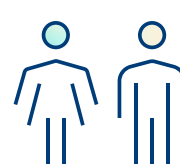
1,850% increase

in the number of patients treated with semaglutide between 2018 and 2022¹



256% increase

in off-label usage of semaglutide during 2018-2022¹



Over 1 in 5

patients¹ prescribed semaglutide appear to have received it off-label

In 2022, compared to patients receiving semaglutide on-label, those receiving it off-label were:

45.7
vs. 54.3 years
Younger

80.7%
vs. 60.1%¹
More likely to be female

64.9%
vs. 56.0%¹
More likely to have an obesity diagnosis

69.6%
vs. 51.5%¹
More likely to be commercially insured

Prescriber Trends

- Primary care (family) physicians** were the most predominant prescribers in 2022, followed by endocrinologists
- Specialists prescribed semaglutide therapy for commercial enrollees more frequently than for managed Medicaid, indicating **barriers to specialty care** for lower-income patients

Provider Specialties by Label Status Cohorts

Provider Specialty	Off-Label Cohort	On-Label Cohort
Family	43.9%	37.1%
Endocrinology, Diabetes, & Metabolism	19.8%	37.9%
Medical	7.4%	6.4%
Adult Health	3.4%	3.2%
Obesity Medicine	3.3%	0.8%
Cardiovascular Disease	2.7%	1.6%
Primary Care	2.4%	1.6%
Gastroenterology	1.2%	0.2%

Observations on Specialist Trends

Interventional cardiology emerged as a significant prescribing specialty for semaglutide therapy in both 2022 and 2023.

Primary care/family doctors remained the **leading prescribers**, while endocrinologists held the second-most prevalent role.

About the Data and Methodology

This exploratory, retrospective claims analysis used Inovalon's MORE² Registry®, which is a statistically de-identified, real-world dataset comprised of medical and pharmacy encounter claims and enrollment data from health plans across the U.S.

We identified a convenience sample of health plan members with commercial, managed Medicaid, and Medicare Advantage insurance who filled at least one prescription for a GLP-1 agonist indicated for the treatment of diabetes anytime between January 2018 and December 2023. Annual trends were evaluated. For this analysis, off-label use was defined as absence of a diabetes diagnosis within the calendar year. Physician notes are unavailable in claims data, therefore additional clinical data would be needed to confirm on vs off-label status.

As these exploratory results are descriptive, further research is needed to evaluate the patient and provider-related factors influencing GLP-1 prescribing, access, utilization, and outcomes.

Data reflects an independent analysis conducted by Inovalon for illustrative purposes only and was not funded by any external sponsor.



Want to learn about working with Inovalon data and our team to accelerate your research goals?

[Read Our Blog](#)

and discover the main variables that affect health economics and outcomes research (HEOR) project costs.

1. Noxon-Wood, V., Moore-Schiltz, L., & Tkacz, J. (2024). Off-Label Use of Semaglutide in the United States: Increasing Prevalence, Variability in Prescribing Provider Specialty, and Patient Characteristics. Poster presented at ISPOR 2024, Inovalon, Bowie, MD, United States.