

Temporal Trends in Prescription of GLP-1RAs for Weight Loss: Five-Year Retrospective Analysis

Markan R, Ganguly R, Mishra R, Vishal, Singla R, Bhagat A, Zaheer T, Verma V, Roy A, Kukreja I, Nayyar A, Sachdev A, Seligman M, Brooks L, Goyal R

Background

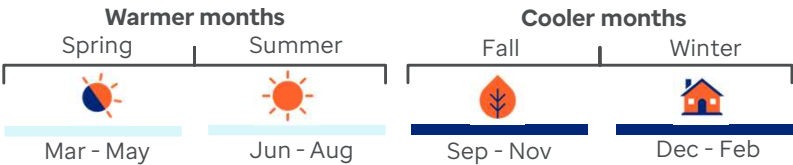
- Seasonal variations in weight management behaviors (exercise, gym memberships) are well documented and are influenced by individual motivation¹.
- Public interest in GLP-1RAs (Glucagon-like peptide-1 receptor agonists) has surged recently with increased use for weight loss, yet seasonal patterns of their initiation and refill in weight management remain unexplored.
- Understanding temporal trends in GLP-1RA usage for weight loss would support clinical care optimization, supply chain management, and targeted patient support programs throughout the year.

Objective

To quantify temporal variation in GLP-1RAs initiation (IN) and refill (RE) patterns for weight loss across demographic subgroups.

Methodology

- Optum® de-identified Market Clarity data was used to identify patients receiving GLP-1RAs for weight loss. The study spanned from January 2017 to June 2024, with the index period from March 2018 to February 2023.
- The first GLP-1RA fill was the index event. Patients aged 18-64 years, with ≥1 diagnosis of obesity or overweight within 90 days before the index event and continuous enrollment for ≥1 year pre- and post-index date were included.
- Patients with a history of diabetes/pre-diabetes, cancer, pregnancy, or bariatric surgery during the pre-index period were excluded.
- For temporal analysis, warmer months were identified as Spring (March-May) and Summer (June-August). Cooler months were Fall (September-November) and Winter (December-February).



Reference: 1. Garriga A, Sempere-Rubio N, Molina-Prados MJ, Faubel R. Impact of Seasonality on Physical Activity: A Systematic Review. International Journal of Environmental Research and Public Health. 2022; 19(1):2. <https://doi.org/10.3390/ijerph19010002>

Results

- A total of 135,089 GLP-1RA initiators having 487,547 refill counts were identified during March 2018 – February 2023. The IN and RE rates of GLP-1RAs were higher during cooler months as compared to warmer months, consistent across overall, age-specific, and gender-specific analyses.
- The average percentage increase in IN (18.1%) and RE (38.2%) rates was significantly higher ($p < 0.01$) during cooler months as compared to warmer months (Figure 1).

Figure 1. Average percentage increase in IN and RE in cooler months (2018-2023)

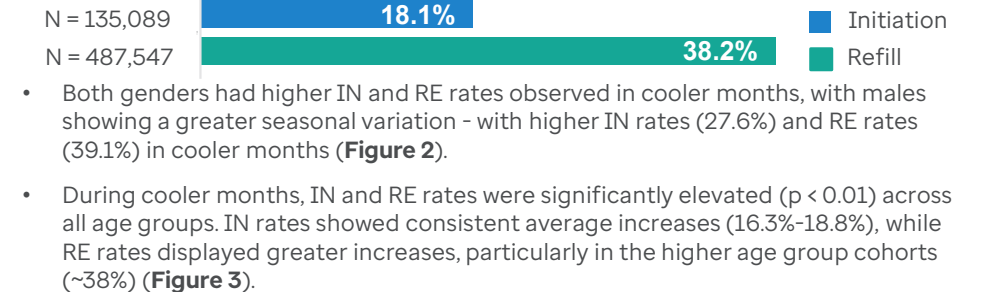


Figure 2. Gender-wise analysis

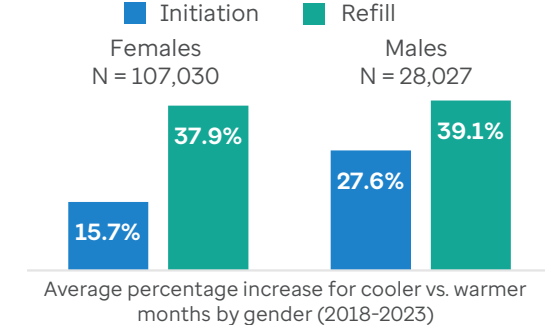
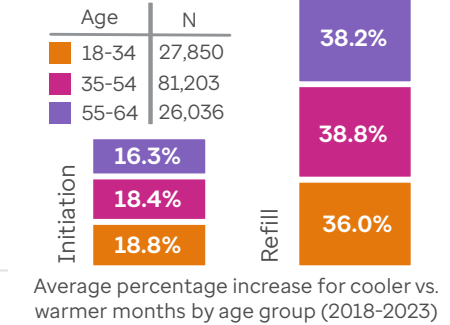


Figure 3. Age-wise analysis (in years)



Conclusions

- GLP-1RA prescriptions show higher initiation (18.1%) and refill (38.2%) rates in cooler months, underscoring the need for consistent obesity treatment year-round.
- Obesity, being a chronic disease, requires sustained treatment beyond seasonal behavioral shifts. Proactive patient engagement during warmer months is needed to maintain care continuity.