Data Sources & Methodology Guide

Supporting the 2026 Reversal Report: Metabolic Care in the GLP-1 Era

October 2026

About This Guide

The 2026 Reversal Report draws on Virta real-world outcomes, peer-reviewed research, forthcoming clinical studies, and published third-party sources. This guide provides additional context on the primary data and research underlying the report.

Virta clinical findings are reported at the population level using aggregated, de-identified data. Study populations and methods vary by analysis; full methodological details are available in the corresponding publication or manuscript.

01 | The GLP-1 Market

Statistics used in the report introduction provide context on GLP-1 medications, their impact on the broader market, and usage. They are drawn from published third-party sources and are not Virta analyses.

Topic	Reference	Source
Weight loss	Average GLP-1 weight loss ranges from approximately 8–15%	JAMA Internal Medicine)
Shortages	85% of surveyed pharmacies reported GLP-1 shortages	National Community Pharmacists Association
Side effects	Approximately 1 in 5 users experienced nausea; other reported GI effects included diarrhea, vomiting, and constipation	Endocrine: Exploring the rates of Gastrointestinal adverse effects among five GLP-1 receptor agonists: A systematic review and Meta-Analysis of randomized controlled trials
Employer costs	Employer GLP-1 expenses increased by as much as 200%	SHRM
Consumer cost	Annual out-of-pocket costs estimated at approximately $10,000–$16,800	PharmaVoice
Airlines	Weight-loss drugs could generate an estimated $580M in annual airline savings	New York Times
Apparel	GLP-1 adoption could contribute more than $13B in apparel spending	CNBC
2020 GLP-1 figures	3.2M users	Journal of Managed Care & Specialty Pharmacy: Prevalence and patterns of catastrophic spending for antidiabetic medication in 2020

2022 GLP-1 figures	5.9M users	Journal of the American Heart Association: Trends in Usage and Payments for Glucagon-Like Peptide-1 Receptor Agonists in the United States, 2017 to 2022: A Nationally Representative Repeated Cross-Sectional Study
2024 GLP-1 figures	16M users	KFF: Health Tracking Poll May 2024: The Public's Use and Views of GLP-1 Drugs
2026 GLP-1 figures	29M users	Gallup: In U.S., GLP-1 Usage Reaches New High

02 | Real-World GLP-1 Outcomes

Chapter 2 draws from a retrospective real-world cohort study of 4,269 adults enrolled in Virta's employer- and health plan-sponsored obesity care program. The study compared two medication-supported pathways over 12 months: 1,658 participants receiving the AI-powered Virta Method alongside incretin-based obesity medication and 2,611 receiving a lower-intensity nutrition intervention alongside medication. Both groups received clinician oversight, behavioral coaching, medication management, and telemedicine support.

The study evaluated 12-month weight loss, clinically meaningful weight-loss milestones, outcomes among new and existing GLP-1 users, and results by medication type. Adjusted weight trajectories were estimated using longitudinal mixed-effects models.

This section also references a separate retrospective claims study of 4,066 commercially insured adults with obesity and without diabetes who initiated GLP-1 therapy in 2021. That study reported 32.3% persistence at one year, defined as continued treatment without a gap of 60 days or longer. The study did not include tirzepatide. The studies used different populations and measures and were not a head-to-head comparison.

Full study methodology and results:

Real-World Twelve-Month Weight Loss Outcomes in a Comprehensive Obesity Care Program Utilizing Individualized Nutrition Therapy and Incretin-Based Obesity Medications.

External benchmark:

Real-world persistence and adherence to glucagon-like peptide-1 receptor agonists among obese commercially insured adults without diabetes. Gleason et al. Journal of Managed Care & Specialty Pharmacy. 2024;30(8):860–867.

03 | Better Metabolic Health Doesn't Stop at Weight

Chapter 3 draws on separate Virta clinical studies examining metabolic and whole-body health outcomes. Each finding comes from its own study population, design, comparison group, and follow-up period.

Some participants in the claims-based studies used GLP-1s. In those studies, associations with improved outcomes remained statistically significant after adjusting for GLP-1 use.

Findings should be interpreted individually rather than as outcomes observed simultaneously within a single Virta cohort.

Area	Reference	Source
Heart health	56% lower risk of heart attack, stroke, or death	Cardiology and Therapy (2026), Cardiovascular Outcomes Among Adults with Type 2 Diabetes or Obesity Receiving Carbohydrate-Reduced Nutrition via Telemedicine: A Retrospective Claims-Based Cohort Study
Kidney health	62% lower advanced CKD	Diabetes, Obesity, and Metabolism (2026), Effectiveness of Telehealth Low-Carbohydrate Intervention in Preventing Chronic Kidney Disease: A Real-World, Retrospective, Matched Cohort Study
Liver health	45–75% lower rates of serious liver disease and complications	Hepatology (2026), Reduced risk of liver-related events among patients receiving individualized nutrition-focused remote care in the United States
Inflammation	19 of 21 inflammatory markers improved	Endocrine Research (2026), Broad-Spectrum Effects of Carbohydrate Reduction on Inflammatory and Immune Mediators in Type 2 Diabetes
Stage IV pancreatic cancer	34% longer survival	Cancer (2026), A Randomized Phase II Trial of Gemcitabine, Nab-Paclitaxel, Cisplatin with or without a Medically Supervised Ketogenic Diet for Patients with Metastatic Pancreatic Cancer

Food noise and mental health	35% less food noise; depressive symptoms down 44%; anxiety symptoms down 30%	(2026), Food Noise, Control of Eating, and Mental Health Outcomes During Carbohydrate-Reduced Nutrition Therapy in Adults with Overweight or Obesity
A1c	>3-point A1c reduction among members beginning with A1c ≥9%	Aggregated, de-identified data from Virta members with type 2 diabetes and a baseline A1c ≥ 9.0%. Average A1c reduction of 3 percentage points observed after one year of care

04 | General Notes

- Virta findings are reported using aggregated, de-identified population-level data.
- Study populations and designs vary; each finding should be interpreted within its underlying research population.
- Chapter 2 includes both observed and statistically adjusted weight-loss outcomes.
- Values in the report may be rounded for readability.

05 | Citation & Attribution

When citing this appendix or referencing outcomes data, please use:

> **Virta Health (2026).** *Data Sources & Methodology Supporting the Metabolic Disease Reversal Report.* Denver, CO: Virta Health, Inc.

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