Real-World Glycemic Outcomes Among Adults with T2D Receiving Virtual Medical Nutrition Therapy

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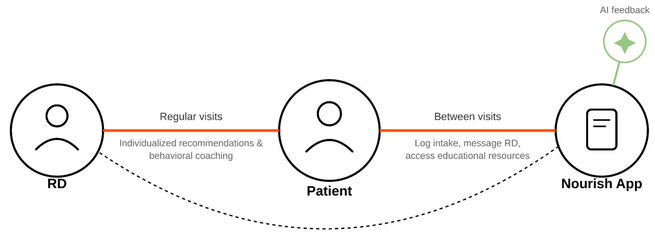
Introduction

Type 2 diabetes (T2D) affects nearly 1 in 10 U.S. adults and is a leading driver of preventable morbidity.[1] Medical nutrition therapy (MNT) is a recommended component of T2D management,[2] yet real-world evidence on outcomes from scalable virtual delivery models remains limited. Nourish is a national virtual MNT platform in which an RD serves as the primary clinician, supported by a technology layer that extends care between visits. We assessed 6-month glycemic and weight outcomes among adults with T2D engaged in this virtual MNT (vMNT) model.

Methods

Nourish patients meet one-on-one with their RD regularly for individualized dietary recommendations and behavioral coaching; RDs draw on evidence-based care pathways, which for T2D emphasize meal structure, carbohydrate quality, and composition to attenuate postprandial glucose excursions. Between visits, patients can log dietary intake, message their RD, and access AI-generated feedback through the Nourish app.

Methods



Adults with T2D who received vMNT were included if they had ≥1 follow-up HbA1c and sustained engagement through 6 months (n=2,444). Linear mixed effects models assessed change in HbA1c and weight at 3 and 6 months, adjusting for age, sex, and BMI. Among patients with pharmacy data available (76%), 39.7% used a GLP-1 receptor agonist, 23.5% used insulin, and 15.1% used an SGLT-2 inhibitor at enrollment. To help assess vMNT's effect separate from pharmacotherapy, we also examined HbA1c change among adults with no GLP-1 exposure (n=784) and those on metformin alone (n=170). Finally, among all adults with enrollment HbA1c ≥7.0% (n=1,106), we assessed the proportion reaching the ADA target of <7.0% by 6 months.

Enrollment Characteristics (N=2,444)

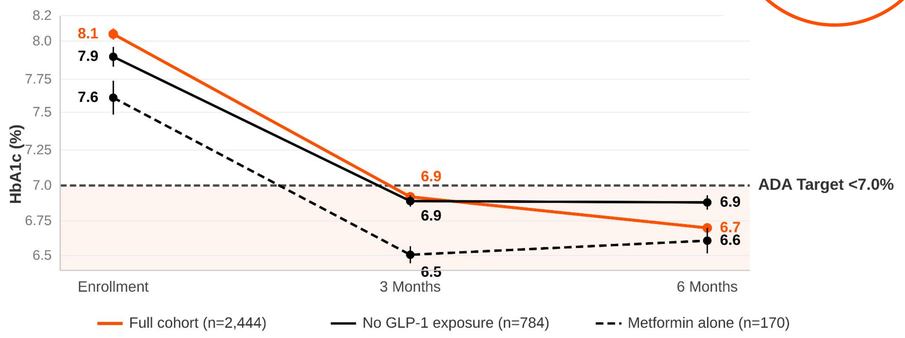
Age, mean years (SD)	48.0 (12.6)
Female, n (%)	1830 (74.9)
BMI, mean kg/m^2 (SD)	37.6 (9.6)
HbA1c, mean % (SD)	8.1 (1.8)

Results

Most patients above target reached the ADA glycemic goal by 6 months

54.7%
reached HbA1c goal of <7.0%

HbA1c Improvements by Medication Exposure



HbA1c declined by 1.37% in the full cohort, 1.03% among those with no GLP-1 exposure, and 1.01% among those on metformin alone (all p<0.001) at 6 months. Weight decreased by 7.3 lbs (3.1%) at 3 months and 11.5 lbs (4.9%) at 6 months from a baseline of 234.7 lbs (both p<0.001).

Discussion

In one of the largest real-world samples of adults with T2D receiving MNT, HbA1c declined by 1.37% at 6 months. Large epidemiological studies show that each 1% reduction in HbA1c is associated with a 21% reduction in diabetes complications and a 37% reduction in microvascular disease.[3] Glycemic improvement was consistent across medication profiles, including adults with no GLP-1 exposure and those on metformin alone, suggesting vMNT may contribute even without intensive pharmacotherapy. Future research should examine whether improvements persist beyond 6 months.

References

[1] Centers for Disease Control and Prevention, National Center for Health Statistics. Prevalence of Total, Diagnosed, and Undiagnosed Diabetes in Adults: United States, August 2021–August 2023. *NCHS Data Brief* No. 516. November 2024.
[2] American Diabetes Association Professional Practice Committee. 5. Facilitating positive health behaviors and well-being to improve health outcomes: Standards of care in diabetes—2026. *Diabetes Care.* 2026;49(Supplement_1):S89-S131.
[3] Stratton IM et al. Association of glycaemia with macrovascular and microvascular complications of type 2 diabetes (UKPDS 35): Prospective observational study. *BMJ.* 2000;321(7258):405-412.