

Addressing Nutrition Insecurity Through Food Prescriptions: Lessons from a Safety Net Health System

Background: At Harris Health System, the safety net healthcare organization for Harris County, Texas, patients experience food and nutrition insecurity at a higher rate than the general population, presenting an inordinate challenge to diabetes management. To mitigate this problem, a food prescription program (FoodRx) launched in 2019 as a Food Pharmacy, or pantry within a high-priority healthcare location, the first of its kind in Texas.

Objective: Providing medically-tailored groceries coupled with disease management education will significantly reduce Hemoglobin A1C (HbA1C) values amongst food insecure patients with diabetes.

Methods: FoodRx eligibility includes screening positive for food insecurity with a HbA1C level $\geq 7\%$. Sample included eligible patients from 5/28/2019 to 6/30/2024. Participants receive up to 18 biweekly visits and obtain 20 to 30 pounds of fresh produce along with diabetes self-management education per visit. Patients are also enrolled in Culinary Medicine to increase produce utilization. Biometric and self-reported consumption and nutrition knowledge data are obtained at baseline, mid-point, and end-point for program graduates (enrolled for ≥ 7.5 months with an average of ≥ 1 visit per month).

Results: Since inception, there have been 789 graduates. Graduates have an average HbA1C reduction of 1.09 percentage points compared to their baseline ($n=736$, $p<0.00$). Of graduates with an initial HbA1C $\geq 9\%$, HbA1C decreased by an average of 2.22 percentage points ($n=353$, $p<0.00$) from baseline. LDL levels declined by 6.07 points ($n=315$, $p=0.0038$) from baseline. Graduates' average fruit and vegetable consumption increased 20.1% from baseline ($n=708$, $p<0.00$). Nutrition knowledge improved by 10.6% from baseline to the latest survey ($n=710$, $p<0.00$).

Conclusion: The significant improvement in diabetes biomarkers, produce consumption, and nutrition knowledge resulting from FoodRx has led to an organizational commitment to expand this program. Its success highlights the need for similar programs within healthcare organizations across the country.