

Association between hospital-based food pantry use and emergency department utilization among Medicaid patients with diabetes

Abstract

Background

Despite evidence suggesting that food pantry use improves nutrition-related health outcomes, less is known about how food pantries might influence health care utilization, especially among low-income patients with diabetes who may be most likely to benefit.

Objective

Examine the association between use of a first-of-its-kind hospital-based food pantry and subsequent emergency department (ED) utilization for Medicaid patients with diabetes at Boston Medical Center (BMC).

Methods

Our data source was the BMC Clinical Data Warehouse (2015-2019), which includes information on patient demographics, clinical indicators, health care utilization, and onsite food pantry visits. Our study consisted of 600 individuals, each with panel data for 18 patient-quarters. We used a staggered difference-in-differences approach, where we compared changes in ED utilization before versus after a patient's first food pantry visit between patients who used the food pantry in a specific quarter and patients who had not yet used it. All analyses used linear probability models, adjusting and including propensity score weights for age, sex, and race/ethnicity.

Results

We found that using the onsite food pantry was associated with a 7.3 percentage point [PP] (95% CI: -13.8, -0.8) decrease in probability of subsequent ED utilization across the post-intervention period, compared to the not-yet treated group. Our event study specification showed that using the food pantry was associated with a 9.2 PP (95% CI: -17.1, -1.3), 10.7 PP (95% CI: -19.8, -1.5), and 11.3 PP (95% CI: -21.3, -1.2) decrease in probability of ED utilization four, seven, and eight quarters later, respectively.

Conclusion

Given resource challenges for community-based food pantries, as well as the challenges associated with ensuring successful receipt of services after referrals are made, Medicaid programs and health systems that screen for unmet needs may consider food pantry colocation as they design initiatives to address food insecurity and reduce avoidable ED use among Medicaid patients.