

A community health worker intervention reduces hospital readmissions

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A clinical trial pairing community health workers (CHWs) with patients admitted to Massachusetts General Hospital (MGH) has found that fewer intervention group participants were readmitted within 30 days

than were control group participants. The effect was significant for those discharged to short-term rehabilitation but not for those discharged home. The study, one of few of its kind, has been published in *JAMA Network Open*.

"These results indicate that CHW interventions may help reduce [hospital readmissions](#) and improve [preventive care](#) among some clinically [complex patients](#) within an accountable care organization," says lead author Jocelyn Carter, MD, MPH, an investigator in the MGH Department of Medicine.

Hospital readmissions have been identified as a major contributor to [health care costs](#), accounting for a third of total U.S. health care expenditures. Thirty-day readmissions are common and about 27% of adult 30-day readmissions are estimated to be preventable. Previous studies have identified factors such as medical complexity and social determinants of health as contributing to risk of [readmission](#).

While community health workers are one of few interventions demonstrating compelling outcomes in improving outcomes in clinically and socially complex populations, most CHW studies have focused on disease-based cohorts. The study of CHW interventions at the time of hospital discharge has been underutilized and prior trial results have been mixed.

In this trial, CHWs, having been trained with basic knowledge of clinical conditions, provided health coaching and connected patients to specific low and no-cost resources (e.g., food, transportation, housing-related) contributing to gaps in care. Using the framework of motivational interviewing and psychosocial support, CHWs sought to strengthen patients' connections to primary care while addressing their unmet needs. To test the effect of CHW care delivery on 30-day readmission in a population insured within the Mass General Brigham accountable care

organization, 278 participants were randomized to receive usual care along with the 30-day CHW [intervention](#) and 273 participants were randomized to usual care only. Members of the MGH team enrolled patients on six internal medicine units from 2017 to 2019. CHWs met participants in-hospital prior to discharge.

Of the 550 participants analyzed, the mean age was 70.1, 48.4% were women, and 70.5% were Medicare insured. All trial participants had a mean of three hospitalizations in the 12 months prior. Overall, 24.5% of control and 21.7% of intervention participants were discharged to [rehabilitation](#) with a mean length of stay of 3.9 days.

Just 12.6% of intervention group participants were readmitted in the 30 days following hospital discharge, as opposed to 24.5% of control participants. However, Carter and her colleagues noted a statistically significant reduction in readmission in patients discharged to rehabilitation but not in those discharged directly home: Intervention vs. control participants discharged to rehabilitation demonstrated a 32.3% reduction in readmissions (5.0% vs 37.3%) compared to a 5.7% reduction seen in those discharged home (14.7% vs 20.4%). In addition, fewer intervention than control patients had missed appointments (22.0% vs. 33.7%) and ED visits (11.2% vs. 16.8%).

While the intervention effect was seen in patient discharged to short-stay rehabilitation prior to returning home, the researchers note that prior studies have shown that patients with complex co-morbidities discharged to rehabilitation facilities have markedly elevated rates of readmission, ranging from 28% to 75%. CHWs might have positively influenced these numbers by addressing unmet medical and social issues that occurred during the transition from rehabilitation to home, and improving communication between patients, rehabilitation staff, and the primary care providers after discharge. Carter notes: "Surprisingly, there was a strong and significant reduction in 30-day readmissions for

patients discharged to rehabilitation. This is a population with limited demonstrated interventions shown to improve outcomes. Additional research is needed to examine why this effect was seen as well as which patients benefit most from certain CHW intervention activities."

More information: Jocelyn Carter et al, Effect of Community Health Workers on 30-Day Hospital Readmissions in an Accountable Care Organization Population, *JAMA Network Open* (2021). [DOI: 10.1001/jamanetworkopen.2021.10936](https://doi.org/10.1001/jamanetworkopen.2021.10936)

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