Improving Social Drivers of Health (SDOH) risk mitigation in HaH through systematic, 4-domain SDOH assessment in the home

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A systematic, in-home 4-domain SDOH risk assessment protocol improves rates of referral to post-HaH Community Health Navigators (CHNs) & SDOH risk-mitigation task completion.

Introduction

Hospital at Home (HaH) is well positioned to address social drivers of health (SDOH). We evaluated impact of systematic in-home SDOH risk assessment (Table1) during in-home HaH care, to supplement an existing virtual, pre-admission survey of home safety & needs

Hospital at Home (HaH) Population

Kaiser Permanente Northwest (KPNW) is an integrated hospital system in Portland, Oregon that implemented HaH in 2020 with Medically Home Group and has served over 3,200 patients.

Methodology

Pre-protocol

Virtual HaH nurses assessed safety of patients' homes and in-home needs telephonically before admission through a Social Stability Tool (SST). Referrals to CHNs were placed as appropriate.

SDOH Protocol

Starting April 2022, standard 4-domain SDOH assessment was added to in-home visits on day 2 of HaH, supplementing pre-admission, telephonic assessment. This 4-domain evaluation evalated **financial strain**, **food insecurity**, **transportation**, & **housing**. SDOH risk identification triggered CHN referral; CHNs set SDOH risk-mitigation goals and tasks toward completion of goals.

Table 1. 4-Domain SDOH risk assessment questions

Social Drivers of Health (SDOH) Assessment

SDOH Domain	In-Home Assessment Question
Financial Strain	• How hard is it for you to pay for the very basics: food, housing, medical care, and heating?
Food Insecurity	**In the past 12 months:** • you worried that your food would run out before you got the money to buy more? • the food you bought just didn't last and you didn't have the money to get more?
Transportation	• has lack of transportation kept you from medical appointments or from getting medications? • has lack of transportation kept you from meetings, work, or from getting things needed for daily living?
Housing Stability	• was there a time when you were not able to pay mortgage/rent on time? • how many places have you lived? • was there a time when you did not have a place to sleep or slept in a shelter (including now)?

Demographics

One-third of patients were over age 75, half were women, and a majority were White, insured by Medicare. The total KPNW HaH patients during the trial was 1,787.

Age:	
• <65	697 (39.0%)
• 65 to 75	499 (27.9%)
• <76	591 (33.2%)
Sex:	
Female	911 (51.0%)
Race/ Ethnicity:	
• White	1515 (84.8)
• Non-White	272 (15.2%)
Insurance Type:	
Commercial Insurance	549 (30%)
Medicaid	155 (9%)
Medicare	1083 (61%)

Table 2. Demographics of patients in trial

SDOH Protocol Results

Prior to implementation of the SDOH protocol, there were 1389 HaH episodes; 96 (7.7%) had a CHN referral. In the SDOH protocol period, of 322 HaH episodes 60 (18.6%) had a CHN referral. All CHN referrals were reviewed for task completion status by the CHN within 1-month of referral. In the pre-protocol period, completion rate was 77%; in the protocol phase completion rate was 80%.

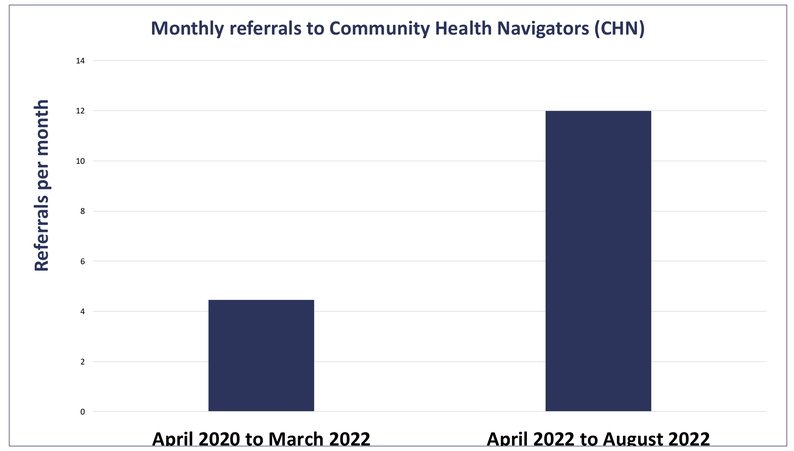

Figure 1. CHN referrals per month before and after implementation.

Conclusion

Implementing standardized in-home SDOH evaluation in KP at Home yielded higher CHN referral rates; this maintained high levels of task completion for SDOH needs. An in-home protocol to assess and address SDOH in HaH is more effective in supporting SDOH referrals than virtual, pre-admission evaluation alone.