Post-Acute Home Care Initiative
New Directions in Transitional Care for High Utilizers

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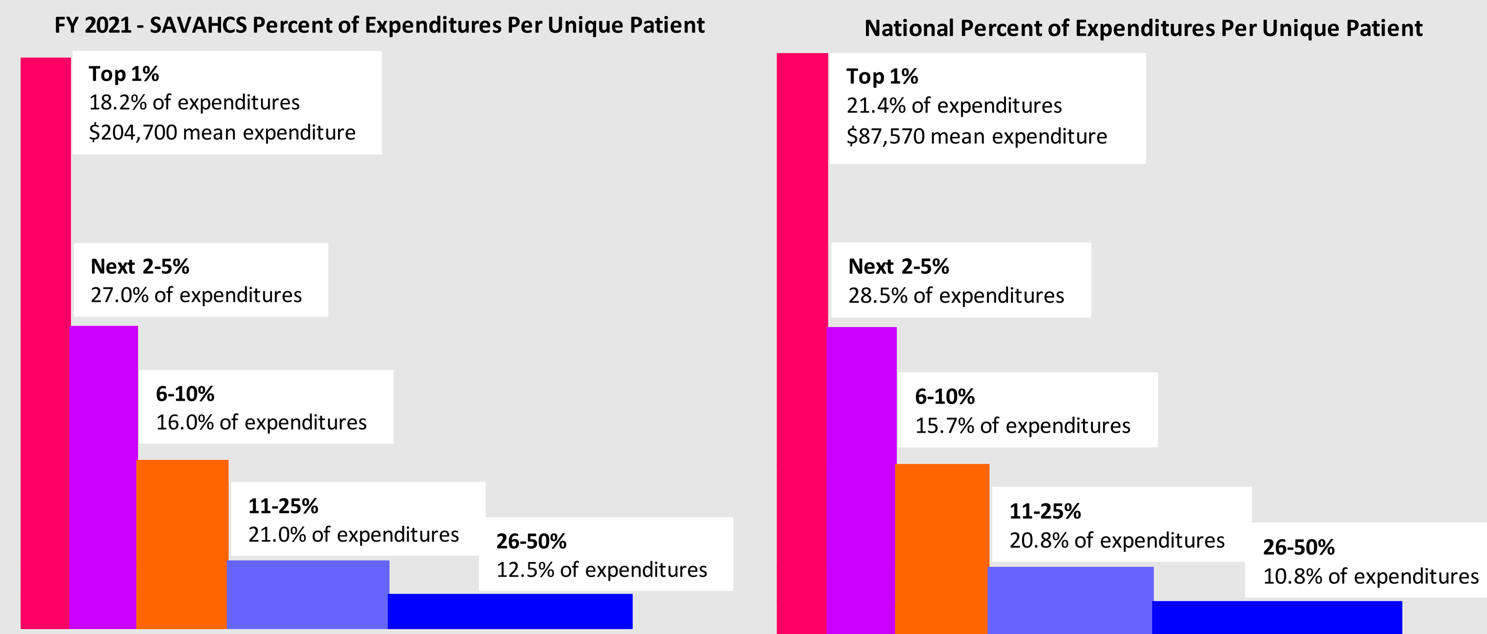
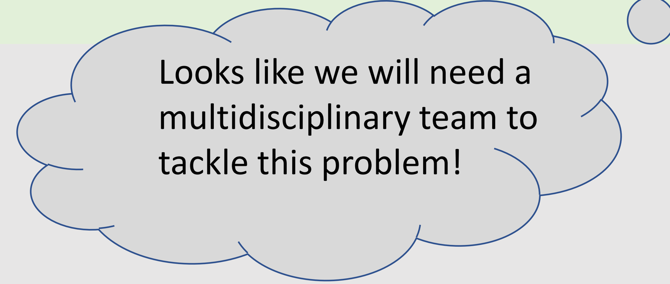
Objectives

Decrease 30-day readmissions, long-term utilization of the emergency department (ED), and hospitalizations of "High Utilizers" within the Southern Arizona VA Health Care System (SAVAHCS).

Planning/Research Methods



- The Agency for Healthcare Research and Quality (AHRQ) reported that, in 2012, the top 10% of the health care-utilizing population accounted for 65.6% of overall health care expenditures in the United States (Yang, Delcher, Shenkman, & Rank, 2018)
- In 2021, the top 10% of the health care-utilizing population accounted for 61.2% of overall health care expenditures at the SAVAHCS (Allocation Resource Center Costs by Patient, 2021)
- High utilizers are more likely to have multiple chronic medical conditions, mental health diagnoses, and social detriments of high health that require multidisciplinary interventions (Bell, Turbow, George, & Ali, 2017)
- A multidisciplinary and highly individualized approach is essential to developing successful interventions for patients with the highest hospital utilization (Knox, Schneider, Hecht, Patel, & Myers, 2018)
- The most effective intervention, research shows, focuses on improving patients' capacity for self-care (Leppin et al., 2014).



Intervention

THE POST-ACUTE HOME CARE TEAM: Based on an evidence-based review, it was determined that a 60-to-120-day multidisciplinary, home-based intervention would be most effective at breaking the cycle of frequent ED visits and hospitalizations. The team consisted of:

- Team Physician (0.5 FTE)
- Nurse (1 FTE)
- Social Worker (0.5 FTE)
- Occupational Therapist (0.5 FTE)
- Dietician (0.5 FTE)

THE PATIENTS: Patients were identified using a data-driven approach during their hospitalization and not by consult or admitting diagnosis. The team visits the patient in the hospital to offer the program (96% acceptance rate) and to build rapport prior to discharge. No patients were excluded based on medical diagnosis, mental health diagnosis, social determinants, or substance use/misuse. They must live within 25-mile range of hospital to qualify. The demographics of patients admitted to program were:

- Average of 9 ED visits per year
- Average of 8.1 hospitalizations per year
- Average readmission risk of 48%
- All Patients had an average of 4+ chronic medical conditions as well as mental health conditions and social detriments of care.

THE SCHEDULE: Team visits start the next day after discharge, and usually all team members visit the patient within the first two weeks. All team members then set individual visit frequency based on patients' identified needs and goals.

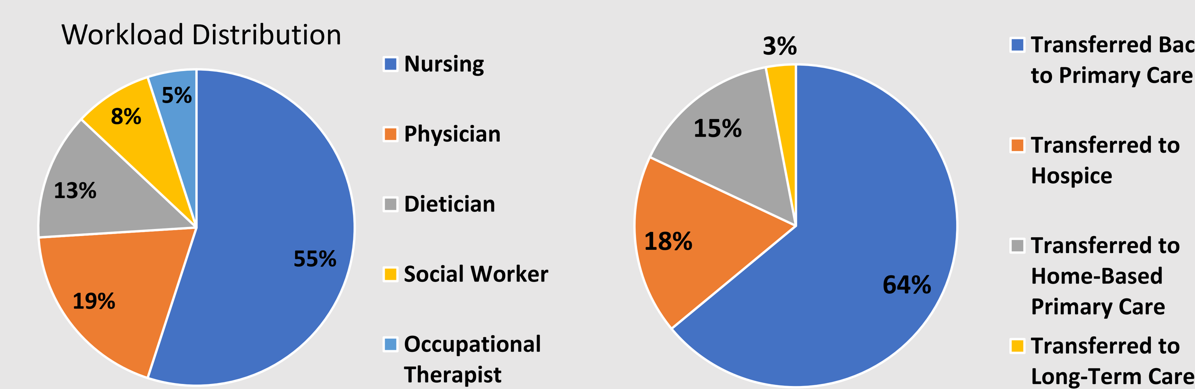
THE CARE PLAN: The focus of the program is to develop self-care skills, to identify and address risk factors, as well as to assist in building support systems and finding the appropriate level of care to meet patients' needs (hospice, long-term care, home based primary care, or return to primary care).

Implementation...*By The Numbers*...

The Post-Acute Home Care Program started on 1/1/20 and is ongoing

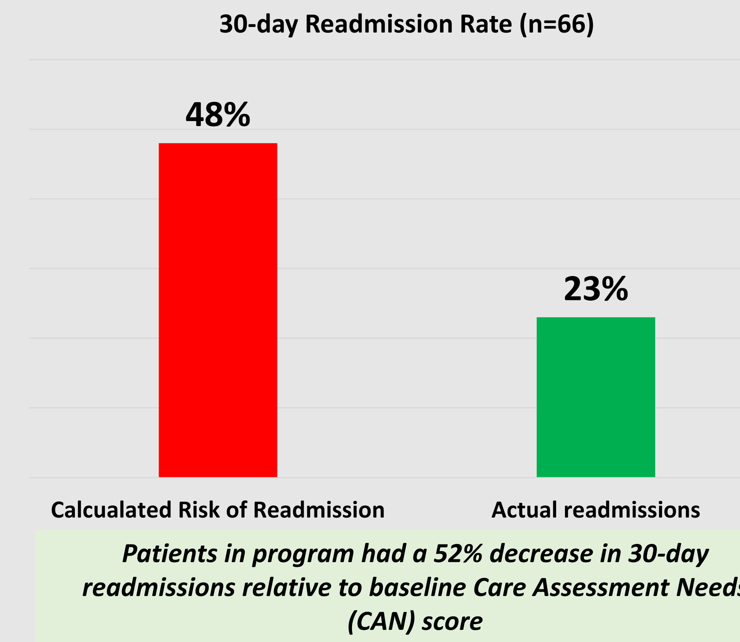
Average Monthly Admissions & Discharges	3-4 patients
Total Patients Served	80 Patients 14-active 66-discharged
Average Team Census	12-15 patients
Average Number of Visits Per Patient	16 visits

Patients were discharged with the following disposition

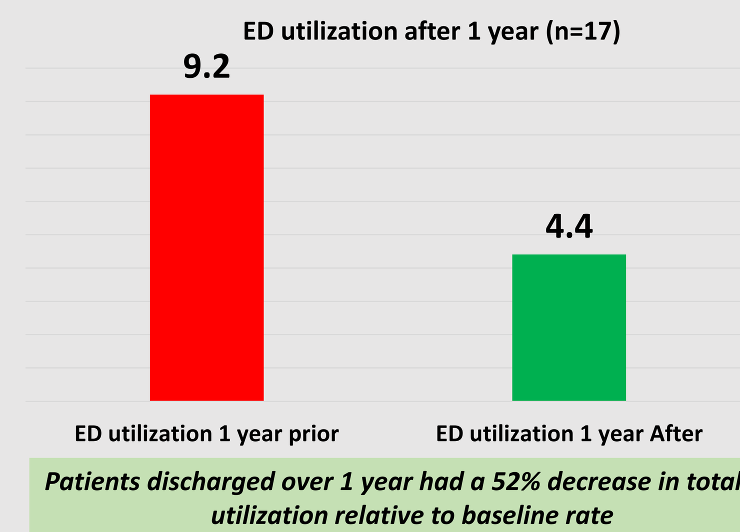


Due to the severity of illness, 38% (25/66) of program participants discharged from the program have passed away. However, these patients had a higher quality of life, improved healthcare satisfaction, less hospital days of care, and less ED utilization as a result of the program. It was also identified that this program was highly successful at transitioning patients to hospice who had previously declined hospice consult.

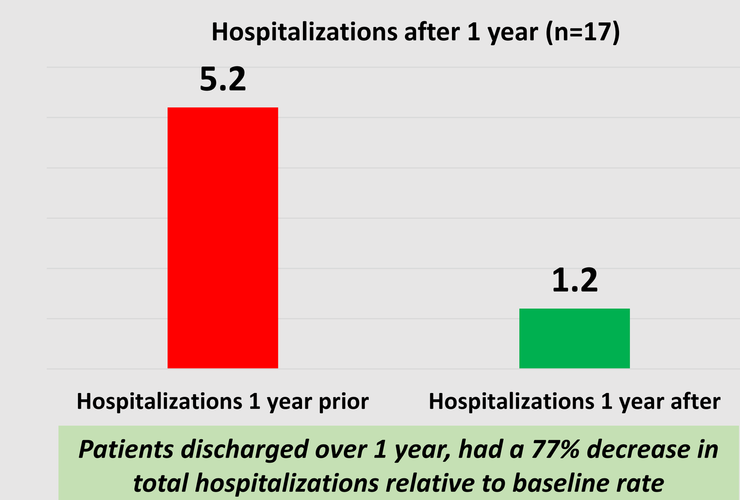
Results



Patients in program had a 52% decrease in 30-day readmissions relative to baseline Care Assessment Needs (CAN) score



Patients discharged over 1 year had a 52% decrease in total ED utilization relative to baseline rate



Patients discharged over 1 year, had a 77% decrease in total hospitalizations relative to baseline rate

Discussion

- The "Care Assessment Needs" (CAN) score is a tool developed by the Department of Veterans Affairs to predict the risk of readmission or death using over 160 different variables. It has been shown to be highly accurate.
- The Post-Acute Home Care (PAHC) Team was formed to reduce readmissions for patients going home who are at a high risk of return; any decrease in facility visits for this "high utilization" population is significant.
- Fifteen (15/66) patients were readmitted while receiving this service; review of the admissions revealed that only 3 (18%) were preventable by the PAHC team.
- The remainder of the readmissions (12/15) were for non-preventable causes (examples include: COVID-related hospitalization, myocardial infarction, cerebrovascular accident, inappropriate discharge).
- Most readmissions occurred within 9 days of hospital discharge, and over 50% were readmitted for a different diagnosis than the previous admission.
- Utilizing the physician and the rest of the team in an expedient manner, many interventions could be made in the home to prevent ED visits/hospitalizations.

- These data capture patients in our program who were discharged >12 months ago.
- Several factors contribute to Emergency Department utilization: severity of illness, healthcare literacy, decision making capacity, perceived access to care, understanding and ability to use other forms of care, as well as being able to contact their primary care team in a timely fashion.
- The team worked with the patients to help them improve their healthcare literacy and to improve their understanding and ability to use the healthcare system capabilities such as nurse triage, home telehealth, and secure messaging – all contributing to decreases in inappropriate ED visits.

- These data capture patients in our program who were discharged >12 months ago.
- The team identified many factors that contributed to the decrease in hospitalizations. Many of the most critically ill patients benefited from goals of care conversations and assistance in aligning their values with realistic goals. Some ultimately made the choice for hospice care.
- The ability of the multidisciplinary team to work with patients in their own home and provide real time nursing, social work, dietary, and occupational therapy interventions was highly effective in creating long-term success.
- The presence of a home care physician to assess, diagnose, and treat the patients with early symptoms was essential to preventing decompensation leading to ED/Hospitalization. The physician made an average of 3 visits to each patient on the program.

Next Steps

This SAVAHCS program used a data driven approach to identify patients at high risk for hospital readmission and has employed a multidisciplinary home care team intervention to successfully improve outcomes. The next step is to continue to grow and spread the program by adding another RN case manager to provide care for a larger number of at-risk patients over time. Further review of the data on these patients will allow more expert tailoring of the process to find the patients that can be most helped by this program.

Reviewing the data created by this process demonstrated that many of the high utilizers have significant psychiatric and substance abuse issues. This highlights the need for increased mental health and substance abuse treatment of hospitalized and recently-discharged patients in order to help prevent re-hospitalization.

Sources

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