Application of the CARES model to improve hemoglobin A1C in Star Community Health primary care patients

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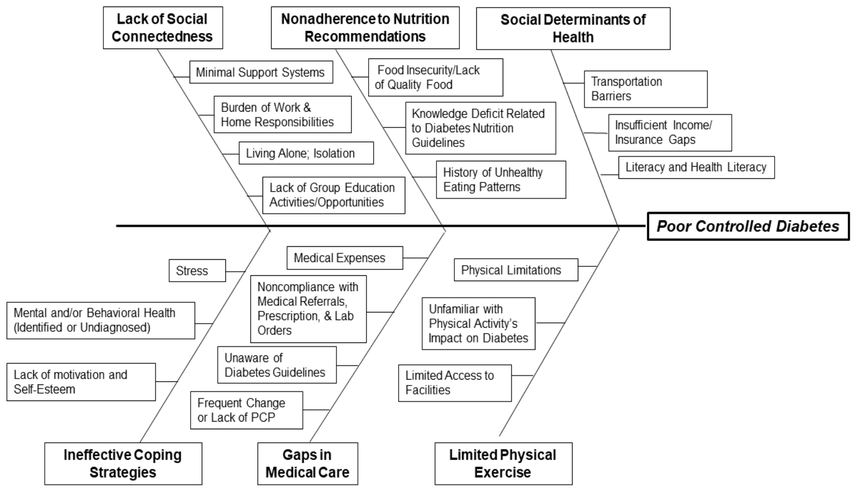
Aim

Decrease the percent of patients with uncontrolled diabetes (i.e., hemoglobin A1C >9.0) using the HEDIS metric for diabetes poor control at Star Community Health (SCH) Southside – Bethlehem from a baseline of 37% (June 2022) to 31% by June 2023.

Background

Uncontrolled diabetes can lead to various chronic organ complications (e.g., cardiovascular, chronic kidney disease). Optimal diabetes outcomes often occur when clinical management is accompanied by healthy lifestyle behaviors (e.g., diet, exercise). SCH's Southside-Bethlehem providers and staff and St. Luke's Departments of Community Health and Fitness and Sports Performance collaborated to improve patients' hemoglobin A1C control. During fiscal year (FY) 2022, this model was successfully piloted as a quality improvement initiative at SCH's Family Medicine Sigal-Allentown practice. SCH Southside-Bethlehem was identified as the FY2023 site as it had the highest poor control rate (37%) among all SCH practices as of May 2022.



Plan

The multidisciplinary approach was divided into three main interventions:

1. Clinical management and referrals
2. Diabetes and nutrition education
3. Physical activity

- Residents and Advanced Practitioners provided referrals to bilingual dietitians to complete the Diabetes Self-Management Education Support curriculum. Dietitians met with patients within 2-4 weeks of referral; classes were held in-person and/or virtual, as well as in individual or group settings.
- Pamphlets were developed for patients that included food pantry resources, healthy recipes, and a free, at-home diabetes exercise program developed by St. Luke's Fitness and Sports Performance Team.
- Education and resources were also included on patients' after-visit summaries; exercise videos and St. Luke's cooking classes were provided via a business card developed with easy access QR codes (see below)
- All education and resources were available in both English and Spanish to maximize patient accessibility

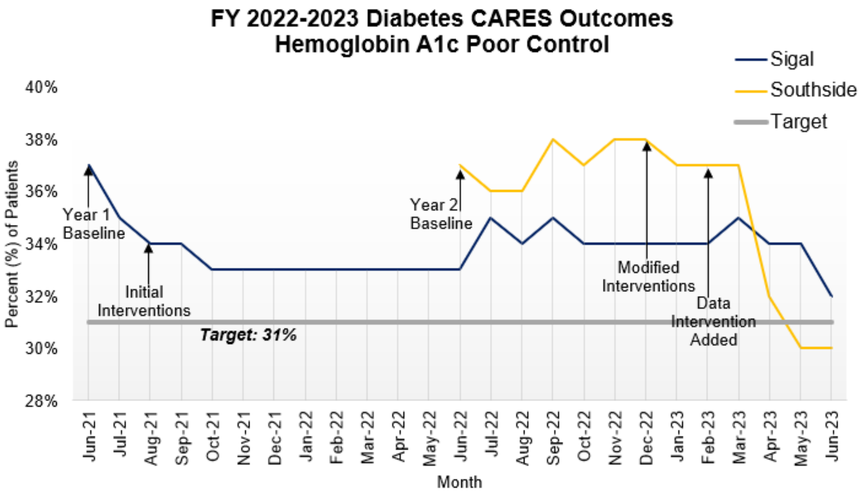
Scan the QR codes below to access full libraries of healthy resources!

Exercise Classes

Cooking Classes

Do & Check

Outcomes surpassed the team's goal of 31%, reaching 30% by June 2023. This decrease, along with patient adoption and adherence, indicated promising results related to patients maintaining good control of their A1C. Additionally, staff promotion of the program and follow-up utilizing standardized procedures helped to promote valuable education and resources for patient success. The team also identified new strategies to supplement the initial model implemented at SCH Family Medicine Sigal-Allentown including improved data monitoring using reports from the electronic health record.



Act

Our data outcomes reaffirmed that helping patients achieve hemoglobin A1C control goes beyond a physician's personal recommendations. Rather, a multidisciplinary approach that is suited to targeting some of the upstream socioeconomic, language, and educational barriers provides a stronger and more effective approach, as reflected by our superior outcomes to conventional treatment.