A POPULATION HEALTH APPROACH TO IMPLEMENTING DSMT SERVICES IN A HOSPITAL-BASED SETTING

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Background

- Type 2 diabetes is a progressive chronic illness that will affect more than 500 million people worldwide by 2030 (Office of Disease Prevention and Health Promotion, n.d.).
- Those with diabetes are at significant risk for complications such as myocardial infarction, stroke, nephropathy, retinopathy, peripheral arterial disease, neuropathy, which can lead to amputation, kidney failure and other illnesses.
- Of the current population that has diabetes, about 1 in every 10 have a diagnosis of diabetes, and 1 in 5 don't know they have diabetes. One of every $7 for healthcare is spent on diabetes care (Laursen et al., 2017).
- Suburban established an outpatient Diabetes Self-Management Training (DSMT) program. Participants receive individual time with a certified diabetes educator to learn about their health care needs and self-management techniques. The educator and patient collaborate to set SMART goals, which are reviewed at the start of each session. Those who participate genuinely feel more in control of their diabetes and their overall health.

Aim of the Project

1. Identify methods to increase access to diabetes self-management training education sessions to more participants.
2. Recognize the importance of patient engagement and habit-building through individualized and personalized consultations.
3. Utilize increased understanding of diabetes care to decrease overall healthcare costs associated with diabetes.
4. Implement population-based strategies for diabetes through use of case management and community health workers.

Starting the Program

1. Adapt the existing DSMT program as approved by CMS to Suburban's outpatient clinic.
2. Align with JHM to develop referral, scheduling, educational processes, and workflow.
3. Determine a location for educational sessions and billing workflow.
4. Hire and onboard educators, community health workers, and program support teams.
5. Prioritize methods for engaging patients: hospital inpatients, uninsured, community residents, staff, and their family members.
6. Consider patient flow through the clinic for in-person and virtual education.
7. Determine electronic health record documentation.
8. Discuss referral marketing and education and how to submit a referral to providers, hospital staff and community partners.
9. Monitor health equity, identify disparity gaps, and offer low-cost or free sessions for appropriate patients.
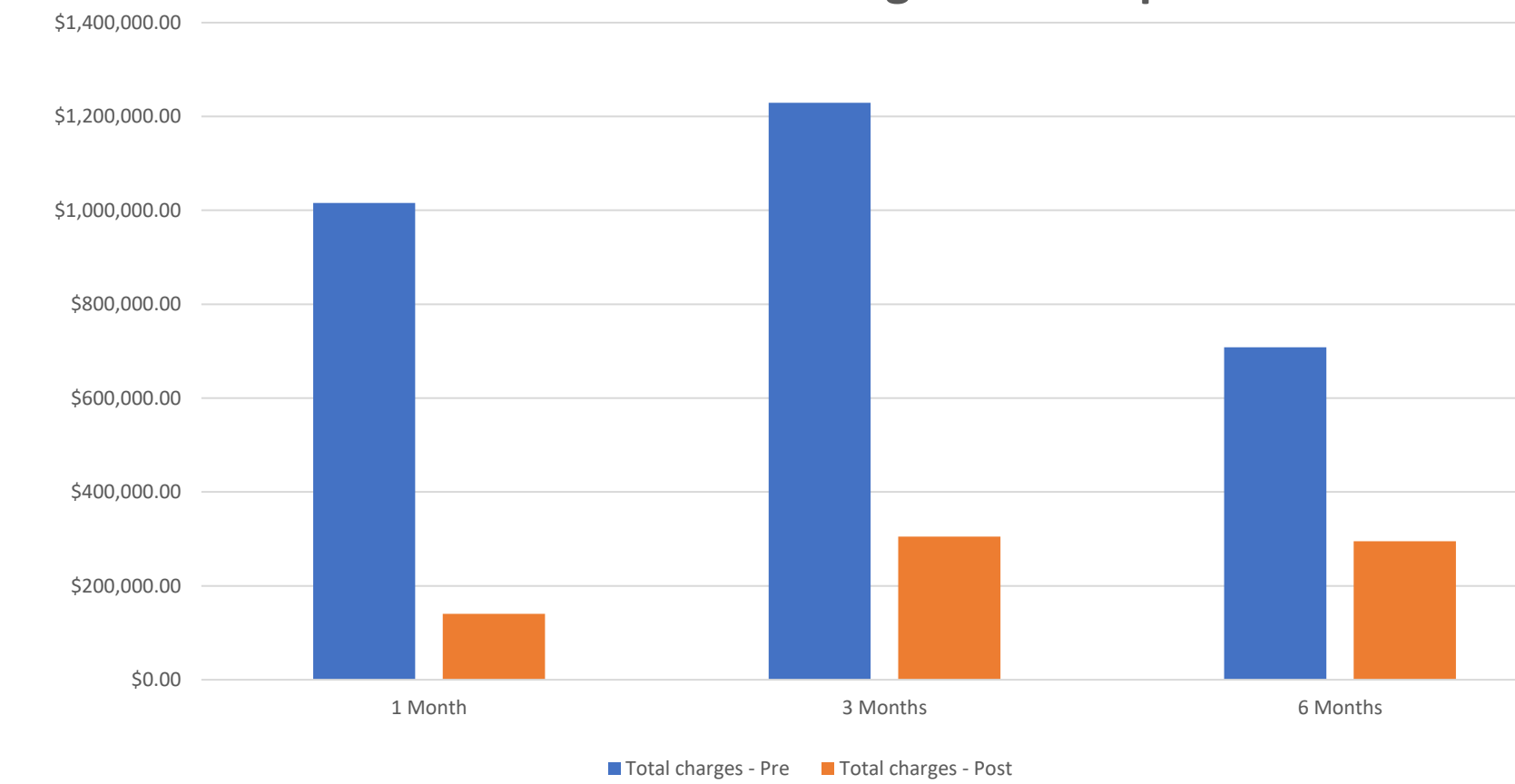
Outcomes

CY23 DSMT Pre and Post Hospital Visits

CY23 Total Charges Per Hospital Visit
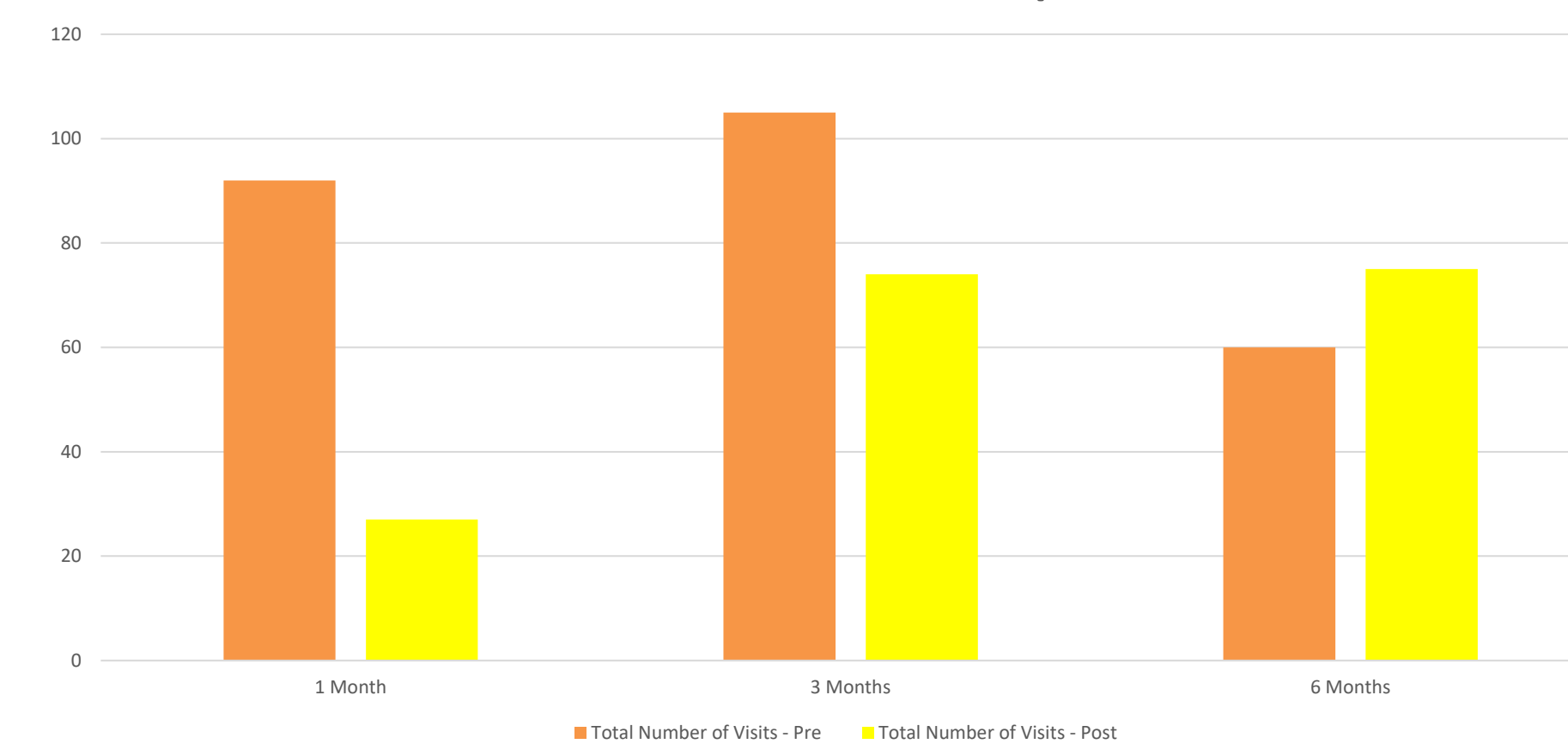
All patients were hospitalized at Suburban Hospital and received education from one of Suburban's DSMT educators.
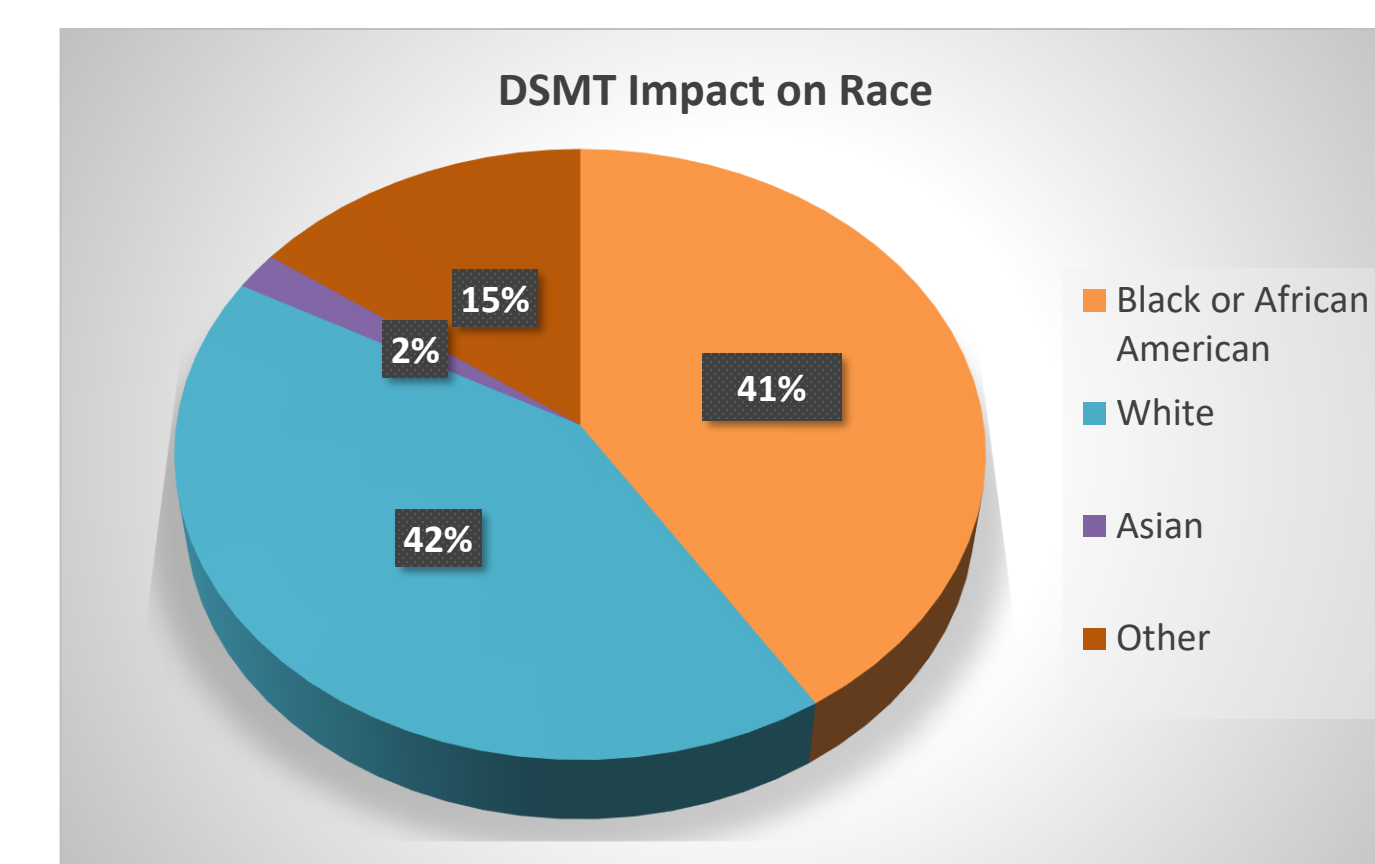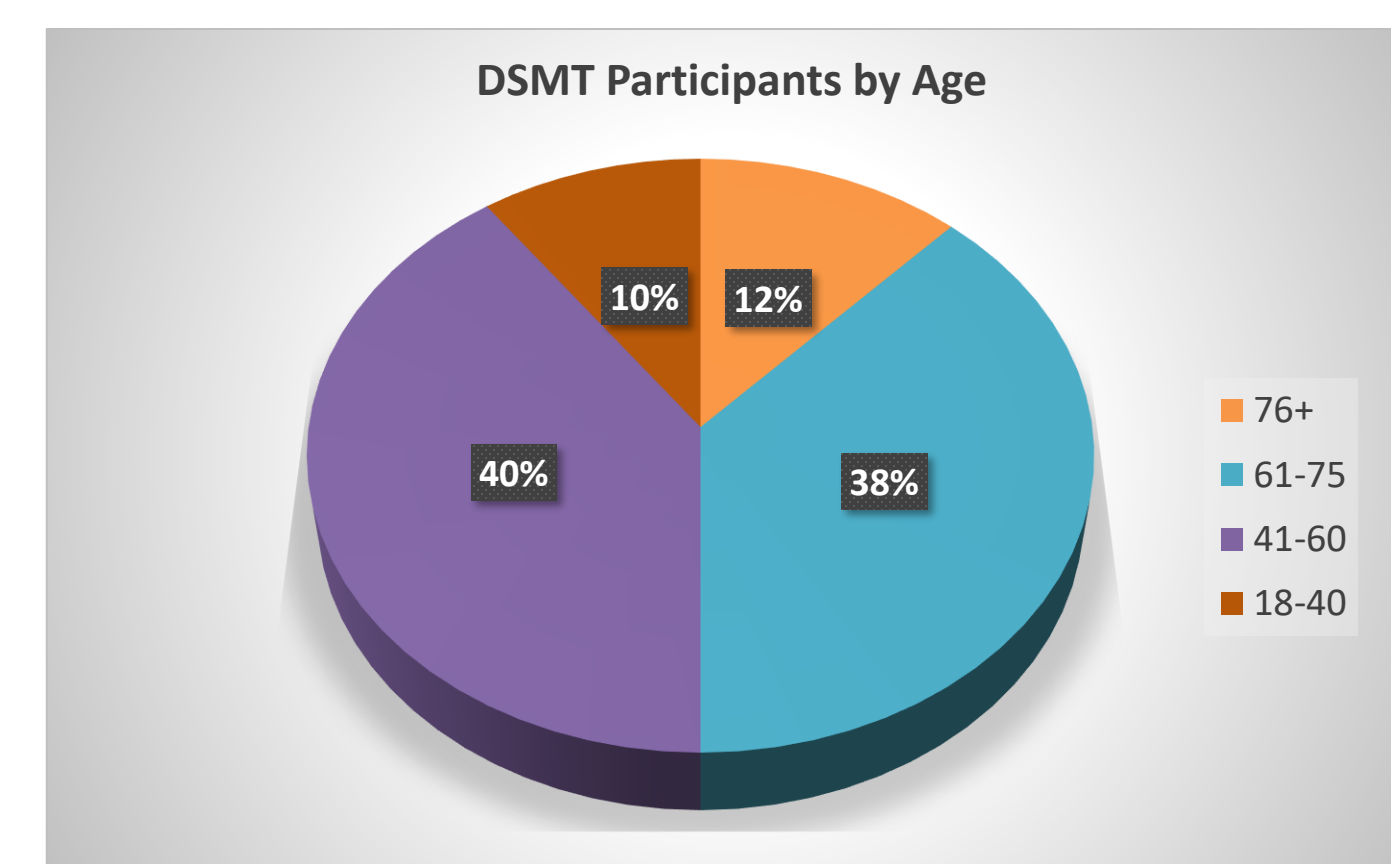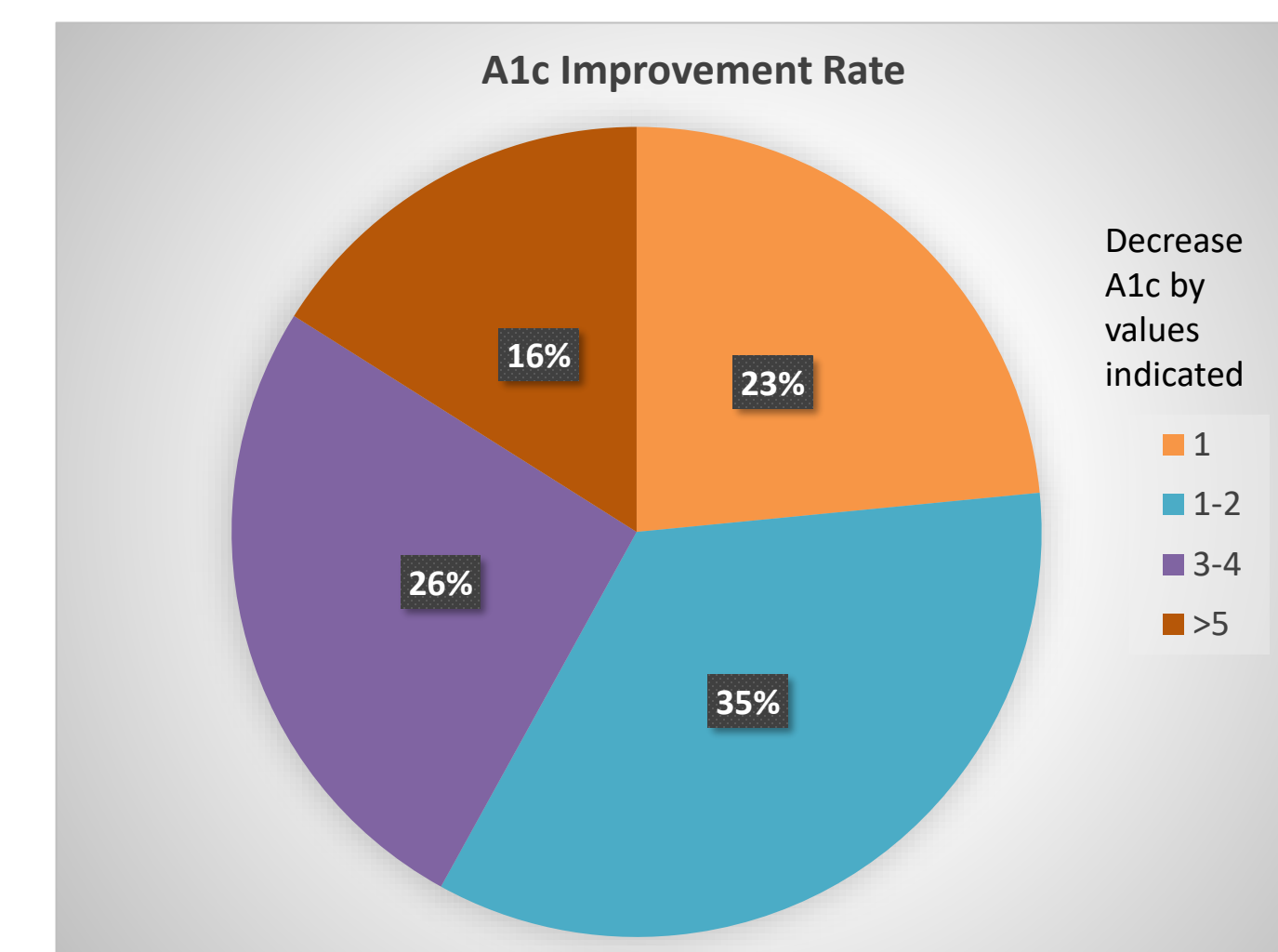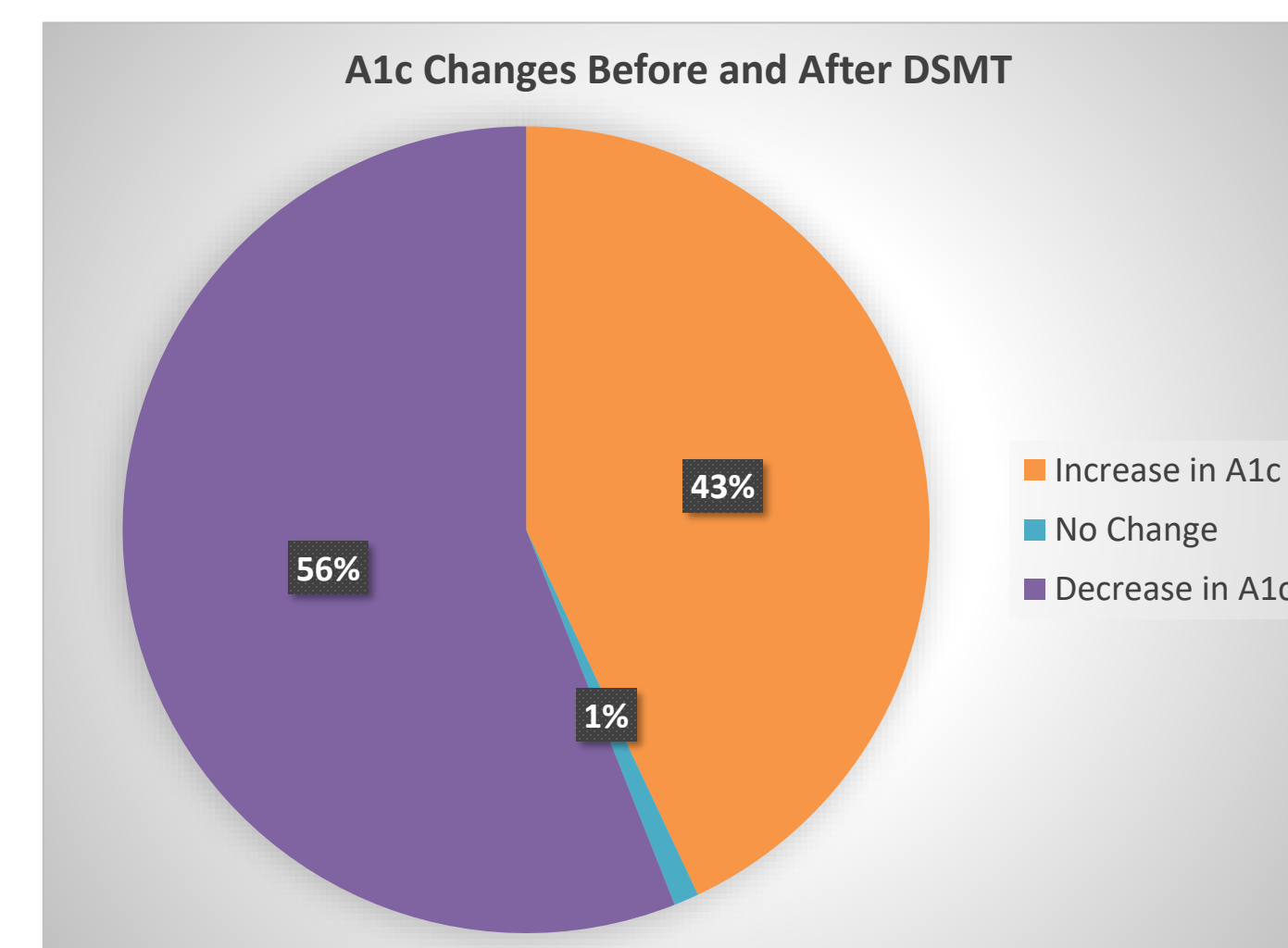
Data compiled by data analysts with JHM Office of Population Health (OPH) and Suburban Hospital. Data was submitted to Chesapeake Regional Information System for Our Patients (CRISP, MD's Health Information Exchange) to obtain Pre and Post data; the first education session is the program enrollment date.

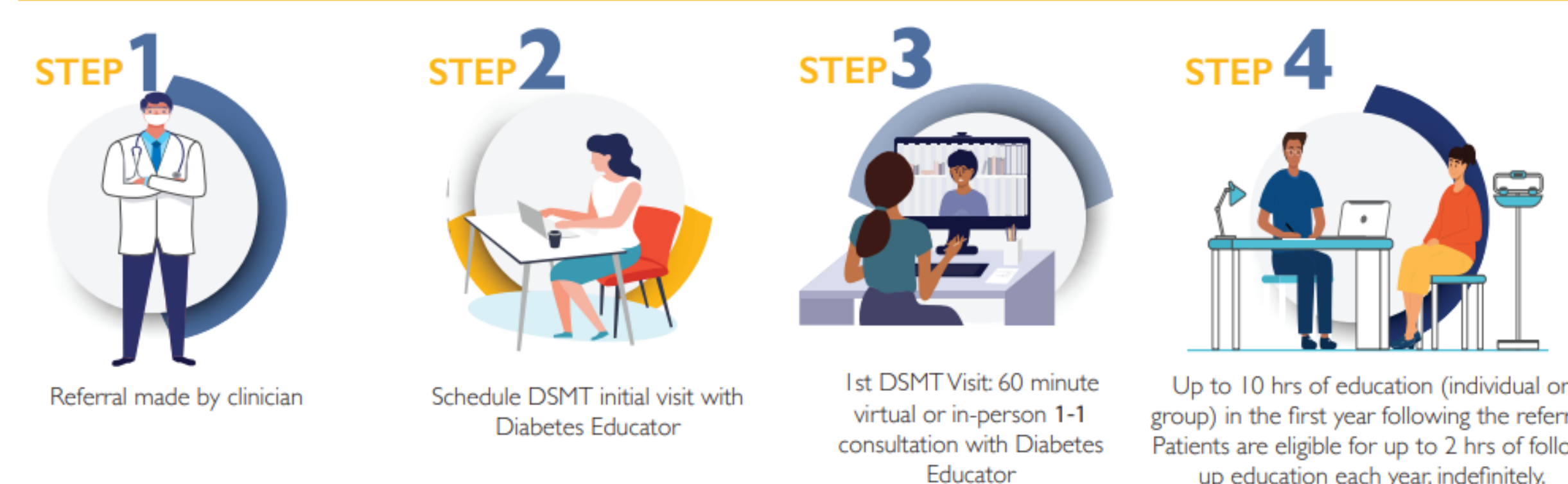Average charge per hospital pre-visit - $11,500

Average charge per hospital post-visit - $5,000

A1c Changes Before and After DSMT

- Increase in A1c
- No Change
- Decrease in A1c

43%, 1%, 56%

A1c Improvement Rate

Decrease A1c by values indicated: 1, 1-2, 3-4, >5

23%, 35%, 26%, 16%

DSMT Participants by Age

- 76+
- 61-75
- 41-60
- 18-40

12%, 38%, 40%, 10%

DSMT Impact on Race

- Black or African American
- White
- Asian
- Other

41%, 42%, 2%, 15%

DSMT PATIENT JOURNEY

STEP 1 — Referral made by clinician

STEP 2 — Schedule DSMT initial visit with Diabetes Educator

STEP 3 — 1st DSMT Visit: 60 minute virtual or in-person 1-1 consultation with Diabetes Educator

STEP 4 — Up to 10 hrs of education (individual or group) in the first year following the referral. Patients are eligible for up to 2 hrs of follow up education each year, indefinitely.

Languages Used With Interpreter

Spanish 5%, Other 3%, English 92%
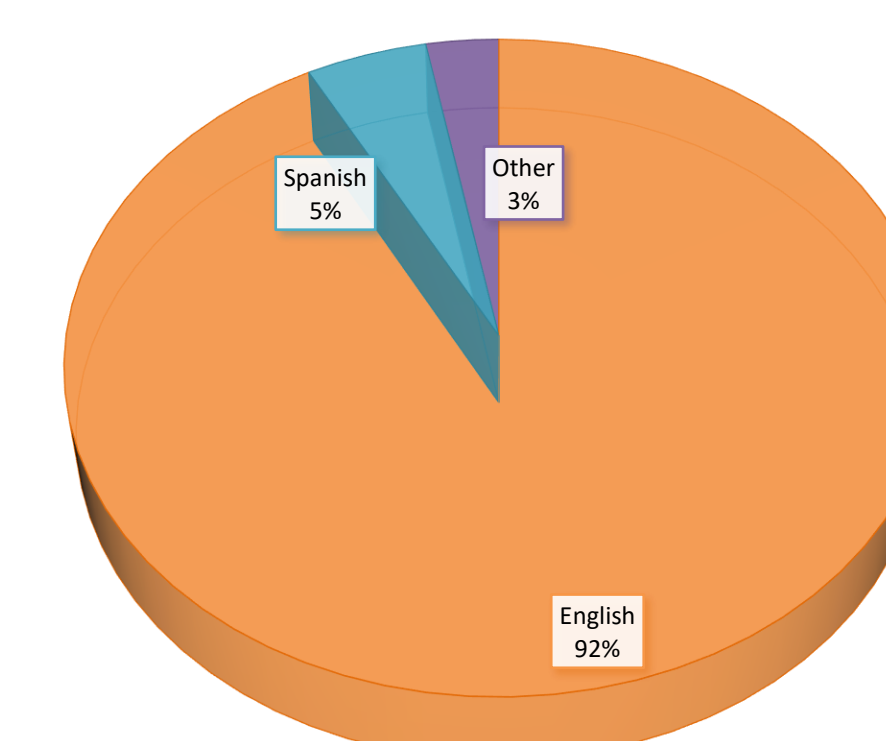
Type of Intervention

- DSMT is prescriptive and touches on what the patient feels is important and what is identified as a need or gap by the educator
- DSMT is not a new program, though in the past, it has been inaccessible to the patients that would benefit the most
- Criteria for participation
  - Diagnosis of Diabetes
  - 18 and older
  - Physician's prescription
- Education sessions may be in-person or virtual and can be a combination
- Education is offered one-on-one; family members are welcome and encouraged if patient agrees
- Creation of SMART goals (Specific, Measurable, Achievable, Relevant, and Time-Bound) as identified by the patient
- Educators:
  - Are engaging, interested, and caring professionals
  - May be pharmacists, social workers, dietitians, or registered nurses
  - Are Certified Diabetes Care and Education Specialists
  - Work with patients' primary care providers and/or endocrinologists to ensure continuity of care and consistent messaging

Data Tracking

- Number and types of referrals
- Number of conversions from scheduled to complete sessions
- A1c measurement
- Demographics

Summary

The main aim was achieved through the ease and availability of this program for patients with diabetes. Patients were interested in individual educational sessions and had more opportunities to participate. Often, insurance covered the program, allowing for less out-of-pocket patient costs. A process was created for uninsured patients to receive education as well. Patients often see and feel quick results because sessions are tailored to the patient's personal goals and abilities. Those who had at least one session with a DSMT educator had more hospital visits and more significant costs BEFORE the first DSMT class and the number of visits and hospital costs were reduced after the start of DSMT education, as seen in the Pre and Post CRISP charts above. Anecdotally, patients are happy and engaged after educational sessions. Suburban has shown sustainability in continuing this program through evidence of lower hospital utilization, healthcare costs and A1c levels.

References Available Upon Request