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# Strategies To Improve Control Of Blood A1C In Diabetics

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**Project:** Adult Clinic - Care for Diabetic Population  
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**Problem/Impact Statement:**

Prior to the implementation of these KPIs, there was an auditing system in place at the Adult Clinic at MMC for targeting patients with poorly controlled Diabetes Mellitus. However, due to lack of essential equipment, variations in staff education, as well as the absence of daily reminders, many of the diabetic patients entering the outpatient clinic had high, or absent A1c levels, denoting that their conditions were not adequately controlled.

**Scope:**

**In Scope:** DM patients age 18-75 treated within the Adult Internal Medicine Clinic at Maine Medical Center (MMC)  
**Out of Scope:** DM Patients 18-75 treated outside of the Adult Internal Medicine Clinic at MMC

**Goal/Objective:**

- KPI 1: 100% of diabetic patients who have an arrived visit and are due for HgbA1c will have point of care A1c.
- KPI 2: 100% of diabetic patients will have a self-care plan included in the AVS (After visit summary)
- KPI 3: 100% of Diabetic patients with POC A1C greater than 9% will schedule at check out a 3 month follow up appointment dedicated to repeating the POC A1C
- KPI 4: 100% of diabetic patients with A1C greater than 8% calling for a refill of medication will be scheduled for a follow up DM visit within one month, unless otherwise noted.

**Overall Goal: The percentage of DM patients 18-75 seen within the past year who have an A1C >9, or no recorded A1C reading in the past year will be 18% or under**

**Baseline Metrics/Current State:**

**Baseline:** DM patients 18-75 seen in the past year, who have A1c>9 or no A1c reading in the past year

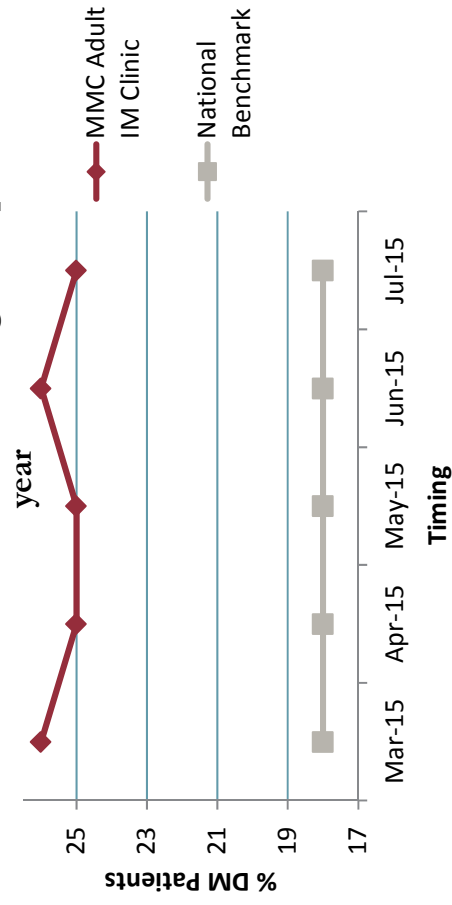


Figure 1: Prior to implementation of Operational Excellence methods: Baseline data for percentage of DM patients seen in MMC Adult Internal Medicine Clinic with an A1C value higher than 9, or no A1C reading within the last year.

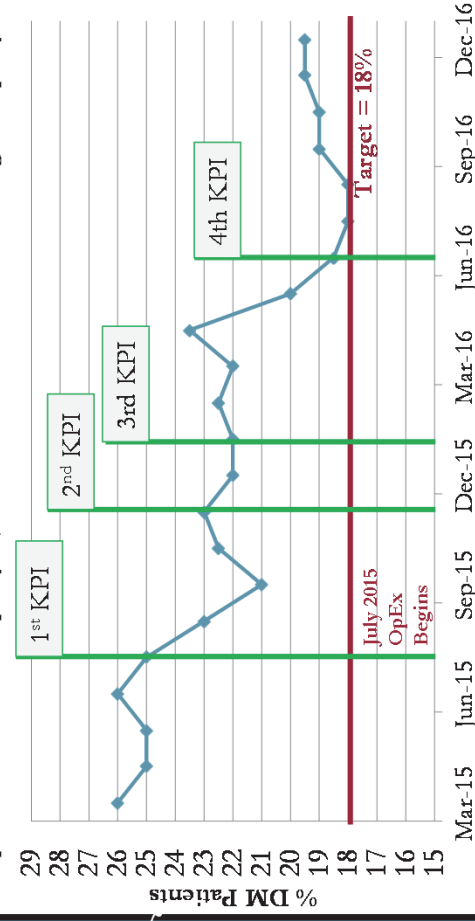
Currently, and for the past 15 years, the Adult Clinic at MMC has been collecting data on a variety of health control measures, including HbA1C values. There is an interdisciplinary "care model team" that meets monthly, and works to audit these values, change workflows, and develop solutions for the patient population with uncontrolled Diabetes Mellitus. However, there is currently lacking ability to make changes on a day-to-day basis which is hypothesized to be a benefit of utilizing Operational Excellence.

**Countermeasures**

Action	Owner	Due Date	Status
KPI 1: Increase the number of staff trained to do Point of care (POC) A1c testing	Equal contributions from: PSRs, Medical Assistants, RNs, NPs, and Physicians	8/25/2015	Completed
KPI 1: Daily, Admins identify patients due for A1c Testing and communicate that information to the providers.	Equal contributions from: PSRs, Medical Assistants, RNs, NPs, and Physicians	8/25/2015	Completed
KPI 1: Point of care A1C machine delivered	Equal contributions from: PSRs, Medical Assistants, RNs, NPs, and Physicians	8/25/2015	Completed
KPI 2: Educate and remind staff to verify that all diabetes patients have self-care plan included in their after visit summary.	Equal contributions from: PSRs, Medical Assistants, RNs, NPs, and Physicians	11/30/2015	Completed
KPI 3: Require that Diabetes patients with POC A1C greater than 9% will schedule a follow up appointment at checkout	Equal contributions from: PSRs, Medical Assistants, RNs, NPs, and Physicians	6/17/2016	Completed
KPI 4: When Diabetes patients with A1C over 8% call to get a medication refill, the admin staff will schedule that patient for a follow-up visit within a month.	Equal contributions from: PSRs, Medical Assistants, RNs, NPs, and Physicians	9/9/2016	Ongoing
Referrals for poorly controlled Diabetes patients, to Dietician, Social Worker, or Care Manager	Equal contributions from: PSRs, Medical Assistants, RNs, NPs, and Physicians	N/A	Ongoing
KPI 5: 100% of diabetics with A1C > 9 are scheduled for a 1 month follow up until the A1C is < 9	Equal contributions from: PSRs, Medical Assistants, RNs, NPs, and Physicians	Current	Ongoing

**Outcomes**

DM patient 18-75 seen in the past year, who have an A1C>9 or no A1C reading in the past year



**Discussion of Results.** There was an overall decrease in % of patients with poorly controlled diabetes which has been attributed to:

- Improved glycemic control
- Contacting patients who had been seen but were controlled
- Elimination of patients no longer in our practice

Figure 2: Overall data for percentage of DM patients with an A1C value higher than 9, or no A1C reading within the last year. Start date of each KPI is included for reference of the relationship between lowering this metric and quality improvement tools.

**Next Steps**

- Maintain monthly review patients >9% or not seen >12 months at clinic level
- Population Health support at health system level

**Root Cause Analysis:**

Staff not trained to do POC testing, Adult IM clinic does not have POC machine, patients do not receive a self-care plan, variability in patients receiving a follow-up appointment at checkout and other support services (Dietician, Social Work, Care Manager) not consulted.