Increasing Provider and Medical Student Use of American Diabetes Association Care Guidelines at the Columbus Free Clinic

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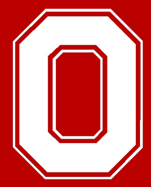

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Introduction

- The Columbus Free Clinic (CFC) is an interprofessional, student-run, and volunteer-based free clinic
- The CFC provides quality medical care and social services free of cost to uninsured and underserved populations in Franklin County and the surrounding Central Ohio area[1]
- The population of Franklin County is 1.32 million people, and 8.2% of this population does not have health insurance. 14.2% of Franklin County residents fall under the poverty threshold[2]
- Diabetes is one of the most common health conditions seen in patients treated at the CFC
- To better manage patients' chronic care, the CFC aims to meet diabetes care standards set by the American Diabetes Association (ADA)
- These care measures include obtaining a documented A1c every 6 months, albumin/creatinine ratio every 12 months, and a lipid panel every 12 months[3]
- Study findings show that patients with chronic diseases benefit from EHR support, communication, and reporting tools[4]

1. Columbus Free Clinic, (2023), Columbus Free Clinic Home Page, Columbus Free Clinic, https://www.columbusfreeclinic.com/
2. United States Census Bureau, (2023), Franklin County, Ohio, Census-Geography Profile, https://data.census.gov/profile?g=050XX00US39049
3. American Diabetes Association Professional Practice Committee, American Diabetes Association Professional Practice Committee:, Draznin, B., et al. (2022). 4. Comprehensive Medical Evaluation and Assessment of Comorbidities: Standards of Medical Care in Diabetes-2022. Diabetes care, 45(Suppl 1), S46–S59. https://doi.org/10.2337/dc22-S004
4. Lessing, S. E., & Hayman, L. L. (2019). Diabetes Care and Management Using Electronic Medical Records: A Systematic Review. Journal of diabetes science and technology, 13(4), 774–782. https://doi.org/10.1177/1932296818815507

Aims

- Increase the proportion of patients with diabetes with a documented A1c in the previous 6 months to at least 75%
- Increase the proportion of patients with diabetes with a documented albumin/creatinine ratio within the previous 12 months to at least 75%
- Increase the proportion of patients with diabetes with a documented lipid panel within the previous 12 months to at least 85%
- Expand access to educational materials and health coaching services at the Columbus Free Clinic to all patients diagnosed with Type 2 Diabetes Mellitus and hypertension

Methods: Positive Screen Criteria

- Patient must be 18 years of age or older
- Patient must have diagnosis of Type 2 Diabetes Mellitus
- If patient not previously diagnosed with Type 2 Diabetes Mellitus (new to CFC)
  - Patient has chief complaint about blood sugar or diabetes
  - Patient is requesting refills for medication used to treat Type 2 Diabetes Mellitus

Methods: Program Workflow

Before Clinic Night	• Patients on in-person appointment schedule screened for CHE eligibility • Dot phrase implemented in CHE identified Type 2 Diabetes patient chart
Clinic Night	• Providers and triage volunteers educated about CHE program • Providers and triage volunteers complete ADA compliant actions as indicated by dot phrase • Triage volunteer informs patient about CHE eligibility and encourage patient to opt in to program • Patient completes visit receiving care they need and given medical supplies to assist at home management
Post-Clinic Night	• All patients informed of abnormal lab results and scheduled for follow-up appointment

Results

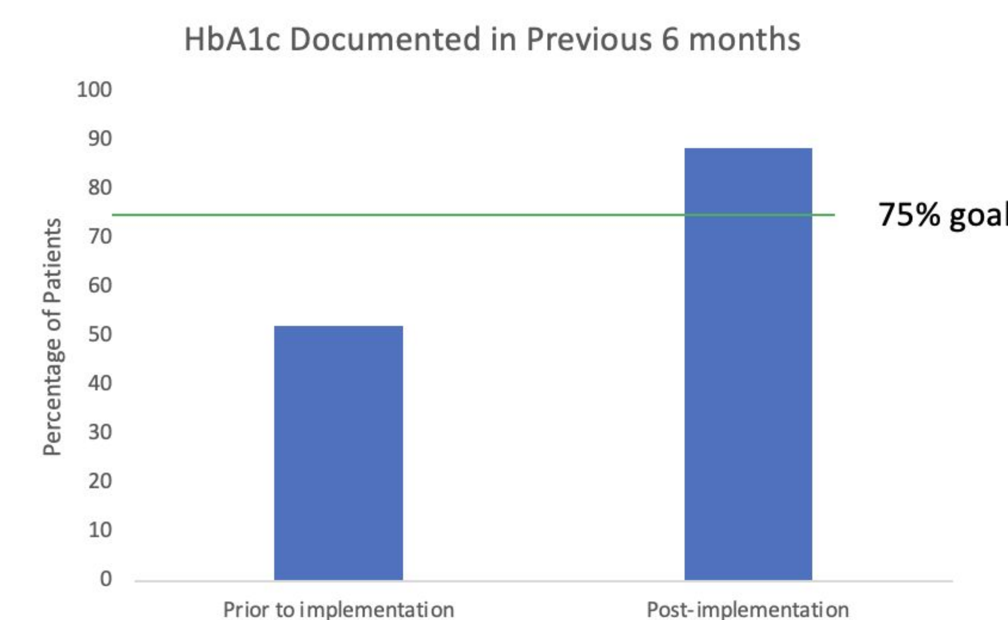

Figure 1. Evaluation of Implementation on HbA1c Tracking The above figure shows data for the percentage of patients with a documented HbA1c in the past 6 months. On the x-axis is the time point of intervention, prior to implementation or post-implementation. 88.4% of patients with Type 2 Diabetes Mellitus had a recorded A1c in the past 6 months during the period of implementation. 52.1% of patients with Type 2 Diabetes Mellitus had a recorded A1c prior to implementation. The green line represents the 75% goal set for the health promotion program.

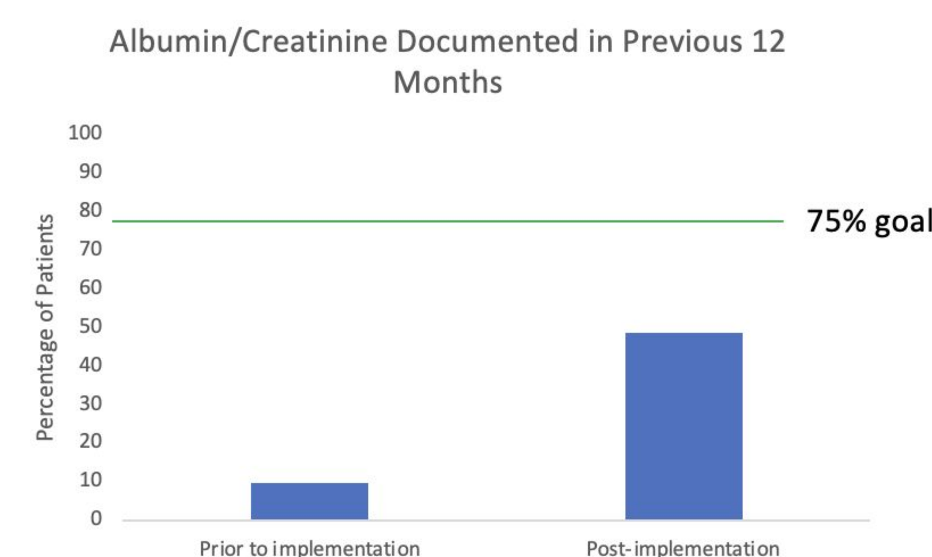

Figure 2. Evaluation of Implementation on Albumin/Creatinine Ratio Tracking The above figure shows data for the percentage of patients with a documented Albumin/Creatinine ratio in the past 12 months. On the x-axis is the time during intervention, prior to implementation or post-implementation. 48.8% of Type 2 Diabetes Mellitus patients had a recorded Albumin/Creatinine ratio in the past 12 months post-intervention. 9.8% of Type 2 Diabetes Mellitus patients had a recorded Albumin/Creatinine ratio in the past 12 months prior to intervention. The green line represents the 75% goal set for the health promotion program.

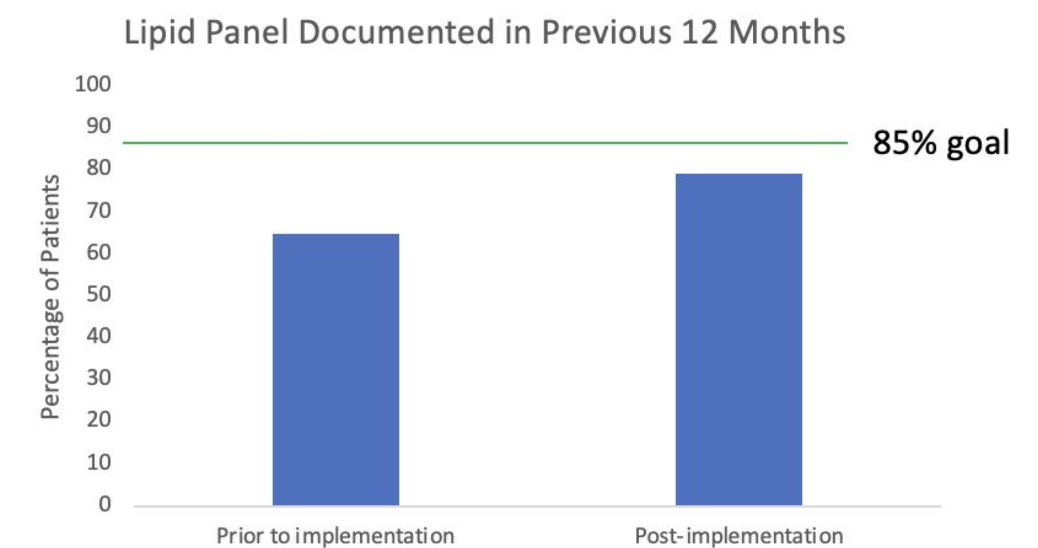

Figure 3. Evaluation of Implementation on Lipid Panel Tracking The above figure shows data for the percentage of patients with a documented lipid panel in the past 12 months. On the x-axis is the time during intervention, prior to implementation or post-implementation. 79.1% of patients with Type 2 Diabetes Mellitus had a recorded lipid panel in the past 12 months during post-implementation.. 65.0% of patients with Type 2 Diabetes Mellitus had a recorded lipid panel in the past 12 months prior to implementation. The green line represents the 85% goal set for the health promotion program.

Discussion

- Intervention successes
  - 88.4% of patients with diabetes had a documented A1c
  - Expanded access to educational resources and health coaching services to all patients with diabetes
  - Increased proportion of patients with albumin/creatinine ratio documented
  - Increased proportion of patients with lipid panel documented
  - **Improved Columbus Free Clinic adherence to ADA care guidelines via pre-appointment patient identification and implementation of ADA specific EHR dot phrase**
- Limitations
  - Time constraints preventing providers from addressing all ADA guidelines in addition to patient concerns
  - Difficulty to achieve continuity of care with regular follow-ups and consistent providers in the free clinic setting
  - Providers' hesitance to prioritize reminders from a dot phrase
- Future directions
  - Provide more opportunities for provider education about the dot phrase to achieve albumin/creatinine ratio goal and lipid panel goal
  - Continue to increase medical student awareness of the dot phrase during volunteer orientation
  - Increase the number of community health workers and health coaching appointments provided to patients with diabetes
  - Hold diabetes-specific education events for patients at the Columbus Free Clinic