

Continuous Glucose Monitoring in an Underserved Population

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Background

The American Diabetes Association recommends offering real time continuous glucose monitoring for adults with diabetes on multiple insulin injections or basal insulin alone. They do recommend ensuring the choice of device is based on the individual's personal circumstances and ability to use these products. Studies have shown a clear benefit in reducing A1c in patients with type 2 diabetes and insulin use mostly without changes in insulin dosing or other diabetes medications. They share that blood glucose monitoring, not necessarily continuous glucose monitoring, may be helpful for patients not on insulin therapy when altering lifestyle or medications as an expert opinion, but they do cite a lack of data to make a formal recommendation.

Many Indiana insurance plans require intensive insulin regimens to approve continuous glucose monitoring. In 2023, Indiana Medicaid plans began covering continuous glucose monitors (CGM) for all patients with diabetes with no prior authorization required. This allowed many patients to have access to continuous feedback on how their lifestyle and medications affect their diabetes care.

Clinical Site

Community Health Network is located in Indianapolis, Indiana with inpatient and outpatient services.



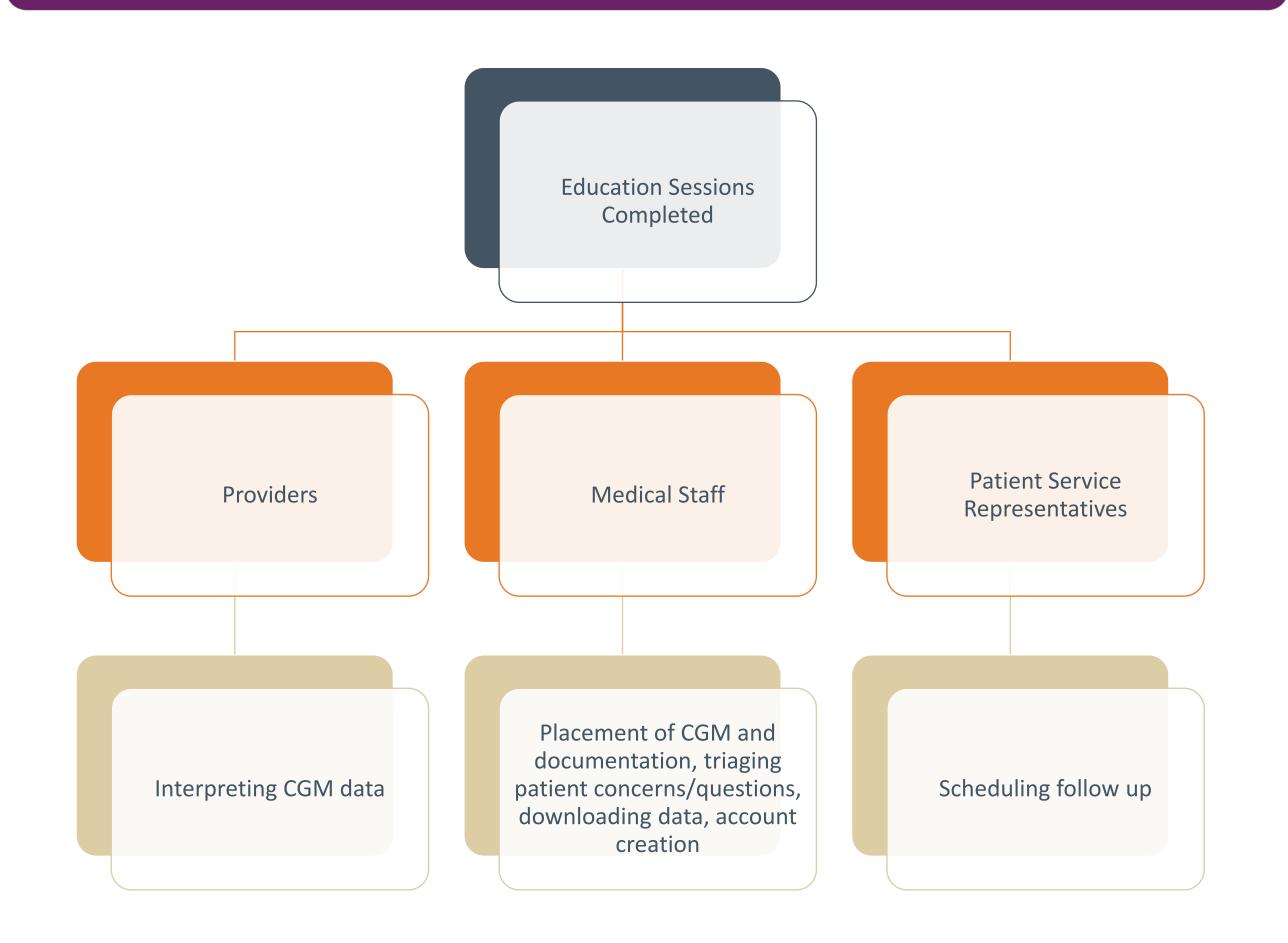
In 2018, an underserved clinic named Resources to Evaluate and Advance Comprehensive Health (REACH) was created. The goal was to serve patients who use Community Health Network services but may need more comprehensive care than is available in the traditional primary care setting.

By providing a safety-net for the Network's more complicated patients, REACH strives to reduce hospital readmissions and improve emergency room utilization while increasing the overall well-being of the patients served. REACH endeavors to improve accessibility to comprehensive medical and social health care services to high-risk individuals utilizing a collaborative team including two physicians, two nurse practitioners, one clinical pharmacist, one licensed clinical social worker, nursing staff, medical assistants, and patient service representatives.

Objectives

Our initial objective was to offer a way for patients to have more real time feedback based on their diabetes control. After anecdotally seeing significant improvements in diabetes control and positive patient feedback, IRB review was requested to formally review and present the data from this clinic.

Methods



All patients with Medicaid were offered CGM as part of their diabetes therapy and scheduled in office for set up.

Additionally, patients were able to continue to return to clinic for placement of future sensors. Follow up on CGM data was reviewed by patient's primary care provider or clinical pharmacist.

Results

A total of 11 patients were included in this initial analysis. Patients reviewed had type 2 diabetes without an intensive insulin regimen, Medicaid insurance, and started CGM use during our study period of Jan 2023- June 2023.

	Prior to Initiation of CGM	3 months Post Initiation of CGM
A1c value	9.1% (Range 6.6-11.4%)	7.1% (Range 6.0-8.3%)
Number of Medications	2.2	1.8
Percent of patients on basal insulin	55%	27%

Conclusion

In the short term, use of continuous glucose monitors in an underserved population led to further control of their diabetes while allowing for a decrease in insulin usage. Education was effective for staff, but the need for continued reinforcement and education was noted.

Future Direction

All Medicaid patients regardless of A1c or therapy are offered a continuous glucose monitor on site.

Clinic now has samples of sensors to be able to help patients without insurance coverage for CGM.

More data and endpoints is needed on long-term use and if this data can be replicated with more patients.

References

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