

# DIABETES- IMPROVED SERVICE EFFICIENCY IMPROVES RACIAL DISPARITY



Abel Irena MD MSc, Kushal Patel MD, David B Thompson MD, Abiy Gesese MD,  
Gregory J. Schleis, MD, Richard J Battiola, MD  
Internal Medicine Residency Program – Aurora Health Care - Milwaukee, Wisconsin



## Overall Goal/Abstract

**GOAL:**  
Improving the health outcomes of patients with diabetes mellitus

**PURPOSE:**  
Improving racial disparity in diabetes outcome indicators among diabetic patients being treated at Aurora Sinai Internal Medicine Ambulatory Clinic.

## Abstract

### NI-V PROJECT FOCUS: DIABETES MONITORING

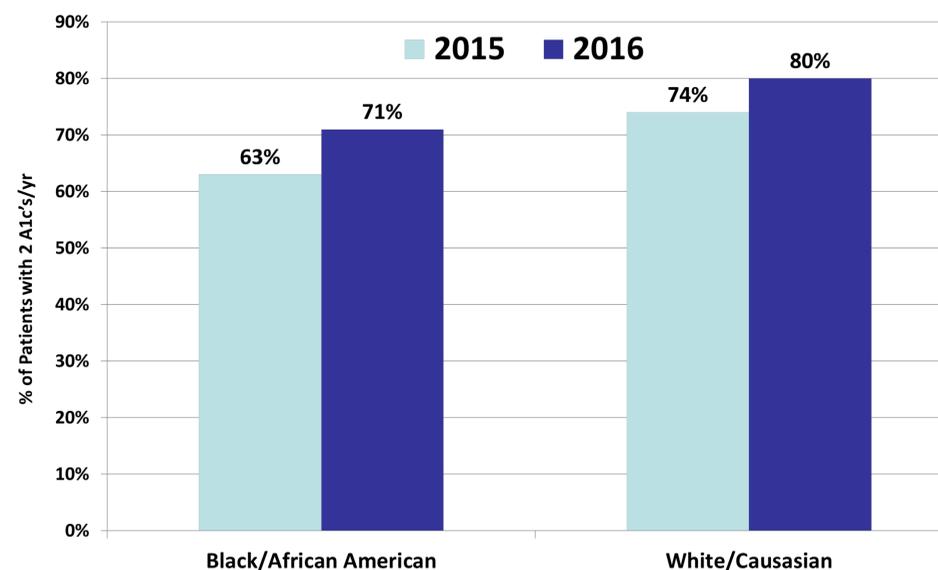
- Disparities seen in diabetes management with poor outcomes in Black/ African American patients as compared to white race<sup>1</sup>
- Two of the four diabetic indicators showed racial disparity:
  - Glycohemoglobin (A1C) check at least 2/year
  - Blood pressure control to goal (<140/90) in Diabetics
- Known strategies to reduce racial disparities in diabetes include:<sup>2,3</sup>
  - Community engagement, patient empowerment
  - Increasing access, improving care coordination
  - Improving quality of care
- Data collected through staff interview, group discussion, review of work flow identified key barriers: on-time A1C ordering; patient's staying for lab work; timely availability of lab results; resident/staff workload

## Materials/Methods

- Clinical patient disparities in Diabetes for Internal Medicine residency clinic identified using REAL-G categories (race, ethnicity, age, language preferred - gender) from EPIC analyses
- Provider, staff and patient perceptions were obtained
- Optimal interventions identified and prioritized for DM targeted REAL-G disparity, via literature, clinic's health care team perceptions cognizant of available resources
- A1C testing machine purchased, streamlined clinic workflow for point of care/day of patient appointment access
  - Resident, faculty, staff orientation / training
  - Resident and Faculty Clinic champions / each day of workweek
  - Numerous PDSA cycles were conducted with the leadership of the clinic staff to improve the workflow related to point of care/day of A1C access

## Results

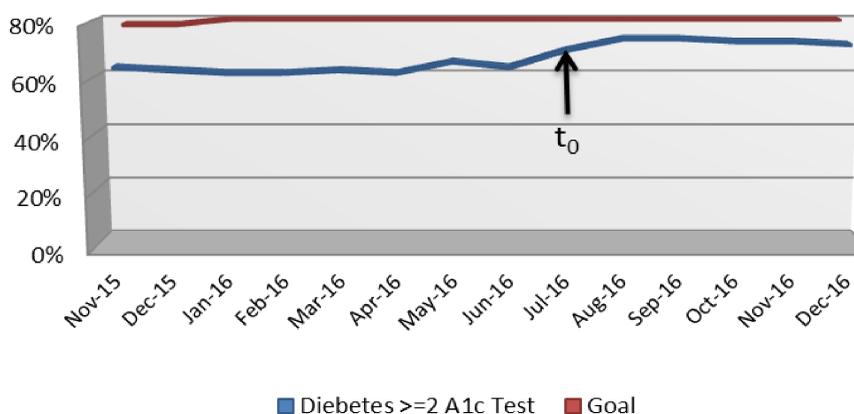
**% of Diabetic Patients with 2/yr A1C Checks**  
by African American/Black and White/Caucasian for Pre (2015) and Intervention (2016) in IM Residency Clinic



### IM Clinic showed overall increase in DM measures from 2015 to 2016

- A1C 2/yr = 9% increase
- BP <140/90 = 2% increase

**Percentage of diabetics with 2 or more A1c tests in the last 12 months**



- Full implementation of intervention began July 2016 - at "t<sub>0</sub>"
- Clinic "no show" rate remains static at approximately 30% , challenging further improvement at this time

## Barriers Encountered/Limitations

- Resident/faculty schedules conflicts and duty hours limit opportunities for team meetings
- Unable to impact some socioeconomic factors surrounding care outside of clinic as below:
  - Lack of resource to improve lifestyle and dietary habits
  - Lack of ability to provide financial support for medications
  - Inability to influence social/cultural norms surrounding diabetic care

## Lessons Learned (Discussion)

- Improve diabetes care for all patients by improving access to point of care/same day A1C testing with streamlined work flow
- Seek to increase team's access data in format that supports analysis clinic/system level to more agilely answer emerging questions
- Team based approach essential
  - Continuous project engagement difficult as clinical obligations shift
  - Active involvement, ownership of the clinic staff/leaders
  - Formalize and publicize team's time needs (e.g., protected/block time)

## Conclusions

- Racial disparities exist in clinic setting where African American are the predominant customers
- May be associated with overall service quality
- Can be improved by implementing interventions that improve service for all patients
- Sustaining project is increased through active involvement of clinic staff/leaders at project inception

## Bibliography

### REFERENCES:

- Heidemann DL, Joseph NA, Kuchipudi A, Perkins DW, Drake S. Racial and Economic Disparities in Diabetes in a Large Primary Care Patient Population. *Ethnicity & Disease.* 2016;26(1):85-90.
- Betancourt JR, Duong JV, Bondaryk MR. Strategies to reduce diabetes disparities: an update. *Curr Diab Rep.* 2012;12(6):762-8.
- Lewis MA, Williams PA, Fitzgerald TM, et al. Improving the implementation of diabetes self-management: findings from the Alliance to Reduce Disparities in Diabetes. *Health Promot Pract.* 2014;15(2 Suppl):83S-91S.

**ACKNOWLEDGEMENTS:** AHC Offices of Clinical Quality, Graduate Medical Education, Academic Affairs - Deborah Simpson, PhD & Jeffrey Stearns, MD