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Project #51: Reducing Hypertension in Younger African American Men: Advancing Health Equity with a Multidisciplinary Express Blood Pressure Clinic

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BACKGROUND & AIM

The African American (AA) population is disproportionately impacted by hypertension-related complications.(1) Compared to other races, AAs are at a significantly higher risk of mortality and a three-times increased risk of stroke.(2) AA men have the highest hypertension-related mortality compared to any other race, ethnic group, or sex.(3)

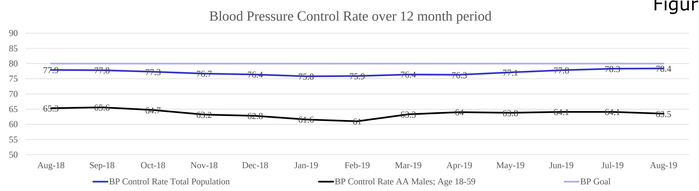
In response to this challenge, the American College of Preventive Medicine (ACPM) collaborated with the Centers for Disease Control (CDC) to prevent, detect and control hypertension among AA men ages 35-64. Henry Ford Health was awarded a 5-year grant from the ACPM and CDC to address hypertension improvement for AA males. Strategies to create synergy and seamlessness between the existing RN BP recheck and Embedded-pharmacist teams were developed to capitalize on activities already implemented to improve BP control for the general adult population. Addressing specific disparities in BP control for AA men led to creation of the "**Express Blood Pressure Clinic**" (Exp BP) that focused on the following aims:

- Achievement of blood pressure goal in ~8 weeks (<= 140/ <= 90).
- Monitor medication adherence, BP control and program satisfaction.
- Assess & address Social Determinants of Health (SDOH) needs-focus on food insecurity.

PLAN: Current State

Data review: BP Control for our AA male population ages 18-59 was significantly lower than our System goal of 80% as evidenced by the trended data below.

Figure 1



Current state: Involved an assessment survey of existing activities to address blood pressure management including provider and patient surveys. It was found that:

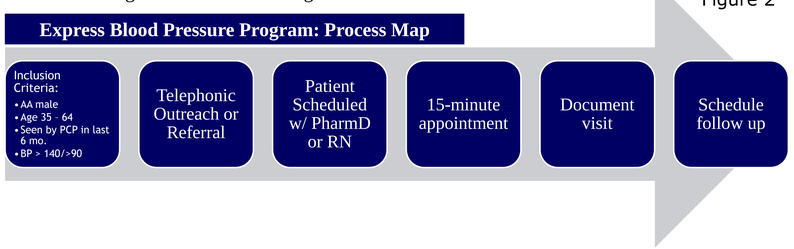
- Providers expressed a desire **for additional support** to manage HTN.
- **Improved coordination between resources**: RN BP Management program and Embedded Pharmacist program.
- Patients reported a desire to have a **role in self-management of BP** and closer follow up by the healthcare team

DO: Intervention

In August 2020, data gained from the comprehensive analysis of current practices was applied to develop an innovative, multidisciplinary **Express Blood Pressure Clinic** at two urban clinic sites to improve control for African American men.

- **Multifaceted data analytics driven, team-based approach** to improve HTN control using brief, flexibly scheduled, focused visits.
- **Eligibility criteria:** AA male, Age 35- 64 with uncontrolled HTN (most recent BP >=140/>=90) and seen in the past six months by their PCP.
- **Create synergy and seamlessness** between RN BP recheck team, Embedded-pharmacists, Medical Assistants (MAs), Community Health Worker (CHW) or Hypertension (HTN) Navigator and the Nutritional Consultant (RDN Master's Student) by utilizing support team to maximum of licensure/skill set.
- **Match patients to services based on needs**: timing of HTN diagnosis; number/severity of co-morbidities; medication regimen complexity; educational gaps; SDOH needs.
- **Engage patients** in home blood pressure monitoring by distribution of devices, education on use, and monitoring to track/act on readings.

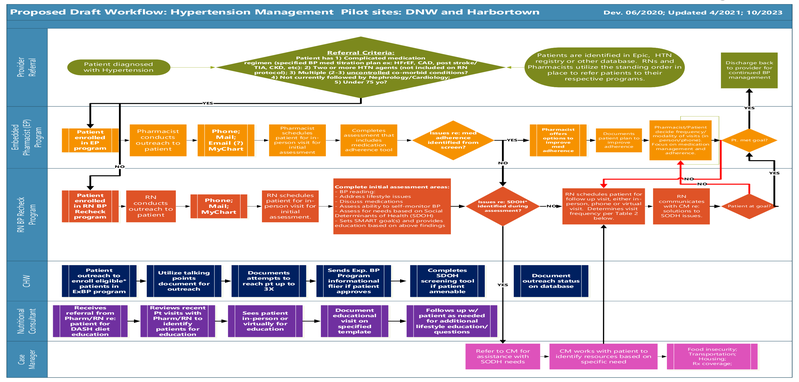
Figure 2



DO: Intervention

To better delineate and coordinate team roles and responsibilities, a swim lane diagram (Figure 3) was created early in the process. It has been periodically adjusted to accommodate for role changes and additions over the course of the project. reflecting ongoing PDSA cycles to improve the intervention based on data findings.

Figure 3

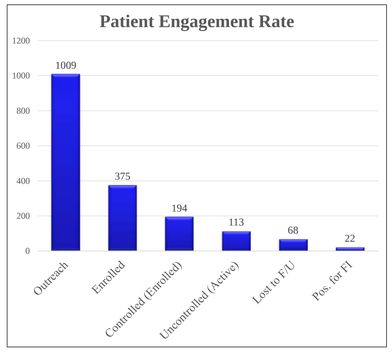


CHECK: Metrics & Outcomes

Outreach and Patient Engagement: # of contacts made compared to number of eligible patients, # of appointments made and kept; # of patients lost to follow-up
See Figures 4 and data analysis below:

Figure 4

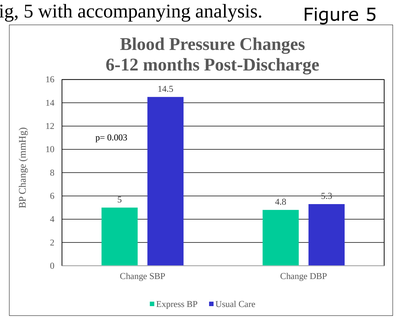
- Patient engagement is expanded using CHW role and skills for outreach
- Outreach conducted to **1009 patients** meeting eligibility criteria
- **37%** of outreach attempts resulted in patient enrollment (375/1009)
- **52%** of enrolled patients are currently at goal (194/375)
- **30%** active patients remain uncontrolled (113/375)
- **18%** lost to follow up (68/375)
- **5.8%** Food Insecurity Screening (22)



Blood Pressure control: Data for the ongoing effectiveness of BP control 6-12 months after completing the Exp BP program is illustrated in Fig, 5 with accompanying analysis.

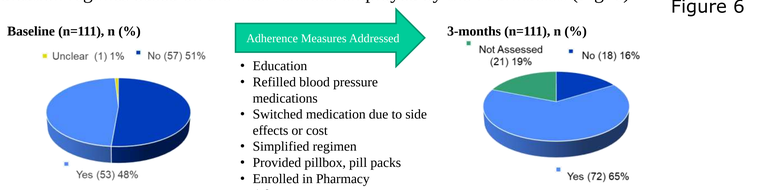
Figure 5

- August 2020 to August 2021
- Compared Express BP Clinics vs. Alternative Detroit-Based Clinic w/o Express BP service
- Approximately 54% of patients remained in control for 6-12 months post discharge from the Express BP clinics versus 48% from non- Express BP clinics
- 70% of patients given a BP cuff maintained BP control 6-12 months post-discharge versus 57% of patients without BP cuff



Medication Adherence: This metric was monitored to identify patient follow through with the medication regimes based on the interventions employed by the Pharmacist. (Fig. 6)

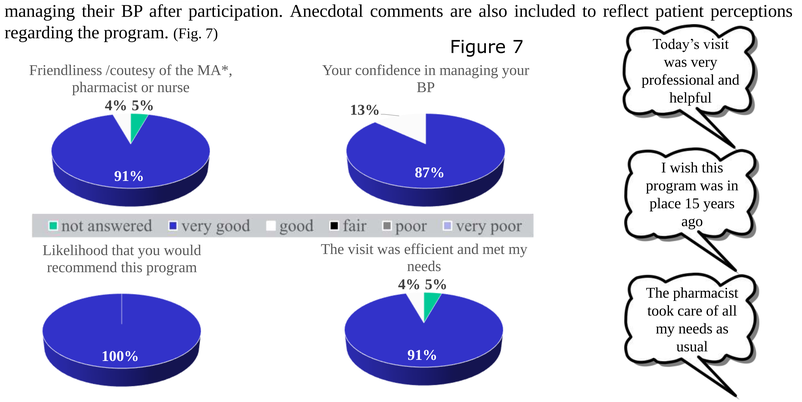
Figure 6



CHECK: Measures & Results

Patient Satisfaction Feedback: Items were measured: Patient experience; patient confidence in self-managing their BP after participation. Anecdotal comments are also included to reflect patient perceptions regarding the program. (Fig. 7)

Figure 7



Food Insecurity (FI): 2% of patients identified as positive for FI per the SDOH survey. Referrals were made to Case Management for help in locating healthy food sources from local pantries/banks.

ACT: Changes Implemented

Patient Engagement	**Cipher Health technology** was piloted: • Automated, scripted phone call/texting features • 80 patients were contacted in this manner in June 2023 • 86% (n=68) engaged with automated communication by either reading the text message or listening to the automated voice call • 28% (n=19) indicated interest in Exp BP program. An informational flier was created to promote patient understanding/engagement in the program. • Based on the lower than desired level of engagement, the process was terminated, and another automated outreach tool is being explored. **HTN Navigator**: Replaced the CHW role due to attrition. Site level MAs following a standardized workflow and talking points to conduct outreach to eligible patients on evenings/Saturdays. **Community partnership** created with the Detroit Assn. of Black Orgs. (DABO)
Blood Pressure Control	• Creating a **sustainability plan regarding BP monitor distribution** to continue self-management activities. A "tiered" plan based on financial need as well as a partnership with the Home Care division of HFH with electronic home monitoring device distribution. Primary Health Innovation & Equity Fund created as part of the Employee and Physician Giving campaign. • **Addition of an RDN Master's student** to serve as a nutritional consultant to provide DASH (Dietary Approaches to Stop Hypertension) diet education. • Patients desired more clarity about what to expect during a visit to the Express BP clinic. **An informational flier was created** to provide specifics. • **Geospatial mapping**: Generated to help identify causative factors for lack of response to screening calls and factors impacting blood pressure control.
Med Adherence	• **Expanded pill box distribution** to promote consistency in taking meds.
Expansion	• The **program was expanded** to the Ford Rd. IM Clinic in 2023.

Spread and Sustainability

Next steps for the project include the development of a plan for **spread and sustainability**:

- **Convened a leadership team** to discuss components of spread plan for System support.
- Finalize **the plan for BP monitor distribution** until insurance coverage is wider.
- Create a **universal database** for all support team members re: patient status
- **Expand sites and populations**, adding female patients.
- **Continue with periodic team meetings** to ensure consistency in communication.

Finally, A Patient's Own Story…Mr. Mark J. (right) was identified by telephonic out-reach as meeting eligibility criteria for the Exp BP Program. His blood pressure was 179/109 at the initial visit. The Clinical Pharmacist discovered that he was not taking his meds. It took 2.5 months to achieve goal being seen every 2-4 weeks with two consecutive blood pressure readings < 130/80. He opted to remain in the program an additional month (two visits) to ensure that he maintained control. He was able to resolve adherence barriers, obtain needed education, and get to goal.

References:
1. Centers for Disease Control and Prevention. A Closer Look at African American Men and High Blood Pressure Control: A Review of Psychosocial Factors and Systems-Level Interventions. Atlanta: U.S. Department of Health and Human Services; 2010.
2. Centers for Disease Control and Prevention. 2020. Chronic Disease Prevention and Health Promotion: Heart disease and stroke
3. Benjamin EJ, Blaha MJ, Chiuve SE, et al. Heart disease and stroke statistics — 2017 update: a report from the American Heart Association. Circulation. 2017. 135 (10):e146-e603.