

## Improving Hypertension Control Through a Community-Based Blood Pressure Self-Monitoring Program in Marion County, Indianapolis



### Introduction

The YMCA of Greater Indianapolis partnered with the Marion County Public Health Department (MCPHD) to expand the Blood Pressure Self-Monitoring program (BPSM) in two locations within Marion County, Indianapolis. The YMCA leveraged its referral system with healthcare systems to recruit patients with hypertension in the target neighborhoods. In addition, the YMCA worked to provide outreach and identify participants through community based strategies including social media, traditional media outlets, and community-based partners within the targeted communities.



### Challenge

Marion County residents fare worse from chronic diseases including heart disease, stroke, and diabetes than the general population of the United States. In 2013, the Marion County age-adjusted heart disease death rate (191.5 per 100,000 population) was substantially higher than the national rate (169.8 per 100,000 population). There were 37.8 stroke deaths per 100,000 population in Marion County during 2013, which is above the national rate of 36.2 and the Healthy People 2020 target of 34.8 deaths per 100,000 population.<sup>1</sup> A community health assessment conducted in 2012 indicated that 31% of adults in Marion County have high blood pressure. Hypertension was more prevalent among African Americans (39%) than it was among Whites (31%) or Hispanics (16%).<sup>2</sup>

### Solution

In partnership with the MCPHD, the YMCA of Greater Indianapolis expanded BPSM to an additional 100 Black/African American individuals in low-income neighborhoods, providing blood pressure monitors, nutrition education, and personalized support for hypertension control.

Through the project period, the YMCA established partnerships for operating BPSM with 14 new organizations: one city park, five churches, two community-based organizations, one food pantry (with mobile pantry sites and onsite health clinic),



three healthcare clinics (two Federally Qualified Health Centers, one traditional primary care), one senior center, and one employer. These partnerships and referral/outreach efforts resulted in recruiting 104 participants for the program.

## Results

The YMCA was able to establish four new referral channels (defined by receiving actual participant referrals) with partner organizations. A total of 62% of referred participants enrolled in the program. In addition, the YMCA was able to establish offsite (not at a local YMCA) program locations with three new partners to deliver BPSM at their locations. Overall, participants in the program have lowered their blood pressure by an average total of 6.6mm Hg for systolic readings and 3.3 mm Hg for diastolic readings.



## Lessons Learned

We learned that the recruitment strategies that focus on external participants (those not already connected to the YMCA), seem to identify and connect participants in higher numbers than internal YMCA strategies. By hosting BPSM classes at a variety of community locations, the YMCA was able to expand the reach of the program, and better meet the needs of participants, allowing for higher engagement. Finally, recruitment strategies for evidence-based interventions in general can be costly in terms of staff time. Continuing to identify partners with existing resources or participant

pools to work alongside to recruit for BPSM proved to be successful during the project period.

The YMCA and other community partners deliver effective interventions and have the capacity to deliver. Partnership with the healthcare system is a critical factor for program success. Sustainability of the interventions in the community setting is dependent on the number of individuals enrolled. However, clinical partners do not seem to refer externally at a high enough rate for community-clinical linkage (CCL) systems to exclusively sustain these programs. Mechanisms used for referral can be direct (point of care), indirect (retrospective review), automated (EMR based), or even passive (a brochure for self enrollment). Even when the need, intervention, and partnership is established as in the case of the BPSM program, the referral system requires staff support and infrastructure that is often not established. For continued impact and sustainability, the YMCA and other community program providers should continue to align their clinical referral partnerships with more grassroots or community health worker models to recruit enough participants to sustain initiatives like BPSM.

## References

1. National Center of Health Statistics (2016). Indiana mortality report: Marion County residents selected causes by race and sex. Retrieved from [https://www.in.gov/isdh/reports/mortality/2015/table05/tbl05\\_49.htm](https://www.in.gov/isdh/reports/mortality/2015/table05/tbl05_49.htm)
2. Indiana State Department of Health (2015). CDC heart disease and stroke death rates. Retrieved from <https://www.in.gov/isdh/27347.htm>

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