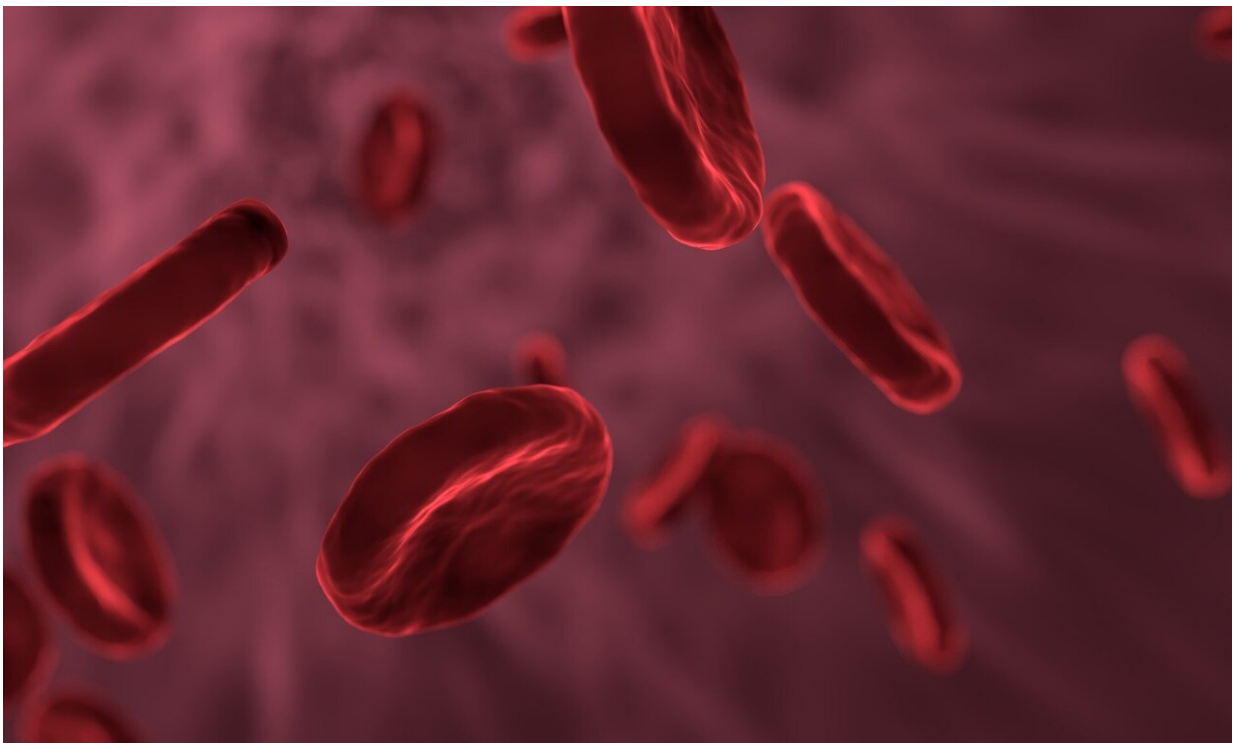


# Targeted support program improved blood pressure among Black and Hispanic adults in Bronx

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A nurse-led blood pressure program that included patient education and support for management of high blood pressure resulted in participants taking their blood pressure medication regularly and having fewer

episodes of uncontrolled high blood pressure, according to preliminary research to be presented at the American Heart Association's Quality of Care and Outcomes Research Scientific Sessions 2022. The meeting will be held Friday and Saturday, May 13-14, 2022, in Reston, Virginia, and features the latest research focused on the quality of cardiovascular medical care and patient outcomes in the treatment and prevention of heart disease and stroke.

"Our local population in the Bronx includes mainly Black and Hispanic people, and high [blood pressure](#), Type 2 diabetes and cardiovascular risk factors are prevalent throughout our community. Addressing high [blood pressure](#) is particularly important to reduce the prevalence of these health conditions," said study co-author Masood A. Shariff, M.D., a research fellow at Lincoln Hospital, New York City Health and Hospitals in the Bronx, a borough of New York City. "Two years ago, we initiated a treat-to-target program for people with uncontrolled high blood pressure to receive care at a specialized clinic within our outpatient center, and we've found this approach to be successful in helping participants better manage their blood pressure."

The goal of the program was to get more people to achieve a target blood pressure of 120/80 mm Hg, as recommended by the [American Heart Association/American College of Cardiology guidelines](#). To measure the success of the program, researchers identified more than 2,700 people at an outpatient clinic who either had uncontrolled high blood pressure higher than 130/80 mm Hg or who had started a new [blood pressure medication](#) at the beginning of the study period. Medical records for each participant for two years prior (August 2017 to October 2018) to the targeted intervention and two years after (January 2019 to March 2020) the start of the special program were reviewed. Participants were an average age of 61 years old; 57% were women; 70% self-identified as Hispanic people; and 25% of participants self-identified as Black race.

The support program was staffed by nurses who worked closely with study participants to track their blood pressure history from a diary kept by each person and to assess if they were taking their medications as prescribed and if the medications were working to manage their blood pressure. Other [health care professionals](#) provided study participants with information and support to address lifestyle changes, such as salt intake and weight loss, to improve nutrition and increase physical activity.

The nurses were able to connect with participants on a more personalized and frequent basis than what doctors are able to provide in a regular outpatient setting such as a medical office or clinic. At the start of the program, participants returned in three weeks for a clinic visit with a blood pressure nurse, compared to the standard three months for a visit with a doctor. The once every three week visits continued as medication was adjusted, and while this was more frequent in the beginning of the program, researchers found that over the course of the two years, fewer visits were needed as the number of incidences of uncontrolled high blood pressure decreased.

The analysis found:

- Because people were able to keep their high blood pressure under control, they didn't need to visit the clinic as often. The average number of clinic visits decreased by 31% among study participants—from more than five visits in the two-year pre-intervention period to about three visits during the treat-to-target period.
- The average number of uncontrolled high blood pressure readings among all participants dropped from three before the intervention to two incidences after the targeted program.
- The average systolic (top number) blood pressure fell by 7.6 mm Hg (to 135.5 mm Hg) among the treat-to-target group.

"Before the treat-to-target program, getting a person's blood pressure under control took much longer. Physicians typically only see patients every three to six months, and sometimes it takes several visits to get medication dosages right. And if a person isn't taking their medication or taking it incorrectly, it's not effective if we don't see them until six months later," Shariff said. "In the treat-to-target program, if a person's blood pressure was uncontrolled, they would be seen sooner by a blood pressure nurse who could consult with the doctor and make medication adjustments quickly, which resulted in overall fewer visits and a better blood pressure control across the program participants."

Researchers said the program also helped identify reasons some people were unable to control their blood pressure or weren't taking their medications as prescribed. Issues that may have affected some people included language barriers, a lack of awareness about the importance of taking medication on time daily or the importance of follow-up visits. Connecting with the blood pressure nurse on a consistent basis helped address some of these issues.

"We believe that implementing this targeted program with the blood pressure nurse made a big difference," said Mohammad Faiz, M.D., study co-author and an internal medicine specialist at Lincoln Medical Center in the Bronx, New York City. "Using a multi-faceted team approach, especially in a primary care setting, which means having nursing, nutritional and social work staff working closely with doctors to address medical and other issues, is the key to achieving blood pressure targets. With a team approach, we were able to provide care much earlier than three to six months after starting medication, and the reinforcement of eating healthy, checking blood pressure every day, checking to make sure medications are taken properly really made a difference."

The researchers noted that given the burden of high blood pressure, Type

2 diabetes and cardiovascular risk in Black and Hispanic populations, more blood pressure counseling, screening, monitoring and support are important.

"We know that pre-existing social conditions, such as access to quality health care, jobs, education and housing, influence differences in the health status of individuals and communities. The American Heart Association is collaborating with community health centers and community-based organizations across the country through the National Hypertension Control Initiative (NHCI), an evidence-based initiative to manage blood pressure and reduce poor health outcomes for people from disproportionately impacted racial and ethnic groups," said Eduardo Sanchez, M.D., M.P.H., FAHA, FAAFP, the American Heart Association's chief medical officer for prevention and the Principal Investigator for NHCI. "Targeted approaches to ensuring proper blood pressure measurement, monitoring both at home and in a health care setting and developing a plan with each individual for reduction in high blood pressure are important parts of the initiative and proven ways to effectively manage blood pressure."

The researchers said a limitation to the study is that the same study participants participated previously in [high blood pressure](#) treatment through the outpatient clinic, although those encounters were not as personalized. They also noted that individual interaction and working styles may differ from nurse to nurse, and some approaches may have been more effective than others.

**More information:** [professional.heart.org/en/meet...nd-outcomes-research](#)

Provided by American Heart Association

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