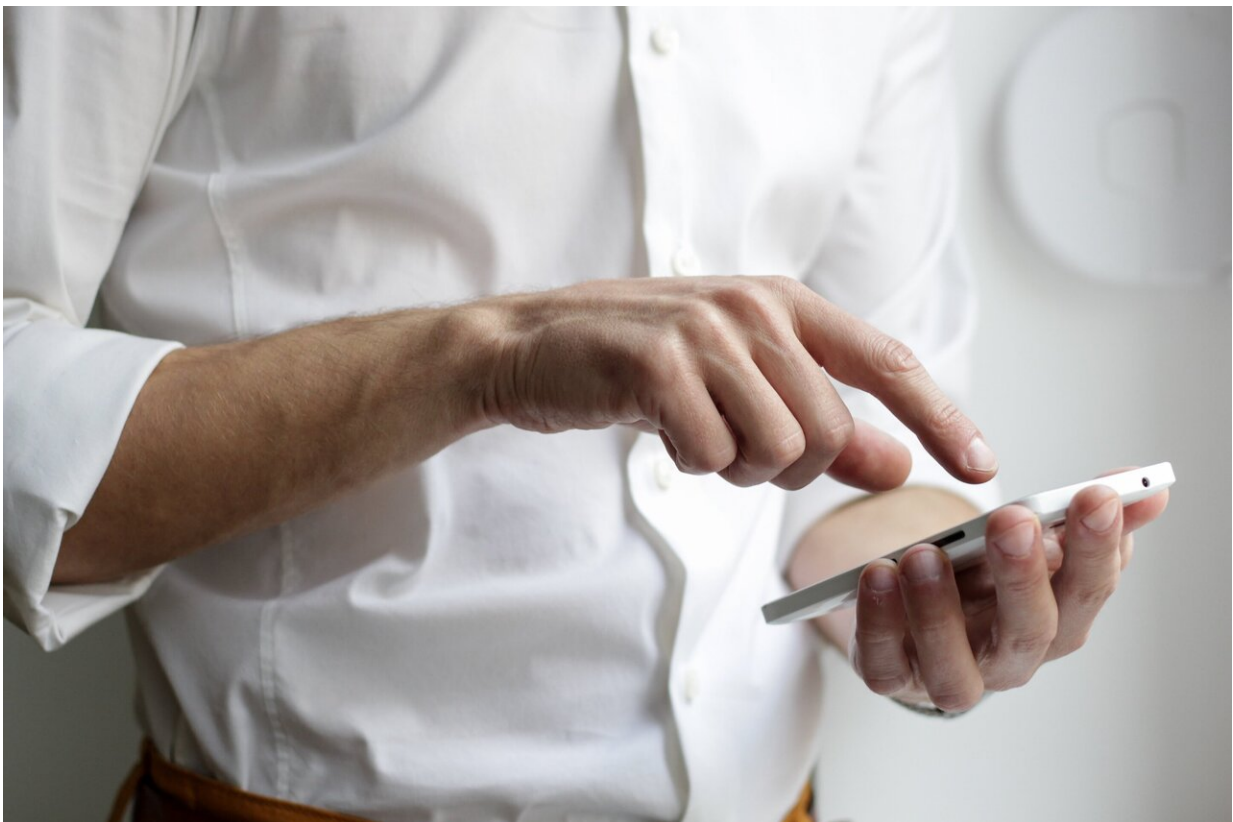


After using remote, bilingual program, half of patients found to have better blood pressure control

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Over half of patients with uncontrolled high blood pressure achieved controlled blood pressure measurements after participating in a remote

digital monitoring program, according to new research to be presented at the American Heart Association's [Hypertension Scientific Sessions 2023](#), held Sept. 7–10, 2023, in Boston.

"Although medication to treat hypertension is effective, blood pressure has been historically challenging to control because patients need to make significant lifestyle and [behavioral changes](#), too," said lead study author Irina Yermilov, M.D., M.P.H., M.S., chief medical officer of CAREMINDr.

The multi-center study evaluated the effects of a novel, digital hypertension management program on blood pressure control at 54 Federally Qualified Health Centers—community health clinics—located in 13 states across the United States.

Patients were provided with a digital phone app available in both English and Spanish that prompted them to provide their BP readings—either daily or weekly, based on clinicians' advice—and other blood pressure-related information with clinical staff at their community health clinic.

Health care professionals at the clinics reviewed the information via a web-based portal, which also included questions about how often they had taken their [blood pressure medications](#), if they had experienced any symptoms related to their blood pressure medications and if they had any trouble getting their medications. The portal prioritized patients by level of concern based on their submitted responses, and clinicians could communicate with patients through the app or call patients by phone to provide coaching or treatment changes.

Patients were also provided with home blood pressure monitors to allow them to submit BP readings through the app, and patients who already had a blood pressure monitor could manually enter their BP readings into the app. Patients were provided with videos on how to use the app and

how to use their new blood pressure monitors, and the app also included links to material about nutrition and mental health, both of which play a role in blood pressure treatment.

Researchers analyzed the starting and ending blood pressure measurements of patients who participated in the program for at least 90 days. In this study, the researchers considered blood pressure under 140/90 mmHg, the threshold for stage 2 hypertension, to be controlled.

The analysis found that the digital blood pressure management program significantly improved blood pressure control rates:

- Researchers analyzed data for patients who participated in the study for at least 90 days, with a range of 90-721 days for all patients. The average length of participation was 227 days.
- 31% of all patients had controlled blood pressure when they enrolled in the study, compared to 61% with controlled blood pressure at the end of the study period.
- In patients who started with uncontrolled blood pressure, more than half (55%) achieved controlled blood pressure measurements after participating in the program.
- Among the Spanish-speaking participants who utilized the Spanish version of the monitoring app, 35% of patients started with controlled blood pressure and 70% had controlled blood pressure measurements after participating in the program for an average of 220 days.
- Of Spanish-speaking participants with initial uncontrolled blood pressure measurements, 66% achieved controlled final blood pressure measurements.

"We were surprised that more than 50% of participants in the program were able to attain blood pressure control. These results indicate combining the remote digital monitoring capabilities of the app with

feedback from clinicians can improve rates of blood pressure control in a real-world, at-risk population, without increasing the overall cost of care," Yermilov said. "This digital management program has the potential to improve outcomes and decrease rates of uncontrolled [blood pressure](#), leading to fewer heart attacks and strokes."

Future studies from the researchers will investigate which individual characteristics of the program may be the driving factors that maximize [blood pressure control](#).

The study's limitations included that results from the populations involved might not be generalizable to broader groups, and the study did not include a control group that received standard of care treatment.

More information: Yermilov presents Efficacy Of A Patient-engagement Platform In Reducing Uncontrolled Hypertension In Community Health Clinics at 3:45 p.m. ET on Saturday, Sept. 9, 2023, Presentation #091; Abstract #16

Provided by American Heart Association

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