

Automated telephone calls improve blood pressure control

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Patients who received automated telephone calls inviting them to get their blood pressure checked at a walk-in clinic were more likely to have controlled hypertension than patients who did not receive calls, according to a Kaiser Permanente study published today in the *Journal of Clinical Hypertension*.

The researchers studied 64,773 adult members of Kaiser Permanente Southern California with [uncontrolled hypertension](#), commonly referred to as [high blood pressure](#). Roughly half of these Kaiser Permanente members received automated phone messages encouraging them to have their blood pressure measured at a Kaiser Permanente clinic. The other group received no calls. Four weeks after Kaiser Permanente delivered the telephone messages, 32.5 percent of the patients who received automated calls had controlled [hypertension](#), while only 23.7 percent of patients who did not receive a call had controlled hypertension.

"This study provides new information about how an automated telephone message can lead to improved blood pressure control among patients with hypertension," said lead author Teresa Harrison, SM, a research associate at Kaiser Permanente Southern California's Department of Research & Evaluation in Pasadena, Calif. "We found that this simple outreach program can improve blood pressure control, especially among patients with multiple chronic conditions."

Among patients with hypertension who received the automated phone calls, those who also had cardiovascular disease, chronic kidney disease

and diabetes were up to 8.4 percent more likely to achieve better blood pressure control than those who did not have these conditions. Female patients who were older and had higher incomes were more likely to achieve blood pressure control at the end of the follow-up period than the rest of the study group. The researchers did not collect data about the factors that caused blood pressure control to improve. According to the Centers for Disease Control some of the most effective ways to control high blood pressure are eating a healthy, low-sodium diet, maintaining a healthy weight, staying physically active, not smoking, limiting alcohol use and taking medications as prescribed.

"This type of outreach reminds patients that they can take advantage of more convenient care," said Harrison. "It also gives clinic staff the opportunity to provide education and refer patients for follow-up care, if needed."

Hypertension is a significant and growing public health challenge in the United States, affecting about 30 percent of adults 18 and older—and the numbers have been growing, according to the CDC. The condition is associated with coronary artery disease, kidney failure and stroke.

"We found that outreach for uncontrolled hypertension can be done very quickly and that it is a benefit for both patients and health care systems," said Joel Handler, MD, the national and Kaiser Permanente Southern California hypertension lead and an additional author of this study. "From our perspective, this type of outreach is a win-win scenario that can provide physicians with terrific hypertension control rates and patients with improved health outcomes."

Kaiser Permanente can conduct transformational health research in part because it has the largest private patient-centered electronic health system in the world. The organization's electronic health record system, Kaiser Permanente HealthConnect®, securely connects 9.1 million

patients to 17,000 physicians in 611 medical offices and 38 hospitals. It also connects Kaiser Permanente's research scientists to one of the most extensive collections of longitudinal medical data available, facilitating studies and important medical discoveries that shape the future of health and care delivery for patients and the medical community.

Kaiser Permanente is committed to exploring chronic condition management through clinical research. In August of this year, Kaiser Permanente researchers published findings showing that Kaiser Permanente Northern California had nearly doubled the rate of [blood pressure control](#) among adult members with diagnosed hypertension between 2001 and 2009, going from 43.6 percent in 2001 to 80.4 percent in 2009. In January of this year, Kaiser Permanente researchers published a study that found [blood pressure](#) and cholesterol control is even more important than blood sugar control for cardiovascular health in diabetes patients. A study late last year indicated that making prescription refills more affordable and accessible may reduce disparities among hypertension patients. In addition, Kaiser Permanente researchers last year found that [patients](#) who were newly prescribed a cholesterol-lowering medication were more likely to pick it up from the pharmacy if they received automated phone and mail reminders.

Provided by Kaiser Permanente

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