

Kaiser Permanente Research Roundup:

Research Summaries for Policy Leaders

Promoting equitable outcomes for patients with high blood pressure

[Effect of Lifestyle Coaching or Enhanced Pharmacotherapy on Blood Pressure Control Among Black Adults With Persistent Uncontrolled Hypertension: A Cluster Randomized Clinical Trial](#)

JAMA Network Open / Nguyen-Huynh, et al. / May 18, 2022

Hypertension, or high blood pressure, is a costly condition affecting nearly half (46.7%) of adults in the U.S.¹ Hypertension is linked to strokes, heart attacks, and chronic kidney disease, so controlling blood pressure is an important strategy for improving long-term health outcomes. In 2019, the total cost of hypertension in the U.S. was estimated to be \$219 billion.² This figure is projected to rise to at least \$513 billion by 2050.³

Rates of hypertension are higher among certain groups, like Black adults, who are also less likely to sufficiently reduce blood pressure after a hypertension diagnosis due to a complex interplay of social and economic factors.⁴ Hypertension is often addressed through medication, though it can also be treated using lifestyle modifications, such as dietary changes, physical activity, and stress management.

At Kaiser Permanente, we have been investing in and expanding our research to support better health outcomes for all members and patients. Achieving equitable outcomes requires focused and ongoing efforts, including research,



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Health Research at Kaiser Permanente

Kaiser Permanente conducts research that contributes to understanding risk, improving patient outcomes, and informing policies and practices. Kaiser Permanente investigators and staff work out of 8 regional research centers and the Bernard J. Tyson School of Medicine.

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to identify members with care gaps and address their root causes. We use this research to develop tailored programs like the Kaiser Permanente Northern California Hypertension

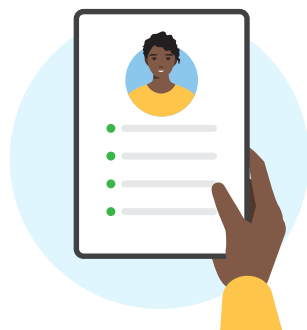
Program, which improved blood pressure control from 44% to 90% of patients over a 13-year period (2000 to 2013).⁵ Thanks to these and other programs, our members are less likely to have poorly controlled hypertension compared to similar insured patients in the U.S.⁶

To confirm that all patients benefit from the care they receive, our teams analyzed blood pressure control across patient demographics and identified preventable differences among patients who had recently had a stroke. Despite equal use of health care resources and adherence to hypertension medications, Black patients' blood pressure was less likely to lower to normal levels compared to patients of other races and ethnicities.



Kaiser Permanente researchers then explored strategies that would better support Black patients in achieving equitable outcomes, which benefit both individual patients and the overall health system by reducing the overall burden of hypertension.

Kaiser Permanente researchers recently published a study that explores questions of interest to policy audiences:



- **Given the health and financial impacts of hypertension to the U.S. health system, how can health systems identify opportunities to promote better health outcomes for people from all backgrounds especially those who have preventable differences?**
- **What types of evidence-based treatments promote better outcomes for Black adults with hypertension - lifestyle coaching, enhanced medication management, or conventional treatments?**

2022 article in JAMA Network Open

Kaiser Permanente conducted a randomized controlled clinical trial to compare the effectiveness of different evidence-based treatments for hypertension among 1,761 Black adults in Northern California. The patients in the study had been diagnosed with persistent uncontrolled hypertension, which means they had multiple measurements of high blood pressure over time, despite being on medications. The patients were randomly assigned to 1 of 3 different evidence-based treatments:

- **Usual care:** Appropriate medications, free blood pressure check visits, and ongoing adjustments to medications based on blood pressure checks.
- **Enhanced medication management:** Usual care plus check-ins with a research nurse, resources on understanding and managing hypertension that included strategies and recipes tailored to the specific patient population, and regular blood pressure check visits (1-2 times per month) until blood pressure was in normal ranges.





- **Lifestyle coaching:** Usual care plus at least 6 phone coaching sessions on topics such as the DASH (Dietary Approaches to Stop Hypertension) eating plan, physical activity, stress management, setting goals, and staying motivated. Patients also had access to the same tailored resources and recipes.

Kaiser Permanente researchers monitored blood pressure for patients throughout the year-long treatment period to compare the effectiveness of the 3 treatments in lowering blood pressure to normal levels. They were also interested in whether the effects of the different treatments continued after patients left the study, so they evaluated blood pressure 2 years and 4 years after patients completed the year-long treatment. The research nurses and lifestyle coaches were trained in patient-driven goal development, collaborative problem solving, and respectful ways to discuss health behaviors then given regular feedback on their interactions with patients, ensuring consistent and high-quality care.

Key findings

- **At the end of the first year, the 3 treatments were equally effective at helping patients achieve normal blood pressure levels, although there was a trend towards better blood pressure control in the lifestyle coaching group compared to usual care.** Approximately two-thirds of patients in each

group had normal blood pressure levels, which is associated with lower risk for cardiovascular disease, stroke, and dementia.

- **Patients who received lifestyle coaching tailored to their needs and cultural background were more likely to have normal blood pressure levels after the study ended compared to those who received usual care or enhanced medication management.**

Approximately 73% of patients in the lifestyle coaching group, 66.5% of patients in the enhanced medication management group, and 64.5% of patients in the usual care group had normal blood pressure 3 years after leaving the study. This suggests that lifestyle coaching helped patients make and sustain important changes to their diets and lifestyles, and this contributed to better blood pressure control. Receiving as few as 6 lifestyle coaching sessions helped participants reach normal blood pressure.



Policy opportunities

No single study can suggest the full range of policy implications or opportunities. Based on existing research and internal discussions among Kaiser Permanente researchers and health care quality leaders, we recommend several avenues for supporting more effective care and better health outcomes for all:

Promote research and quality improvement initiatives designed to advance equitable care and outcomes.

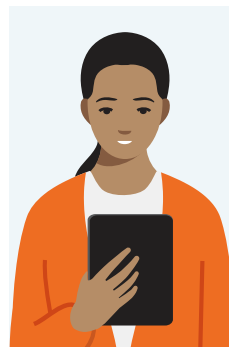
- **Standardize data collection and use:** Align standards and guidelines for the collection and use of race and ethnicity data with the revised Office of Management and Budget (OMB) standards, which model data disaggregation best practices, to improve consistency across health records and forms that may be used in research and quality improvement.
- **Enhance patient-centered and culturally responsive care:** Support programs, initiatives, demonstration projects and research to improve access to care that reflects the needs of patients from different backgrounds, including patient navigators, peer support, community health workers and promotores.

Support the health care workforce in delivering evidence-based, equitable care to all patients, in line with the 6 domains of health care quality.

- **Increase availability of training on providing patient-centered care:** Support programs that educate and train health care professionals on providing effective, tailored care that meets the needs of patients from different backgrounds.
- **Develop payment models that support health-related social needs:** Help providers address patients' social needs by ensuring that reimbursement appropriately incentivizes the delivery of services shown to produce better health outcomes.
- **Ensure language access to evidence-based interventions:** Promote programs that increase access to language-concordant providers and expand awareness of interpretation and translation services. Encourage the regular collection of language proficiency data on the health care workforce to better understand their capacity to provide in-language care.

Integrate equitable care and outcomes into health care operations, quality measures, and payment models.

- **Focus on outcomes:** Incorporate key health outcomes, such as rates of chronic disease and mortality, into measures of equitable care. Current measures often focus on access to care and care utilization, which are essential but may miss or underestimate health disparities – preventable differences in outcomes.
- **Encourage consistent measurement:** Promote the development of agreed-upon measures of equitable care and outcomes that can be used across health systems to consistently identify and address preventable differences.
- **Align incentives:** Support the modification of payment models and incentive structures so that health systems are accountable for achieving better health outcomes for all patients.
- **Encourage collaboration:** Incentivize providers and payers to collaborate with others in the communities they serve to address upstream social and economic drivers of health that contribute to preventable differences in outcomes.



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