

Blood-pressure study analysis shows best strategies for patient care

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Katherine Mills, assistant professor of epidemiology in the Tulane University School of Public Health and Tropical Medicine, led a team that analyzed 100 blood pressure studies to find which interventions worked best to control hypertension. (Photo by Paula Burch-Celentano)

A new study out of Tulane University School of Public Health and Tropical Medicine analyzed published research on blood pressure intervention strategies and found that multilevel, multicomponent interventions were best at helping patients control their hypertension.

[Katherine Mills](#), assistant professor of epidemiology in the School of Public Health, is the leading author of a study that analyzed more than 100 randomized, controlled trials with more than 55,000 participants. The study was published in December in the [Annals of Internal Medicine](#).

Mills and her colleagues reported that multicomponent interventions targeting barriers to hypertension control at multiple levels (patients, providers and healthcare systems) are most effective.

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Katherine Mills

“These results are very heartening because the multilevel strategies that we found to be the most effective are being increasingly used in national and international hypertension control programs,” Mills said.

“One thing that was surprising to me about the findings is the magnitude of blood pressure reduction by targeting patient-level barriers alone,” she added.

Home blood-pressure monitoring and health coaching alone, for example, resulted in drops of 3-4 mm Hg in systolic pressure among the participants.

“Therefore, if multilevel interventions are not feasible, patient-level interventions should be the next choice,” said Mills.

Mills added that much of the research they analyzed identified barriers and possible solutions to better blood pressure control among patients, and that she hopes their study will bring some clarity to the most effective ways to address these barriers.

“We learned from this meta-analysis that team-based care using multifaceted strategies is very effective for blood pressure control among hypertension patients,” added [Dr. Jiang He](#), professor and Copes Chair of Epidemiology and senior author of the study. “We will be testing these strategies for more intensive blood pressure control among low-income patients in Louisiana, Mississippi and Alabama in an NIH-supported study.”

Other co-authors included Katherine M. Obst, Wei Shen, Sandra Molina, Hui-Jie Zhang, and Hua He from the Department of Epidemiology at Tulane University.