

Armed with Heart Failure Training, Tech, Home Health Aides Deliver Better Care, Study Finds



Tracey Walker December 08, 2025

Pairing structured heart failure education with real-time communication tools can better equip home health aides (HHAs) to care for patients with heart failure, according to a recent [pilot randomized clinical trial](#) published in *JAMA Network Open*.

Nearly [6.7 million](#) adults have heart failure, and heart failure is the [leading cause](#) of morbidity, hospitalization and mortality in older adults.

Funded by the National Heart, Lung, and Blood Institute, [the trial was conducted](#) by researchers in the Division of General Internal Medicine at Weill Cornell Medicine, New York, and home care organization [VNS Health](#), New York.

Lead investigator and study author Madeline R. Sterling, MD, MPH, MS, general internist and health services researcher at Weill Cornell Medicine, said her experience caring for patients as a primary care doctor initially inspired her research in this area. Over the years, she observed that HHAs were spending more time with her heart failure patients than any other healthcare professional.

“Our research has found that despite frequently caring for adults with heart failure, many HHAs had not received formal training in this complex condition and lacked confidence providing care,” Sterling told *McKnight’s Home Care Daily Pulse*.

Additionally, she said, HHAs reported struggling to reach nurses and doctors by telephone when they needed help or had questions. This lack of support led to unnecessary 911 calls and hospital visits.

To bridge this gap, Sterling and colleagues collaborated with the VNS Health Research Team and the Personal Care Division to conduct a 2-arm randomized controlled clinical trial to test the effectiveness of

the education- and communication-based interventions among HHAs caring for patients with heart failure in the real world.

Conducted from May 2022 to May 2024, 102 HHAs were randomized to either the enhanced usual care (EUC) arm, which received 90-minute heart failure training program, or the intervention arm, which included the training program plus a mobile health (mHealth) app that allowed HHAs to message nurses at VNS Health with questions or for guidance. Each HHA was in the study for 90 days.

“We saw that HHAs all wanted training and they were hungry to contribute and deliver high-quality care,” Sterling said.

Outcomes were measured at baseline, 45 days and 90 days. Sterling and her team assessed heart failure knowledge and self-efficacy, plus preventable 911 calls, with emergency department and hospitalizations as exploratory patient outcomes.

“We found that regardless of which arm of the study HHAs were in (EUC or intervention), they all improved in their knowledge and confidence with heart failure at the end of the study, compared to the beginning,” Sterling said. “We did not see differences between arms, meaning that those who received the mHealth app did not do better in terms of knowledge and confidence than those who received training alone. We did find that HHAs who started off with less knowledge or confidence saw the greatest gains by trial end, suggesting that the interventions may benefit certain HHAs over others.”

According to Sterling, the biggest difference emerged in HHAs’ reports of preventable 911 calls. HHAs who received both the training and mHealth app (intervention arm) reported fewer such calls than those without the app, highlighting the power of connecting HHAs to nurses and other members of the care team.

“Although heart failure research has been trying to keep patients out of the hospital for years, our study is the first to center on HHAs as agents of change,” Sterling said. “These frontline workers are often overlooked. We believe we can capitalize on their role as the ‘eyes and ears’ of patients.”

Margaret McDonald, associate vice president of the Center for Home Care Policy & Research at VNS Health and study co-investigator, agreed.

“We already know how important HHAs are in supporting recovery and aging in place,” McDonald told *McKnight’s Home Care Daily Pulse*. “Skill building and educational programs for HHAs increase their confidence in the care they are providing and open up opportunities for professional and career growth.”

Finally, Sterling stressed that HHA interventions do not need to be overly complicated to pay off. “Training and technology can go a long way toward integrating their observations in the home back to other healthcare providers,” she said.

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