

Addressing Health-Related Social Needs and Providing Care Coordination for Patients with Cardiovascular Disease

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Overview

This project evaluated the implementation of a community pharmacy-based cardiovascular disease program aimed at improving access to preventive and coordinated care services in rural communities across the U.S. stroke belt (a region in the southeastern United States recognized for having disproportionately high rates of stroke mortality).¹ The program, coordinated by the NCPA Innovation Center in partnership with CPESN® Community Health, leveraged pharmacists and pharmacy-based community health workers (PCHWs) to support longitudinal patient care, address care gaps, and improve coordination with specialty and supportive services.

Background

PCHWs have demonstrated value in supporting longitudinal patient management through services such as care-gap closure, chronic disease screening, transitions-of-care support, and referrals addressing health-related social needs.^{2,3} Community pharmacies are accessible healthcare hubs that expand preventive and coordinated care services, particularly in underserved and rural communities.

The NCPA Innovation Center focuses on accelerating the evolution of independent community pharmacies by equipping them with the tools, education, and strategies needed to deliver enhanced patient care and thrive in a value-based healthcare system.

CPESN USA is a clinically integrated network of more than 3,500 community pharmacies focused on delivering enhanced patient care services.⁴ Through this infrastructure, community pharmacies can implement standardized, team-based interventions that support population health initiatives and improve continuity of care.

In 2025, the NCPA Innovation Center, in collaboration with CPESN Community Health (a special purpose network within CPESN USA) with support from Bristol Myers Squibb, launched a cardiovascular disease-focused program across rural communities located within the U.S. stroke belt. The initiative incorporated transitions-of-care coordination, American Heart Association stroke risk assessments⁵, point-of-care atrial fibrillation screenings, and longitudinal follow-up activities designed to identify and address health-related social needs (HRSNs).

Twenty-five rural community pharmacies from six states (Alabama, Arkansas, Kentucky, Louisiana, Mississippi, and Missouri) participated in the program. Pharmacy teams, consisting of pharmacists and PCHWs, documented interventions using the Pharmacist eCare Plan⁶ data standard to support standardized reporting and care coordination.

Patients identified as experiencing certain adverse non-medical drivers of health (NMDOH) — non-medical, environmental, and social conditions that impact health outcomes — during transitions of care from a hospital or nursing facility to home with atherosclerotic cardiovascular disease (ASCVD) or a presence of CVD risk factors or through stroke risk assessments were enrolled in follow-up services aimed at monitoring, addressing, and resolving identified social needs. The program emphasized ongoing patient engagement and coordination with community-based resources to improve health outcomes and reduce barriers to care.

Objectives

- Expand access to healthcare in rural communities by creating access points for cardiovascular disease screening, monitoring, and management in community pharmacies, including stroke prevention and HRSN screening.
- Build capacity for addressing local inequities by advancing community health worker (CHW) training for pharmacy technicians.

Methods

IDENTIFICATION, ONBOARDING, AND TRAINING

This program recruited community pharmacies in rural communities with high cardiovascular disease risk and health-related social needs, all located in the stroke belt. The pharmacies were selected using the University of Southern California/NCPA Pharmacy Access Initiative Mapping Tool.⁷

A curriculum was developed to train pharmacy technicians as PCHWs that meets the National Council on CHW Care Consensus Standards with an additional focus on the chronic diseases disproportionately affecting rural areas, such as cardiovascular disease. Forty-five individuals completed the PCHW training.

Separate programmatic training was developed and was a foundational step to the program. At least one pharmacist and two PCHWs were trained per pharmacy. It included (1) an introduction to the program and its design as a foundation for a scalable and sustainable service; (2) implementation overview, tools, and best practice tips; (3) instruction on required documentation; and (4) review of potential scenarios and questions. Additional tools and training were available depending on the needs of the pharmacy teams.

IMPLEMENTATION

Eligible patients were identified through two indexing events: a recent transition of care with ASCVD or a presence of CVD risk factors. The pharmacist provided transition of care services, medication reconciliation, and health-related social needs screening. The pharmacy technicians and/or PCHWs provided risk assessments of stroke using the American Stroke Association screening tool during routine medication synchronization interventions. NMDOH were assessed informally during the intervention, which was conducted via in-person or virtual interactions. Patients identified with health-related social needs or stroke risks were referred to the PHCWs for care coordination. If the patient was identified as someone who was at high risk via the stroke assessment, they were referred to a specialist or primary care provider for evaluation. Each pharmacy provider-patient encounter was documented and submitted through HIPAA-compliant submission.

Results

The 25 pharmacies included in the program were from six states (Alabama, Arkansas, Kentucky, Louisiana, Mississippi, and Missouri) and employed 111 CHWs in total. Over the course of the data collection period, 11,188 encounters were logged for 9,820 patients in 694 different ZIP codes. This amounted to over 20,000 interventions provided, meaning patients received multiple interventions within a single encounter. Of the 11,188 encounters, 6,157 (55 percent) occurred at the pharmacy, 3,562 (32 percent) occurred via telehealth, and 1,469 (13 percent) occurred otherwise outside of the pharmacy (patient's home/community event).

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TABLE 1. Patient Demographics (n=9820)	
Average Age	67 years (+/- 18 years)
Female	6,740 (69%)
Race (n=6188)	
White	5,428 (87.72%)
American Indian	24 (0.39%)
Asian	20 (0.32%)
Black	682 (11.02%)
Other	34 (0.55%)
Ethnicity (n=5801)	
Hispanic/Latino	69 (1.2%)
Not Hispanic/Latino	5,732 (98.8%)
Disability Status (n=6079)	
None	3,636 (60%)
Cognitive difficulty	351 (6%)
Hearing difficulty	937 (15%)
Independent living difficulty	509 (8%)
Self-care difficulty	367 (6%)
Vision difficulty	1778 (29%)
Insurance Type (n=6133)	
Commercial	1564 (25%)
Dual	410 (7%)
Medicaid	597 (10%)
Medicare/Medicare Plus Supplemental	2128 (35%)
Unknown/Underinsured	1,434 (23%)

TABLE 2. American Heart Association Stroke Screening (n=9845; 88% of total encounters)	
Reason for Screening	
Recommended by pharmacy staff after medication review	5,241 (53%)
Identified high blood pressure through pharmacy screening	1,165 (12%)
Past medical history	5,260 (53%)
Result of Screening	
Patient is high risk	5,162 (52%)
– Referred to physician for follow-up	267 (13%)
– Provided patient education	2,718 (28%)

TABLE 3. Atrial Fibrillation Screening (n=2434; 25% of stroke screening encounters)	
Result of Screening	
Normal sinus rhythm	2,030 (83%)
Abnormal rhythm	404 (17%)
Abnormal Rhythm Results (n=404)	
Referred to established physician	329 (81%)
Pharmacy found physician for patient	62 (15%)
Provided a copy of the results	341 (84%)

TABLE 4. Transition of Care Screening (n=195; 2% of total encounters)	
Average Length of Hospital Stay	7.5 days
Medication Therapy Problems Identified	90 (46%)
Interactions	43 (48%)
Duplication of therapy	44 (49%)
Gaps in therapy	23 (26%)
Inappropriate dosing	19 (21%)
Access Issues Identified	62 (32%)
Copay/cost	23 (37%)
Prior authorization	12 (19%)
Unavailable stock	12 (19%)
Miscellaneous	27 (44%)

TABLE 5. HRSN Screening (n=8207; 73% of total encounters)	
Result of Screening	
No HRSN identified	4,755 (58%)
HRSN identified	3,452 (42%)
Type of HRSN Identified (of n=3452 identified)	
Access to care challenges	1,787 (52%)
Financial insecurity	649 (19%)
Housing insecurity	114 (3%)
Lack of adequate food	330 (10%)
Problems related to health literacy	940 (27%)
Transportation insecurity	1,179 (34%)
Care Coordination Services Requested	3,049 (88%)
Medication synchronization	1,863 (61%)
Formulary support	297 (10%)
Access services	150 (38%)
Gaps in care support	263 (9%)
Community resource	941 (31%)

Key findings

The findings from this work suggest a high potential for early risk detection, better long-term health outcomes, and financial savings resulting from the intervention of local pharmacies. They highlight the essential role pharmacies can play in expanding access to essential screenings, particularly in rural and vulnerable communities. They also demonstrate that incorporating cross-trained PCHWs into the pharmacy team can enhance the identification, implementation, and sustainability of innovative programs. These programs not only provide additional services but also connect patients to resources they may not otherwise access.

Importantly, identifying individuals at high risk reveals gaps in traditional care settings, reaching populations who are either underserved or unable to seek care at all. This underscores the need to bring screening services into the community, beyond the walls of clinical settings.

The return on investment of paying a pharmacy for stroke and atrial fibrillation screening is profound. Data shows that \$35,000 is saved in cost avoidance for every person with undiagnosed atrial fibrillation identified and connected to care. In six months, the 25 rural pharmacies were able to generate \$14.1 million in cost savings from atrial fibrillation screenings.⁸

Finally, the prevalence of medication therapy problems identified during transitions of care that can lead to serious outcomes, such as cardiovascular events or hospitalizations, reinforces the importance of a proactive, comprehensive approach to medication management.

Practice implications

The data from this pilot program highlights a significant opportunity to integrate payable services into the workflow in ways that benefit the community, while also expanding the use of pharmacy staff in roles beyond dispensing. It supports the need for service expansion and workforce development and reinforces the evidence that recognizing pharmacists as providers increases patient access to healthcare.

Cardiovascular screenings, transitions of care and care coordination services benefit patients and communities while helping alleviate the burden on primary care providers in rural areas. They also support evolving reimbursement models and the development of sustainable, value-based business practices in community pharmacy. In addition, they address critical access gaps for individuals who are uninsured, underinsured, unsure of their insurance status, or navigating an increasingly complex healthcare system.

Key findings at a glance



40%
of patients
have a
disability



INSURANCE COVERAGE

Over 23% of patients
were unsure if they
were covered by
insurance



46%
had medication
therapy problems

TRANSITION OF CARE

49% had
duplication
of therapy



48% had
interactions

15%
of patients
required
pharmacy to
identify a prescriber



\$14 million in cost savings from AFib screening alone

STROKE RISK



52%
of patients
were at HIGH
risk for stroke

25%
of stroke
screenings
resulted in
AFib screening



17%
of patients
screened had
an abnormal
rhythm



HEALTH-RELATED SOCIAL NEEDS (HRSNs)

88%
of patients
requested help
with HRSN



31%
of patients
were referred
to community-based
organizations



42%
of patients have a HRSN
Top HRSN barriers include:
• Access
• Transportation



25 pharmacies conducted 11,188 encounters in 694 ZIP codes

Successes, challenges, and lessons learned

To gather feedback on the challenges and lessons learned, pharmacy staff was surveyed at the end of the program, which is found in Table 6.

The program design emphasizes quality improvement by providing transparent performance insights across pharmacies. The use of shared data on screenings and monthly outcomes helps highlight opportunities for growth and best practices. Pharmacies responded with innovative, community-tailored approaches such as screening events, patient outreach, and workflow integration, allowing each site to implement strategies that best improve care access and outcomes for their populations.

TABLE 6. Pharmacy Feedback (Percent Agree or Strongly Agree)	
Overall, this program was a positive experience for our pharmacy team.	100%
The onboarding process prepared our pharmacy team to successfully participate in the project.	96%
The training provided the information I needed to perform my role in the project.	100%
The process for implementing encounters was workable in our pharmacy's day-to-day workflow.	86%
The documentation requirements were clear and reasonable for my role.	89%
Communication from the CPESN Community Health and NCPA team supported successful participation in the program.	96%
Receiving grant support to train staff as CHWs was beneficial to our pharmacy and patients.	96%

Additionally, pharmacies provided commentary about the overall program. Below are several examples:

“The most positive part was seeing how many people had irregular heart rhythms who didn’t know they did. A good percentage of them were able to get prescriptions based on findings being sent to their PCP.”
“My team really found joy in the interventions we were able to provide. My entire team was engaged in seeing these interactions have meaningful impact on patient lives.”

“I have a ton of compliments regarding this program. This program allowed two of our pharmacy staff members to become CHWs, which has the potential to improve our patients’ access to care and other community resources. The data collection was not complicated, and we really appreciated the opportunity to engage with our patients about stroke risks and provide them with AFib screenings. Financially, this allowed our pharmacy to provide additional staffing to focus on clinical programs. This not only positively impacted the patient care in this program but also in other programs we work on throughout the year.”

“It really opened my eyes to how many resources we have within our community.”

“I don’t know if words can describe the difference that this program has made for our patients’ overall quality of care. We were able to identify patients with atrial fibrillation who would not have been able to get access to care due to rural health inadequacies. Over 650 patients benefited from this program. Out of 650 patients, we had over 500 patients who underwent stroke screenings and were provided education. We had over 650 NMDOH instances over the course of the program.”

Conclusion and next steps

This initial quantitative data report highlights several key findings regarding the ability of community pharmacy staff to engage, deliver impactful clinical services, and address patients' unmet healthcare needs in innovative ways. A focused evaluation of the quarter of patients who are uninsured or underinsured to identify strategies that can reduce access barriers and support affordable healthcare is essential. Additional examinations of the unstructured free-text data collected during this program may provide deeper insight into patient needs, pharmacist interventions, and contextual factors not captured in the structured fields. The ongoing qualitative analysis of documented patient encounters is expected to provide additional context and nuance by emphasizing patient experiences and interactions that complement the quantitative data.

PARTICIPATING PHARMACIES		
Name	City	State
Hubbard Pharmacy	Sylacauga	AL
Semmes Pharmacy	Semmes	AL
FMS Pharmacy	Bessemer	AL
Village Pharmacy	Ozark	AR
Doctor's Orders Pharmacy	Pine Bluff	AR
Palace Drug	Mammoth Spring	AR
Stanley Pharmacy	Searcy	AR
Southern Pharmacy of AR	Marked Tree	AR
Smith Drug	Gentry	AR
Mason Family Drug	Maysville	KY
Save Rite Drugs Brandenburg	Brandenburg	KY
Parkview Pharmacy	Minnie	KY
Jays Pharmacy	Somerset	KY
Rice's Pharmacy	Beaver Dam	KY
Delaune's Pharmacy and Home Medical	New Iberia	LA
Walker's Pharmacy	Livonia	LA
Rayne Medicine Shoppe	Rayne	LA
L&S Pharmacy	Charleston	MO
Malden Pharmacy & Home Medical	Malden	MO
Hometown Pharmacy Express	Tupelo	MS
Iuka discount Drug	Iuka	MS
Loves Pharmacy, Inc	Ocean Springs	MS
Hometown Market & Pharmacy	Nettleton	MS
Tyson Drugs	Holly Springs	MS
Funderburks Pharmacy	Hernando	MS

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