








Collaboration between pharmacists in community pharmacy and ambulatory clinic settings: Current state and future directions

Kelly A. Cochran Pharm.D.  | Melissa A. Somma McGivney Pharm.D., FCCP  |
 Kevin Cowart Pharm.D., MPH  | Julie DiBridge Pharm.D. | Tiffany Dominic Pharm.D. |
 Jean-Venable R. Goode Pharm.D., FCCP  | Karen Kier Ph.D., FCCP  |
 Ha Phan Pharm.D.  | Takova Wallace-Gray Pharm.D.  | Ryan Wargo Pharm.D.

American College of Clinical Pharmacy,
 Lenexa, Kansas, USA

Correspondence

American College of Clinical Pharmacy, 13000
 W. 87th St. Parkway, Suite 100, Lenexa, KS
 66215-4530, USA.
 Email: accp@accp.com

Abstract

Pharmacists in the community and ambulatory settings are primed for collaboration that can optimize care. Now is the time to capitalize on the momentum and positive disruption of the COVID-19 pandemic that propelled pharmacists and their organizations to respond with agility to deliver care in new ways, pivot to develop new partnerships, and leverage technology. The growth of collaborative practice agreements within ambulatory care settings, the enhancement of clinically integrated networks, and the growth in professional organization support create an environment ripe for implementation of pharmacist-to-pharmacist collaborations. The American College of Clinical Pharmacy 2022 Clinical Practice Affairs B Committee sought out literature, as well as prepublication contemporary examples, demonstrating models of intraprofessional collaboration among pharmacists in community and ambulatory settings. The committee formulated six key recommendations to optimize pharmacist collaborations in the community and ambulatory settings and formed a framework for practical implementation strategies at the levels of individual pharmacists, organizations, and educational institutions and for legislative advocacy.

KEYWORDS

ambulatory care, ambulatory pharmacist, collaboration, community pharmacist, community pharmacy, pharmacist

1 | BACKGROUND

Leveraging pharmacist-to-pharmacist collaboration across the spectrum of care can capitalize on strengths of the practitioners and assets of each venue while helping to bridge patient care in a fragmented health care system. The term *community-based pharmacist practitioner* describes pharmacists serving their patients where they are (i.e., nonhospitalized settings) in the community. It is an overarching

This document was prepared by the 2022 Clinical Practice Affairs B Committee: Kelly A. Cochran, Pharm.D., BCPS (Chair); Melissa A. Somma McGivney, Pharm.D., FCCP, FAPhA (Vice Chair); Kevin Cowart, Pharm.D., MPH, BCACP, CDCES; Julie DiBridge, Pharm.D., BCPS, BCCP, BCCCP; Tiffany Dominic, Pharm.D.; Jean-Venable R. Goode, Pharm.D., FCCP, FAPhA, BCPS; Karen Kier, Ph.D., FCCP, FASHP, BCACP, BCPS; Ha Phan, Pharm.D., BCACP, CDCES; Takova Wallace-Gray, Pharm.D., BCACP, TTS; and Ryan Wargo, Pharm.D., BCACP.

Approved by the American College of Clinical Pharmacy Board of Regents, January 20, 2023.

term that includes pharmacists in community pharmacy settings and ambulatory clinic settings.¹ Pharmacists in both settings are medication experts who often care for the same patients at different points in time. With the growing number of pharmacists practicing in ambulatory clinic environments and the steady increase in pharmacist-provided patient care services in community pharmacies, there is a timely opportunity to build the infrastructure and expectation of pharmacist-to-pharmacist collaboration with the goal of improving patient outcomes.

The COVID-19 pandemic highlighted the value of pharmacists in the community as accessible practitioners with the ability to pivot to new care models and form community partnerships when needed. Health technology has evolved rapidly, with many pharmacists in ambulatory practices using telehealth to allow further reach of their patient care services. There is strong support from national pharmacy organizations for advancing clinical pharmacy services in the community setting, including recognition and support for pharmacist-to-pharmacist collaboration. Building on successful pharmacist-to-physician collaborative relationships and formalized processes (e.g., collaborative practice agreements [CPAs]), our committee has developed recommendations based on available evidence and unpublished contemporary examples that support pharmacist-to-pharmacist collaborations and set a path for the future growth and research of such collaborations.

2 | EVOLUTION OF PATIENT CARE SERVICES IN THE COMMUNITY PHARMACY: CPESN USA EXPERIENCE

Community Pharmacy Enhanced Services Network (CPESN) USA is a clinically integrated network (CIN) consisting of over 3500 independent and local/regional chain community pharmacies in 47 regional networks nationwide. A CIN has seven core components, allowing individually owned practices to come together to provide advanced patient care services.² The CIN's legal structure allows the CPESN networks to contract with health payers on behalf of the pharmacies. As of August 2022, 29 CPESN networks had a total of 133 payer contracts for patient care services, including 41 contracts spanning more than one state (CPESN USA, personal communication). Contracted services include medication synchronization using the appointment-based model, medication management of specific diseases (asthma/chronic obstructive pulmonary disease, diabetes, hypertension), and patient resource support, including evaluation of social determinants of health and the need for naloxone, among others. The success of many of these contracts is based on meeting quality indicators, which is accomplished through collaboration among the entire health care team. Pharmacists within CPESN networks work locally to connect with health care providers, including pharmacists in ambulatory clinics and within the managed care organizations, whose contracts pay for services, to partner and enhance the patient's care. The CPESN networks have highlighted the advantage of pharmacist-to-pharmacist collaborative patient care while illuminating the continued need to

identify mechanisms to share patient health records. To date, however, there has been no consistent focus on designing and implementing mechanisms for pharmacist-to-pharmacist collaboration nationwide.

3 | EXPANDED PHARMACIST-PROVIDED PATIENT CARE DURING THE COVID-19 PANDEMIC

The health care landscape is primed for expansion of critical partnerships developed as part of the response to the COVID-19 pandemic. The COVID-19 federal emergency declaration initiated on March 13, 2020, created unprecedented changes in day-to-day life, including the need for people to receive health care in new ways to limit virus transmission.³ Community pharmacy teams quickly adapted to care for their communities through curbside pickup and increased deliveries. As testing became available, the federal *Public Readiness and Emergency Preparedness Act* (PREP Act) allowed pharmacists to provide point-of-care testing nationwide. With 88.9% of people within 5 miles and 96.5% of people living within 10 miles of a pharmacy in the United States, community pharmacies demonstrated their ability to be critical access points to care.⁴ When COVID-19 vaccines became available, the PREP Act allowed pharmacists, pharmacy interns, and technicians with pharmacist oversight to provide COVID-19 and flu vaccines for adults and approved childhood vaccines for those 3–18 years of age. The CDC developed the Federal Retail Pharmacy Program where pharmacists across 41,000 pharmacy locations provided over 258.1 million doses of COVID-19 vaccines.⁵ This included 8 million immunizations provided as pharmacists in community settings mobilized to serve populations at considerable risk in long-term care facilities.

Not only did pharmacists in community settings problem-solve and manage the legal and practical logistics of implementing large-scale immunization events, but chain and independent pharmacies alike also learned to effectively deploy and support the pharmacists and their teams.⁶ Pharmacists' ability to access people in the community continued to be a "go-to" implementation solution, with the PREP Act further allowing pharmacists to administer COVID-19 therapeutics, including monoclonal antibody treatments, and the FDA allowing pharmacists to prescribe Paxlovid (nirmatrelvir and ritonavir) when patient eligibility and medical records could be confirmed.⁷

Pharmacy partnerships with community-based organizations and health care institutions were at the forefront in many communities, allowing pharmacists to reach many people with vaccines. Innovative partnerships with employers, community-based groups such as the Boys & Girls Club and local Housing Authority, faith-based groups, and teachers associations were among the many pioneering ways pharmacy teams partnered to reach patients at the height of the COVID-19 pandemic.⁸ Pharmacists stepped in to provide vaccines, point-of-care testing, telehealth counseling sessions, and collaborations with public health entities.⁹

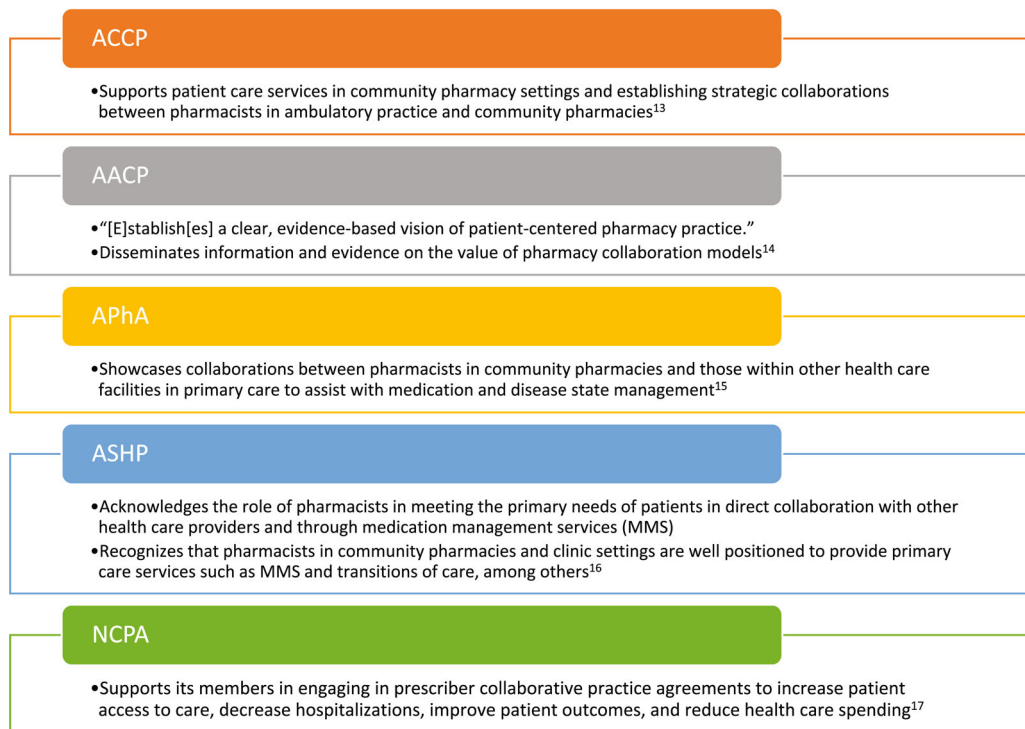


FIGURE 1 Professional pharmacy organization support for pharmacist-to-pharmacist collaboration.

These experiences highlight pharmacists in the community pharmacy and ambulatory clinic settings collaborating through delivery of immunizations, referral to care, and connections to telehealth services. Appropriate reimbursement and mechanisms to communicate patient health information are needed, but the experience of the COVID-19 pandemic showed the need and potential for broader partnerships with community pharmacies.¹⁰

4 | PROFESSIONAL PHARMACY ORGANIZATION SUPPORT

In 2019, the American College of Clinical Pharmacy (ACCP) published a consensus guiding statement in collaboration with CPESN USA and the National Community Pharmacists Association (NCPA) Innovation Center.¹¹ This statement provided a framework for pharmacist-to-pharmacist collaboration to optimize individual patient medication therapy.¹¹ A follow-up article identified initial lessons learned, best practices, and proof of concept that an intentional, ongoing (i.e., not episodic) relationship between pharmacists in community pharmacies and pharmacists in ambulatory clinics could lead to improvements in patient care.¹² These articles provided the foundation for strategic directions to advance pharmacist-to-pharmacist collaborations within the ACCP 2020 Strategic Plan. In addition, four other national pharmacy associations have recognized (Figure 1) the need and opportunity to foster pharmacist-to-pharmacist collaboration.^{13–17}

5 | APPLYING THE PHYSICIAN-TO-PHARMACIST MODEL

The clinical and economic benefits from collaborations between pharmacists and physicians are widely documented.^{18–22} Although publications of pharmacist-to-pharmacist collaboration are limited, application of the lessons learned from collaborations with other health care professionals can be beneficial when developing pharmacist-to-pharmacist relationships. McDonough and Doucette describe a four-step model of collaboration that culminates in a commitment to collaboration between physicians and pharmacists.²³ Ultimately, as trust is built, provider acceptance of pharmacist-led medication management increases, and patient outcomes are improved through enhanced collaboration (Table 1).^{23,24} Formal mechanisms to operationalize collaborations such as collaborative drug therapy management (CDTM), medication therapy management (MTM), and comprehensive medication management (CMM) are common examples of collaborative models involving physicians and pharmacists.^{25,26}

Although the specifics of CDTM differ depending on individual state law, it generally occurs through a CPA. Collaborative practice agreements are generally defined as a formal agreement in which a licensed physician/provider who is responsible for a patient's care refers the patient to a pharmacist under a defined set of expectations outlined in the CPA.²⁷ Collaborative practice agreements support integrated, team-based care models whereby physicians work with pharmacists within a clearly defined protocol to assume expanded clinical and professional responsibility for various aspects of patient

TABLE 1 Current state of pharmacist-to-pharmacist collaborations

| Author | Journal | Collaboration site and professionals | Study design | Outcomes evaluated | Results |
|--------------------------------------|----------------------------------|---|---------------------------------|--|--|
| Vest (2020) | JACCP | Hospital to community Pharmacist to pharmacist | Intentional pairing design | Best practices, challenges, barriers | Purposeful establishment of relationship was successful. Bidirectional communication was established. Challenges continue to exist. Professional organizations should continue to pursue this method of communication to improve health outcomes |
| McFarland (2020) | <i>J Manag Care Spec Pharm</i> | Hospital to community Pharmacist to pharmacist | Interventional design | All-cause acute care use 30-day readmission rate | Composite primary outcome not statistically significant. Acute heart failure 30- and 90-day readmissions were statistically significantly lower in the intervention group |
| Kauffman (2021) | JAPHA | Community to PCPs Pharmacists to physicians, nurse practitioners, and nurses | Qualitative design | Attitude of PCP toward collaboration with community pharmacists | Interview results suggested face-to-face meetings with practice providers. Direct communication to patients on pharmacist's active role in interventions |
| Wright (2019) | JAPHA | Hospital to community Pharmacist to pharmacist | Pragmatic interventional design | 30-day readmission rate | Statistically significant differences in 30-day readmission rate with intervention. Significance was not maintained at 90 days |
| Heaton (2019) | JAPHA | Hospital to community Pharmacist to pharmacist | RCT | 30-day readmission rate | Per-protocol analysis statistical significance with 30-day readmission. Limitation was patient's missing appointments |
| Bloodworth (2019) | JAPHA | Hospital to community Pharmacist to pharmacist | RCT, intention-to-treat | 30-, 60-, 90-, 180-day readmission rates | No statistical significance with readmission rates, but 98% of patients had one drug-related problem identified by the pharmacist |
| Wooster (2021) | <i>J Pharm Pract</i> | Inpatient and outpatient pharmacists included in survey | Survey, descriptive | Preferred communication methods | Survey data indicated that pharmacists had a lack of information, incorrect information, a delay in information, and a lack of time to perform adequate interventions |
| Zeleznikar (2019) | <i>J Pharm Pract</i> | Chain community pharmacists included in survey | Survey, descriptive | Preferred discharge medication list | Less than 50% of the pharmacists used the discharge medication list when dispensing medications to the patient |
| Hale (2024) | <i>J Pharm Pract</i> | Ambulatory care pharmacist in an ACO medical practice | Retrospective cohort | Change in Medicare star rating score | MTM sessions by pharmacists improved the Medicare star ratings from 3/5 to 4/5 at a 1-yr interval |
| Grandchamp (2022) | <i>Drugs Real World Outcomes</i> | Hospital to community Discharged hospital patients to community pharmacist for intervention | Prospective observational | Number and types of pharmacist interventions | Mean of 6.9 interventions per patient, with omission of a drug, treatment substitution, and dosing adjustment being the top three changes that pharmacists initiated |
| CDC PPCP implementation guide (2021) | CDC | Clinic to community Ambulatory pharmacist to community pharmacist | Quality improvement | BP control at 3 and 6 months among those with HTN visits, either by an ambulatory pharmacist or a community pharmacist | BP control among participants vs. nonparticipants at 3 months: 66.3% (vs. 42.4%); at 6 months: 69.1% (vs. 56.5%) Ambulatory and community pharmacists bimonthly meetings |
| Vordenberg (2019) | JACCP | Clinic to community PCP to community pharmacist | Case control | Number and percentage of patients reaching BP goal at 3 months | 61.8% of patients at BP goal at 3 months ($p = 0.013$) |

Abbreviations: ACO, accountable care organization; BP, blood pressure; HTN, hypertension; MTM, medication therapy management; PCP, primary care provider; PPCP, Pharmacists' Patient Care Process; RCT, randomized controlled trial.

care, such as ordering and assessing laboratory monitoring for patients, which in turn increases efficiency and coordination of care.²⁵ Additional services pertinent to pharmacists in community pharmacy settings that may be allowable under a CPA include authorization of refills, therapeutic interchange, test-to-treat, and chronic disease state management.²⁸

Collaborative practice agreements vary among states, and although more than 75% of states have enacted legislation to allow increased pharmacist involvement, implementation varies nationwide.²⁹ Of importance, CPAs do not ensure payment for pharmacist services. Pharmacies and pharmacist practices must separately contract with health payers, including health systems, to receive payment for services. Collaborative practice agreements between pharmacists and prescribers can serve as the basis to springboard pharmacist-to-pharmacist collaborations using similar tools to share responsibility and authority for the care of mutual patients across pharmacist-delivered care settings.

6 | OUTCOMES

Pharmacist-to-pharmacist collaborations in transitions of care have shown successful resolution of medication therapy problems (MTPs). Identification, prevention, and resolution of MTPs is at the core of a pharmacist's expertise and evaluation of a patient. Medication therapy problems can serve as a measure of the impact of pharmacy services and are most successfully resolved with pharmacists collaborating across the continuum of care. Bloodworth et al. used pharmacist transitions coordinators who worked across inpatient and outpatient settings to provide pre-discharge medication reconciliation and post-discharge medication follow-up within 30 days of discharge.³⁰ In addition, a pharmacist in the community provided telephonic and face-to-face MTM, where 169 MTPs were identified through the electronic medical record and resolved after discharge.³⁰ The identified MTPs were based on the pharmacist's evaluation of the indication, effectiveness, and safety of each medication and patients' adherence to their medication regimens.³⁰ In another study of 64 patients discharged from the hospital, pharmacists in community pharmacies made 439 interventions, including clarifications of omissions of a drug, treatment substitution, dose adjustment, and substitution for reimbursement. Half of the prescriptions required 10–20 min of pharmacist time to resolve. The mean number of medication therapy changes per patient was 16.4.³¹ Both studies show the gap pharmacists are filling by resolving MTPs in transitions of care.

A documented collaboration between community pharmacy-based pharmacists and staff at a family medicine clinic aimed to treat patients with hypertension. The pharmacist in the community pharmacy conducted telephone or in-person interviews for clinic patients, leading to improved blood pressure outcomes.³²

Student pharmacists can engage in this type of cross-collaboration in order to recognize future opportunities and needs to collaborate across settings.^{33,34} Pharmacists should model these collaborative behaviors to encourage future practitioners to foster additional cross-site relationships. These types of relationships also improve clinician satisfaction.³⁵

Tools such as the Pharmacy Communication Partnership (PROMPT) program can serve as a guide for pharmacists seeking efficient communication strategies for patients after hospital discharge.³⁶ Implementation of the PROMPT tool connects pharmacists in hospital settings with pharmacists in community pharmacies without requiring additional resources. The pharmacist in the hospital sends the community pharmacist a discharge packet, including the medications initiated, discontinued, or changed; documentation of the hospital course, diagnostics, procedures, and rationale for corresponding therapy changes; and direct contact information for the hospital pharmacist. The two pharmacists then connect by telephone to review the key points of the packet and optimize the transition of care. In an evaluation of PROMPT, both pharmacists recognized the potential benefits to patient care that PROMPT offered, and several recommendations were noted to improve patient adherence to the intervention.³⁷

Table 1 summarizes evidence showing methods for improved collaboration that are sustainable and financially viable.^{12,15,30,31,38–45} It is important to acknowledge that the growth and development of pharmacist-to-pharmacist collaborative practices in these early stages contribute to the heterogeneity of outcomes. Clinicians and teams of collaborators can look to guidance documents/tools for proposed quality metrics to guide future design for alignment around key outcomes.⁴⁶

7 | SIX KEY RECOMMENDATIONS

Intraprofessional opportunities:

1. Increase awareness of pharmacist-to-pharmacist collaboration: foster trust and set expectations (Figure 2).
2. Remove “retail” language from any colloquialisms, publications, social media, and educational materials associated with community pharmacy settings—recognizing that the pharmacy is a licensed health care entity within a retail space located in communities.
3. Foster a culture of collaboration for expansion of professional relationships within the profession of pharmacy.

Interprofessional opportunities:

1. Improve the ability for collaborators to communicate through electronic methods and across health care systems/businesses.
2. Work with health payers and advocacy groups to align financial and value-based incentives that foster both pharmacist provision of care and interprofessional collaboration to achieve care goals.

Intra- and interprofessional opportunities:

1. Develop a consistent model for community pharmacy and ambulatory clinic pharmacist collaboration.

In the text that follows, we discuss the rationale for each recommendation, with practical strategies to implement at the pharmacist,

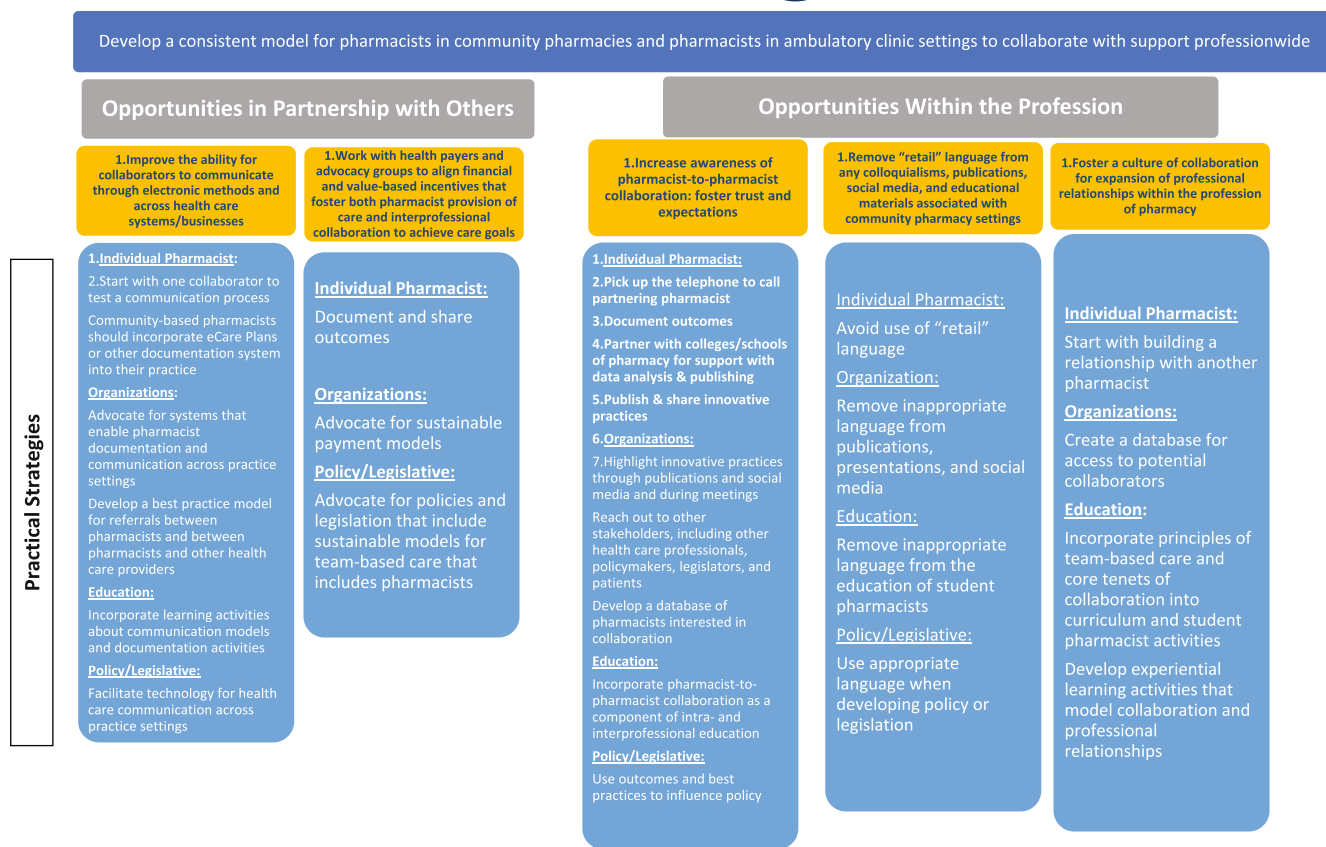


FIGURE 2 Recommendations.

organization (e.g., pharmacy associations), educational (e.g., colleges/schools of pharmacy), and policy level.

7.1 | Intraprofessional opportunities

7.1.1 | Increase awareness of pharmacist-to-pharmacist collaboration: foster trust and set expectations

For broader adoption of pharmacist-to-pharmacist collaboration across practice settings, there must be concerted implementation efforts grounded in removing barriers and increasing access to coordinated care.¹¹ These include efforts to build trustful collaborative relationships among pharmacist peers; enhance electronic, two-way communication methods; and establish financial and value-based outcome metrics where gaps in care currently exist.

Individual pharmacists can make significant strides in their own local community by simply reaching out to pharmacists in their area. The first stage of building collaborative working relationships is professional awareness.²³ The pharmacists need to get to know one another and the services they offer. This can be done through making a telephone call or visiting the pharmacy or practice location. Only after this can the relationship progress to stage 2—defined as “exploration and trial,” where the pharmacists begin referring selected

patients to one another to advance care. For example, a pharmacist in an ambulatory setting could refer a patient to a community pharmacy that offers medication synchronization services through an appointment-based model. Over the long term, continual communication during these early referrals can lead to stage 3—“professional relationship expansion”—and ultimately stage 4—“commitment to collaboration.”

It is critical for these local relationships to be amplified through individual and professional organizational sharing on social media, as well as sharing of best practices through publications and presentations. These strategies should be used to raise awareness of the value and unique contribution of pharmacists in community pharmacies and other ambulatory settings. Pharmacists should leverage the power of storytelling to rapidly build awareness across audiences including patients, trainees, practitioners, C-suite, and legislators, among others.

Equipped with value-based outcomes, clinical metrics, and patient stories, leaders can see how pharmacist-to-pharmacist collaborations align with the core values of their organization. Leader engagement and understanding is also related to the incentive alignment. If collaborations are included in job descriptions and properly incentivized, pharmacists in community pharmacies and ambulatory clinic settings are more likely to engage in collaborations for the improvement of patient care. Incentives include time, recognition, and potential payment for collaboration.

Colleges/schools of pharmacy should incorporate pharmacist-to-pharmacist collaboration as a component of intra- and interprofessional education. This must be an intentional effort, not only to raise awareness but also to set expectations for standards of bidirectional communication, establish mutual goals for the collaboration, commit to patient care and promotion of trust, and ensure responsibility and accountability among all parties involved.^{11,15} Pharmacy learners and trainees play a formational role in supporting and participating in collaborations while developing as the future leaders of our profession. These collaborations are often encouraged during both introductory pharmacy practice experiences (IPPEs) and advanced pharmacy practice experiences (APPEs) as a required part of all pharmacy curricula. The Accreditation Council for Pharmacy Education (ACPE) requires both IPPEs and APPEs in a community pharmacy setting to prepare future pharmacists for this practice setting and to foster collaborations.⁴⁷ Experiential programs should map their collaborative activities across experiential settings, making this type of intraprofessional collaboration an expectation for trainees. In addition, pharmacist collaborations across community pharmacy and ambulatory clinic settings should be showcased and disseminated through preceptor development programs.

PGY1 community-based pharmacy residents also have a unique position of promoting a culture of pharmacist collaborations. As defined by ASHP, community-based pharmacy residencies involve CMM and targeted medication intervention services with follow-up. These residents should be encouraged to help develop standardized processes of collaboration between pharmacists in ambulatory clinic and community pharmacy settings, beginning with transitions of care and medication reconciliation. Pharmacists in any setting should use transitions of care to establish and grow a culture of pharmacist partnerships.

Within postgraduate residency training, ASHP standards for both PGY1 community-based residency programs and PGY2 ambulatory care pharmacy residency programs align to require the care of patients across ambulatory practice and community pharmacy settings.^{48,49} Community pharmacy fellowships encourage practice transformation, scholarship, and innovation to advance pharmacist-provided care in communities.⁵⁰ Each fellowship's curriculum will vary, yet fostering a culture of collaboration is valuable.

Credentialing for board-certified ambulatory care pharmacists mentions collaboration and team-based care as a priority.⁵¹ Support for broad collaborations between health professionals is clear in the standards set forth by ACPE, ASHP, and the Board of Pharmacy Specialties, yet solid mechanisms of implementation are needed for these collaborations to be normalized in all settings.^{47-49,51}

7.1.2 | Contemporary examples

Several institutions have prioritized strategies to engage learners in activities to foster future collaborations across settings. APPE activities can engage the student in facilitating communication and recognizing strategies to optimize care for a patient from ambulatory practice to the community pharmacy setting. At the University of North

Texas, an elective course was offered to a total of 20 P2 and P3 students. In this course, students were exposed to the delivery of clinical services in the community pharmacy setting.⁵² The course improved their knowledge of community pharmacy practice competencies.

Similarly, at other colleges/schools of pharmacy, students are also offered ambulatory care and community pharmacy electives.^{53,54} Barnes et al. created an elective experience that involved aspects of both community and ambulatory care practices. Different activities ranging from communication, landmark trial evaluation, service project completion, and business plan development were implemented. The experiences exposed students to both practice areas and increased students' confidence in providing patient care in outpatient settings.⁵⁵ Pharmacist-to-pharmacist collaborations can be incorporated into the interprofessional education curriculum in addition to pharmacist-to-other health care provider collaborations.

7.1.3 | Remove “retail” language from any colloquialisms, publications, social media, and educational materials associated with community pharmacies

The language used to identify pharmacists who practice in the community pharmacy setting must change within and outside the profession to accurately represent the professional and licensed work that pharmacists and their teams provide nationwide. There are more than 62,000 community-based pharmacies in the United States, commonly called “retail” pharmacies.⁵⁶ *Retail* is defined by *Merriam-Webster* as the sale of commodities or goods in small quantities to ultimate consumers.⁵⁷ Pharmacies are licensed health care entities within retail spaces located in communities. Community-based pharmacists are critical to the expansion of services into their communities regardless of whether they are inside or apart from retail stores.

Community pharmacies are health care facilities that serve as a primary access point for community health care needs.⁵⁸ Furthermore, pharmacists who practice in community pharmacies should be identified as pharmacists who provide care, not “retail” pharmacists. The change in conversation must start within the profession: colleges/schools of pharmacy, pharmacy organizations, and pharmacy publications should all remove uses of “retail” from the vocabulary. In addition, employers of community pharmacies should remove “retail” from all references associated with the pharmacist, pharmacy team, and pharmacy services. Of importance, the language we use as a profession is heard by patients. Patients who understand a pharmacist's role and value in a community setting are more likely to access services.⁵⁸

7.1.4 | Foster a culture of collaboration for expansion of professional relationships within the profession of pharmacy

Patient telephone or in-person interviews are key factors in helping to promote the collaboration between pharmacists in community

pharmacy and ambulatory clinic settings. Patient interviews allow pharmacists to collect medical information, track and document changes in electronic health records (EHRs), view care plans, and share information. Patients should be encouraged to participate in follow-up interviews and be made aware of the importance of sharing medical information among providers to optimize care. It is essential that a culture of collaboration between pharmacists in ambulatory clinic and community pharmacy settings be promoted to patients.

Core tenets of developing cooperative pharmacist-to-physician relationships include clear role delineation, consistent interaction, and trustworthiness.²⁷ These expectations should also be applied to pharmacist-to-pharmacist relationships. Meaningful pharmacist-to-pharmacist collaborations built on an understanding of and appreciation for each practitioner's role are supported through consistent, quality interventions that can be assessed over time and keep a focus on the benefits to the patient. As interdependence develops through mutual respect and value for each pharmacist's role, the relationship is strengthened and becomes more steadfast. Setting a time for face-to-face meetings among partners not only provides a forum for sharing outcomes of their respective interventions, but also allows for intentional discussion to resolve conflict, which can further enhance trust and both personal and professional relationship building.²³ Once these relationships are established, partnering pharmacists can self-evaluate their readiness for cross-site collaborations. They can assess their organizational processes, which may overlap; evaluate how to coordinate communication in a timely and efficient manner; and determine where there are gaps.

It is also vital that a culture of collaboration between pharmacists in both community pharmacy and ambulatory clinic settings be encouraged among student pharmacists. The Academia-CPESN Transformation (ACT) Pharmacy Collaborative was developed in 2019 through a grant from the Community Pharmacy Foundation in partnership with the American Association of Colleges of Pharmacy (AACCP), CPESN USA, and the University of Pittsburgh School of Pharmacy to "support the transformation of a community-based pharmacy practice from a product-based care model to a community-based pharmacy care delivery model." The ACT collaborative supports faculty and students to unite, mobilize, and amplify the work of pharmacists in community settings. One specific example was the National Day of Service in 2019. Faculty and students partnered with a community pharmacy in their local community for a day to provide blood pressure screenings, administer immunizations, document eCare plans, support services for medication adherence, and educate patients regarding diabetes and naloxone use. The ACT collaborative develops resources and tools for faculty to support student pharmacists learning how patient care occurs in community-based pharmacies. This collaborative is primed to encourage collaboration between students in ambulatory settings and those in community pharmacies to provide a foundation that promotes a culture of partnership between practitioners in these settings for years to come.

To date, no way exists to readily identify pharmacists who practice in ambulatory settings. Development of a publicly available, online registry of pharmacists who are practicing in community and

ambulatory settings could help foster initial identification of partnership opportunities. The database could be developed at a state and/or national level through the respective pharmacy associations. This database could also foster early identification of practice for research as well as allow policymakers, legislators, and payers a ready location to have evidence of the volume and services offered by pharmacists and their teams in these settings.

7.2 | Interprofessional opportunities

7.2.1 | Improve the ability for collaborators to communicate through electronic methods and across health care systems/businesses

Communication is perhaps the most notable hurdle when establishing partnerships between pharmacists in community pharmacies and ambulatory clinic settings.¹² Effective communication is foundational to building professional relationships and trust to provide high-quality patient care. Technology serves as a central mechanism to facilitate communication and documentation of patient care activities.^{11,15,23}

Institutions that have implemented efforts to increase collaboration between pharmacists indicate that shared EHR access promotes comprehensive and timely access to patient information. Use of EHRs has been shown to improve documentation and data reporting/tracking of interventions and outcomes. Efforts to ensure collaborators have equitable access to the EHR are a key factor in easing communication, enhancing the line of sight on clinical interventions, and augmenting relationship building. Leveraging technology and creating a framework for interaction to allow open dialogue between collaborating pharmacists can enhance trust and instill a sense of community or shared turf that is central to a prosperous collaborative relationship.¹²

Pharmacists in community pharmacies can document patient care services. Yet, the documentation systems do not often connect or have read/write access to other health care provider electronic records. The National Council for Prescription Drug Programs and the Health Level Seven International created the Pharmacist eCare Plan standard to better document pharmacist-provided patient care services.⁵⁹ The eCare Plan standard uses the SNOMED CT (Systemized Nomenclature of Medicine Clinical Terms) codes, which standardize clinical terminology for consistent exchange of information across health information platforms and exchanges.⁶⁰ Selected pharmacy technology vendors have incorporated the eCare Plan standard into their systems and have afforded pharmacists in community pharmacies the tools to bill for patient care services when they are contracted to do so. The health information platforms using the eCare Plan standard are not often, if at all, integrated with the EHRs of other health providers. In developing collaborations between community pharmacy-based and ambulatory clinic-based pharmacists, it is important to recognize the limitations of the current technology and devise methods for pharmacists to communicate with one another. It will also be critical for pharmacy technology vendors to develop a more

complete framework for efficient and comprehensive electronic communication.⁶¹ Enhanced electronic communication can also foster the much-needed consistent and inclusive referral system between pharmacists.

7.2.2 | Work with health payers and advocacy groups to align financial and value-based incentives that foster both pharmacist provision of care and interprofessional collaboration to achieve care goals

Pharmacist services are provided both in focused, one-time interventions and through longitudinal patient care, including management of chronic conditions.⁶² Payment for these services occurs in a variety of ways. Value-based contracting is one mechanism and has been used, for example, with select Medicare Advantage insurers rewarding pharmacies for improving patient adherence.⁶³ Other health plans work through direct contracting for pharmacist services, including medication management services, that have shown a positive return on investment.⁶³ Complexities such as reimbursement for public health initiatives like Paxlovid assessment vary by state.

Pharmacists in community pharmacies who are part of the CPESN USA networks have had increasing opportunities for being compensated for patient care services through innovative partnerships with health insurers and employers.⁶⁴ These pharmacists provide patient care and document through a technology vendor using an eCare Plan standard to allow for billing of the service. Medical billing, as well as specific service billing, is used to facilitate payment for services.^{65,66}

Pharmacists have used several models of revenue in their collaborations with clinics and community pharmacies. Nine state Medicaid providers have reported use of forms of value-based purchasing (VBP) models.⁶⁷ Value-based purchasing financially aligns the value of health care provided and promotes a shift to value-based care (VBC). Value-based care can use different payment models, including fee-for-service matched with pay-for-performance. Examples of VBC programs include hospital readmission and complications reduction programs, transitions of care, continuous glucose monitoring, antidepressant medication monitoring, blood pressuring monitoring, and educational and personalized lifestyle programs.⁶⁷ Because most of the services listed earlier are already performed by pharmacists in different settings, there is opportunity for collaborations within the profession to use this framework and duplicate these revenue streams within future pharmacist-to-pharmacist collaborations.

Pharmacists working to improve adherence within an accountable care organization (ACO) performed MTM on 32 patients and were able to increase Medicare star ratings from 3 out of 5 to 4 out of 5.⁴³ Twenty-five interventions were done, spanning from antidiabetic medications to renin-angiotensin system antagonist medications to statin use interventions.⁴³ Revenue of \$5842 split between a physician's office and the community pharmacy was reported when performing chronic care management (CCM) among patients with elevated blood pressure over 9 months. The following codes were billed for CCM: 99490, 99487, and 99489.³²

Annual wellness visits (AWVs) are another service that pharmacists, especially those in clinics, provide for patients with Medicare. One study showed quarterly revenue for AWVs ranging from \$3750 to \$22,340 for the pharmacist service. These authors suggested that using pharmacists in the community setting to perform these AWVs could lead to further collaboration.⁶⁸

Although communication and leveraging technology is especially important during the early adoption phases of building collaborative relationships, longitudinal success will require an ongoing focus on aligning financial and value-based incentives. Establishing financial models and outcome metrics that benefit organizations broadly can ensure strategic initiatives are being met for all organizations involved. As an example of financial incentive alignment, improved patient outcomes resulting from pharmacist identification and reduction in medication-related problems can reduce total cost of care for a health system/health plan while also improving adherence to medications and immunizations, resulting in revenue generation for the community pharmacy.^{12,69} Identification and adoption of common goals that benefit organizations across the continuum of care will significantly affect future success.

The current payment system for pharmacists is a significant barrier to pharmacist-provided patient care services. Recognition and payment of pharmacists as health care providers at the national level continue to be unrealized. However, considerable progress has been made at the state level.⁷⁰ Locally and regionally, barriers exist in credentialing processes for recognition of pharmacists within payer networks.⁷¹ Financial and value-based incentives must be aligned for the collaboration between community pharmacy-based and ambulatory clinic-based pharmacists. Incentive alignment must include pharmacists, patients, employers, and payers. In addition, the contribution of the community pharmacy- and ambulatory clinic-based pharmacists to health care outcomes must be considered when developing and aligning incentives.

7.3 | Intra- and interprofessional opportunities

7.3.1 | Develop a consistent model for community pharmacy and ambulatory clinic pharmacist collaboration

A consistent model that provides guidance on the roles of each collaborator will help prevent competing priorities. The model needs to address logistics including referrals, communication, and incentives. The model should reference established guiding statements.¹¹ A model can serve as the foundation to help pharmacists approach leaders in organizations to facilitate partnerships. In addition, a consistent model that is standard of care for collaboration between pharmacists in community pharmacies and ambulatory clinics will allow for evaluations of quality and help with broader dissemination across practice settings. Using a consistent model will also allow patients receiving care to understand what to expect from the collaboration.

8 | FUTURE RESEARCH

Future research should focus on the impact of collaborative community pharmacy and ambulatory clinic pharmacist provided care, inclusive of collaboration between community and ambulatory practices, has on prevention of adverse drug events, medication adherence, and 30-day readmission rates. In addition, future research should focus on validated processes for best-practice interaction across settings. Although several studies have identified a potential postdischarge role for community-based pharmacists in improving medication adherence and patient outcomes during transitions of care, the ideal function and level of engagement of follow-up are uncertain.⁷² The OPTIMIST trial included a follow-up telephone call from the hospital pharmacist to the community pharmacist if the hospital pharmacist considered it necessary.⁷³ Although this component of the intervention was not evaluated in isolation, overall results from the trial showed lower 30- and 180-day hospital readmission rates for patients who received extended pharmacist intervention. An economic evaluation of the intervention showed that the costs incurred because of increased pharmacist follow-up were offset by reduced readmission-related costs.⁷⁴ This study underscores the benefit of collaboration across settings through reducing potentially avoidable adverse events, as demonstrated by the reduction in rehospitalizations. However, further research is needed to validate these findings.

In addition to the clear need for outcomes-based research in the area, standardization in best practices for the framework of collaboration is needed. Zeleznikar et al. surveyed 546 pharmacists in a single nationwide chain and reported that most pharmacists received discharge medication lists and saw their value, but few used them, citing lack of electronic integration with surrounding hospitals and time constraints as major barriers to collaboration.⁴² In a separate study by Guilcher et al., an intervention focused on information sharing between pharmacists across care settings highlighted interaction between 45 patients with communication between 12 hospital and 45 community pharmacists. Overall, the intervention had challenges with feasibility and fidelity. Issues with fidelity included challenges with the availability of the medical discharge summary at the time of faxing and hospital pharmacists' difficulties with incorporating novel elements of the program into their existing practices.³⁷ Key recommendations included considerations that should be addressed with future research, including integration of collaboration between community- and hospital-based practitioners into existing workflow, organizational buy-in, and management of competing priorities for both ambulatory- and community-based pharmacists.

Funding opportunities for pharmacist-to-pharmacist research activities should be developed to support new knowledge in this area. Best-practice exemplars should be partnered with skilled researchers to examine what makes these practices highly effective throughout their collaborations. Individuals and groups of researchers and trainees should be connected across organizations through practice-based research groups. Professional organizations should foster the connection of shared research interests within this area.

9 | CONCLUSION

As pharmacy practice in the community pharmacy and ambulatory settings continues to evolve, advocates for both should be intentional about collaboration. Pharmacists, colleges/schools of pharmacy, and professional organizations can adopt the above intra- and interprofessional recommendations to pave a path for a standard of pharmacist-to-pharmacist collaborations.

ACKNOWLEDGMENTS

Leigh Ann Ross, Pharm.D., FCCP.

FUNDING INFORMATION

There was no external funding for this research.

CONFLICT OF INTEREST STATEMENT

The authors declare no conflict of interest.

ORCID

Kelly A. Cochran  <https://orcid.org/0000-0003-1619-9985>

Melissa A. Somma McGivney  <https://orcid.org/0000-0001-6754-609X>

Kevin Cowart  <https://orcid.org/0000-0002-6880-1600>

Jean-Venable R. Goode  <https://orcid.org/0000-0002-2238-9569>

Karen Kier  <https://orcid.org/0000-0002-9709-3519>

Ha Phan  <https://orcid.org/0000-0002-9118-8509>

Takova Wallace-Gray  <https://orcid.org/0000-0003-3992-449X>

REFERENCES

- Goode JV, Owen J, Page A, Gatewood S. Community-based pharmacy practice innovation and the role of the community-based pharmacist practitioner in the United States. *Pharmacy*. 2019;7:106.
- Becker's Hospital Review, Butts D, Strilesky M, Fadel M, Goodman DH. Seven components of a clinically integrated network [registration required]. April 17, 2014. Available from: <https://www.beckershospitalreview.com/hospital-physician-relationships/the-7-components-of-a-clinical-integration-network.html>
- Federal Emergency Management Agency, U.S. Department of Homeland Security website. COVID-19 emergency declaration. Updated March 18, 2021. Available from: <https://www.fema.gov/press-release/20210318/covid-19-emergency-declaration>
- Berenbrok LA, Tang S, Gabriel N, et al. Access to community pharmacies: a nationwide geographic information systems cross-sectional analysis. *J Am Pharm Assoc (2003)*. 2022;62:1816-1822.e2.
- Centers for Disease Control and Prevention (CDC). The federal retail pharmacy program for COVID-19 vaccination. Updated September 19, 2022. Available from: <https://www.cdc.gov/vaccines/covid-19/retail-pharmacy-program/index.html>
- CPESN USA COVID-19 Best Practices Website. COVID-19 best practices. Available from: <https://www.covidbestpractices.com/>
- U.S. Food and Drug Administration (FDA). Coronavirus (COVID-19) update: FDA authorizes pharmacists to prescribe Paxlovid with certain limitations. July 6, 2022. Available from: <https://www.fda.gov/news-events/press-announcements/coronavirus-covid-19-update-fda-authorizes-pharmacists-prescribe-paxlovid-certain-limitations>
- Centers for Disease Control and Prevention (CDC). Federal retail pharmacy program for COVID-19 vaccination. Updated September

19. 2022. Available from: [COVID-19 Vaccination Federal Retail Pharmacy Partnership Program | CDC](#)
9. ASHP COVID-19 Resource Center. Pharmacy on the front lines of the COVID-19 Pandemic. Available from: <https://www.ashp.org/covid-19/stories?loginreturnUrl=SSOCheckOnly>
10. American Pharmacists Association (APhA). Understanding policy priorities and advocacy opportunities during COVID-19. Available from: <https://www.pharmacist.com/Practice/COVID-19/Advocacy-Opportunities>
11. Collaboration between community pharmacy-based and clinic-based pharmacists to achieve medication optimization: consensus guiding statements from ACCP, CPESN USA, and NCPA Innovation Center. *J Am Coll Clin Pharm*. 2019;2:447-8.
12. Vest MH, Clifton CL, Cochran K, et al. Building a transformative partnership between health-system and community-based pharmacies. *J Am Coll Clin Pharm*. 2020;3:1122-8.
13. American College of Clinical Pharmacy (ACCP). Strategic plan of the American College of Clinical Pharmacy. 2020. Available from: https://www.accp.com/docs/positions/Additional_Resources/2020_Strategic_Plan_of_the_ACCP_Final.pdf
14. American Association of Colleges of Pharmacy (AACP) Preparing pharmacists and the academy to thrive in challenging times. July 22, 2021. Available from: [aacp-strategic-plan-2021-2024.pdf](#)
15. Kauffman YS, Wright EA, Patterson BJ, Coley KC. Informing collaborative relationships between community pharmacists and health care professionals in primary care practices. *J Am Pharm Assoc*. 2021;61:778-84.
16. Dodd MA, Haines SL, Maack B, et al. ASHP statement on the role of pharmacists in primary care. *Am J Health Syst Pharm*. 2022;79:2070-8.
17. National Community Pharmacists Association (NCPA). Prescriber collaboration. Available from: <https://ncpa.org/prescriber-collaboration>
18. Cranor CW, Bunting BA, Christensen DB. The Asheville Project: long-term clinical and economic outcomes of a community pharmacy diabetes care program. *J Am Pharm Assoc*. 2003;43:173-84.
19. Bunting BA, Smith BH, Sutherland SE. The Asheville Project: clinical and economic outcomes of a community-based long-term medication therapy management program for hypertension and dyslipidemia. *J Am Pharm Assoc*. 2008;48:23-31.
20. Fera T, Bluml BM, Ellis WM, Schaller CW, Garrett DG. The Diabetes Ten City Challenge: interim clinical and humanistic outcomes of a multisite community pharmacy diabetes care program. *J Am Pharm Assoc*. 2008;48:181-90.
21. Fera T, Bluml BM, Ellis WM. Diabetes Ten City Challenge: final economic and clinical results. *J Am Pharm Assoc*. 2009;49:383-91.
22. Carter BL, Coffey CS, Ardery G, et al. Cluster-randomized trial of a physician/pharmacist collaborative model to improve blood pressure control. *Circ Cardiovasc Qual Outcomes*. 2015;8:235-43.
23. McDonough R, Doucette WR. Developing collaborative working relationships between pharmacists and physicians. *J Am Pharm Assoc*. 2001;41:682-92.
24. Liu Y, Doucette WR. Exploring stages of pharmacist-physician collaboration using the model of collaborative working relationship. *J Am Pharm Assoc* (2003). 2011;51:412-7.
25. Centers for Disease Control and Prevention (CDC). Creating community-clinical linkages between community pharmacists and physicians. 2017.
26. American College of Clinical Pharmacy; McBane SE, Dopp AL et al. Collaborative drug therapy management and comprehensive medication management - 2015. *Pharmacotherapy*. 2015;35:e39-50.
27. Centers for Disease Control and Prevention (CDC). Collaborative practice agreements and pharmacists' patient care services: a resource for pharmacists. 2013.
28. Centers for Disease Control and Prevention (CDC). Advancing team-based care through collaborative practice agreements: a resource and implementation guide for adding pharmacists to the care team. 2017.
29. Hammond RW, Schwartz AH, Campbell MJ, et al. American College of Clinical Pharmacy. Collaborative drug therapy management by pharmacists - 2003. *Pharmacotherapy*. 2003;23:1210-25.
30. Bloodworth LS, Malinowski SS, Lirette ST, Ross LA. Pharmacist linkage in care transitions: from academic medical center to community. *J Am Pharm Assoc* (2003). 2019;59:896-904.
31. Grandchamp S, Blanc AL, Roussel M, et al. Pharmaceutical interventions on hospital discharge prescriptions: prospective observational study highlighting challenges for community pharmacists. *Drugs Real World Outcomes*. 2022;9:253-61.
32. Hoehns JD, Witry M, Al-Khatib A, et al. Community pharmacist and family medicine clinic provision of chronic care management services for Medicare beneficiaries with uncontrolled hypertension. *J Am Coll Clin Pharm*. 2020;3:729-35.
33. Lueckenotte A, Cochran KA, Rudder CM. Collaborating from the community to the clinic: evaluation of pharmacist-to-pharmacist communication to optimize the medication use of mutual patients. *JAPhA*. 2019;59:e59.
34. Mallory M, Cochran KA, Rudder CM. Clinic to community collaboration: effect of pharmacist-pharmacist communication on medication adherence among mutual patients. Missouri Pharmacy Association and IPhA Joint Virtual Annual Conference. Student Poster. September 2020.
35. Funk KA, Pestka DL, Roth McClurg MT, Carroll JK, Sorensen TD. Primary care providers believe that comprehensive medication management improves their work-life. *J Am Board Fam Med*. 2019;32:462-73.
36. McCarthy LM, Li S, Fernandes O, et al. Enhanced communication between inpatient and community pharmacists to optimize medication management during transitions of care. *J Am Pharm Assoc* (2003). 2019;59:79-86.e1.
37. Guilcher SJT, Fernandes O, Luke MJ, et al. A developmental evaluation of an intraprofessional Pharmacy Communication Partnership (PROMPT) to improve transitions in care from hospital to community: a mixed-methods study. *BMC Health Serv Res*. 2020;20:99.
38. McFarland MS, Thomas AM, Young E, et al. Implementation and effect of a pharmacist-to-pharmacist transitions of care initiative on ambulatory care sensitive conditions. *J Manag Care Spec Pharm*. 2020;26:513-9.
39. Wright EA, Graham JH, Maeng D, et al. Reductions in 30-day readmission, mortality, and costs with inpatient-to-community pharmacist follow-up. *J Am Pharm Assoc*. 2019;59:178-86.
40. Heaton PC, Frede S, Kordahi A, et al. Improving care transitions through medication therapy management: a community partnership to reduce readmissions in multiple health-systems. *J Am Pharm Assoc*. 2019;59:319-28.
41. Wooster J, Bethishou L, Gernant SA, et al. Methods and barriers to communication between pharmacists during transitions of care. *J Pharm Pract*. 2021;28:8971900211064154.
42. Zeleznikar EA, Kroehl ME, Perica KM, Thompson AM, Trinkley KE. Integration of community pharmacists in transition of care (TOC) services: current trends and pharmacist perceptions. *J Pharm Pract*. 2019;32:28-35.
43. Hale G, Moreau C, Joseph T, et al. Improving medication adherence in an ACO primary care office with a pharmacist-led clinic: a report from the ACORN SEED. *J Pharm Pract*. 2021;34:888-93.
44. Centers for Disease Control and Prevention (CDC). The Pharmacists' Patient Care Process approach: an implementation guide. 2021.
45. Vordenberg SE, Lindell V, Sheerer K, et al. Improving hypertension control through a collaboration between an academic medical center and a chain community pharmacy. *J Am Coll Clin Pharm*. 2019;2:357-65.
46. Clements JN, Emmons RP, Anderson SL, et al. Current and future state of quality metrics and performance indicators in comprehensive medication management for ambulatory care pharmacy practice. *J Am Coll Clin Pharm*. 2021;4:390-405.

47. Medina MS, Plaza CM, Stowe CD, et al. Center for the Advancement of Pharmacy Education 2013 educational outcomes. *Am J Pharm Educ.* 2013;77:162.
48. American Society of Health-System Pharmacists (ASHP). Accreditation standards for postgraduate year one (PGY1) community-based pharmacy residency programs. Pharmacy residencies. Updated August 2021. Available from: <https://www.ashp.org/-/media/assets/professional-development/residencies/docs/ashp-apha-pgy1-community-based-standard-guidance.pdf>
49. American Society of Health-System Pharmacists (ASHP). Guidance document for the ASHP accreditation standard for postgraduate (PGY2) pharmacy residency programs. Updated March 2021. Available from: <https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy2-guidance-document.pdf>
50. Snyder ME, Frail CK, Gernant SA, et al. Fellowships in community pharmacy research: experiences of five schools and colleges of pharmacy. *J Am Pharm Assoc.* 2016;56:316–22.
51. Board of Pharmacy Specialties (BPS). Ambulatory care pharmacy. Available from: <https://www.bpsweb.org/bps-specialties/ambulatory-care/#1517761118361-6c02bae3-f5a01517779729021>
52. Bullock KC, Horne S. A didactic community pharmacy course to improve pharmacy students' clinical skills and business management knowledge. *Am J Pharm Educ.* 2019;83:6581.
53. Ashjian EJ, Erickson SR, Walker PC, et al. The impact of an early clinical experience on pharmacy student learning about ambulatory care practice. *Am J Pharm Educ.* 2021;85:858118.
54. O'Sullivan TA, Sy E, Bacci JL. Essential attributes for the community pharmacist as care provider. *Am J Pharm Educ.* 2020;84:7125.
55. Barnes KD, Maguire M, Bennett MS. Impact of an elective course in community and ambulatory care pharmacy practices on student perception of patient care. *Am J Pharm Educ.* 2015;79:104.
56. Hatemi P, Zorn C. *Independent pharmacies in the U.S. are more on the rise than on the decline.* Washington, DC: Pharmaceutical Care Management Association; 2020. Available from: https://www.pcmnet.org/wp-content/uploads/2020/03/FINAL_Independent-Pharmacies-in-the-U.S.-are-More-on-the-Rise-than-on-the-Dcline.pdf
57. Merriam-Webster. "Retail". Available from: <https://www.merriam-webster.com/dictionary/retail>
58. Schommer JC, Olson AW, Isetts BJ. Transforming community-based pharmacy practice through financially sustainable centers for health and personal care. *J Am Pharm Assoc (2003).* 2019;59:306–9.
59. Pharmacist eCare Plan Initiative. Available from: <https://www.ecareplaninitiative.com/>
60. Jindal N, Clifton C, Trahms K, Roberts K, Rhodes LA, Marciniak MW. Community-based pharmacy use of the Pharmacist eCare Plan: a retrospective review. *J Am Pharm Assoc (2003).* 2021;61(45):S161–6.
61. Pharmacy HIT Collaborative. Electronic health record certification: making the pharmacist's case to system vendors by practice-specific settings. Available from: www.pharmacyhit.org/pdfs/workshop-documents/WG4-Post-2016-01.pdf
62. Desselte SP, Moczygemba LR, Coe AB, Hess K, Zgarrick DP. Applying contemporary management principles to implementing and evaluating value-added pharmacist services. *Pharmacy (Basel).* 2019;7:99.
63. Newman TV, Hernandez I, Keyser D, et al. Optimizing the role of community pharmacists in managing the health of populations: barriers, facilitators, and policy recommendations. *J Manag Care Spec Pharm.* 2019;25:995–1000.
64. Community Pharmacy Enhanced Services Network (CPESN). Payer solutions. Available from: <https://cpesn.com/solutions-payers>
65. Community Pharmacy Enhanced Services Network (CPESN). Success stories. Available from: <https://cpesn.com/success-stories>
66. Turner K, Weinberger M, Renfro C, et al. The role of network ties to support implementation of a community pharmacy enhanced services network. *Res Social Adm Pharm.* 2019;15:1118–25.
67. Greenwood BC, Bagwell S, McCaffrey M, Gershon R, Jeffery P. A review of Medicaid pharmacy-related value-based purchasing arrangements for Texas Health and Human Services Commission.
68. Hohmann LA, Hastings TJ, Qian J, Curran GM, Westrick SC. Medicare annual wellness visits: a scoping review of current practice models and opportunities for pharmacists. *J Pharm Pract.* 2020;33:666–81.
69. McFarland MS, Buck ML, Crannage E, et al. writing on behalf of the Get the Medications Right Institute. Assessing the impact of comprehensive medication management on achievement of the quadruple aim. *Am J Med.* 2021;134:456–61.
70. Traynor K. States gain momentum on provider status for pharmacists. *Am J Health Syst Pharm.* 2021;78:2012–3.
71. Schweitzer P, Atalla M. Medicaid reimbursement for pharmacist services: a strategy for the pharmacy profession. *Am J Health Syst Pharm.* 2021;78:408–15.
72. Rodrigues CR, Harrington AR, Murdock N, et al. Effect of pharmacy-supported transition-of-care interventions on 30-day readmissions: a systematic review and meta-analysis. *Ann Pharmacother.* 2017;51:866–89.
73. Ravn-Nielsen LV, Duckert ML, Lund ML, et al. Effect of an in-hospital multifaceted clinical pharmacist intervention on the risk of readmission: a randomized clinical trial. *JAMA Intern Med.* 2018;178:375–82.
74. Rasmussen MK, Ravn-Nielsen LV, Duckert ML, et al. Cost-consequence analysis evaluating multifaceted clinical pharmacist intervention targeting patient transitions of care from hospital to primary care. *J Am College Clin Pharm.* 2019;2:123–30.

How to cite this article: Cochran KA, McGivney MAS, Cowart K, et al. Collaboration between pharmacists in community pharmacy and ambulatory clinic settings: Current state and future directions. *J Am Coll Clin Pharm.* 2023;6(6): 642–653. doi:10.1002/jac5.1796