EXECUTIVE SUMMARY. The 2019-2020 Professional Affairs Committee was charged to (1) Describe the leadership role of schools of pharmacy in advancing interprofessional practice, with an emphasis on physician-pharmacist collaborative relationships; (2) Establish an inventory of resources that can support school efforts to grow collaborative partnerships between pharmacists and physicians; (3) Determine gaps that exist in the resources required to support schools in efforts to facilitate expansion of interprofessional partnerships; and (4) Define strategies and draft an action plan for AACP’s role in facilitating member school efforts to accelerate the development of interprofessional practices within their geography of influence. This report provides information on the committee’s process to address the committee charges as well as background and resources pertaining to the charges, describes the rationale for and the results from the focus groups conducted at the 2020 AACP Interim Meeting, communicates the results of an initial inventory of models that integrate pharmacists with primary care practices, and provides an overview on issues to continue the work to integrate pharmacists with primary care practices. The committee offered several revisions to current association policy statements and provided a proposed policy statement and several recommendations to AACP pertaining to the committee charges.

Keywords: pharmacy practice, physician-pharmacist collaboration, practice transformation, primary care
quality, cost, patient experience and health care provider wellbeing (the Quadruple Aim).

4. Define strategies and draft an action plan for AACP’s role in facilitating member school efforts to accelerate the development of interprofessional practices within their geography of influence.

Members of the 2020 PAC included faculty representing multiple disciplines from various colleges and schools of pharmacy and professional staff representation from the American Pharmacists Association (APhA), the American Society of Health-Systems Pharmacists (ASHP) and the National Community Pharmacists Association (NCPA). The PAC also a family medicine physician representing the American Academy of Family Physicians (AAFP).

Background

The PAC spent considerable time discussing its charges, the process to address the charges, and the potential implications for the profession and pharmacy academia. The PAC initially focused on the physical integration of the pharmacist into primary care practices as the primary physician-pharmacist collaborative partnership that would be addressed by its charges. The PAC determined that its work generated to address charges one, two and three would serve as the basis for charge four (the strategies and draft action plan for AACP’s role in facilitating member school efforts to accelerate the development of interprofessional practices within their geography of influence). The PAC also decided to combine charges two and three and to address the Quadruple Aim via three subcommittees ([1] quality of patient care, [2] cost of care, and [3] the patient experience and provider wellbeing).

After conferring with President Sorensen, the PAC generated the following purpose statement to guide its work to address its charges: The 2019-2020 AACP Professional Affairs Committee will provide guidance to AACP and its member colleges and schools of pharmacy on contributing to the pharmacy workforce by creating positions focused on the pharmacist contributing to value-based interprofessional practice and patient care, recognizing a variety of care models. This workforce contribution will focus on integrating the pharmacist with physician-based patient care practices so that patient’s medication management needs are fulfilled, that health care quality metrics are addressed, and that physicians, pharmacists and other health care providers are able to meet the needs of patients in a more efficient, effective, and sustainable manner.

The PAC conducted its work via teleconference and other electronic means to address its charges. The draft action plan, along with the draft action plans from the other 2019-2020 AACP standing committees, served as part of the basis for the work that was conducted during the in-person meeting of the committees January 9-10, 2020 in the Washington, DC metropolitan area.

The PAC draft action plan contained the following items:

- The PAC to create, execute and evaluate a survey to AACP members to determine the gaps (needs) of colleges and schools of pharmacy to integrate pharmacists with physician-based practices;
- AACP to provide development support to colleges and schools of pharmacy and identify model relationship frameworks for colleges and schools of pharmacy to pursue;
- AACP to collect and communicate specific examples of how pharmacists could be incorporated with physician-based clinician practices (ie, chronic disease management, polypharmacy, reduction of ED utilization, INR management, pharmacogenomics, as well as different models of incorporation - telehealth, electronic consults via the EHR, etc.); and
- AACP to provide draft language/agreements to assist department chairs to integrate pharmacists within physician-based practices (eg, ‘plug and play’ contracts based on national best practices).

The PAC in-person meeting in January 2020 allowed for multiple committee conversations that generated a more strategic focus of the committee charges. In response to how the PAC could address their charges that could contribute to President Sorensen’s Bold Aim for the profession (By 2025, 50% of primary care physicians in the U.S. will have a formal relationship with a pharmacist), the committee developed the following goal:

Create multi-stakeholder demand for the integration of pharmacists with primary care practices in collaboration with other national organizations.

During this meeting, the PAC determined that multiple models integrating the pharmacist with primary care practices needed to be identified and communicated within and outside of the profession and pharmacy academia. In response to the committee charges, purpose statement and goal, the initial draft action plan items were revised to the following action items:

- Conduct focus groups at the 2020 AACP Interim Meeting;
- Conduct semi-structured telephone interviews with select focus group participants from the 2020 AACP Interim Meeting;
- Identify models of pharmacist integration in primary care practices;
- Identify opportunities to converse with non-academic pharmacist groups to identify and create awareness of models of pharmacist integration in primary care practices;
- Creation of an inventory of models of pharmacist integration in primary care practices (in coordination with national pharmacy and non-pharmacy groups); and
- Dissemination of the inventory of models of pharmacist integration in primary care practices (via stories, resources, and other avenues) within and outside of the pharmacy profession utilizing multiple mechanisms.

Table 1 provides a listing of the current AACP policy statements that pertain to the PAC charges. Upon review and based on the committee’s work, the committee is proposing revisions to the following policy statements:

- Pharmacy education has the major responsibility to assist the profession to accomplish its mission for society. In keeping with the transition of health care from the acute care to the ambulatory care environment, pharmacy education must continue its efforts to encourage and assist the profession to provide clinical pharmacy services in the ambulatory environment (Source: Professional Affairs Committee, 1990) be revised to
  - Pharmacy education has the major responsibility to assist the profession to accomplish its mission for society. In keeping with the transition of health care from the acute care to the non-acute care environment, pharmacy education must continue its efforts to encourage and assist the profession to provide clinical pharmacy services in the non-acute care environment.

- AACP should encourage member institutions, in concert with practitioners, to expand clinical pharmacy in the community so that clerkships in community practices will be more meaningful to students, and even inspirational, so that such practices will be emulated when they enter the profession (Source: Policy Development Committee, 1982) be revised to
  - AACP should encourage member institutions, in concert with practitioners, to expand clinical pharmacy in the community so that the experiential education in community practices will be more meaningful to students, and even inspirational, so that such practices will be emulated when they enter the profession.
- AACP believes that pharmacy faculty have a responsibility to use their experience to examine and document the effectiveness of pharmacist-provided pharmaceutical care as an essential element of primary care (Source: Professional Affairs Committee, 1994) be revised to
  - AACP believes that pharmacy faculty have a responsibility to use their experience to examine and document the effectiveness of the Pharmacist Patient Care Process as an essential element of primary care.
- AACP support residencies and certificate programs that develop advanced clinical and administrative knowledge and skills in the delivery of comprehensive pharmacy services in the ambulatory care practice (Source: Professional Affairs Committee, 1989) to be revised to
  - AACP support residencies and certificate programs that develop advanced clinical and administrative knowledge and skills in the delivery of comprehensive pharmacy services in all health care practice settings.
- AACP supports the establishment of a recognized triad relationship among the schools/colleges of pharmacy, boards of pharmacy, and state pharmacy associations for the successful advancement of pharmacy practice and the role of pharmacists in interprofessional patient and health care practices (Source: Professional Affairs Committee, 2013) be revised to
  - AACP supports the establishment of a recognized triad relationship among the schools/colleges of pharmacy, boards of pharmacy, and state pharmacy associations for the successful advancement of pharmacy practice and the role of pharmacists as recognized health care providers within interprofessional and multidisciplinary health care practices.
- AACP supports the position that pharmacist-provided medication therapy management core elements are an essential and integral component of primary care (Source: 2009-10 Argus Commission as revision to Professional Affairs Committee, 1994) be revised to
  - AACP supports the position that pharmacist-provided comprehensive medication management is an essential and integral component of primary care.
- Administrators, faculty members and student pharmacists at all colleges and schools of pharmacy share responsibility for stimulating change in pharmacy practice consistent with the Vision for Pharmacy in 2015 developed by the Joint Commission of Pharmacy Practitioners (Source: Argus Commission, 2009) be revised to
Table 1. AACP Policy Statements Related to the 2019-2020 Professional Affairs Committee Charges

**Policies on Curriculum**
The mission of pharmacy education is to prepare graduates who provide patient-centered care that ensures optimal medication therapy outcomes and provides a foundation for specialization in specific areas of pharmacy practice; participation in the education of patients, other healthcare providers, and future pharmacists; conduct of research and other scholarly activity; and provision of service and leadership to the community. (Source: Academic Affairs Committee, 2007)

**Policies on Experiential Education and Training**
AACP encourages the development of strategic partnerships to accelerate access to value-based experiential education, especially within emerging health care practices. (Source: Professional Affairs Committee, 2015)

Pharmacy education has the major responsibility to assist the profession to accomplish its mission for society. In keeping with the transition of health care from the acute care to the ambulatory care environment, pharmacy education must continue its efforts to encourage and assist the profession to provide clinical pharmacy services in the ambulatory environment. (Source: Professional Affairs Committee, 1990)

AACP should encourage member institutions, in concert with practitioners, to expand clinical pharmacy in the community so that clerkships in community practices will be more meaningful to students, and even inspirational, so that such practices will be emulated when they enter the profession. (Source: Policy Development Committee, 1982)

**Policies on Faculty**
AACP encourages faculty members to provide leadership in pharmacy and health care and recognizes that they must be supported with appropriate faculty development, mentoring and reward systems. (Source: Argus Commission, 2009)

AACP supports the teaching and clinical application of core competencies in primary care health services delivery which are community-based and fully interdisciplinary. (Source: Professional Affairs Committee, 1994)

**Policies on Graduate Education and Research**
AACP supports the advancement of research that examines consumer needs and behaviors to engage them as active participants in their own and others’ health care as well as research that characterizes how the practice activities of pharmacists should be adapted to meet the needs of engaged consumers. (Source: Argus Commission, 2013)

AACP believes that pharmacy faculty have a responsibility to use their experience to examine and document the effectiveness of pharmacist-provided pharmaceutical care as an essential element of primary care. (Source: Professional Affairs Committee, 1994)

**Policies on Postgraduate Education and Training**
AACP supports member schools and colleges in their efforts to invest in the expansion of postgraduate education and training programs that prepare pharmacists to be effective members of patient-centered health care teams. (Source: Professional Affairs Committee, 2011)

AACP supports the development within the pharmacy profession of mechanisms that assess, validate, and certify pharmacists’ competencies at or beyond contemporarily defined levels for general practice. (Source: Professional Affairs Committee, 1992)

AACP supports residencies and certificate programs that develop advanced clinical and administrative knowledge and skills in the delivery of comprehensive pharmacy services in the ambulatory care practice. (Source: Professional Affairs Committee, 1989)

**Policies on Professional Affairs**
AACP supports the promotion of pharmacists as healthcare professionals that have the ability to evaluate, analyze, and synthesize patient-and population-based data. (Source: Academic Affairs Committee, 2019)

AACP supports the development and adoption of a common language document that clearly defines all the various terms used to describe pharmacists’ patient care responsibilities, to serve as guidance for consistent instruction of the Pharmacists’ Patient Care Process and documentation of patient care by students, faculty, preceptors and pharmacists. (Source: COD/COF Pharmacist Patient Care Taskforce, 2018)

AACP supports the creation of a national vision emphasizing the value of pharmacy education and colleges and schools of pharmacy to various stakeholders including patients and communities. (Source: Professional Affairs Committee, 2015)

Administrators, faculty members, preceptors and student pharmacists at all colleges and schools of pharmacy share responsibility for stimulating change in pharmacy practice consistent with the JCPP Vision for Pharmacy Practice and the Pharmacists’ Patient Care Process. (Source: Professional Affairs Committee, 2015)

(Continued)
Administrators, faculty members and student pharmacists at all colleges and schools of pharmacy share responsibility for stimulating change in pharmacy practice consistent with the Vision for Pharmacy developed by the Joint Commission of Pharmacy Practitioners.

This report has the following purposes: (1) to provide background on the current literature and resources available related to the committee charges; (2) to describe the rationale for and the results from the focus groups conducted at the 2020 AACP Interim Meeting; (3) to communicate the results of an initial inventory of models that integrate pharmacists with primary care practices; and (4) to devise a general plan to continue the work of the 2020 PAC.

**Current Literature and Resources Related to the Committee Charges**

Pharmacy practice transformation and the expansion of the role of the pharmacist has been happening across the country for many years in many different practices in a variety of ways.\(^2\,^3\,^4\,^5\,^6\) Many colleges and schools of pharmacy have initiated and/or are participating in mechanisms (eg, pharmacy practice transformation centers, consortia to address changes in pharmacy practice) that address the changing needs of the pharmacy profession. One of the roles that academic pharmacy has had is integrating their pharmacist faculty members, pharmacy residents, and student pharmacists into primary care practices. This integration is not new and in fact, the American Medical Association (AMA) has developed a module to encourage its expansion.\(^7\) Yet the financial

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**Table 1. (Continued)**

| AACP supports the establishment of a recognized triad relationship among the schools/colleges of pharmacy, boards of pharmacy, and state pharmacy associations for the successful advancement of pharmacy practice and the role of pharmacists in interprofessional patient and healthcare practices. (Source: Professional Affairs Committee, 2013) |
| AACP supports the efforts of schools and colleges of pharmacy working with health care entities to promote and advocate for the inclusion, reimbursement and sustainability of pharmacist services as a required element of patient-centered care in all practices. (Source: Professional Affairs Committee, 2011) |
| AACP supports the teaching and clinical application of core competencies in primary care health services delivery which are community-based and fully interprofessional. (Source: Argus Commission, 2010, as revision to policy proposed by the Professional Affairs Committee, 1994) |
| AACP encourages pharmacy faculty to use their experience to examine and document the effectiveness of pharmacist-provided medication therapy management services as an essential element of primary care. (Source: Argus Commission, 2010, as revision to policy proposed by the Professional Affairs Committee, 1994) |
| AACP supports the position that pharmacist-provided medication therapy management core elements are an essential and integral component of primary care. (Source: 2009-10 Argus Commission as revision to Professional Affairs Committee, 1994) |
| Administrators, faculty members and student pharmacists at all colleges and schools of pharmacy share responsibility for stimulating change in pharmacy practice consistent with the Vision for Pharmacy in 2015 developed by the Joint Commission of Pharmacy Practitioners. (Source: Argus Commission, 2009) |
| AACP supports research, education, and development of practice models to promote safe medication practices as the standard of care in all practice practices. (Source: Argus Commission, 2007) |
| AACP members should educate the public about the expanded scope of pharmacy practice and advocate for payment of services rendered. (Source: Council of Deans, 2003) |
| AACP encourages its member colleges and schools to develop or enhance relationships with other primary care professions and educational institutions in the areas of practice, professional education, research, and information sharing. (Source: Professional Affairs Committee, 1994) |
| AACP supports the elimination of legal, structural, social, and economic barriers to the delivery of primary care health services that prevent competent health professionals from providing necessary health care services. (Source: Professional Affairs Committee, 1994) |

**Policies on Professional Education**

AACP believes that all pharmacy graduates must enter practice with the requisite knowledge and competencies to achieve success in value-based practice and payment models, including but not limited to health informatics, data analytics and quality measurement and reporting. (Source: Argus Commission, 2018)
The Leadership Role of Colleges and Schools of Pharmacy in Advancing Interprofessional Practice

While colleges and schools of pharmacy have embraced interprofessional education, schools must be mindful of the relationship of education to interprofessional practice. Foundational to the PAC charge is the belief that colleges and schools’ engagement in a leadership role advancing interprofessional practice and fostering collaborative relationships with physicians is essential for success. What does this leadership role look like? In a review of the literature, few references articulate this role. Frankel and colleagues outlined a comprehensive list of educational and program structure strategies to advance practice in Canada. Adams and colleagues discussed roles in advancing practice collaboratively with community pharmacies and described strategies related to training, development, support, relationship building, and research. As the role for advancing interprofessional practice with emphasis on physician-pharmacist collaborative relationships is moving forward, exploring leadership frameworks may provide a structure to inform the various roles. Kouzes and Posner’s work on “The Leadership Challenge” identified five practices of exemplary leadership that may encompass these roles. The practices include: Model the Way, Inspire a Shared Vision, Challenge the Process, Enable Others to Act, and Encourage the Heart. The five practices provide a framework for action by colleges and schools of pharmacy and AACP to address this charge.

To “Model the Way,” colleges and schools of pharmacy should examine their values and identify how current actions that advance interprofessional practice align with these values. To “Inspire a Shared Vision,” colleges and schools of pharmacy should assess their vision statements and strategic plans for the presence of interprofessional practice themes that will drive future advancement. To “Challenge the Process,” colleges and schools of pharmacy should create ways to continue debating, improving, and experimenting through their actions and relationship development with medical schools and the broader health care community. To “Enable Others to Act,” colleges and schools of pharmacy should identify organizations and supporters and foster relationships to broaden and resource the efforts to advance interprofessional practice. To “Encourage the Heart,” colleges and schools of pharmacy should recognize faculty, preceptors, partners, and students for their work and contribution in advancing interprofessional practice. As a professional pharmacy organization, AACP must provide support to members and member institutions that equip people and organizations to engage in these roles. In addition, AACP must continue to foster collaborative working relationships with educational and practice-related professional organizations in medicine to foster collaborative work across our organizations.

The following section provides information regarding the physician-pharmacist collaborative relationship the potential effect on aspects pertaining to the Quadruple Aim: improving population health, reducing costs, enhancing the patient experience and improving the work life of health care providers.

The Quality of Patient Care

Physician-pharmacist collaborative relationships can contribute to a significant improvement in quality across a variety of inpatient and outpatient practices. The diversity of physician-pharmacist collaborative relationships that have existed in the health-system/hospital setting has been recognized to improve patient outcomes and provide increased value to the health care system for many years. A recent partnership between a managed care payor, an academic medical center, and physician practices throughout the state of Michigan was designed to increase the presence of clinical pharmacists in a sustainable fashion with the goal to increase quality measures related to diabetes, hypertension, and hyperlipidemia with expanded services from the initial implementation period. Initial results to date include significant decreases in chronic disease-related hypertension measures and hemoglobin A1C levels as compared to control groups. Other similar pilots described an average annual savings per patient exceeding $1000 a year in overall medication claims when a pharmacist had a face-to-face meeting with a patient in the primary care practice (PCP) and has produced an 504% return on investment (ROI) based on the impact of physician-pharmacist collaborative models.

While increasing the presence of pharmacists in ambulatory care and clinic practices has increased physician-pharmacist collaborations, the majority of practicing pharmacists are in community practices, including chain and independent locations. Physician-pharmacist collaborations in community practices also have an impact on quality of patient care. Pharmacists from an independent pharmacy who were integrated in a PCP improved quality measures including immunization,
cancer screening, and hemoglobin A1C levels. These models are excellent examples of how the physician-pharmacist relationship can have tangible impact on the quality of care provided to patients.

The Cost of Care

While there are good reports of cost savings associated with pharmacists providing clinical services, the data is often associated with the value pharmacists bring to patient care as opposed to additional revenue for the health care system. With increased utilization of value-based models and contracts, many primary care practices have utilized pharmacist services to improve health care quality metrics and realize better reimbursement to the primary care practice.

Pharmacists may bill for direct patient care visits, but this is typically done at the “incident-to” level. This means the service must be performed under the physician’s direct supervision. This remains a barrier in that pharmacists bring a unique skill set for medication management and direct supervision is not necessary. However, coordinated care and a means for shared documentation remains a cornerstone of interdisciplinary care.

The fact that mid-level providers such as advanced nurse practitioners and physician assistants may often be hired at a lower rate than a pharmacist, often offers further challenges for health care systems with hiring decisions. Pharmacists will need to clearly document their value and often look for creative models in which they can offer their services to provide benefit to patients, providers, and the health care system.

The Patient Experience and Provider Well-Being

The patient experience is not only a part of the triple aim and quadruple aim, but is also an important benchmark for clinical (eg, patient satisfaction, treatment adherence, improved outcomes) and business (eg, greater efficiency, meeting plan and government requirements, greater patient retention) outcomes. Provider well-being has become an increasing concern for health care providers and health care practices. Due to the demands that providers are experiencing it has been recommended that the established Triple Aim be revised to become the Quadruple Aim. The fourth aim of improving the work life of health care providers supports the original aim of enhancing the patient experience, improving population health, and reducing costs.

The National Academies of Medicine identified that implementing team-based care reduces clinician burnout. Studies have indicated that primary care providers report high satisfaction with and perceived benefits of clinical pharmacy and that primary care providers recognize that collaborating with pharmacists on comprehensive medication management leads to decreased mental exhaustion, satisfaction that patients are receiving better care, and decreased workload. Pharmacists participating in comprehensive medication management have the opportunity to practice at a high-level, increasing the likelihood of their professional satisfaction. Future work of colleges and schools of pharmacy should focus on the clear articulation of the pharmacist’s ability to improve provider satisfaction through the provision of complementary services that improve patient care and provider well-being.

2020 AACP Interim Meeting Focus Groups

The PAC collaborated with the 2020 AACP Strategic Engagement Committee to conduct two 1-hour focus groups during the AACP Interim Meeting on February 9 and 10, 2020. Invitations were sent to potential focus group participants based upon known state or regional collaborations (state associations collaborations for the Strategic Engagement Committee and physician-pharmacist collaborative relationships for the PAC) involving colleges and schools of pharmacy. Each committee had 30 minutes to address their questions during the focus group. The PAC focused on asking questions pertaining to the role of academic pharmacy with physician-pharmacist collaborative relationships in primary care practices, the elements needed for these types of relationships, and sustainability efforts regarding these types of relationships. Each focus group was recorded in order to capture the content of the discussion and there were ten different schools represented in the focus groups (five in each focus group). The PAC focus group interview guide is provided in Appendix I.

Information obtained during the focus group on the PAC topics included:

Role of Academic Pharmacy with Physician-Pharmacist Collaborative Relationships

- Provide for the placement of faculty members to advance pharmacy practice and efficiency in primary care practices;
- Supply experiential training locations and experiences for student pharmacists and pharmacy residents;
- Expose students, residents, pharmacists and other health care providers to new roles for pharmacists and the patient care services they can provide;
- Grant opportunities to expand interprofessional education and interprofessional practice; and
- Supply implementation frameworks and measurement.
Elements needed for Physician-Pharmacist Collaborative Relationships

- Colleges and schools of pharmacy have to be willing to go to the administrators and business managers of primary care practices to discuss the costs and value of pharmacist integration models;
- The business case or data (e.g., improve patient outcomes, quality measures) has to be made for pharmacist integration and sustainability in primary care practices. The data being presented should align with the priorities of the primary care practice;
- It is valued when the pharmacist-provided services save the physician’s time (e.g., improvement of the quality of work life, improving work efficiency);
- These types of relationships are based on value—the physician, other health care providers, management and patients do see the value being brought by the pharmacist-provided services as they positively influence the level of patient care; and
- The evaluation of the pharmacist-provided services, both qualitative and quantitative, is useful and brings credibility to the collaborative relationship and the practice.

Physician-Pharmacist Relationships

Sustainability Efforts

- Integrating pharmacists into primary care practices is often not difficult—it is getting the financing to support the pharmacists to provide the patient care services;
- Colleges/schools of pharmacy often have to provide pharmacist services in primary care practices at their own expense (and there are various cost share models to accomplish this), but oftentimes the practice is able to cover the costs after their value has been established; and
- Being able to write an effective business plan for pharmacist-provided services is crucial for the sustainability of these relationships.

Proposed Policy Statement

(Proposed policy statement adopted by the 2020 AACP House of Delegates): AACP encourages all colleges and schools of pharmacy to create awareness of and incorporate faculty, pharmacy residents and student pharmacists in models of patient care in primary care practices.

Recommendation 1: AACP should provide training and resources for colleges and schools on how to generate and communicate effective stories regarding their physician-pharmacist collaborations (and other areas of practice transformation, including advocacy efforts).

Recommendation 2: AACP should provide educational resources and tools for faculty and student pharmacists regarding quality metrics and their role in primary care practices.

Recommendation 3: AACP should provide educational resources and tools for faculty and student pharmacists regarding viable business models, including payment and financial sustainability, which create value-based care in primary care practices.

Initial Inventory of Models Integrating Pharmacists with Primary Care Practices

The PAC developed a list of elements to collect from colleges and schools of pharmacy and other organizations that have integrated a pharmacist in a primary care practice. Members of the PAC provided information on pharmacist integration models that they had knowledge about and solicited other faculty members to submit information on their models. This information was collected via an online form on the AACP website. The initial collection of models began late February 2020 and continued until early April 2020. The average time that it took to submit one model on the online form was 12 minutes.

The models submitted to the initial inventory were diverse in nature and included descriptions of pharmacists integrated with family medicine clinics and Federally Qualified Health Clinics (FQHCs). Pharmacist services provided include direct patient visits (per a collaborative drug therapy management agreement), provider consultations, reviewing patient medications and physician...
recommendations after each patient encounter, comprehensive medication management, chronic disease management, and substance use disorder management (eg, medication assisted treatment). The number of pharmacist full-time equivalents reported ranged from 0.5 to 4 FTEs and the cost of clinical pharmacy services/pharmacist integration was covered by grant funding or the practice site. In addition to physicians, other healthcare providers at the reported primary care practice sites included behavioral health professionals, dentists, nurses, nurse practitioners, and physician assistants. Most sites provided in this initial inventory reported offering training of medical students and/or medical residents and all sites reported offering training for student pharmacists and pharmacy residents.

Telephone Interviews with AACP Members
Each of the participants of the focus groups held during the 2020 AACP Interim Meeting were invited to participate in a follow-up telephone conversation regarding their college of school pharmacist integration models in a primary care practice. Each participant either agreed to having the telephone conversation or provided the name of the person(s) at their institution that had more detailed knowledge of the model(s). The purpose of the telephone interview was to gather feedback regarding the online tool developed to help capture the models that have pharmacists integrated with primary care practices. Due to the initial aspects of the COVID-19 public health crisis occurring at the time of the scheduled interviews, only six telephone interviews were able to be conducted. The questions/issues explored during the telephone interview are in Table 2. Based on feedback obtained during the interview, some of the information collected regarding models integrating pharmacists with primary care practices was streamlined. The information that the PAC recommends collecting regarding pharmacist integration models in primary care practices are in Table 3.

Those completing the interviews provided the following recommendations for future work with the collection of models integrating pharmacists with primary care practices:

- Colleges/schools of pharmacy are likely to contribute to a system collecting these models if:
  - the information will be leveraged to build some stories that are used to advocate/lobby for reimbursement for pharmacist-provided services;
  - the information will be published in a report or other venue; and/or
  - awards, feature stories or speaking opportunities may be generated from the submissions.
- AACP should provide the collected information in a database or other format with contact information so that faculty and practitioners could reach out to colleagues who have implemented pharmacist services.

Recommendation 4: AACP should continue to collect information regarding the models integrating pharmacists with primary care practices.

Work for Future Development
Based on the work of the PAC, including the results of the focus groups, the follow-up telephone conversation with administrators and faculty involved with the integration of pharmacists with primary care practices, and the initial collection of pharmacist integration models, there is still work to be done to create multi-stakeholder demand for the integration of pharmacists within primary care practices in collaboration with other national organizations. This work includes:

Table 2. Professional Affairs Committee Telephone Interview Questions Regarding the Online Pharmacist Integration Models Collection Tool

| Question                                                                 | Options |
|--------------------------------------------------------------------------|---------|
| Did you have the opportunity to review the online tool?                  |         |
| Did you have the opportunity to enter information regarding one of your college’s/school’s integration of pharmacists with a primary care practice? |         |
| If so, approximately how long did it take you to complete enter the information on the form? |         |
| Is there information in the tool that is not useful or valuable?         |         |
| Is there any additional information needed for the tool that would be useful or valuable? If so, what? |         |
| Is there any question that is not clear in the tool?                     |         |
| Would the information in this tool (provided as a database) serve as a valuable resource for colleges/schools of pharmacy? |         |
| If so, how?                                                             |         |
| If not, what would make this information valued/useful?                  |         |
| What additional information/feedback do you have regarding the online tool? |         |
| What would serve as an incentive for colleges/schools and other entities (eg, primary care practices, other pharmacy organizations) to provide information regarding their models integrating pharmacists with primary care practices? |         |
Continuing to collect the pharmacist integration models in primary care practices: the availability of the collection tool should be expanded to national and state pharmacy associations as well as other national and state organizations outside of pharmacy. It is not only necessary for those involved in these models to submit information, but the information should be available (or searchable) to those who are interested in initiating or enhancing pharmacist involvement in primary care practices.

Identify opportunities to interact with non-pharmacist groups to identify and increase the awareness of models of pharmacist integration in primary care practices. Groups such as the AAMC, the AAFP and medical teaching associations (eg, Society of Teachers of Family Medicine) are comprised of physicians who not only have worked successfully with pharmacists in primary care practices, but also have those who still need to be made aware of the value of these types of collaborations. In addition, patient health care advocacy groups are another stakeholder that academic pharmacy should be speaking to regarding these models that help to improve patient outcomes. Attending the meetings for these organizations and submitting abstracts for presentations at these meetings are some of the ways that academic pharmacy can assist in driving the demand and expectation for pharmacists to be an active participant and member of the primary care health care team. This element will begin during the 2020-2021 academic year as a presentation proposal submitted by the PAC regarding the collection of models integrating pharmacists in primary care settings was accepted for the 2020 Society of Teachers of Family Medicine (STFM) Practice and Quality Improvement meeting in St. Louis, MO in September 2020.

Communication of the pharmacist integration models both inside and outside of the pharmacy profession in a variety of formats: as the PAC discussed and was confirmed during the focus group meetings, there are many within and outside of the pharmacy practice that want to learn about and learn from these models. While some of the traditional methods of communication such as reports and white papers are valuable, there needs to be other formats to provide this information in ways that meet the needs of our diverse population of health care providers.

Table 3. Elements to Collect for Pharmacist Integration Models in Primary Care Practice Practices

| Element | Description |
|---------|-------------|
| Type of Pharmacist Practice | (eg, Community Pharmacy, FQHC Clinic, Hospital, Physician Office, Other) |
| Type of Practice Pharmacist is Collaborating With | (eg, Family Medicine, Internal Medicine, Pediatrics, Other) |
| Type of Pharmacist Integration | (eg, physical (face-to-face), virtual, telephonic, other) |
| Type of Agreement(s) in place | (eg, Collaborative Practice Agreement, Lease Agreement, Pharmacist Directly Hired, Protocol, Other) |
| Types of Pharmacist Services Provided | (List services by billing code descriptions, list other services) |
| Total Number of Pharmacist Hours per week | |
| If known, what prompted the pharmacist integration with the practice site? | |
| How is the cost of clinical pharmacy services/pharmacist integration justified? | (eg, Fee-for-Service, Fixed Contract based on Time/Effort, Improved Performance Metrics, Increased Revenue to the Practice, Payment Model including Bonus Payment, Per Member Per Month, Performance-Based Contract, Provider Satisfaction, Patient Satisfaction, Risk-Sharing, Value-Based Contract, Other) |
| Interdisciplinary (team-based) or Multidisciplinary | (one or more disciplines co-located at the practice) |
| What type(s) of documentation is available at the practice for the pharmacist? | (eg, Electronic Health Record (external to the practice), Electronic Health Record (internal to the practice), Pharmacist E-Care Plan, Other) |
| What other health care providers (disciplines) practice at this site? | (eg, behavioral health, dentist, dietician, nurse, nurse practitioner, physician assistant, physical therapist, social worker, other) |
| Does the practice offer training of the following trainees: | |
| - Medical Students |
| - Medical Residents |
| - Student Pharmacists |
| - Pharmacy Residents |
| What have been some of the successes from the physician-pharmacist collaboration (pharmacist integration)? | |
| What have been some of the challenges from the physician-pharmacist collaboration (pharmacist integration)? | |
| Please provide any additional information that can be shared about the physician-pharmacist collaboration (pharmacist integration) at this practice. | |
providers and patients. Formats such as short stories, video clips, vignettes, issue briefs, blogs, podcasts are some examples that can be developed to bring the collected models to new audiences.

There are groups within AACP that could continue this valuable work, including the 2020-2021 AACP Professional Affairs Committee or other groups within the association (eg, Pharmacy Practice Section).

**Recommendation 5**: AACP should actively collaborate with organizations within and outside of pharmacy to develop the awareness of and demand for pharmacist integration in primary care practices.

**CALL TO ACTION**

The time to act is now. Our patients, our physician colleagues, and the health care system benefit from pharmacist collaboration with primary care practices. AACP, in coordination with other professional organizations, will need to provide models of successful pharmacist integration through vignettes, billing practices, and sample practice agreement templates to further enable pharmacist integration across the country.

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Appendix 1. 2020 Interim Meeting Professional Affairs Committee Focus Groups Interview Guide

**Introduction**

The Professional Affairs Committee is interested in learning about the experience that our colleges/schools of pharmacy have with advancing physician-pharmacist collaborative relationships, especially in the area of integrating pharmacists into primary care practices.

We would like to start by learning about your perspectives as to the role and challenges that colleges/schools of pharmacy have with regards to advancing interprofessional practice, specifically in the area of physician-pharmacist collaborative relationships.

For the purpose of this discussion, a physician-pharmacist collaborative relationship is broadly defined as:

- Any partnership between a pharmacist and physician that provides patient-centered care services, which may include working alongside other health care professionals (eg, nurses, dieticians). This partnership may occur virtually, telephonically, in-person, or via other mechanisms.

A primary care practice is defined as:

- A healthcare facility that is usually visited first and/or most frequently by patients, which typically does not need a referral (eg, physician office, ambulatory care clinic, FQHC).

**Role of Academic Pharmacy with Physician-Pharmacist Collaborative Relationships in Primary Care Practices**

- By a show of hands, how many of your institutions have established physician-pharmacist collaborative relationships in a primary care practice?
  - Tell us a little bit about those relationships.
  - How many faculty are involved with collaborative relationships in primary care?

- What role does academic pharmacy (colleges/schools of pharmacy) have with advancing physician-pharmacist (for faculty, student pharmacists and pharmacy graduates) collaborative relationships in primary care practices?

**Elements Pertaining to Physician-Pharmacist Collaborative Relationships in Primary Care Practices**

- What are the resources/tools needed by colleges/schools of pharmacy to establish a physician-pharmacist collaborative relationship?
What are the resources/tools needed by colleges/schools of pharmacy to sustain a physician-pharmacist collaborative relationship?

Tell us about an innovative model of which you are most proud.

The Sustainability of Physician-Pharmacist Collaborative Relationships in Primary Care Practices

The issue of sustainability in health care is one that is not lost on those in academia who are implementing models of patient care, such as physician-pharmacist collaborative relationships. While our primary focus for physician-pharmacist collaborative relationship is improving and optimizing patient outcomes, there are other issues (eg, costs, technology, inefficient practices) that affect the initiation and longevity of such relationships.

For those institutions who have established at least one physician-pharmacist collaborative relationship in a primary care practice:

- What is your institution’s definition of sustainability with regards to the physician-pharmacist collaborative relationship?
- What factor(s) influence the sustainability of the physician-pharmacist relationship?
- Does the physician-pharmacist relationship sustain itself financially?
  - If so, how?
  - If not, what factors are influencing your institution being a part of the physician-pharmacist relationship (eg, practice for faculty, learning environment for students/residents)?
  - Are there long-term sustainability considerations that differ from your previous answer?

Follow-Up

One of our committee goals is to learn about the various models that our colleges/schools of pharmacy are involved with regards to integrating pharmacists with primary care practices to provide patient care. We know that several schools have dedicated administrative/faculty members (eg, Associate Dean of Community Partnerships) who are focused on initiating and sustaining these relationships.

- Our committee is working to start to identify relationships in academic pharmacy. Would you or someone at your school that has this responsibility (or knows about your physician-pharmacist relationships) be available for a 20-minute telephone interview regarding the model(s)?
- What is the name of that individual and their title?

Thank you so much for your participation in this morning’s focus group!