

AACP REPORT

Adaptability, Agency, and Association to Influence Change: The Report of the 2020-21 AACP Argus Commission

Cynthia J. Boyle,^a David D. Allen,^b Joseph T. DiPiro,^c Steven A. Scott,^d Todd D. Sorensen,^e Lucinda L. Maine^f

^a University of Maryland, School of Pharmacy, Baltimore, Maryland

^b University of Mississippi, School of Pharmacy, University, Mississippi

^c Virginia Commonwealth University, School of Pharmacy, Richmond, Virginia

^d Purdue University, College of Pharmacy, West Lafayette, Indiana

^e University of Minnesota, College of Pharmacy, Minneapolis, Minnesota

^f American Association of Colleges of Pharmacy, Arlington, Virginia

EXECUTIVE SUMMARY The 2020-21 AACP Argus Commission was charged to 1) review the 2019-2020 standing committee reports; 2) describe the impact of COVID-19 on healthcare delivery with an emphasis on health equity and social justice, 3) identify strategies to work with other health professions associations to advance interprofessional education and practice, and 4) offer recommendations for activities for the Center to Accelerate Pharmacy Practice Transformation and Academic Innovation (CAPT). Two work groups divided charges 2 and 3 and provided assessments of how health care and education might change due to all we have experienced over the 12-plus months of the pandemic. A review of plans for the first year of the CAPT activities and recommendations for additional activities are included in report. The Commission has proposed two new policy statements on digital health, five recommendations for AACP and five suggestions for colleges and schools of pharmacy. The Argus Commission affirms academic pharmacy's adaptability, agency, and association to influence changes in healthcare delivery and interprofessional education and practice.

Keywords: digital health, health disparities, interprofessional education, value-based payment and transformation

INTRODUCTION AND COMMISSION CHARGES

The AACP Argus Commission is comprised of the last five AACP Presidents. Given their depth and breadth of leadership experience, the Commission is charged to examine significant issues and articulate how these might impact pharmacy education and practice. The coronavirus pandemic (COVID-19) of 2020 and 2021 has presented numerous issues, and President Anne Lin¹ presented the following charges for this year's commission to guide their endeavors.

1. Read all six reports from the 2019-20 AACP standing committees to identify elements of these reports that are relevant to your committee's work this year.
2. Describe the impact of COVID-19 on present and future healthcare delivery with an emphasis on the social injustice and health inequities issues it has exposed. How will these impact

pharmacy practice, pharmacy education, and models of practice?

3. Identify specific strategies for how AACP can work more effectively with other health professional education associations to further develop opportunities for interprofessional education and practice.
4. From your work on this year's charges, identify salient activities for the Center for Academic Innovation and Practice Transformation for consideration by the AACP Strategic Planning Committee and AACP staff.

The Argus Commission first discussed its charges with the AACP Past Presidents in a virtual meeting in July 2020. The entire Commission convened in August 2020 to review the charges and outline plans and a timeline for completing their report. Commission members affirmed with President Lin their desire to include social injustice and health inequities, as well as pharmacy education, in

Charge 2 and both interprofessional education and interprofessional practice in Charge 3. Charge 1 was completed by each commission member, and two subgroups were created. Three members examined Charge 2 in depth, and the remaining members focused on Charge 3. The full commission discussed Charge 4 and provided input on the formation and priorities of the proposed Center for Academic Innovation and Practice Transformation (the Center) which was recommended by the 2019-2020 Argus Commission.² All the work for this report was conducted using electronic communications given travel and meeting restrictions, and all Commission members reviewed and provided input for the complete report.

The Argus Commission reviewed existing AACP policies³ to determine which were pertinent to the current charges. At least 20 AACP policy statements remain relevant including curriculum, education and training, faculty, professional affairs, professional education, and social justice. Several salient policy statements include the following:

- AACP supports the promotion of pharmacists as healthcare professionals that have the ability to evaluate, analyze, and synthesize patient- and population-based data. (Source: 2018-19 Academic Affairs Committee)
- Students, faculty, and practitioner educators should work to achieve cultural competence and to deliver culturally competent care as part of their efforts to eliminate disparities and inequalities that exist in the health care delivery system. (Source: Argus Commission, 2004-05)
- 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 2017-18.)
- As educators, researchers, and healthcare professionals, members of the AACP are committed to the principles of diversity, equity, inclusion, accessibility, justice, and anti-racism and will seek opportunities to eradicate structural and systemic racism to address social determinants of health, diminish health disparities, and promote racial equity. (Source: Social and Administrative Sciences Section, 2020)

Charge 2: Describe the impact of COVID-19 on present and future healthcare delivery with an emphasis on the social injustice and health inequities issues it has exposed. How will these impact pharmacy practice, pharmacy education, and models of practice?

2020 – A Year of Immediate and Permanent Impact on Healthcare in the U.S.

Two major events in 2020, the onset of the COVID-19 pandemic and the murder of George Floyd, have impacted healthcare at a level experienced by few in our academy during their professional careers. The seismic influence of these two events produced a notable change almost overnight, building quickly to truly transform healthcare. The COVID-19 pandemic and the subsequent “stay at home” orders and expectations for social distancing forced healthcare organizations to find new ways to assess, treat, and communicate with patients beyond the traditional in-person/in-clinic encounter. Healthcare payers altered payment policies (some temporarily, others permanently) to support this required shift in patient-provider engagement. In the case of the George Floyd murder, awareness and acknowledgement of social justice issues, including forms of structural racism that affect health, expanded to a degree far greater than after similar events in our history.

It is beyond the scope of this report to identify and analyze all of the areas of healthcare affected by these events; however, the Argus Commission identified several areas that are expected to have noteworthy implications for academic pharmacy and the pharmacy profession at large.

Telehealth

Possibly the most rapid and impactful change in healthcare resulting directly from the pandemic is the essential change to telehealth modalities. This has included expansion of synchronous visits via low-cost but secure technology, increased use of asynchronous communications between patients and providers, and use of at-home monitoring strategies. While much of the technology was available pre-pandemic, a variety of factors limited its use, including patient and provider preferences and payment policies that often did not support telehealth activities. People have gained a level of comfort with telehealth and have appreciated the convenience and safety associated with healthcare technology. This shift in expectations will in turn create a shift in care delivery that will continue.

While the pandemic accelerated the implementation of healthcare technologies, the application of technology was growing well before COVID-19 was first identified. Predictive analytics, data visualization, geospatial analysis, and interoperability between data management systems have created opportunities to direct and manage care with innovative perspective and precision. We have never had more data and greater ability to use that data to target

treatment strategies and measure impact than we have today.

Health Disparities

Despite the availability of this data and technology, it is also possible that we have not experienced greater health disparities among some populations than we see today. The murder of George Floyd impelled a new level of awareness and acknowledgement of the healthcare system and societal issues that create health inequities. Healthcare access, the influence of bias in healthcare delivery, structural racism that underpins gaps in income, education, and access to technology rose in public consciousness in 2020, even though there has been a history of racist events in our country's past. It remains unclear whether our political, social, and economic systems will undergo the necessary and sustained changes required to address the systemic and societal issues that produce health disparities.

Value-based/Performance-based Payments

In addition to the influence of the pandemic and growing social unrest, the most influential healthcare trend in 2020 on pharmacy practice is the continued expansion of value-based, or performance-based, payment strategies. The growing expectation on the part of payers to purchase outcomes instead of services is influencing the entire spectrum of healthcare in the U.S. This is fueling the vertical integration of healthcare both locally (merging of hospitals and outpatient care organizations and the creation of accountable care organizations) and nationally (merging of health insurers, pharmacy benefit managers, community pharmacy chains and specialty pharmacies to create closed drug distribution channels).

The influence of value-based perspectives of payers is supporting unprecedented shifts in how the healthcare workforce is structured and utilized. This has produced a new economic reality that is less about "which providers can be paid" and more about "what personnel can produce a defined outcome at the lowest price." Traditional roles of providers in healthcare are shifting and the role and recognition of the positive impact of healthcare teams is expanding. This is driving the expansion of entry- and mid-level personnel, as decision makers realize cost-effective outcomes achieved by embracing non-physician practitioners and care processes in the workforce.

Impact of COVID-19 Pandemic and Health Disparities on Pharmacy Education, Training and Experiential Learning

Our experiences with the pandemic beginning in 2020 and recognition of healthcare disparities have

accentuated the need for enhanced education and training in public health measures, infectious disease prevention, and health equity and social justice. The COVID-19 pandemic has provided a compelling reminder that public health measures are far more accessible than therapeutic agents in preventing and controlling a widespread infectious disease. These public health principles should play a much larger role in infectious disease-related curricula.

Although healthcare disparities have been present for a long time, the focus on COVID-19 has helped to prioritize factors of access, cost, and quality to address inequities in the provision of healthcare. Faculty members have adapted their courses and practices to place a greater emphasis on these inequities and the creative approaches to serve specific sub-populations of patients. West Virginia led the way in its local approach, with pharmacists asserting their agency, training, and accessibility to offer vaccine distribution and administration solutions.⁴

Given the response to the COVID-19 pandemic, many students have now gained significant experiences providing care remotely to patients. Telehealth, including telemedicine and telepharmacy, can be supported using evidence-based digital therapeutics (DTx).^{5,6} Designed to improve health, manage disease, and treat disease, DTx should become a permanent and more prominent component of healthcare education and training moving forward.

The Pivot in Pharmacy Education

Pharmacy educators abruptly transitioned to remote instruction (the pivot) during the Spring 2020 semester after the World Health Organization declared a global pandemic March 11.⁷ Not only did faculty members adapt how they presented and assessed their content, but they dealt with a wide variety of technology issues for which they were not prepared.^{8,9} Lessons learned from last spring have been used to design online and hybrid courses with mixed success. Moving forward, some aspects of instruction and assessments may be better aligned with specific technologies used during these challenging times and thus, new models for instruction will emerge. Clearly, the approach used for one course may not be effective for another.

One of the greatest dilemmas associated with remote instruction lies in teaching and assessing clinical and professional skills. Virtual student assessments have been practical for some instruction, even compounding, but remote practice and demonstration of skills have been extremely challenging. Educators express difficulty in establishing meaningful personal and professional relationships with students when the opportunities for engagement are limited to Zoom sessions. The forced shift

to virtual instruction has yielded some instructional advantages that can be used in the post-COVID-19 environment.

The impact of COVID-19 on pharmacy education was most impactful for experiential education,¹⁰ especially in inpatient care settings. To minimize the exposure of patients and employees to individuals to COVID-19, healthcare systems and facilities prohibited learners from being on site. International APPEs were suspended due to travel and quarantine restrictions. Overriding all these concerns was the uncertainty that P-4 students faced as their schedules were in constant flux as COVID-19 guidance evolved. Experiential program directors urgently modified schedules, adapted requirements, and partnered with sites for students to complete core required advanced pharmacy practice experiences (APPEs) for graduation. In some cases, school-level requirements for extra experiential hours were waived or hybrid rotations were developed to satisfy practice hour requirements. For example, many students and preceptors adapted experiences with online meetings and limited patient interactions since many practice settings did not have secure, accessible online platforms in place when restrictions began. Many industry and elective rotations were converted to a virtual format. While these experiences have allowed students to stay on track, the amount of time spent directly with preceptors, patients, and other healthcare professionals was reduced. What is being lost in students' educational experiences by not being onsite and observing interactions and communications among professionals that can best be appreciated by being "in the room?" Just as any challenge also brings opportunity, APPE students have benefitted from experiential rotations that have focused on public health strategies including testing, contact tracing, immunizations, and logistical planning for COVID-19 response.

Workforce Development Strategies

The COVID-19 pandemic has accelerated changes in almost every dimension of healthcare, including the traits needed now and in the future as a pharmacist. Before the COVID-19 pandemic, pharmacists were already experiencing the shifts in healthcare, such as an emphasis on ambulatory care and chronic disease management, reduced compensation for traditional pharmacy services, and increased societal expectations and pharmacist opportunities in health and wellness (immunization, smoking cessation, etc). These opportunities will require that pharmacists re-tool with new clinical, technologic, operational, or administrative skills. More than ever, there is great need for practitioner career development programs to support pharmacists who wish to pursue new career directions.

The responsibility for developing and offering programs to support career transitions resides with multiple entities including our pharmacy schools and colleges, professional organizations, and employers. No one entity alone can meet the need. Schools and colleges should develop strong partnerships with professional organizations to provide career development training, with emphasis on needs assessments from employers.

Many pharmacists are not adept at providing primary care for common chronic conditions, understanding new healthcare payment models, or using data analytics to improve healthcare. These gaps in desired skills should be used to guide personal career development plans, as well as programs offered by schools and colleges, professional organizations, and employers.

Crisis has a way of accentuating gaps and problems that were overlooked, accepted, or disregarded before the crisis. The COVID-19 pandemic and healthcare inequities have highlighted the limitations of the current healthcare workforce and prompted us to examine healthcare education and training in a different light. Our workforce should be more responsive to societal needs, be it the need for primary care, better care for underserved communities, or the response to the pandemic. Healthcare education and training can and must be made more efficient and streamlined, particularly for transition to higher levels of practice, with better coordination between stages of the education and training programs.¹¹ State licensing boards should make reciprocity more efficient to allow healthcare workers easier access to locations where they are needed.

Risks to Students, Faculty and Staff

The COVID-19 pandemic has had a negative impact on our students that many of us observed first-hand. COVID-19 impacts on students range from mental and physical to financial and academic. Our students are concerned about their own personal health, and they are also greatly concerned for the health of their older family members. This has affected when, how often, and for how long they visit with family members, and reduces opportunities for family psychosocial support while in pharmacy school. Isolation and the behaviors necessary for the COVID-19 response may exacerbate anxiety and depression and reduce the opportunity for these problems to be recognized and treated. Already recommendations have come forward for improving and restoring student well-being and resilience.¹²

A crisis like this pandemic apparently has negative impacts on academic performance, with definitive data forthcoming. In an earlier natural crisis, faculty members at Nova Southeastern University – Puerto Rico examined

perceived academic performance of pharmacy students after Hurricane Maria.¹³ Students reported not being able to function mentally at the same level as prior to the storm and had diminished academic performance.

Those who have been in healthcare for many years know that the risk of acquiring an infectious disease has always been present. Before COVID-19, healthcare workers and students have been at risk for tuberculosis and hepatitis B and C. In the 1980's and 90's there was great fear of contracting HIV/AIDS from infected patients. These risks resulted in important learning opportunities and practice changes such as implementation of universal precautions. We will certainly learn from COVID-19 to improve our protective, preventive, and treatment approaches.

The COVID-19 experience of our faculty, staff, and students has demonstrated the need for active initiatives to promote wellbeing and resilience of our people.¹⁴ This includes providing flexibility of learning and workplace schedules, particularly for those with small children or who have responsibility for their children's education. Employees should have flexibility to create more realistic performance goals. In addition, faculty, staff, and students need guidance, instruction, and counselling in ways to address the new challenges. For students, guidance on coping and resilience is needed, as well as recognition by faculty members that student performance may suffer. Schools and colleges should determine what academic program modifications should be made to enhance student retention and resilience while still assuring professional competence.

The Altered Workplace and Learning Place

The COVID-19 pandemic has prompted a great experiment in the delivery of healthcare as well as health professions education. The experiment may answer the question "to what extent can remote technology be used in healthcare and education to assure safety and improve quality, personal resilience, access, efficiency and/or cost?" While the use of technology has certainly changed the delivery of health care and education, it has also changed forever how we look at the place where we work and learn. Our academy has recognized that learners have varying learning preferences, and that remote instruction may meet the preferred learning styles for some students while significantly impairing learning for others. The ideal future is one that is not time- and place-bound, where we would provide learning options that meet the needs of individuals. By changing the places to learn, we must recognize that at present there are substantial differences in the quality of and accessibility to technology. In some institutions this has resulted in reduced course content,

learning objectives, and synchronous learning requirements.¹⁵ Schools and colleges should explore and determine the ideal application of remote learning technology in a post-COVID-19 environment.

The faculty and staff of our schools and colleges have experienced varying degrees of telework. Most institutions quickly shifted in spring 2020 to remote work as much as possible. While some job functions are accomplished equally well from home or office, some faculty and staff functions, such as laboratory-based research, "hands on" instruction, and aspects of clinical care, require on-campus presence. The desirable future may be one where faculty and staff members have more flexibility for their place of work, or work in multiple locations, so that they are partially relieved of commuting and parking burdens. Such flexibility would enhance faculty retention, particularly for faculty members with young children or who provide care to others.

Just as healthcare is being re-defined as Healthcare Without Walls,¹⁶ so too is pharmacy education being re-imagined. The same factors which are important in a more disseminated, open healthcare model including technology, payments, regulatory issues, workforce, and human factors,¹⁶ are pertinent to pharmacy education. Together we can adapt to our new circumstances, assert our agency in decisions, and influence acceleration of innovations which better serve society for access, affordability, and equity.¹⁷

Charge 3: Identify specific strategies for how AACP can work more effectively with other health professional education associations to further develop opportunities for interprofessional education and practice (IPE&P).

For this charge, commission members examined current national interprofessional education (IPE) collaborations, identified health professions education associations' IPE strategic goals, and created a set of questions for the health professions education association executives to address the charge. With the focus on medication use in healthcare, and the evidence that health outcomes are enhanced when highly functional teams include pharmacists' work to provide comprehensive medication management, IPE&P has been a priority for AACP and pharmacy education for decades. AACP affirms the following policy:

AACP supports the teaching and clinical application of core competencies in primary care health services delivery that are community-based and fully interprofessional.¹⁸

National IPE Collaborations

AACP has taken a leadership role by serving as a founding member of the Interprofessional Education

Collaborative,¹⁹ now including 21 member organizations. The first contribution from this collaboration was a set of core IPE competencies that serve as an internationally recognized guide for educational program development and assessment activities.²⁰ Over the last decade, IPEC has hosted numerous faculty development institutes, several leadership development programs, and webinars. IPEC works closely with the National Center for Interprofessional Practice and Education based at the University of Minnesota.²¹

IPEC has also collaborated with the Health Professions Accreditors Collaborative (HPAC), which has 25 national accreditors as members.²² HPAC offered valuable guidance for developing quality IPE for health professions in its 2019 report.²³ In December 2020, an HPAC survey revealed substantial progress in emphasizing the importance of IPE and team-based care across the professions.²⁴ This contrasts with a 2013 analysis by Zorek and Raehl²⁵ showing that of 13 disciplines, only nursing and pharmacy curriculum standards explicitly included reference to IPE and/or team-based care.

Health Profession Education Strategic Plans

The Argus Commission identified associations which were most directly aligned with the medication use process and highly engaged in IPEC to include nursing, medicine, physician assistant, public health, and social work education. Prior to directing specific inquiries to health profession education association executives, an examination of the associations' strategic plans and explicit interprofessional strategic goals yielded preliminary observations.

Health professions associations devote considerable effort in periodically reviewing and updating their strategic plans, and AACP itself is undergoing such re-imagining. Among the selected associations' strategic documents, many common themes emerge including leadership, diversity, social justice, advocacy, innovation, partnerships, transformation, and collaboration. The highest priority IPE goal occurs in nursing education which states within Goal #1 the association will "lead innovation in academic nursing that advances interprofessional health care."²⁶ AACP's Strategic Priority #3 focuses on interprofessional education and practice with notable inclusion of preceptors in Goal 3.3, "faculty and preceptors from colleges and schools of pharmacy lead and role model innovation to apply curricular concepts and skills to Interprofessional Education and Interprofessional Practice."²⁷

AAMC's interdisciplinary collaboration (Research Goal 8) does not equate to an interprofessional goal. Even though the word 'interprofessional' does not appear in the AAMC Strategic Plan, accreditation for medical colleges

requires interprofessional collaborative skills.²⁸ PAEA is working on a new strategic plan but the current plan does not include an explicit IPE goal.²⁹ The Strategic Framework for public health education mentions leadership, national/global partnerships, collaboration, and advocacy for public health approaches to health/wellbeing but not specifically interdisciplinary or interprofessional goals.³⁰ Social work education's 2020 plan does not advance an IPE goal, but offers a powerful vision, "to ensure a well-educated social work profession equipped to promote health, well-being, and justice for all people in a diverse society."³¹ Based on explicit IPE strategic goals, nursing and pharmacy education are still leading the way.

Health Profession Education Directed Inquiries to Association Executives

Argus members framed four questions for association executives who were given the option of responding by email or a phone interview.

1. **How would you describe your discipline's commitment to and progress toward interprofessional education and team-based care at this time?**

Medicine aligns with the National Academy of Medicine to promote IPE as an integral component of medication education³² and highlights significant progress in curricular requirements over the past decade. Further, medical school faculty must ensure that medical students are prepared to function collaboratively on health care teams. The Clinical Learning Environment Review (CLER) introduced a new pathway called "Teaming" which cites 'purposeful interactions to identify and capitalize on various professional strengths'.³³ CME providers may earn commendations for promoting team-based education. Nursing affirms IPE to move health systems from fragmentation to a position of strength and is re-envisioning future academic-practice partnerships which relate to IPE and collaborative practice. Physician Assistants have always aligned with medicine but admit to being in their infancy for the paradigm shift from physician-centric to patient-centric care. For public health, team building is core but there is a disconnect between perceptions of public health personnel and classic clinicians. Public health siloes still exist, even in the context of prevention, health promotion, and emergency response highlighted by the pandemic of 2020. The commitment of social work educators to advance IPE is growing but the practice environment lags behind

2. **There is an implementation gap such that many graduates enter practice with an expectation that they will be working in**

functional teams but are disappointed with the state of team-based care in their practice environment. The Argus Commission has been asked for recommendations on narrowing this gap. What thoughts can you offer that you believe will be most effective in accelerating the needed changes?

AAMC notes that there are many strategies to accelerating change in practice, but reimbursement models are one of the biggest drivers; the gap will further narrow with the shift towards competency-based practice and value-based payment structures that promote and reward team-based care. A parallel shift in value-based care involves increased understanding and attention to quality improvement and patient safety (QIPS) which require team-based approaches. Nursing urges removing barriers, promoting diversity, and improving data, with lifelong learning for all health professionals to include new systems and models that incorporate collaborative practice into the clinical arena. Practical opportunities for deliberate IPE&P are limited but COVID-19 has highlighted the need for technology solutions to overcome time and space barriers to practice engagement for physician assistants. Public health is promoting bridges with health departments and practice partners but is experiencing new siloes with the separation of public health from population health in some institutions. Social work also seeks to leverage the practice environment with explicit preceptor training.

3. If IPE appears in your association's strategic plan, could you provide examples of strategies either in action now or on the near horizon?

Executives highlighted several examples:

- Collaboration: Interprofessional Professionalism Collaborative (IPC) in which AACN is part of a coalition of eleven leading health professions organizations which maintains a website to share news and resources with faculty about the group's ongoing work to assess and measure professionalism across all members of the healthcare team.³⁴
 - Partnership: Compassion Scholars Program in which AACN partners with the Schwartz Center on collaborative compassionate care.
 - Connections to the accreditation standards and assessment of team-related competencies.
- 4. Do you have any specific recommendations for pharmacy educators with respect to how we might work to optimize medication management in IPE and team-based care?**
- a. Advance collaborative faculty development in the area of quality and safety. Education

program accreditation requirements, as well as the Joint Commission standards and the National Patient Safety Goals, are critical areas that our hospitals and health systems work diligently to address. Safe medication use remains a top priority for these bodies and a continued patient safety challenge that requires complex multifaceted solutions.³⁵

- b. Structure interprofessional rounding to optimize medication management in IPE and team-based care. An interprofessional team approach such as pharmacy-led rounds to review medication regimes and medication reconciliation, along with a joint evaluation with other members of the health team, could promote rational medicine use.
- c. Embed a pharmacy faculty member on the physician assistant (PA) faculty or in the PA department part-time or full-time to provide an incredible wealth of knowledge, experience, perspective, and benefit to the students and faculty.
- d. Use a prevention and health promotion lens and champion public interventions. Pharmacists need to understand the public health ecosystem in their communities, now more than ever. Both primary and secondary prevention in the context of chronic disease is an important space. Previously, public health focused on exercise and eating well and was separate from the diagnosis and treatment modalities of classic healthcare. Blend these as a target of IPE, and explore intersections between public health and pharmacy, such as antimicrobial resistance.
- e. Use the framework of the National Academies of Sciences Engineering Medicine (NASSEM) Consensus Study on integrating social needs into the delivery of healthcare that focuses on 5 things: awareness, adjustment, assistance, alignment, and advocacy. If all health care providers were taught to ask, then the need to practice in collaborative teams would be obvious.

Challenges for the Ideal IPE&P Future

We appreciate the challenges in prioritizing and implementing the changes which would create the ideal future for IPE&P. We have examined Charge 2 and the upheavals in technology, social justice in society, health disparities, and the COVID-19 response in healthcare where interprofessional teams are finding solutions in real time. In Charge 3,

many health profession education association executives offered strategic initiatives to advance IPE&P, although they also struggle with practice sites, value-based payment structures, and implementation gaps. Several current initiatives may help health profession education associations work more effectively together to advance IPE&P.

The first relates to answering key questions regarding how interprofessional efforts should be organized and resourced at the university level. In 2020, Kelly Ragucci, AACP Vice President for Professional Development, and Joseph Zorek, PharmD, BCGP who serves as the Director, Linking Interprofessional Networks for Collaboration (LINC) at the University of Texas Health Sciences Center in San Antonio, collaborated on a submission of a Presidential Grant application that was funded by the Josiah Macy, Jr. Foundation. This project aims to develop an assessment framework and tool for use by a university with health professions education programs to evaluate the maturity of the institution's IPE efforts. The project will be completed later this year, and the co-investigators plan to embark on a second wave of activity designed to test the tool with additional universities.

An additional challenge to the maturation of strong IPE programs is the insufficient number of clinical environments where learners can observe and participate in strong team-based care delivery activities. In October 2017, leaders of the National Collaborative for Improving the Clinical Learning Environment (NCICLE) convened a symposium to identify key characteristics of an optimal IP-Clinical Learning Environment (IP-CLE).³⁶ The symposium also sought to build on the success of efforts related to interprofessional education and interprofessional collaborative learning in conveying the value of teamwork in patient care. The specific focus of the symposium was the role of health care environments, such as health systems, academic medical centers, and interprofessional stakeholders, in providing a clinical learning experience that enhances interprofessional practice and learning in all services of patient care. A critically important element that impacts the expansion of these ideal learning environment are continuing deficiencies in payment models for team-based care. AACP should continue its advocacy within the pharmacy profession for payment reform. Further AACP should identify as a priority for the emerging Center that there is adequate educational material for both faculty and students about payment for interprofessional practice (IPP) so that meaningful compensation for pharmacists' participation in these models can be realized.

The work of this collaboration continues in partnership with the National Center. A report published in 2019 reflects the work of a committee that makes recommendations related to the timely topic of preparing new clinicians

to engage in quality improvement efforts to eliminate health care disparities.³⁷ Health equity and social determinants of health represent important areas for interprofessional learning and practice.

The COVID-19 pandemic laid bare the impact of structural racism and health inequities in the United States. That said, the acuity of so many persons suffering with COVID in emergency rooms and intensive care units made team-based care more essential than ever before. As part of the national public media campaign Pharmacists for Healthier Lives (PfHL),³⁸ campaign staff worked with the Board of Pharmacy Specialties, a PfHL partner, to identify pharmacists working on ICU teams and developed impact stories to utilize in advancing public understanding of pharmacists' essential contributions, both in the current pandemic and in other ICU patient care roles.

Finally, one other challenge confronting advocates for expanding IPE&P is evidence of the impact these investments can and do make in terms of outcomes of care. Recognizing this, the IPEC Board engaged leaders of the Association of Academic Health Center Libraries who volunteered to conduct a scoping review of the relevant literature. That review is currently underway with a report expected in the second half of 2021.

Charge 4: From work on this year's charges, identify salient activities for the Center for Academic Innovation and Practice Transformation for consideration by the AACP Strategic Planning Committee and AACP Staff.

The 2019-2020 Argus Commission recommended that AACP establish and resource the Center for Academic Innovation and Practice Transformation as a new organizational unit that will drive the Association's work to accelerate education and practice transformation.² The Center would build on previous AACP efforts to catalyze and accelerate change with big ideas.³⁹ AACP staff recommended modification of the Center name to the Center to Accelerate Pharmacy Practice Transformation and Academic Innovation (CAPT).

Center plans for first year include projects in three focal areas: Curriculum Goal Projects, Projects that Bridge Education and Practice, and Workforce Readiness Projects. An example of one project in each area includes planning a fall 2021 faculty development institute to accelerate integration of education on digital health in the PharmD curriculum; co-convening with several other national pharmacy associations for the Education and Training Conference recommended by three AACP standing committees in 2020; and committing to a broad array of activities to address diversity, equity, inclusion, and anti-racism as a top priority in the emerging AACP strategic plan.

Once staffing is in place, the Center will be focusing on numerous activities for its second year, drawing upon the recommendations from the Argus Commission and the other five 2020-21 standing committees. Top priorities are likely to include contributing to the revision of the ACPE Doctor of Pharmacy accreditation standards, driving more rapid expansion of IPE&P, and providing resources and leadership to address health disparities and increase health equity. Several recommendations for the Center are provided in the Recommendations section of this report.

CONCLUSIONS AND IMPLICATIONS

The COVID-19 pandemic has highlighted many deficiencies in our public health systems in the United States and pandemic response more specifically. However, for pharmacy and pharmacists the pandemic has provided significant opportunities to demonstrate the essential contributions of the profession. This recognition was significantly advanced due to an unprecedented commitment to collaboration among national pharmacy associations. Together, the associations released an initial joint statement⁴⁰ outlining roles pharmacists should play in pandemic response and identifying requests, directed to state and federal government officials, that would optimize the contributions of pharmacists. Subsequent declarations from the Department of Health and Human Services, governors of many states, and other officials liberated pharmacists, student pharmacists, and pharmacy technicians to contribute to the pandemic response.

In the past five years, there has been increasing recognition of the importance of an engaged medical team for the delivery of high-quality medical care. The concept of the “Triple Aim,” conceptualized by Don Berwick, MD, of the Institute for Healthcare Improvement, encouraged focus on simultaneously improving population health and patient experience, while also reducing costs. It was updated in 2014 by Drs. Thomas Bodenheimer and Christine Sinsky⁴¹ to the “quadruple aim,” including joy in practice. This concept recognized that if the workforce develops burnout while striving to achieve the triple aim, progress will be difficult to sustain. The same applies to the front-line faculty who educate and practice in support of IPE these champions risk burnout while giving their all to prepare future health professionals.

Interprofessional education and practice are no longer a solution in search of a problem. AACP and our members are widely recognized as IPE leaders among peer organizations. That said, there remains much work to be done in IPE&P, including increasing focus on social determinants of health, health disparities, and value-based payment

programs supporting team-based care. Practice transformation acceleration should prioritize the creation of clinical learning environments where learners can participate in IPP so that they are team-ready upon graduation.

Pharmacy has adapted to many healthcare, workplace, and system challenges over time. The profession has proven itself to be adaptable. Let us affirm our agency to assert a dynamic role in the future of healthcare. Let us support our health profession education association colleagues to continue establishing IPE&P goals and advancing their members’ implementation efforts. Let us center our efforts to improve the health of our nation. We must.

POLICY STATEMENTS, RECOMMENDATIONS AND SUGGESTIONS

Proposed Policy Statements (Adopted by delegates on July 22, 2021)

AACP supports the integration of digital health technologies into pharmacy school curricula in partnership with stakeholders. [Source: 2020-21 Argus Commission]

AACP supports inclusion of pharmacists in the design and development of digital health technologies. [Source: 2020-21 Argus Commission]

Recommendations

AACP should lead efforts to make permanent important practice gains and support ongoing high-level collaboration with national pharmacy organizations and interprofessional partners in the post-pandemic period.

An external advisory council for the Center should be established in the first year of operation with expertise from leaders both within and external to pharmacy. A recent past president of AACP is recommended as chair.

AACP should continue its advocacy within the pharmacy profession for payment reform.

AACP should identify as a priority for the emerging Center that there is adequate educational material for both faculty and students about payment for IPP so that meaningful compensation for pharmacists’ participation in these models can be realized.

AACP should identify other related projects and centers dedicated to similar aims as the AACP Center and establish or strengthen collaborations between the new center and other entities.

Suggestions

Schools and colleges should develop strong partnerships with professional organizations to provide career development training, with emphasis on chronic disease

state management, pay-for-value healthcare financing models, and use of data analytics.

Schools and colleges should take deliberate approach to understanding what has been learned by our experience of the COVID-19 pandemic and healthcare disparities, and what of that experience should become part of the curriculum.

Schools and colleges should explore and determine the ideal application of remote learning technology in a post-COVID-19 environment.

REFERENCES

1. Lin A, Sorensen TD. Address of the 2020-2021 president and immediate past president to the first house of delegates at the 2020 virtual annual meeting of the American Association of Colleges of Pharmacy. *Am J Pharm Educ.* 2020;84(10):Article 8370. DOI: <https://doi.org/10.5688/ajpe8370>
2. Chase PA, Allen DD, Boyle CJ, DiPiro JT, Scott SA, Maine LL. Advancing our pharmacy reformation-accelerating education and practice transformation: report of the 2019-2020 Argus Commission. *Am J Pharm Educ.* 2020;84(10):Article 8205. DOI: <https://doi.org/10.5688/ajpe8205>.
3. Cumulative Policies 1980-2020. American Association of Colleges of Pharmacy <https://www.aacp.org/cumulative-policies-1980-2020>. Accessed March 25, 2021.
4. How West Virginia Beat Other States Administering Coronavirus Vaccines. *The Washington Post.* February 4, 2021. <https://www.washingtonpost.com/politics/2021/02/04/health-202-how-west-virginia-beat-other-states-administering-coronavirus-vaccines/> Accessed February 4, 2021.
5. Understanding Digital Therapeutics. Digital Therapeutics Alliance. <https://dtxalliance.org/understanding-dtx/>. Accessed March 25, 2021.
6. Digital Health Center of Excellence. U.S. Food and Drug Administration. <https://www.fda.gov/medical-devices/digital-health-center-excellence>. Accessed March 25, 2021.
7. Novel Coronavirus 2019 Timeline. World Health Organization <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/interactive-timeline#!>. Accessed February 4, 2021.
8. Brazeau GA, Romanelli F. Navigating the uncharted waters in the time of COVID-19. *Am J Pharm Educ.* 2020;84(3):Article 80633. DOI: <https://doi.org/10.5688/ajpe80633>.
9. Schlesselman LS. Perspective from a teaching and learning center during emergency remote teaching. *Am J Pharm Educ.* 2020;84(8): Article 8142. DOI: <https://doi.org/10.5688/ajpe8142>
10. Fuller KA, Heldenbrand SD, Smith MD, Malcom DR. A paradigm shift in U.S. experiential pharmacy education accelerated by the COVID-19 pandemic. *Am J Pharm Educ.* 2020;84(6):Article 8149. DOI: <https://doi.org/10.5688/ajpe8149>
11. Dow AW, DiPiro JT, Giddens J, Buckley P, Santen SA. Emerging from the COVID crisis with a stronger health care workforce. *Acad Med.* Aug 2020. DOI: 10.1097/ACM.0000000000003656
12. Schlesselman LS, DiVall M. Improving and restoring the well-being and resilience of pharmacy students during a pandemic. *Am J Pharm Educ.* 2020;84(6):Article 8144. DOI: <https://doi.org/10.5688/ajpe8144>

Pharmacy educators should identify creative ways in which student pharmacists can appreciate “the lived experience” of populations who have historically and currently experienced social injustices that affect health and healthcare.

Academic pharmacy should expand research efforts to identify, define and implement practice models that support interdependent collaborations among medical providers and pharmacists in distant settings (eg, not co-located).

13. Silva-Suarez G, Alvarado Reyes Y, Rodriguez-Figueroa L, et al. The impact of Hurricane Maria on student pharmacists and their perception of their academic performance. *Am J Pharm Educ.* 2020;84 (9):Article 7808. DOI: <https://doi.org/10.5688/ajpe7808>
14. Brazeau GA, Frenzel JE, Prescott WA. Facilitating wellbeing in a turbulent time. *Am J Pharm Educ.* 2020;84(6):Article 8154. DOI: <https://doi.org/10.5688/ajpe8154>
15. Lyons KM, Christopoulos A, Brock TP. Sustainable pharmacy education in the time of COVID-19. *Am J Pharm Educ.* 2020;84 (6):Article 8088. DOI: <https://doi.org/10.5688/ajpe8088>
16. Healthcare Without Walls Executive Summary. Network for Excellence in Health Innovation. <https://www.nehi-us.org/publications/81-health-care-without-walls-a-roadmap-for-reinventing-u-s-health-care/view>. Accessed March 25, 2021.
17. Shrank WH, DeParle NA, Gottlieb S, et al. Health costs and financing: challenges and strategies for a new administration. *Health Affairs.* Published January 21, 2021. <https://doi.org/10.1377/hlthaff.2020.01560>
18. Draugalis JR, Beck DE, Raehl CL, et al. Call to action: expansion of pharmacy primary care services in a reformed health system. *Am J Pharm Educ.* 2010;74(10):Article S4.
19. Interprofessional Education Collaborative. <https://www.ipecollaborative.org/>. Accessed February 4, 2021.
20. IPEC Core Competencies. Interprofessional Education Collaborative. <https://www.ipecollaborative.org/ipecc-core-competencies>. Accessed March 25, 2021.
21. National Center for Interprofessional Practice and Education. <https://nexusipe.org/>. Accessed February 4, 2021.
22. Health Professions Accreditors Collaborative. <https://healthprofessionsaccreditors.org/members/>. Accessed March 25, 2021.
23. Guidance on Developing Quality Interprofessional Education for the Health Professions. Health Professions Accreditors Collaborative. <https://healthprofessionsaccreditors.org/wp-content/uploads/2019/02/HPACGuidance02-01-19.pdf>. Accessed March 25, 2021.
24. Interprofessional Education Standards Survey. https://healthprofessionsaccreditors.org/wp-content/uploads/2020/12/HPAC_Survey_Dec_18_2020.pdf. Accessed March 25, 2021.
25. Zorek JA, Raehl CL. Interprofessional education accreditation standards in the usa: a comparative analysis. *J Interprof Care.* 2013; 27(2):123–130.
26. Strategic Plan. American Association of Colleges of Nursing. <https://www.aacnursing.org/About-AACN/AACN-Governance/Strategic-Plan>. Accessed February 4, 2021.

27. Strategic Plan. American Association of Colleges of Pharmacy. <https://www.aacp.org/article/strategic-plan>. Accessed February 4, 2021.
28. Strategic Plan. Association of American Medical Colleges. <https://strategicplan.aamc.org/>. Accessed February 4, 2021.
29. Strategic Plan. Physician Assistant Education Association. <https://paeaonline.org/wp-content/uploads/2020/09/PAEA-Strategic-Plan-2017.pdf>. Accessed February 4, 2021.
30. Strategic Framework. Association of Schools and Programs of Public Health. <https://aspph-wp-production.s3.us-east-1.amazonaws.com/wp-content/uploads/2020/10/Framework.pdf>. Accessed February 4, 2021.
31. Strategic Plan. Council on Social Work Education. <https://www.cswe.org/About-CSWE/2020-Strategic-Plan>. Accessed February 4, 2021.
32. Association of American Medical Colleges Interprofessional Education. <https://www.aamc.org/initiatives/meded/486536/interprofessionaleducation.html>. Accessed February 4, 2021.
33. Accreditation Council for Graduate Medical Education Clinical Learning Environment Review <https://www.acgme.org/Newsroom/Newsroom-Details/article/Id/9785>. Accessed February 4, 2021.
34. Interprofessional Professionalism Collaborative. <http://www.interprofessionalprofessionalism.org/>. Accessed March 25, 2021.
35. Teaching for Quality Certificate Program. Association of American Medical Colleges Te4Q. <https://www.aamc.org/what-we-do/mission-areas/medical-education/teaching-for-quality-certificate-program>. Accessed March 25, 2021.
36. Weiss KB, Passiment M, Riordan L, Wagner R. The National Collaborative for Improving the Clinical Learning Environment IP-CLE Report Work Group. Achieving the Optimal Interprofessional Clinical Learning Environment: Proceedings From an NCICLE Symposium. <http://ncicle.org>. Published January 18, 2019. doi:10.33385/NCICLE.0002
37. Casey BR, Chisholm-Burns M, Passiment M, Wagner R, Riordan L, Weiss KB. The NCICLE Quality Improvement: Focus on Health Care Disparities Work Group. The Role of the Clinical Learning Environment in Preparing New Clinicians to Engage in Quality Improvement Efforts to Eliminate Health Care Disparities. <http://ncicle.org>. Published January 15, 2019. doi:10.33385/NCICLE.0001
38. Pharmacists are on the Frontlines of Healthcare. Pharmacists for Healthier Lives. <https://pharmacistsforhealthierlives.org/>. Accessed March 25, 2021.
39. Sorensen TD. Leading in Dickensian times. *Am J Pharm Educ*. 2019;83(6):Article 7780. DOI: <https://doi.org/10.5688/ajpe7780>
40. Pharmacists as Front-Line Responders for COVID-19 Patient Care Executive Summary (Joint Statement). http://www.ncpa.co/pdf/PHARMACISTS_COVID19-frontline.pdf. Accessed March 25, 2021.
41. Bodenheimer T, Sinsky C. From triple to quadruple aim: care of the patients requires care of the provider. *Ann Fam Med*. 2014;12(6):573–576. DOI: 10.1370/afm.1713