American Journal of Pharmaceutical Education **2013; 77 (3) Article 44.**

CHARTING ACCREDITATION'S FUTURE

Summary of the ACPE Consensus Conference on Advancing Quality in Pharmacy Education

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INTRODUCTION

This is a summary of a consensus-seeking invitational conference convened by the Accreditation Council for Pharmacy Education (ACPE), September 12-14, 2012, in Atlanta, Georgia. The two objectives of the conference were to advise the ACPE Board of Directors on how to ensure that the standards, guidelines, and accreditation process for Doctor of Pharmacy (PharmD) programs are aligned with (1) current and future competency requirements of pharmacists and (2) evidence-based practices in assessing student learning and the quality of educational programs. As ACPE begins the process of revising the standards for PharmD education in 2013, it will be guided by the findings and recommendations from the conference.

This article describes the organization of the conference and summarizes presentations at the program. Companion articles discuss the recommendations of the conference[1] and ACPE's plans for using those recommendations in the standards-revision process.[2] Two other articles cover complementary activities that were used in planning the conference: the results of preconference surveys and reports of three task forces that outlined employer expectations of new pharmacy graduates.[3,4]

INVITED PARTICIPANTS

Of the 90 invited conference participants (not counting the 11 participants from the ACPE staff and conference support staff), about half were from pharmacy practice and half from pharmacy education. The ACPE strived for balance among the invitees; for example, between deans and faculty members, among representatives of different types and sizes of educational institutions, and among practitioners from various types of practice settings. Appendix 1 describes how participants were selected. Appendix 2 is a roster of the individuals who attended.

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CONFERENCE ORGANIZATION

In advance of the meeting, the ACPE surveyed invited participants and other stakeholders on issues related to the conference objectives.[3] The survey results guided the ACPE in selecting the specific issues to focus on at the conference. In advance of the meeting, many invitees participated in an ACPE webinar that provided an orientation to the program. All participants were encouraged to review in advance the results of the preconference surveys and several articles and documents related to the objectives of the conference that were on an ACPE SharePoint® collaboration site that was Internet accessible.

For each of the 2 objectives of the conference, plenary sessions consisting of invited presentations and discussions were followed by small-group sessions in which conferees drafted recommendations related to the conference objective. At the end of the program, conference participants rated all the recommendations in terms of impact and feasibility. Throughout the conference, the ACPE disseminated summaries of the proceedings via Twitter and Facebook® postings.

The conference was funded primarily by ACPE, supplemented by grant support from 5 organizations (see Acknowledgements). Most invited participants had their institutions cover their expenses for traveling to the conference.

The following sections summarize the conference's lectures and panel discussions, which highlighted issues and perspectives that were considered by conferees in formulating recommendations. [An audio recording of each lecture or panel discussion may be accessed at the following Web address: https://www.acpe-accredit.org/deans/invitationalconference.asp; also at that site are PowerPoint® slides and supplemental information prepared by speakers.]

"THE STATUS QUO IS NOT AN OPTION"

Robert S. Beardsley, PhD, President of ACPE, opened the conference by explaining why ACPE convened the conference, pointing to the rate of change in health care, the evolving patient-care roles of pharmacists, and the growth of interprofessional practice models in health care.

Beardsley declared, "The status quo is not an option" in pharmacy practice, pharmacy education, or in the accreditation of pharmacy education. He added, "We must continue to advance the roles of pharmacists to meet the future needs of patients." He also referred to the increased emphasis in higher education on evidence of student learning and to the higher level of accountability being imposed on accreditation organizations by the US Department of Education, state departments of education, and the public at large.

INTERPROFESSIONAL HEALTH CARE EDUCATION

Jay A. Perman, MD, President of the University of Maryland, Baltimore, presented the keynote address of the conference entitled, "Opportunities, Challenges, and Obligations in Interprofessional Health Education." He discussed several imperatives for team-based care, including changes in payment mechanisms (eg, bundled payments for episodes of care, per capita payments for care provided to a cohort of individuals, and financial penalties for poor outcomes from health care services) and recognition that good teamwork is required for patient safety.

The health professionals necessary for a team depend on the characteristics of the patient population and the setting. In ambulatory care, some team members might be located remotely. Face-to-face interaction among team members is necessary to build a team culture. Effective teams need a well-functioning information system and must be connected with social support systems in the community. Although there is some evidence that patient outcomes are improved when care is provided by a well functioning team, there has been little rigorous research on this topic.

Teamwork is not a primary focus of most health professional education programs; students usually learn in intraprofessional silos and are taught to function independently. However, teaching team work is receiving much attention by authoritative voices in health professional education, both in the United States and abroad.[5] For example, associations of colleges in medicine, dentistry, pharmacy, nursing, and public health have collaborated in identifying core competencies for interprofessional collaborative practice.[6]

Among the barriers to interprofessional education are the guild-like behaviors of the health professions, rigid university structures, regulatory constraints, and payment systems that lack incentives for interprofessional collaboration. These barriers must be transcended in the interests of improving patient safety, improving access to care, and resolving work force shortages.

Dr. Perman concluded his remarks by commenting on the value that pharmacists bring to patient care teams, drawing on his experience in leading an interprofessional health clinic at the University of Maryland.

PLENARY SESSIONS ON PHARMACIST COMPETENCIES

Insights from Pre-Conference Surveys

Donna Wall, PharmD, Clinical Pharmacist, IU Health University Hospital, Indianapolis, and the ACPE Vice President and Board member, highlighted results from pre-conference surveys[2] that suggest areas of PharmD education that might require more attention. In her view, greater attention is required in the following areas: (1) more student experience with real patients, (2) understanding the economics of pharmacy practice, (3) medication management systems, (4) leadership and management, (5) critical thinking and clinical judgment, (6) interprofessional collaboration, and (7) developing respect for practitioners in all areas of pharmacy.

Wall said that the current length of PharmD education for entry to practice is appropriate; however, major reform is needed in introductory and advanced pharmacy practice experiences to focus more on competencies required in general practice. She stated that it would be helpful if this conference provides clarity on the following issues: (1) whether residency training is required for certain areas of practice, (2) whether specialization should be allowed in PharmD education, (3) if PharmD education were to allow specialization, whether specialty-specific licensure should be developed, and (4) whether dual-degree programs compromise the attainment of essential pharmacy knowledge.

Current and Future Competency Requirements of Pharmacists

Six pharmacists contributed to a panel discussion on current and future competency requirements of pharmacists, beginning with Carmen A. Catizone, MS, DPh, Executive Director of the National Association of Boards of Pharmacy, who noted that the minimum requirements for entry into pharmacy practice are reflected in the NAPLEX examination. He encouraged pharmacy educators and ACPE to maintain a focus on core competencies related to ensuring safe and appropriate use of medicines, since

state boards of pharmacy have found gaps in practitioner performance in these areas. He emphasized the need for pharmacists to be more fully engaged in addressing the national crisis in abuse of prescription drugs.

Stephen Gray, PharmD, JD, an executive with Kaiser Permanente in California who is responsible for regulatory compliance and profession affairs, stated that his integrated care organization has observed competency deficiencies among new pharmacy graduates in compounding, prescription consultation, and product identification. In the future, pharmacists will be required to be competent to work on interprofessional patient care teams, deal effectively with new ethical issues, take responsibility for the outcomes of medication use, and apply the principles of population-based use of medicines. Gray suggested that the pre-pharmacy curriculum should be used to teach some essential competencies (eg, leadership, project management, negotiation).

Nimesh Jhaveri, BS Pharmacy, MBA, Executive Director of Pharmacy and Healthcare Experience, Walgreen Co., described his company's redesign of stores to better position pharmacists to interact with patients about their medications. He said that this new practice model requires additional competencies in leadership, interpersonal communications, motivating a team, strategic thinking, consultative skills such as problem solving, and empathy.

Thomas E. Menighan, BS Pharmacy, MBA, ScD, Executive Vice President and Chief Executive Officer of the American Pharmacists Association, identified pharmacist competencies that are needed in emerging health care models. Abilities in the following areas were among those he cited: team-based skills (clinical expertise, developing collaborative relationships, accountability for patient outcomes), communication skills (motivational interviewing, coaching, delivering care using various modes of communication), use of quality metrics, facilitating access to medications, understanding the implications of health information technology, understanding population management for targeting at-risk patients, and demonstrating the value of pharmacist services. He suggested that it might not be necessary for all pharmacists to have physical assessment skills.

Daniel C. Robinson, PharmD, Dean, Western University of Health Sciences College of Pharmacy, noted that in most health professions the goal of entry-level education is to create *practice-ready* graduates (in contrast, medicine and podiatric medicine prepare *residency-ready* graduates). Further, an explicit goal of education in dental medicine, veterinary medicine, and pharmacy is to prepare graduates to provide care independently upon graduation. Robinson suggested that pharmacists educated under current PharmD standards (which went into effect in 2007) are better prepared for providing direct patient care than those who graduated from programs covered by previous standards. He advocated "responsibility-centered education" in which the curriculum is structured to build confidence and demonstrate competence in providing patient care (for example, by creating closer links between learning and application). Recently, a group of pharmacy educators identified behavioral competencies that new graduates must have for providing patient care.[7] Robinson said that the profession cannot meet society's need for medication-related health care by relying solely on residency training. He stated that PharmD education can boost its capacity to produce pharmacists to meet this need by improving the quality of advanced pharmacy practice experiences, providing responsibility-centered education, improving students' patient assessment skills, and documenting student learning of critical competencies.

Lori Golterman, PharmD, National Director of Residency Programs and Education, Pharmacy Benefits Management Services, Department of Veterans Affairs (VA), identified skills needed by pharmacists on patient-aligned care teams in the VA: communication, physical assessment, mini-mental health assessment, advanced cardiac life support, patient safety, interprofessional collaboration, and an understanding of the economic aspects of clinical services. She advocated for introducing experiential education earlier in the curriculum, expanding the time devoted to experiential education, and reducing didactic education. The creativity, adaptability, and leadership needed by pharmacists to be successful on patient care teams suggests that pharmacy education should concertedly select for admission students who already have strengths in these areas.

Current Directions in Pharmacy Education

Lucinda Maine, PhD, Executive Vice President and Chief Executive Officer of the American Association of Colleges of Pharmacy (AACP), reviewed the establishment (in 1992) of the AACP Center for the Advancement of Pharmaceutical Education (CAPE) as a resource for colleges and schools to support transition to the PharmD degree as the single entry-level degree for pharmacy practice. Three pillars of pharmacy education—pharmaceutical care, management of medication-use systems, and public health—were codified in 2004, consistent with the core competencies for health professionals articulated by the Institute of Medicine in 2003. She indicated that the ACPE conference will influence the next revision of the CAPE competencies, which is expected to be available in draft form by mid-2013.

Preliminary thinking among those responsible for drafting new CAPE educational outcomes is that the

current three pillars of pharmacy education are still valid but more attention should be focused on the affective domain of pharmacy practice (eg, communication, professionalism, critical thinking, and leadership), patient safety, and interprofessional health care.

The future is likely to bring a real shift toward interprofessional team-based care because both educators in the health professions and leaders of reform in health care delivery are working toward the same goal. Wider use of technology in education will make interprofessional educational experiences more accessible. A key factor is the growing recognition by practitioners, including physicians, that safe, effective, efficient care cannot be delivered in isolation.

Maine discussed the following four unresolved questions: (1) What is the true core in pharmacy education and what can be let go? (2) Is there agreement that the core of pharmacy education should focus on competencies needed in patient care? (3) In an era of disruptive innovation, what does quality assurance in health care and in education look like? (4) Can the next generation of standards for PharmD education both invite innovation and allow preparation for differentiated career pathways?

CONFERENCE RECOMMENDATIONS RELATED TO PHARMACIST COMPETENCIES

Following plenary presentations on pharmacist competencies, conference participants divided into five work groups in which they identified recommendations related to the first objective of the conference. Work group facilitators reported on their group's discussions at a plenary session. Final recommendations, which were rated for impact and feasibility at the end of the conference, are reported in a companion article.[1]

PLENARY SESSIONS ON ASSESSMENT

Best Practices in Measuring and Improving Student Learning

Trudy W. Banta, EdD, Professor of Higher Education and Senior Advisor to the Chancellor for Academic Planning and Evaluation, Indiana University-Purdue University Indianapolis, opened the conference's focus on assessment by commenting on the pressures on accrediting bodies to be transparent with respect to compliance with their standards, to measure quality of educational programs, and to foster continuous improvement in student learning. Since most faculty members in higher education are not trained as teachers, educational institutions must have a professional development program that will assist the faculty in writing clear learning objectives, connecting learning outcomes to course assignments, and developing assessment tools that test higher-order intellectual skills. She discussed specific tools that can be used for assessing student learning and evaluating course outcomes.

The use of standardized tests to assess learning of generic skills (eg, critical thinking, written communication, analytic reasoning) is problematic because those tests mostly measure students' prior learning (not "college effects" on learning). Further, it is not feasible to distinguish among the effects of teacher, school, student, and other factors on changes in standardized-test scores that may occur during the college years.

Dr. Banta advocated the following methods for assessing student learning: standardized tests in specialized fields (eg, licensure and certification tests), objective structured clinical examinations, performance in experiential education, electronic portfolios, external examiners, peer assessment, and self assessment. She also discussed use of faculty-developed measures such as primary-trait scoring (identifying traits necessary for success in assignment; composing a rubric with clear definition of each point; grading using the rubric).

Dr. Banta concluded by recommending the following resources on assessment: National Institute for Learning Outcomes Assessment (www.learningoutcomesassessment.org), New Leadership Alliance for Student Learning and Accountability (www.newleadershipalliance.org), Assessment Update (www.planning.iupui.edu/58.html), and Assessment Institute in Indianapolis (www.planning.iupui.edu/institute).

Insights from Survey Results and Conference Readings

Heidi M. Anderson, PhD, Vice President for Institutional Effectiveness, University of Kentucky, and immediate past president of ACPE Board, reviewed the history of assessment in higher education and pharmacy education. She noted that while pharmacy education is now focusing on assessing student learning, more work is needed in evaluating institutional effectiveness and in using data for curricular improvement. Barriers to progress include a lack of understanding of assessment (especially as related to institutional effectiveness), lack of personnel and financial resources devoted to assessment, and lack of a culture of assessment that is grounded in institutional mission and championed by institutional leaders.

Dr. Anderson discussed how to establish assessment objectives that are specific, measurable, achievable, realistic, and time-bound. She also reviewed a method of selecting a measurement tool that is appropriate to a particular desired outcome.

She summarized current methods of assessing curricular outcomes in PharmD education, including comprehensive and focused reviews of program information, annual monitoring metrics (NAPLEX scores, enrollment data, progression/graduation data), and the results of AACP standardized surveys (graduating students, faculty, preceptors, alumni).[8] ACPE site reviewers take note of innovative practices in assessment, and that information is disseminated on AACP's Web site. ACPE also monitors the capacity of the faculty and of experiential education sites. Although ACPE has expanded its efforts in assessing curricular outcomes, it recognizes that more needs to be done and is looking to this conference for direction in that regard.

Innovations in Educational Assessment and Accountability in Other Health Professions

Panelists representing educational accreditation in medicine, nursing, and physical therapy discussed innovations in their programs that might have applicability in pharmacy. Barbara Barzansky, PhD, Director, Division of Undergraduate Medical Education, American Medical Association (AMA), and AMA Secretary of the Liaison Committee on Medical Education (LCME), discussed the utility of regular program monitoring based on LCME's experience. The 131 standards for undergraduate medical education are under continuous review by stakeholder groups from the academic community, which are surveyed on the clarity and importance of each standard. Accredited medical educational programs are reviewed fully every eight years and are monitored annually based on their response to questionnaires on compliance with the standards. LCME monitors data from a variety of perspectives and sources in assessing programs during and between regular reviews. Cross-sectional national data allow normative comparisons across schools. Other standardized instruments are also used for benchmarking school performance.

To illustrate the range of methods used in regular program monitoring, Dr. Barzansky discussed methods of assessing "professionalism and the learning environment," observing students' clinical skills, and use of national standardized subject tests in required disciplines (eg, surgery, internal medicine). Before a new accreditation standard is proposed, LCME typically studies the prevalence of a particular practice (for example, requiring interprofessional experiences).

Heidi Taylor, PhD, Associate Professor of Nursing, West Texas A&M University, and Co-Chair, Standards Committee, Commission on Collegiate Nursing Education (CCNE), discussed how CCNE evaluates programs with respect to interprofessional education. Most CCNE-accredited programs (baccalaureate and graduate programs) are in general academic institutions, not in academic health science centers; this has fostered innovative methods of pursuing interprofessional education.

CCNE accreditation standards are based on essential educational requirements outlined by the American Association of Colleges of Nursing. Those requirements cover interprofessional communication and collaboration for improving patient and population health outcomes. Interprofessional education competencies include, in the case of baccalaureate education, for example, ability to use interprofessional communication and collaboration to provide evidence-based care and ability to use teambuilding and collaborative strategies. Higher levels of expected abilities related to team leadership are required in master's and doctoral education for advanced nursing practice.

CCNE does not have a standardized measure of competence in interprofessional practice, but accreditation teams look for a "preponderance of evidence" of compliance with interprofessional education standards, including classroom and clinical observation of student learning and performance.

Dr. Taylor drew attention to a recent comparative analysis of interprofessional education accreditation standards in 10 health professions.[9]

Mary Jane Harris, MS, Director of the Department of Accreditation, American Physical Therapy Association (APTA), supports the work of the Commission on Accreditation in Physical Therapy Education (CAPTE). CAPTE standards focus on the competencies that graduates must have, allowing flexibility in curricular content to create those competencies. Full-time supervised clinical experience makes up 44% of the contact hours in physical therapy education (which, on average, requires 7.6 semesters following baccalaureate education).

Most programs use the Clinical Performance Instrument (CPI), a validated instrument developed by APTA, to assess students at the mid point and at the end of clinical experiences. The CPI delineates six levels of competency (ranging from "beginning" to "entry-level" and "beyond entry-level") with respect to the amount of supervision required; the quality, complexity, and consistency of performance; and efficiency (in terms of handling caseload).

CAPTE reviews an educational program's use of individual student CPI assessments and its aggregate CPI data. CAPTE maintains a database on the more than 25,000 clinical experience sites in the U.S., and it collects student evaluations of the quality of their clinical experiences.

Innovations in Assessment in Pharmacy Education

Four panelists from pharmacy education discussed innovations their institutions have made in assessment.

Diane E. Beck, PharmD, Clinical Professor and Associate Dean for Curricular Affairs and Accreditation, University of Florida College of Pharmacy (UFCOP), noted that UFCOP adopted a systems approach to program evaluation in 2011. Several strategies have been used to better understand the College as a complex system. The College mission statement served as the framework for the program evaluation plan, and the program evaluation plan was designed to assess eight mission areas. Each mission area was defined via a set of dichotomous statements, which enabled a more organized approach to interpreting large numbers of metrics. This approach yielded insight into what happened before and during a learning period. UFCOP's systems approach also stimulated thinking about how the organization functions and about how to more effectively communicate the results of assessment.

Melissa S. Medina, EdD, Assistant Dean for Assessment and Evaluation and Presidential Professor, University of Oklahoma Health Sciences Center College of Pharmacy (OUCOP), described an integrated assessment method. Integrated knowledge and skills examinations are embedded into final examinations of the pharmacy practice courses in each semester of the first three professional years. An integrated exam (IE) committee for each professional year (1) identifies the most pertinent skills and knowledge-based content from each course, (2) develops measurable IE objectives addressing the pertinent content, (3) creates multiple-choice and performance-based IE questions derived from IE objectives, accounting for 10% of the final course grade, and (4) submits objectives and questions for review and revision to an oversight committee. Student performance on each question is evaluated, and objectives and questions are revised as needed for the next year's iteration. OUCOP's method of assessment has transformed student understanding of the depth of learning expected for pharmacy practice.

Sam C. Augustine, PharmD, Professor of Pharmacy Practice, School of Pharmacy and Health Professions, Creighton University, described a three-phase assessment process for determining if the pharmacy curriculum initiated in 2010 is meeting the educational outcomes and competencies established by the faculty. Tools for curricular assessment were developed for use at semester, annual, and 3- to 5-year intervals. The Pharmacy Curriculum Outcomes Assessment (PCOA) examination of the National Association of Boards of Pharmacy is one element in annual assessment. PCOA is a psychometrically sound, nationally standardized test. Students use their PCOA test results to evaluate their strengths and weaknesses and to compare their performance with a national sample. Creighton is exploring how to best apply the PCOA in assessing curricular performance, verifying parity between distance and campus pathways, and predicting successful program completion.

Kristin Kari Janke, PhD, Professor, College of Pharmacy, University of Minnesota, provided examples of the College's assessment efforts in leadership, professionalism, and continuing professional development (CPD) (sometimes called "soft skills"). She advocated that each pharmacy program should develop assessment methods related to its unique areas of focus. Although many assessment instruments are available for professionalism, none of them is sufficiently sensitive to gauge changes over time. Seven colleges of pharmacy collaborated in developing a new validated instrument for measuring professionalism in pharmacy students. Skills in CPD are difficult to develop as new graduates transition from instructor-directed education to self-directed learning. Hence, assessment of these skills must be multifaceted, using existing instruments, new instruments, and multiple observers with repeated measures over time.

CONFERENCE RECOMMENDATIONS RELATED TO ASSESSMENT

Following plenary presentations on assessment, conference participants divided into five work groups in which they identified recommendations related to the second objective of the conference. Work group facilitators reported on their group's discussions at a plenary session. Final recommendations, which were rated for impact and feasibility at the end of the conference, are reported in a companion article.[1]

CONFERENCE CLOSING

Robert S. Beardsley, PhD, President of ACPE, and Peter H. Vlasses, PharmD, Executive Director of ACPE, closed the conference by thanking participants, speakers, grantors, and conference organizers, and by commenting on how ACPE will use the work of the conference in revising accreditation standards for PharmD programs (see companion article[2]).

CONCLUSION

This September 2012 invitational conference explored thoroughly how to ensure that the standards, guidelines, and accreditation process for PharmD programs are aligned with (1) current and future competency requirements of pharmacists and (2) evidence-based practices in assessing student learning and the quality of educational programs. Conference discussion and recommendations, based on the well-informed advice of stakeholders from pharmacy

academia and practice, will have a strong influence on the next generation of standards for PharmD programs.

ACKNOWLEDGEMENTS

Three of ACPE's founders and sponsors participated in planning the conference: American Association of Colleges of Pharmacy, American Pharmacists Association, and National Association of Boards of Pharmacy.

A grant from the Community Pharmacy Foundation supported the development of the preconference surveys, analysis of survey results, and travel costs for five community pharmacists to participate in the meeting. Other grant support was received from American College of Clinical Pharmacy, American Foundation for Pharmaceutical Education, American Society of Health-System Pharmacists Research and Education Foundation, and National Community Pharmacists Association.

Mercer University College of Pharmacy and Health Sciences supplied the audience response system used at the conference, including the support of two staff members.

ACPE staff members Sharon Hudson and Cynthia Avery provided excellent staff support in the organization and conduct of the conference.

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Appendix 1. Source of invitees to the conference.

Approximately half of the conference participants were selected from among the nominees of three ACPE sponsors (American Association of Colleges of Pharmacy, American Pharmacists Association, National Association of Boards of Pharmacy). In making their nominations, these organizations were asked to consider the following desired characteristics of participants: familiarity with the standards for pharmacy education, representation of the core constituency of the nominating organization, responsible for hiring new graduates or recruiting new graduates for residencies, experienced in pharmacy classroom teaching or experiential education, and likely to be in a position to influence the nominating organization's response to proposed revisions in the accreditation standards.

The following organizations were invited to each select two participants (generally, they chose their chief executive officer and a volunteer leader): Academy of Managed Care Pharmacy, American Association of Colleges of Pharmacy, American College of Apothecaries, American College of Clinical Pharmacy, American Pharmacists Association, American Society of Consultant Pharmacists, American Society of Health-System Pharmacists, APhA Academy of Student Pharmacists, Association of Black Health-System Pharmacists, National Association of Boards of Pharmacy, National Association of Chain Drug Stores, National Community Pharmacists Association, National Pharmaceutical Association, and Pharmacy Quality Alliance.

The Community Pharmacy Foundation selected five participants.

The following groups each selected one participant: ASHP Commission on Credentialing, Board of Pharmacy Specialties, and University HealthSystem Consortium.

Rounding out the attendees were ACPE Board members (10), current and former members of the ACPE Public Interest Panel (2), staff members (9), and consultants (2).

Appendix 2. Roster of conference participants.

Invited Participants

Paul Abramowitz, PharmD, FASHP, American Society of Health-System Pharmacists, Bethesda, MD
David Allen, PhD, The University of Mississippi School of Pharmacy, University, MS
*Heidi Anderson, PhD, University of Kentucky College of Pharmacy, Lexington, KY
Crystal Atwell, PharmD, American Pharmacists Association, Washington, DC
†Samuel Augustine, RP, PharmD, FAPhA, Creighton University School of Pharmacy & Health Professions, Omaha, NE
*Trudy Banta, EdD, Indiana University Purdue University Indianapolis (IUPUI), Indianapolis, IN
Judith Barr, ScD, MEd, Northeastern University School of Pharmacy, Boston, MA
+Barbara Barzansky, PhD, MHPE, American Medical Association, Chicago, IL
†Diane Beck, PharmD, University of Florida College of Pharmacy, Gainesville, FL
Michele Belsey, BS Pharm, Rite Aid, Camp Hill, PA
Barry Bleidt, PhD, PharmD, National Pharmaceutical Association, Paintsville, KY
#J. Chris Bradberry, PharmD, Creighton University School of Pharmacy & Health Professions, Omaha, NE
Gayle Brazeau, PhD, University of New England College of Pharmacy, Portland, ME
Malcolm Broussard, BS Pharm, Louisiana Board of Pharmacy, Baton Rouge, LA
Michael Burleson, BS Pharm, Kentucky Board of Pharmacy, Frankfort, KY
**Carmen Catizone, MS, RPh, DPh, National Association of Boards of Pharmacy, Mount Prospect, IL
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Laura Cranston, RPh, Pharmacy Quality Alliance, Fairfax Station, VA
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Gary DeLander, PhD, Oregon State University College of Pharmacy, Corvallis, OR
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Christopher Dimos, RPh, Supervalu Pharmacies, Franklin Park, IL
Nicholas Dorich, PharmD, National Association of Chain Drug Stores, Alexandria, VA
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+Mary Jane Harris, PT, MS, American Physical Therapy Association, Alexandria, VA
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Craig Kirkwood, PharmD, Virginia Commonwealth University Health Systems, Richmond, VA
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William Zellmer

*Speaker
**Panelist on competency requirements of pharmacists
+Panelist on educational assessment in other health professions
†Panelist on assessment in pharmacy education
#Work group facilitator