According to the Bylaws of the American Association of Colleges of Pharmacy (AACP), the Academic Affairs Committee shall consider:

- the intellectual, social, and personal aspects of pharmaceutical education. It is expected to identify practices, procedures, and guidelines that will aid faculties in developing students to their maximum potential. It will also be concerned with curriculum analysis, development, and evaluation beginning with the pre-professional level and extending through professional and graduate education. The Committee shall seek to identify issues and problems affecting the administrative and financial aspects of member institutions. The Academic Affairs Committee shall extend its attention beyond intra-institutional matters of colleges of pharmacy to include interdisciplinary concerns with the communities of higher education and especially with those elements concerned with health education.

Consistent with a theme of exploring how AACP might foster organizational improvement and success among its institutional members, President Victor Yanchick charged the 2008-09 AACP Academic Affairs Standing Committee with planning and framing a Curricular Change Summit based on the work of the 2006-07 Academic Affairs Standing Committee chaired by Dean Chris Bradberry. President Yanchick asked the committee to identify 4 to 5 critical areas of importance in re-defining the professional curriculum for the future to form the basis for a Request For Proposal (RFP) to commission White Papers to serve as background material to inform the AACP Curricular Change Summit. President Yanchick asked the Committee to consider his perception that while the Academy moved towards the doctor of pharmacy as the first professional degree for all colleges and schools of pharmacy, there may be curricula that may in fact still be at the baccalaureate level.

The purpose of this Report was two-fold: 1) to provide an overview of the process undertaken by the 2008-09 Academic Affairs Standing Committee to commission the White Papers for the AACP Curricular Change Summit, and 2) to describe key highlights from each of the 5 resulting White Papers that will serve as background for the Summit. The Summit itself will be addressed in meetings proceedings following its completion in September 2009.

The White Paper Process
The Committee convened in September 2008 to address President Yanchick’s charge to identify 4 to 5 critical areas of importance. President Yanchick provided introductory remarks and asked the Committee to consider:

- how could the contemporary curriculum be structured differently?
- are the AACP Center for the Advancement of Pharmaceutical Education (CAPE) Outcomes still relevant?
- are our graduates really taking responsibility for medication outcomes?
- given that it is not possible to teach students everything they need to know for practice – how can curricula better educate students to become life-long learners?
- what role should the experiential component play within the curricula?
- how should the curricula change to reflect the new generation of student learners?
Finally President Yanchick concluded with an observation and concern that the words “team” and “public health” are missing from the mission of pharmacy education.

Using a consensus process the Committee members began with a brainstorming session of potential critical areas of importance in redefining the professional curriculum that would then be narrowed down and refined to arrive at 4 to 5 key areas upon which the White Papers would then be commissioned to address. Deliberations began with a consideration of the question of “what are we trying to turn out?” at the operational level in terms of graduates of the colleges and schools of pharmacy across the country. From this overarching question committee members developed a list of potential topics which included: pre-pharmacy education, student practice (or experiential education), inquiry-based learning (or a more scholarly approach to learning), the role of technology, interprofessional education, and community engagement/cultural competency. Realizing that the Summit ultimately would not be able to cover all topics and that some areas, such as experiential education, were being addressed by other working groups and taskforces within the Association, the Committee came to consensus on the following topics in the resulting Request For Proposal (RFP) for the White Papers:

1. **Future Graduates:** an analysis of the functions and roles of graduates that colleges/schools of pharmacy need to turn out to meet the needs of the future.

2. **Pre-Professional Curriculum:** an analysis of the knowledge, skills, attitudes, and values that students need to enter pharmacy programs, the role of liberal education, and the connection between the pre-professional curriculum and the professional curriculum.

3. **Addressing competencies for the future in the professional curriculum:** an analysis of the knowledge, skills, attitudes, and values to be addressed by competencies related to student practice (eg, simulations, experiential learning), inquiry-based learning, and cultural competency.

4. **Roles of innovation in education delivery:** an analysis of the fiscal, human, and physical resources and overall implications for instructional design of distance education, use of technology across the curriculum, potential effect on the professionalization of students, and trends in higher education as a whole.

5. **Assessing transformation and change in the professional curriculum:** an analysis of the role of and how to implement assessment in curricular reform and collaborative models for assessment.

The RFP stipulated that papers should provide a critical analysis of important issues that would foster dialogue among AACP members and inform the Curricular Change Summit, future accreditation standard setting activities, and AACP program development in support of its diverse member institutions. Potential authors were asked to comprehensively examine existing materials in the pharmaceutical, health education, and higher education literature and were provided with a list of suggested references.²⁻⁹

The formal RFP was released along with a letter for a call for authors by 2008-2009 Academic Affairs Standing Committee Chair Dr. Gary Oderda. The RFP asked for a letter of interest identifying the author’s previous work on the topic identified, a preliminary outline for the proposed paper, and curriculum vitae for the lead author and/or authors. Members of the Academic Affairs Standing Committee agreed to serve as peer-reviewers throughout the process to ensure a scholarly approach was taken in the commissioning of the White Papers. Each member of the Committee disclosed any potential conflicts of interests, both direct and/or perceived and was not assigned any submissions where such a conflict was declared. The 22 submissions that responded to the RFP were evaluated using a consistent reviewer form developed for the RFP process. Each submission was reviewed by 4 members of the Academic Affairs Standing Committee. The lead authors of the selected 5 white papers were notified in December 2008. Each of the lead authors submitted more detailed outlines followed by initial working drafts of the manuscripts during the Spring of 2009 both of which were also each peer-reviewed by 4 members of the Academic Affairs Standing Committee. A conference call was held with all lead authors, the chair of the Academic Affairs Standing Committee, and the AACP staff liaison to the Committee to allow the authors an opportunity to engage in a discussion. All lead authors agreed to share their initial working drafts and resultant peer-review comments among the group to facilitate ferreting out potential overlap or contradictions. Peer-review comments were compiled by the Chair of the Committee and AACP staff liaison and disseminated back to all lead authors. Penultimate versions of the 5 White Papers were completed in May 2009 and underwent a final peer review. Final versions of each of the White Papers will be published in the *Journal* and will be available to the Academy on the AACP Website (www.aacp.org) prior to formal publication for use in the Curricular Change Summit.
The White Papers

The purpose of the White papers was to stimulate thought, establish background, and help provide fodder for discussion and debate at the AACP Curricular Change Summit. The White Papers were not intended to represent any formal positions of the Association but rather serve as critical thought pieces. Lead authors were encouraged to be provocative and bold in their papers so as to facilitate dialogue – to “think off the map” in fitting with President Yanchick’s presidential theme. Rather than restate the contents of the White Papers, each is highlighted below. Recommendations for AACP and the Academy are contained within each of the papers and will be discussed and debated at the Summit.

Future Pharmacy Graduates – Making More Opportunities Than We See

The White Paper on future graduates called for an analysis of the functions and roles of graduates that college and schools of pharmacy needed to produce in order to meet future needs. Brazeau et al. examined the contemporary scope of education as well as the provider and professional activities of graduates of the professional program. This paper proposed core educational approaches necessary for successful future practitioners. Some of these core educational approaches included informatics, simulations, interprofessional education, self-assessment and reflection, community engagement, leadership development and advocacy, global health, and scholarly activities. Brazeau and colleagues also explored current and possible new roles for graduates such as roles in community care, inpatient care (both acute and long-term), pharmaceutical industry, managed care, FDA and other regulatory agencies, and academia. Additional roles included those in local, state, and national government structures, policy making and advocacy as well as in advancing information technologies and potential roles in environmental health and the green movement. Brazeau et al. argued that success in a professional doctoral level graduate lay in the provision of a foundation upon from which to start in a wide variety of provider roles and opportunities.

The Pre-Professional Curriculum in Preparation for the Doctor of Pharmacy Educational Programs

The White Paper on the pre-professional curriculum called for an analysis of the knowledge, skills, attitudes, and values that students need for entry into colleges and schools of pharmacy, the role of liberal education, and the connection between the pre-preprofessional and professional curriculum. Boyce and Lawson examined potential criteria for admissions to the professional program and proposed curricular models for the pre-professional curricula. This White Paper put forth 2 models for pre-professional curricula: a fundamental (or core model) and an expanded model. The general abilities included in the core curriculum included communications, interaction, cognitive, ethics and moral reasoning, cultural competence, and societal responsibility. In addition, the expanded model included abilities in the cognitive, psychomotor, and affective domains. Boyce and Lawson proposed that the fundamental pre-professional curriculum include a liberal education with a foundation in science, mathematics in addition to the general abilities and that the pre-professional curricula should be expanded in length.

Addressing Competencies for the Future in the Professional Curriculum

The White Paper on addressing competencies for the future in the professional curriculum called for an analysis of the knowledge, skills, attitudes, and values to be addressed by competencies related to student practice (eg, simulation, experiential learning), inquiry-based learning, and cultural competency. Jungnickel et al. proposed that curricula of the future will continue to center around the current AACP CAPE outcomes of patient-centered care, population-based care, and systems management but must also foster development of 5 core abilities across all of these 3 overarching domains. The 5 core abilities proposed that cut across all competencies were professionalism, self-directed learning, leadership and advocacy, interprofessional collaboration, and cultural competency. Jungnickel and colleagues in addressing competencies related to experiential education suggested that since experiential education occurs throughout the professional curriculum – the distinction between introductory and advanced experiences may be arbitrary and that experiential education should play a greater role in the curriculum. The authors also proposed a set of competencies building upon the AACP CAPE Outcomes incorporating the 5 core abilities.

Roles of Innovation in Education Delivery

The White Paper on the role of innovation in education delivery called for an analysis of the fiscal, human, and physical resources and overall implications for instructional design of distance education, integration of technology throughout the curriculum, the potential impact of technology on the professionalization of students, and trends in the use of technology in higher education as
a whole. Blouin et al. presented a brief review of trends in higher education along with a characterization of the current and future learning environments, especially those incorporating technology, and strategies on how to implement innovations in educational delivery. Blouin and colleagues provided an overview of types of learning environments based on the level of technological usage broken down by “content delivery”, “student-instructor contact”, “development effort”, “skill development”, and “adaptation to learning styles”. The authors argued for evidence-based education and the role of the scholarship of teaching in the development of new learning environments and curricular delivery and that regardless of method, instructional methods and technology should be linked to the student as a learner.

Assessment to Transform Competency-Based Curricula

The White Paper on assessing transformation and change in the professional curriculum called for an analysis of the role and implementation of assessment in curricular reform and an exploration of collaborative models for assessment. Farris et al. proposed Kotter’s framework to analyze the role of assessment in curricular transformation resulting in a set of recommendations. Kotter’s 8 steps to transforming organizations was illustrated using qualitative data from a college of pharmacy that underwent curricular reform. Examples of curricular reform and assessment activities for Kotter’s 8 stages were also provided to guide colleges and schools of pharmacy. Recommendations were summarized by the acronym PREPARE: Prepare the process, Recruit teams, Expertise, Produce useful results, Accentuate progress, Review, and Evaluate.

CONCLUSIONS

The 5 critical areas that the 2008-2009 Academic Affairs Standing Committee came to consensus on will form the backdrop for the 2009 AACP Curricular Change Summit. The recommendation and suggestions contained in each of the White Papers addressing these 5 critical areas will help serve as discussion and debate items during Summit.

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