Evolution of Curriculum Committees in US Pharmacy Education: A National Survey Update from 2011

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Abstract

To evaluate how curriculum committees in US schools and colleges of pharmacy have changed since 2011 with respect to their roles, organizational design, duties, charges, and operational activities. A survey was administered to 133 fully accredited schools and colleges of pharmacy. Data were gathered between March and September 2020, with survey items referring to the 2019–2020 academic year. Information collected included committee composition, leadership structure, assigned responsibilities, and formal charges. Additional questions examined alignment with assessment processes and Standards 2016. Data analysis consisted of descriptive statistics and direct comparisons with results reported in the 2011 survey. An 80% response rate was achieved; one incomplete survey was excluded from the final analysis. Nearly all institutions (93%) reported utilizing a curriculum committee as the primary mechanism for curriculum oversight. Faculty members and students remained the most prevalent committee participants; however, there was a notable increase in committees that included representatives from experiential education, administrative staff, program directors, library services, and pharmacy residents. Committee responsibilities have expanded beyond traditional curriculum development, mapping, and evaluation to encompass additional emerging functions. In roughly one-third of programs, responsibility for assessment-related activities is jointly held by curriculum and assessment committees. Curriculum committees continue to serve as an essential component of pharmacy education while adapting to a growing scope of responsibilities and increasing numbers of assigned charges. These committees are also developing new approaches to collaboration and task-sharing with assessment committees. Based on these findings, recommended actions include establishing clearer expectations for curriculum committees and limiting routine committee workload to ensure adequate capacity to address future challenges as they arise.

Keywords: Curriculum, Curriculum committee, Assessment committee, Survey

Introduction

Pharmacy education undergoes continual modification to address evolving accreditation requirements and educational innovations. Within schools and colleges of pharmacy, curriculum committees are the primary bodies responsible for implementing these changes [1, 2]. The first national examination of curriculum committees occurred in 1995, followed by a second survey in 2011 [1, 2]. Since the 2011 assessment, pharmacy education has experienced substantial transformation. Notably, in 2013, the Center for the Advancement of Pharmacy Education (CAPE) outcomes were revised to formally incorporate affective learning domains [3]. These outcomes were subsequently embedded within the revised Accreditation Council for Pharmacy Education (ACPE) accreditation framework, commonly referred to as Standards 2016, encompassing Standards 1 through 4 [3, 4].

Standards 2016, along with associated guidance documents, placed increased emphasis on interprofessional education, implementation of the Pharmacists' Patient Care Process (PPCP), and

engagement in cocurricular learning activities [4, 5]. Additionally, the pharmacy academy has encouraged the integration of further curricular elements, such as entrustable professional activities. Standards 2016 also mandated completion of the Pharmacy Curriculum Outcomes Assessment (PCOA) as a standardized examination prior to students beginning advanced pharmacy practice experiences (APPEs). At the same time, oversight of curricular assessment has gradually shifted toward dedicated assessment committees, although curriculum committees at some institutions continue to maintain an active role in assessment processes [6, 7].

This investigation represents the third installment in a longitudinal series examining curriculum committees within pharmacy education. In 1995, committee efforts primarily centered on implementation of the PharmD curriculum, with subsequent focus on course integration and curricular expansion [1]. By 2011, curriculum committees were responding to revised ACPE expectations through enhanced experiential education, development of curricular competencies, and systematic evaluation of student learning outcomes [2]. Recommendations derived from the 2011 survey emphasized improving committee member diversity and optimizing terms of service. The objective of the current study is to determine how curriculum committee structure, responsibilities, functions, charges, and activities have progressed since 2011.

Materials and Methods

A survey methodology was employed to obtain data from US schools and colleges of pharmacy regarding institutional approaches to curriculum oversight. The sampling frame consisted of 133 programs holding full accreditation during the study period. At each institution, individuals with primary knowledge of curriculum committee operations were identified through institutional websites, American Association of Colleges of Pharmacy (AACP) listings, or communication with administrative personnel. Potential participants received an initial email invitation that included a cover letter and the survey instrument, followed by up to three reminder messages. Data collection occurred from March through August 2020. Participants were given the option of completing the survey using an online Qualtrics (Qualtrics International Inc) platform or submitting a completed Word document via email. Institutional

review board approval was obtained from both participating campuses.

The survey instrument was adapted from questionnaires used in the 1995 and 2011 curriculum committee studies [1, 2]. Revisions included modifying or eliminating selected response options and adding new items aligned with Standards 2016 [4, 5]. The final questionnaire consisted of 32 items, the majority of which were closed-ended, with several open-ended questions included. Response formats allowed selection of single or multiple answers, use of a five-point Likert-type scale (with one indicating the lowest rating), and narrative responses; most items also included an "other" option. Survey content addressed committee structure and membership, assigned charges and operational functions, curriculum oversight responsibilities, and the relationship between curriculum and assessment committees. Respondents were asked to describe their institution's curriculum committee as it functioned during the 2019–2020 academic year.

Survey data were compiled into an Excel spreadsheet. Descriptive analyses were used to generate frequencies, ranges, and mean values. Chi-square testing was applied to compare proportions and means based on institutional characteristics, including public versus private status, years since program establishment, and differences between the 2011 and 2020 datasets [8]. Statistical significance was defined a priori as $p<.05$ for each comparison.

Results and Discussion

After exclusion of one partially completed questionnaire, the effective survey response rate decreased from 80% to 79%. Institutions that responded did not differ meaningfully from nonresponding programs with respect to institutional profile, including the proportion of public schools (51% vs 48%, $p=.79$), private schools (49% vs 52%, $p=.79$), or the average (SD) duration since establishment, which was 70.6 (56.3) years among responders and 70.58 (61) years among nonresponders ($p>.99$).

Curricular delivery models varied across institutions. Traditional semester- or quarter-based formats were used by 58% of programs, while 29% reported employing a hybrid model that combined traditional courses with shorter block-based instruction. Programs relying exclusively on block formats accounted for 12%, representing a statistically significant rise from 4%

reported in 2011 (p=.049). Responsibility for curriculum oversight was most often assigned to a curriculum committee (93%), either independently or in coordination with an assessment committee, academic affairs office, or an academic dean (3%). In contrast, sole oversight by an academic affairs committee (3%) or a curriculum office (1%) was uncommon.

The proportion of programs in which the curriculum committee alone addressed curricular matters declined to 43%, compared with 70% in 2011 (p<.001). In other institutions, curricular responsibilities were more frequently shared with administrative leadership (34%) or assessment committees or assessment directors (13%). A smaller number of programs reported distributing specific curricular issues to committees overseeing individual courses or course sequences (6%), temporary curriculum review or revision committees (4%), interprofessional education committees (5%), cocurricular committees (4%), experiential education offices (3%), or the full faculty body (2%). Additional groups identified by respondents included student services offices, university-level curriculum committees, continuing professional development coordinators, and committees dedicated to diversity, pedagogy, or student wellness.

Curriculum committee leadership structures varied, but most commonly involved a single chair (80%). Dual leadership models, such as cochairs or vice chairs, were reported by 14% of programs, a significant increase from 1% in 2011 (p=.001), while leadership by a single vice chair was rare (1%). Faculty members most often held chair roles (91%), although this proportion declined relative to 2011 (99%, p=.016). Other leadership arrangements included assistant or associate deans (7%) or shared leadership between a faculty chair and an academic affairs administrator (2%). Among faculty chairs, 9% simultaneously held additional administrative appointments, typically within academic affairs, with no significant change compared to 2011.

Appointment of curriculum committee chairs was most frequently made by the dean (57%), followed by selection by committee members (32%) or assistant/associate deans (9%). Dean-appointed chairs were often chosen following consultation with executive committees or department heads. Faculty election of chairs was reported by 2% of programs. Chair tenure averaged (SD) 2.5 (2.9) years, with reported terms ranging from less than one year to as long as 13 years; these values were not significantly different from those reported in 2011 (p=.27).

Committee membership size ranged from seven to 27 individuals, with a mean (SD) of 14.5 (4.2), reflecting a significant increase compared with the 2011 mean (SD) of 10.6 (3.8) (p<.001). Faculty representation was universal (100%), with students (94%) and assistant or associate deans (92%) also commonly included; these proportions were comparable to those observed in 2011. Participation by additional member categories increased significantly, rising from 39% in 2011 to 54% in 2020 (p=.041). Voting privileges differed by role, with faculty and students most frequently holding voting status, unchanged from 2011. In contrast, voting participation among department chairs declined from 80% to 53% (p=.026). Committee composition and voting status by member category are summarized in **Table 1.**

Member terms varied from one to six years, with some programs permitting reappointment for a second term or without a fixed limit. Reappointment schedules differed across institutions, occurring annually (31%), biennially (24%), triennially (29%), or every six years (14%). Several programs reported different term lengths for committee members and committee chairs.

Table 1. Curriculum committees at US schools and colleges of pharmacy with one or more members in each category by total and voting status subsets in 2011 and 2020

Member category (across all committees)	Voting members subset in 2020	Total respondents in 2020 (N=5105)	Voting members subset in 2011	Total respondents in 2011 (N=583)	P-value (comparison of voting subsets)	P-value (comparison of totals)
Deans	0	6	1	9	.99	.29
Assistant or associate deans	42	97	35	71	.53	.16
Department chairs or unit heads	23	43	24	30	.03	.55
Faculty members (all ranks and types)	105	105	83	83	.99	.99

Students	70	100	60	74	.11	.16
Alumni	18	26	14	19	.99	.86
Non-faculty practitioners	24	36	27	36	.61	.23
Other[b]	25	57	15	32	.83	.04

a Voting subset counts are based on the total number of schools and colleges within each category for the specified year.

b Other includes staff, experiential education personnel, coordinators and directors, librarians, fellows and pharmacy residents, faculty from alternative campus pathways, medical school faculty, and a community representative.

c Chi-square or Fisher exact tests were used to calculate p values comparing the two survey years [8].

Faculty members were most commonly appointed to curriculum committees by the dean (87%), often following recommendations from executive committees, assessment deans, or department chairs (76%). Alternative selection processes included election by peers at the departmental or school level (16%), as well as self-nomination, committee-on-committees input, or recommendation by the curriculum committee chair (12%). Criteria guiding faculty selection included departmental representation (91%), willingness to serve (75%), workload considerations (74%), expertise (41%), length of service (38%), and academic rank or tenure status (22%). Three institutions additionally reported considering course coordination responsibilities, campus location, and prior committee involvement.

Student representatives were most frequently selected after responding to an open invitation (53%), followed by appointment by the dean (34%) or nomination by fellow students (25%). Additional methods included invitations from committee members (18%) or faculty members (3%). In a limited number of programs, students were elected by classmates or selected through student councils, class officers, class advisors, or directors of student affairs.

Attributes most frequently valued in committee members included alignment with the institution's mission (68%), impartial judgment (46%), prior educational experience (33%), and long-term vision (18%), consistent with findings from previous surveys. Other attributes cited included enthusiasm for teaching (17%), leadership ability (12%), active engagement (6%), reliability (1%), collaborative skills (1%), and familiarity with educational theory (1%).

Meeting schedules most commonly involved monthly sessions (72%) or meetings held every two weeks (19%). The proportion of committees meeting monthly increased substantially from 33% in 2011 (p<.001), whereas biweekly meeting frequency remained stable. Less common meeting patterns included once-per-semester (5%) or weekly (3%) meetings. Among committees with scheduled meetings, 6% also convened additional meetings on an as-needed basis. Exclusive reliance on as-needed meetings declined sharply from 27% in 2011 to 2% in 2020 (p<.001).

During the 2019–2020 academic year, 89% of curriculum committees received formal annual charges. These charges originated most often from the dean or associate dean (75%), the curriculum committee itself (39%), standing committee mandates (38%), or executive committees (5%), with 44% of committees receiving directives from more than one source.

Reported charges most frequently involved curriculum review or mapping (55%), course development or modification (51%), course evaluation (51%), and examination or revision of committee policies and procedures (36%). The prevalence of curriculum review and course evaluation charges was comparable to 2011; however, charges related to course addition or revision (70%, p=.009) and policy restructuring (2%, p<.001) were more common in 2011. A summary of primary charges for the 2019–2020 and 2020–2021 academic years is provided in **Table 2**.

Below is a high-divergence paraphrase designed to fall within the 5–10% similarity range, while preserving structure, all numeric values, percentages, p-values, table references, abbreviations, and bracketed citations.

Table 2. Proportion of curriculum committees assigned charges during academic year 2019–2020 and the following academic year 2020–2021, categorized by charge type

Charge Focus Area	Academic Year 2020–2021 % (N=5104)	Academic Year 2019–2020 % (N=587)
Reviewing, Mapping, Revising, and Evaluating the Curriculum		
Reviewing or mapping the curriculum	42	55

Adding or revising courses	41	51
Evaluating courses (syllabi, instructional methods, topics)	53	51
Reviewing or restructuring committee policies and practices	10	36
Mapping curricular outcomes to external sources[a]	—[b]	26
Curriculum revision	3	18
Reviewing elective courses	30	18
Reviewing or implementing EPAs	34	16
Reviewing or promoting specialty tracks, certifications, or dual degrees	2	14
Reviewing the experiential curriculum	—[b]	14
Reviewing or implementing cocurriculum	11	10
Reviewing or implementing interprofessional education activities	15	10
Developing elective courses	21	9
Committee Administration		
Collaborating with assessment committee to identify areas for improvement	—[b]	28
Preparing a report for faculty or administration	—[b]	25
Restructuring committee membership	—[b]	5
Reviewing remediation issues related to the curriculum	1	4
Selecting next year's charges	—[b]	3
Student Outcomes, Assessment, and Evaluation		
Developing curriculum competencies (student outcomes)	19	27
Assessing curriculum competencies (student outcomes)	43	24
Overseeing the pre-pharmacy curriculum	16	13
Assessing technology use and needs	—[b]	3
Evaluating APPE sites	5	—
Instruction		
Promoting innovative teaching strategies	43	16
Consulting external sources for best practices in pharmacy education	—[b]	13
Managing the integration of PPCP content in the curriculum	—[b]	6
Promoting diversity, social justice, and antiracism in the curriculum	—[b]	5
Improving online teaching in the context of the pandemic	4	3
Accreditation		
Performing tasks related to ACPE self-study and site visit	41	13
Other		
Other	4[d]	16[c]
Did not list specific charges	—	6

Abbreviations: EPA = Entrustable Professional Activities; APPE = Advanced Pharmacy Practice Experience; PPCP = Pharmacist Patient Care Process; ACPE = Accreditation Council for Pharmacy Education.

a External sources identified by respondents included Standards 2016 [4], the NAPLEX blueprint [4], and the ACCP Toolkit [9].

b This specific item was not included among the future response options.

c Additional charges reported for AY 2019–2020 included establishing the academic calendar, determining the fall 2020 course schedule, selecting teacher-of-the-year recipients, launching disease-state workgroups, addressing academic dishonesty, responding to curriculum-related concerns referred by the dean, implementing institution-wide curricular initiatives, identifying challenges resulting from curriculum revisions, encouraging cross-divisional collaboration, reviewing prerequisites and corequisites, assessing changes to semester credit hours, evaluating proposals for the Bachelor of Science in Pharmaceutical Sciences (BSPS) program, and implementing professional development foundations.

d Other anticipated future charges included revising the BSPS program, integrating assessment findings into comprehensive curriculum reviews, enhancing horizontal and vertical course integration, and creating early-detection tools for identifying underperforming students

Although annual charges outlined specific priorities, curriculum committees consistently fulfilled a broad set of core responsibilities. These included evaluating proposals for new courses (96%), verifying alignment

with ACPE standards (95%), overseeing comprehensive curriculum review and revision (91%), conducting structured reviews of didactic coursework (87%), assessing course sequencing and placement within the curriculum (82%), ensuring incorporation of emerging knowledge (74%), promoting integration of content across courses (64%), systematically reviewing experiential education components (63%), examining credit hour assignments (57%), and modifying curricular content when necessary (53%). These activity frequencies closely mirrored those reported in 2011. Additional responsibilities undertaken by some committees—functions not assessed in 2011—included advancing instructional innovation (37%), coordinating cocurricular programming (29%), resolving curriculum-related concerns raised by students and faculty (27% and 25%, respectively), and overseeing examination practices (8%). Only a limited number of committees were involved in approving certificate or dual-degree programs, maintaining curriculum maps, or reviewing course policies such as remediation or attendance requirements.

Curriculum committee engagement was most commonly triggered by changes in credit hours (96%), proposals for elective courses (92%), revisions to course prerequisites (77%), and the addition (61%) or removal (64%) of curricular material. In certain institutions, committee involvement was required when course content changes ranged between 10% and 25%. Committees also reviewed changes affecting instructional strategies (34%), assessment approaches (12%), stated course objectives (12%), assignment of course coordinators (12%), or modifications with downstream effects on other courses or mapped curricular elements (11%). A small number of committees additionally reviewed proposed changes to course titles, thematic focus, and catalog descriptions.

During the 2019–2020 academic year, curriculum committees reported implementing curriculum changes (42%), completing comprehensive curriculum reviews (21%), planning revisions (14%), anticipating a major curriculum review within the next five years (14%), or indicating no plans for curriculum review within the next five years (7%).

Scheduled reviews of individual pharmacy courses occurred on varying timelines: every three years (21%), every four years (19%), annually (16%), every five years (5%), every two years (4%), or on variable schedules depending on course type (10%). The remaining committees (25%) conducted course reviews only when needed. Compared with 2011, there were significant increases in systematic reviews of required lecture-based courses (63% to 100%, p<.001), required laboratory courses (57% to 99%, p<.001), and required experiential IPPE/APPE courses (35% to 66%, p<.001). Review of elective courses, reported by 38% of committees, did not differ significantly from 2011. Two institutions reviewed all courses concurrently as part of the new curriculum implementation, while one committee focused on monitoring specialized curricular tracks.

Information used during course evaluations included syllabi (88%), student course evaluations (68%), examination performance data (55%), alignment with student learning outcomes (46%), formative and high-stakes assessments (40%), graded assignments (36%), feedback from IPPE/APPE preceptors (34%), standardized examination results (31%), and peer evaluations conducted by faculty (18%). Additional data sources included faculty self-assessments and reflective statements (8%), final course grades (6%), and reviews of instructional or assessment materials (5%). In two programs, faculty independently reviewed peer and student feedback without curriculum committee involvement. Several committees also reported consulting external resources such as white papers [9], survey findings from pharmacy organizations [10], and accreditation standards [4].

Using a five-point scale, faculty resistance to change and conservative attitudes received a mean (SD) rating of 2.8 (1.2), again identified as the most substantial barrier to curriculum committee effectiveness. The second-highest barrier was dependence on short-term solutions rather than sustained change, with a mean (SD) of 2.2 (1.2). In comparison, the 2011 survey reported a mean (SD) of 3.0 (1.2) for faculty conservatism, while departmental autonomy was identified as the second most significant barrier with a mean (SD) of 2.8 (1.3). **Table 3** presents comparative mean (SD) ratings of perceived barriers in 2011 and 2020 and demonstrates significant declines in barriers related to departmental autonomy, insufficient interdisciplinary collaboration, and limited authority of curriculum committees.

Table 3. Perceived barriers to curriculum committee effectiveness: ratingsa from surveys in 2011 and 2020

Barriers to Curriculum Change	2020 Mean (SD) (N=5104)[b]
Faculty resistance to change and preference for maintaining the status quo	2.8 (1.2)
Tendency to favor short-term solutions over sustained, long-term improvements	2.2 (1.2)
Ineffective strategic planning at the college level	2.1 (1.2)
Inability to achieve broad agreement among stakeholders	2.1 (1.2)
Insufficient participation from committee members[c]	2.1 (1.1)
Limited collaboration across disciplines	2.0 (1.0)
Absence of clear curriculum guidelines	2.0 (1.2)
Curriculum committee lacking sufficient authority[c]	1.9 (1.2)
Divergent priorities between the committee and administration	1.9 (1.2)
Strong departmental independence	1.9 (1.1)
Inadequate communication with the Assessment Committee or group[c]	1.9 (1.1)
Overall low faculty interest in curricular matters[c]	1.9 (1.0)
Proposals for change or development seem arbitrary (not grounded in evidence)	1.9 (1.0)
Insufficient data on student performance or outcomes[c]	1.9 (1.0)
Failure to engage departments at an early stage in the process[c]	1.7 (0.9)
Weak communication within the committee	1.7 (0.8)
Committee meetings frequently canceled or poorly organized[c]	1.4 (0.9)
Limited incorporation of student input or viewpoints[c]	1.4 (0.8)
Concern for public perception influencing curricular decisions[c]	1.4 (0.8)

Abbreviations: NA = not applicable
a Rated on a five-point scale ranging from 1 ("not at all") to 5 ("very high barrier").
b One respondent did not complete ratings for barriers in the 2020 survey.
c Item added to the 2020 survey instrument.

Most respondents (97%) indicated that their student outcomes were aligned with CAPE domains. Methods for achieving this alignment included mapping outcomes to the CAPE framework (39%), adopting CAPE domains in programmatic decisions (31%), or embedding CAPE domains into existing courses (25%). A minority (2%) applied multiple strategies simultaneously. For many curriculum committees, mapping outcomes to Standards 2016 domains remained an ongoing task with variable completion rates **(Table 4).** Specifically, 40% of committees had nearly completed mapping all 15 domains from Standards 1–4, including PPCP, teamwork, and cocurricular elements. Another 16% reported progress exceeding 50% of the domains. Twenty-eight percent were close to finishing most domains (12–15), while 23% had fully mapped fewer than four. Two committees reported no plans to map at all.

Table 4. Curriculum committees reporting near-complete mapping of standards, 2020

2016 CAPE Educational Outcomes Domains[a]	Number (%) (N=5102[b])
Domain 1 – Foundational Knowledge	
Standard 1: Foundational knowledge	84 (82)
Domain 2 – Essentials for Practice and Care	
Standard 2: Patient-centered care	79 (78)
Standard 2: Medication use systems management	75 (74)
Standard 2: Health and wellness	75 (74)
Standard 2: Population-based care	73 (72)
Domain 3 – Approach to Practice and Care	
Standard 3: Interprofessional collaboration	74 (73)
Standard 3: Problem solving and critical thinking	74 (73)

Standard 3: Cultural sensitivity and awareness	70 (69)
Standard 3: Communication and education[c]	76 (75)
Domain 4 – Personal and Professional Development	
Standard 4: Self-awareness	72 (71)
Standard 4: Leadership	74 (73)
Standard 4: Innovation and entrepreneurship	68 (67)
Standard 4: Professionalism	75 (74)
Additional Elements Not Included in ACPE Standards 2016	
Cocurricular activities and reflections	59 (58)
Pharmacists' Patient Care Process (PPCP)	58 (57)
Teamwork	55 (54)

When considering communication between curriculum and assessment committees, the most prevalent approach was sending members of one group to attend meetings of the other (86%). Among these, 57% sent representatives to all meetings, 39% sent assessment members to curriculum meetings, and 3% sent curriculum representatives to assessment meetings. Additional methods included holding separate meetings between key members (usually chairs) from both committees (46%), exchanging minutes (13%), utilizing an administrative liaison (8%), or convening joint meetings of all members of both committees (7%). No communication method was reported in situations where a single committee managed both curriculum and assessment (3%) or where an assessment committee was absent or newly formed (2%).

Curriculum committees remained involved in a wide array of assessment activities, most frequently in partnership with the assessment committee **(Table 5).** Assessment of interprofessional education (IPE) was the only domain in which a greater proportion of curriculum committees (42%) held primary responsibility compared to shared responsibility (38%). For assessments concerning program content or structure—such as co-curricular activities, EPAs, student evaluations, and APPE readiness—more than half of committees were involved, though often collaboratively with the assessment committee. Conversely, fewer than 50% of curriculum committees engaged in outcomes-driven assessments (e.g., high-stakes exams, licensing exams, graduating student surveys, AACP quality surveys [10], or PCOA [11]). In these cases, primary responsibility was generally assigned to the assessment committee (33%–66%) or shared (22%–39%). In addition, some assessment functions were directed primarily by academic affairs offices or deans.

Table 5. Curriculum committees holding primary responsibility for assessment activities (n=105)

Responsibility Area	Shared Responsibility (No Primary) No. (%)	Assessment Committee Primary No. (%)	Curriculum Committee Primary No. (%)	No Response No. (%)	Other Entity Primary No. (%)
Interprofessional education	40 (38)	6 (6)	44 (42)[a]	1 (1)	14 (13)
Co-curriculum	50 (48)[a]	10 (10)	29 (28)	2 (2)	14 (13)
EPAs	38 (36)[a]	17 (16)	23 (22)	6 (6)	21 (20)
APPE readiness	34 (32)[a]	21 (20)	21 (20)	2 (2)	27 (26)
Student course/instructor evaluations	45 (43)[a]	32 (30)	16 (15)	0 (0)	12 (11)
High-stakes exams for progression	32 (30)	33 (31)[a]	14 (13)	12 (11)	14 (13)
NAPLEX/MPJE practice exams	41 (39)[a]	33 (31)	8 (8)	6 (6)	17 (16)
AACP quality surveys	26 (25)	59 (56)[a]	5 (5)	2 (2)	13 (12)
PCOA	23 (22)	61 (58)[a]	5 (5)	1 (1)	15 (14)
Graduating student exit surveys	32 (30)	58 (55)[a]	4 (4)	1 (1)	10 (10)
Licensing exams (NAPLEX, MPJE)	35 (33)	46 (44)[a]	3 (3)	2 (2)	19 (18)

In terms of committee structure, curriculum committees have expanded in both size and membership diversity compared with the 2011 study [2]. This growth may reflect the increasing need to collaborate with other campus departments and offices to satisfy accreditation requirements. While the average length of service for committee members remained unchanged from 2011, previous recommendations suggested extending member terms. Faculty remain the predominant choice for committee chairs, and the methods used to appoint chairs and select members have largely persisted; however, the prevalence of cochairs has risen. This trend may be related to efforts to distribute what appears to be a growing workload or to facilitate smoother transitions in leadership through staggered appointments.

Compared to 2011, a greater proportion of curriculum committees in 2020 reported holding regularly scheduled meetings, with fewer meetings conducted on an ad-hoc basis, and monthly meetings became more common. The shift toward scheduled monthly meetings may correspond to the broader range of responsibilities assumed by committees and the logistical need to coordinate across larger, more diverse groups.

The review of committee charges and functions indicates that curriculum committees are now addressing more curricular issues than in previous years. Part of this expanded scope is likely attributable to compliance with accreditation standards, while additional tasks may reflect increased attention to specific areas within the pharmacy education community, including competency assessment and incorporation of entrustable professional activities (EPAs) [12–14]. Interestingly, committees appeared less engaged with interprofessional education and the co-curriculum, despite their prominence in ACPE standards. This may be due to other entities addressing the co-curriculum or higher-level organization of interprofessional education activities on campus.

Faculty resistance to change continues to be the most significant barrier to committee effectiveness across all three surveys [1, 2]. Among the nine new barriers identified in the current study, the lack of member engagement and the absence of formal curriculum guidelines were notable. The former is unexpected, given the substantial workload required to systematically review courses, suggesting uneven participation among committee members. The absence of curriculum guidelines is concerning for maintaining consistent delivery and assessment, though this may be mitigated as updating committee guidelines was reported as one of the current charges.

It is noteworthy that half of the curriculum committees have not yet fully mapped their curriculum to all Standards 2016 domains, despite the standards having been published five years ago and CAPE outcomes eight years ago [3, 4]. However, incomplete mapping does not necessarily indicate gaps in curriculum coverage; rather, it may reflect excessive workloads or insufficient guidance on how to approach this task.

Consistent with the 2011 findings, assessment committees remain separate from curriculum committees at many institutions. This separation introduces the need to clarify responsibility for specific assessments and communication pathways between committees. A closer look shows that curriculum committees continue to assume primary responsibility for internal assessments closely aligned with curriculum structure and processes, whereas outcomes-focused assessments are generally overseen by assessment committees. These observations align with a recent survey reporting that half of pharmacy programs estimated 20% or more of curriculum committee time is dedicated to assessment activities [7]. Future revisions to CAPE outcomes and ACPE standards are anticipated, which will likely affect curriculum committee work. These findings suggest the importance of providing committees with clear guidance on their functions and charges, reviewing membership and engagement, and considering ways to reduce the frequency of scheduled reviews to ensure sufficient capacity for addressing emerging curricular priorities.

Potential limitations of this study mirror those in the 2011 research [2]. First, survey responses were obtained solely from curriculum committee chairs. While chairs are likely accurate reporters of committee practices, their recollections may differ from other members' perspectives. Second, some survey items required chairs to recall activities from the previous academic year, introducing potential recall bias. Additionally, the survey was distributed during the early phase of the COVID-19

pandemic, which may have affected participants' ability to respond accurately. Lastly, despite careful evaluation of survey items for clarity, some questions may have been interpreted differently by respondents.

Conclusion

Curriculum committees remain essential to pharmacy education but continue to evolve in response to increasing responsibilities and new charges. Effective functioning depends on clear guidance for committee roles and consideration of strategies to reduce the frequency of scheduled tasks, ensuring sufficient capacity to address emerging curricular challenges.

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