



INDIANA UNIVERSITY

**OFFICE OF UNDERGRADUATE
MEDICAL EDUCATION**

School of Medicine

**Program Review and Assessment Committee (PRAC) Annual Report:
Indiana University School of Medicine (Undergraduate Medical Education)**

Tony Ribera, Ph.D.
Director of Program Evaluation
Office of Undergraduate Medical Education

Melissa Alexander, Ed.D.
Director of Student Assessment
Office of Undergraduate Medical Education

Program Review and Assessment Committee (PRAC) Annual Report:

Indiana University School of Medicine (Undergraduate Medical Education)

The Indiana University School of Medicine (IUSM) is responsible for delivering medical education throughout the state of Indiana¹. In this report, we discuss: (a) IUSM's core competencies, (b) sample instructional activities at the institution intended to help students achieve competence, (c) the Office of Undergraduate Medical Education's (UME) approaches to assessing medical student learning during the 2013-2014 academic year,² and (d) systematic review processes and action plans based on assessment and evaluation findings.

IUSM Core Competencies

IUSM offers a competency-based curriculum, providing our medical students with scientific, clinical, and interpersonal knowledge and skills they will need as practicing physicians. The general outcomes we are seeking align with the core competencies for medical students: (a) effective communication; (b) basic clinical skills; (c) using science to guide diagnosis, management, therapeutics and prevention; (d) lifelong learning; (e) self-awareness, self-care and personal growth; (f) social and community contexts of health care; (g) moral reasoning and ethical judgment; (h) problem solving; and (i) professionalism and role recognition.³ Looking at the specific knowledge and skills associated with these nine core competencies, the competent IUSM graduate:

- a. Listens and shares information effectively.

¹ Campuses are located in Bloomington, Evansville, Fort Wayne, Indianapolis, Lafayette, Muncie, Gary, South Bend, and Terre Haute. All campuses offer a full four-year medical curriculum which includes basic science coursework and clinical rotations.

² This report focuses on the four years of medical school statewide. It does not include information about residency or any health related master's/PhD programs.

³ For the 2014-2015 academic year, IUSM has adopted a new competency structure that consists of six core competencies. Considering the nine core competencies were used during the 2013-2014 academic year, they will serve as the focus of this report.

- b. Performs and documents medical histories, physical examinations and routine clinical procedures.
- c. Manages the common health problems of individuals, families, and communities.
- d. Actively sets and pursues clear learning goals and applies the knowledge gained to the practice of his/her profession.
- e. Approaches the practice of medicine with awareness of his/her limits, strengths, weaknesses and personal vulnerabilities.
- f. Demonstrates an understanding of the relationship between the patient, community, and healthcare system and recognizes the impact of factors, such as culture and spirituality, on those relationships.
- g. Identifies and addresses ethical issues of medical practice and health policy and applies ethical information to the treatment of patients.
- h. Develops informed plans of action, acts to resolve problems, and assesses the results of his/her action.
- i. Behaves professionally.

All course- and session-level objectives statewide map to specific IUSM core competencies.

Sample Instructional Activities

The primary area where we help students acquire this knowledge and skills is through our competency-based curriculum. Medical students achieve basic knowledge and skills in all nine competencies through their coursework in the first two years of the curriculum. An example is in the first year during *The Patient-Doctor Relationship: An Introductory Course for First Year Indiana University Medical Students* (ICM 1) where students gain experience in completing formal medical histories (Basic Clinical Skills), engage in self-assessment (Self-Awareness), and

write papers (Effective Communication) on medical ethical issues (Ethics) and professional goals (Professionalism). Students in ICM 1 also watch the AAMC *Worlds Apart* video series, which examines the culture of medicine and disparities in treatment of minority and underserved patients in the US (Social and Community Contexts). Upon completion of the required clerkships during their third and fourth years, students have achieved advanced proficiency in all nine competencies.

Assessment Measures

In addition to formative and summative assessments that occur in medical school courses and clerkships, UME conducts statewide direct assessments of students and graduates which are described below:

Peer- and Self-Assessment. The Peer and Self-Assessment Program at IUSM involves all students in the first three years of medical school. As students are developing their professional identity, students reflect and receive feedback on their personal attitudes, their impact on colleagues and patients, and their ability to work with other members of a team. Using a 9-point scale supplemented by comments, students rate themselves and their peers on professionalism, communication, and collegiality. Individualized reports are generated allowing students to see their self-assessment compared with the assessments of their peers. Students meet with their mentors to review their reports and examine differences in perceptions. Based on these assessments, students develop a learning plan for the upcoming academic year.

End of Third-year Objective Structured Clinical Examination (EO3Y OSCE). The EO3Y OSCE is designed to allow all rising fourth-year students statewide the opportunity to demonstrate competence in basic clinical skills and communication skills prior to beginning fourth year elective rotations and sitting for the USMLE Step 2 Clinical Skills (CS) Exam. The

exam is blueprinted to institutional learning objectives, IUSM third-year clerkship requirements for types of patient cases, and to the USMLE Step 2 CS constructs. The OSCE circuit consists of 10 stations. Students are allowed 15 minutes for each patient encounter, 10 minutes for documentation of a post-encounter note, and 5 minutes between stations. The exam used B-Line medical simulation software for exam delivery, video-recording, SP checklist entry, and student post-encounter note entry.

Post-Graduate Year 1 and Year 3 (PGY1 and PGY3) Assessments. UME annually gathered assessment data on the performance of our graduates during their first year in residency using the PGY-1 Assessment, an instrument administered to program directors of our graduates. This instrument and the administration process underwent significant changes recently. First, core items were revised to better align with current IUSM Core Competencies and competencies from the Accreditation Council for Graduate Medical Education. Second, a companion instrument to the PGY-1 Survey was developed and administered to graduates during their first year in residency in order to identify differences in perceptions between graduates and their program directors. Third, similar competency-based instruments were developed and administered to third-year graduates and their program directors. These instruments allow us to examine the performance of our graduates and identify potential deficiencies in the curriculum.

Assessment Findings

This section includes a brief description of key findings from the statewide direct assessments of students and graduates conducted by UME:

Peer- and Self-Assessment. On average, items on taking initiative and seeking/applying feedback had the lowest averages on both peer- and self-assessments at the Indianapolis campus. Significant differences emerged when looking at the self-directed learning item. Specifically,

there is a significant difference between Indianapolis students' self-assessment ($M=7.43$, $SD=1.17$, $N=610$) and Indianapolis students' peer-assessment ($M=8.03$, $SD=1.02$, $N=5214$). The new statewide medical curriculum beginning in the 2015-2016 academic year should address these areas with students engaging in more self-directed learning, participating in more small group/leadership opportunities, and receiving more formative feedback.

End of Third-year Objective Structured Clinical Examination (EO3Y OSCE). The overall pass rate for the EO3Y for 2014 was 95% (305/321). The pass rate for the Communication and Interpersonal Skills component of the exam was 96.88% (311/321). The pass rate for the Integrated Clinical Encounter component of the exam was 98.13% (315/321). Students who do not pass one or both of the exam components undertake a structured remediation process and retest the EO3Y OSCE. Students are scheduled to retest in late August and September 2014. Post-analysis of the OSCE includes item analysis for the purposes of exam CQI and providing feedback to the curriculum. The exam descriptive statistics and key item analysis results were reviewed by our clinical faculty committee and faculty steering committee and action plans were developed based on findings.

Post-Graduate Year 1 and Year 3 (PGY1 and PGY3) Assessments. Residency Directors were asked 23 questions about a specific first-year or third-year resident regarding the extent to which that individual engaged in behaviors relevant to the IUSM core competencies during his/her residency. Examining data from the PGY1 Assessments, "Respected the patient's rights and privacy" and "Behaved professionally" had the highest averages while "Exhibited awareness of scientific advances that impact clinical decision making" and "Applied basic science knowledge to solve clinical problems" emerged as areas in need of attention. Findings from the PGY3 Assessments show that "Used a computer-based record keeping program" and

“Respected the patient’s rights and privacy” had the highest averages while “Engaged in self-assessment of clinical performance” and “Exhibited an understanding of how his/her background impacted his/her patient care” were among the lowest. Additionally, “Practiced cost-effective health care” was among the lowest rated on both the PGY1 and PGY3 Assessments and among the action plans developed by our clinical faculty committee, which we discuss in the next section.

Using Outcomes and Evaluation Findings for Curricular Improvement

Medical education programs are called to collect outcomes and evaluation data and also have formal processes in place to use this data (Frye & Hemmer, 2012; LCME, 2014). This emphasis on the application of data aligns with Patton’s (2000) notion of utilization-focused evaluation where evaluators design and implement the collection of data mindful of how findings will be used to inform change. In developing our formal processes to review and consider data (see Appendix A for schematic), IUSM drew from this literature as well as the literature on evaluative inquiry.

Evaluative inquiry is a process where evaluators not only collect and analyze data but also facilitate the use of data among key stakeholders for the purpose of organizational improvement. Evaluative inquiry centers on collaboration and the sharing of diverse perspectives in order to develop a deeper understanding of strengths and areas in need of attention. In the third phase of evaluative inquiry – applying learning - stakeholders discuss and develop action plans by (a) engaging in dialogue, (b) reflecting, (c) asking questions, and (d) clarifying values and knowledge (Preskill & Torres, 1999). The IUSM Academic Standards Committee (ASC) reviews and annual Basic Science Component (BSC), Clinical Component (CCCC), and Curriculum Council Steering Committee (CCSC) retreats provide committee members with opportunities to

engage in these behaviors while developing meaningful action plans to improve the curriculum and the medical student experience.

ASC Reviews. The ASC's primary activities include reviewing outcomes and evaluation data, identifying areas in need of attention, and establishing goals to improve the curriculum. A diverse multi-disciplinary review team, including basic science and clinical faculty, medical students, and educational staff, examine documents (e.g., syllabi, questionnaire responses) course evaluations, and outcomes data to better understand the specific course/clerkship. They then present a summary of their findings to committee members at an ASC meeting to allow for further discussion on potential areas for change. Following a thorough review, the Review Team Leader, ASC Chair, and Director of Program Evaluation for Undergraduate Medical Education meet with the Course Directors/Clerkship Director to share the findings and determine appropriate action plans to optimize medical student learning. This past academic year, in preparation for reviews of clerkships statewide, ASC developed a new questionnaire for Clerkship Directors to complete (see Appendix B for full questionnaire) that aligned with Liaison Committee on Medical Education (LCME) Clerkship Forms and addressed several LCME Standards (for a full list of LCME Standards, visit www.lcme.org/publications.htm and select the March 2014 version of *Functions and Structure of a Medical School*).

BSC Retreat. The BSC reviewed student evaluations of courses, instructors, and electives; student and preceptor perceptions (e.g., AAMC Graduation Questionnaire, MS3 Surveys); and student performance data (e.g., NBME Shelf Exams, USMLE Step 1) at their annual retreat (see Appendix C for agenda). Following their review of evaluation and outcomes data, the BSC generated multiple action plans, which included, but were not limited to:

- Develop and submit for approval a statewide policy identifying the exam content that should be released to medical students.
- Design a foundational science course report template and develop a process for the collection and monitoring of annual reports statewide.
- Review the current MS3 Student Survey to determine if current items adequately address student preparedness for clerkships/electives.

CCCC Retreat. The CCCC reviewed student evaluations of clerkships, instructors, and electives; student, resident, and residency director perceptions (e.g., AAMC Graduation Questionnaire, PGY1 and PGY3 Assessments); and student performance data (e.g., NBME Shelf Exams, USMLE Step 2 CS and CK) at their annual retreat (see Appendix D for agenda).

Following their review of evaluation and outcomes data, the CCCC generated multiple action plans, which included, but were not limited to:

- Identify areas of the curriculum where cost-effective health care/medical economics can be incorporated.
- Monitor student completion of clinical experiences to ensure equivalent student learning statewide.
- Examine elective options statewide and ensure sufficient elective options to meet medical student needs.

CCSC Retreat. At the annual CCSC Retreat, committee chairs from the ASC, BSC, and CCCC shared findings and action plans from their reviews/retreats. Additionally, committee members reviewed findings from the AAMC Graduation Questionnaire, IUSM Learning Environment Survey, ISTEP Learning Environment Study, as well as OSCEs and other student performance indicators (see Appendix E for agenda). Following chair presentations and a review

of evaluation and outcomes data, the CCSC generated multiple action plans, which included, but were not limited to:

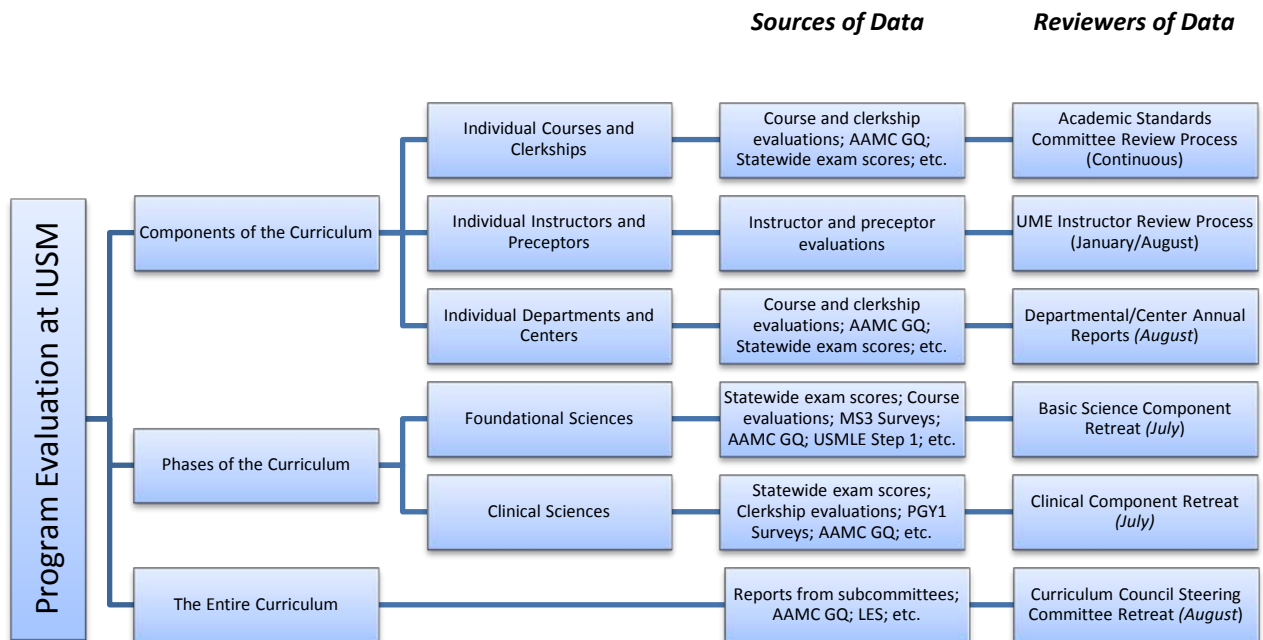
- Develop educational videos/modules regarding learner mistreatment and inappropriate behaviors in the classroom/clinical settings.
- Assign a taskforce to assess the institution's current curriculum regarding behavioral science and develop recommendations to address deficiencies.
- Examine the institution's current curriculum regarding clinical reasoning and identify opportunities for improvement and coordination of instruction.

REFERENCES

- Frye, A. W., & Hemmer, P. A. (2012). Program evaluation models and related theories: AMEE guide no. 67. *Medical Teacher*, 34, 288 – 299.
- Liaison Committee on Medical Education. (2014). *Functions and structure of a medical school: Standards for accreditation of medical education programs leading to the M.D. degree*. Washington, DC: Author.
- Patton, M. Q. (2000). Utilization-focused evaluation. In D. L. Stufflebeam, G. F. Madaus, and T. Kellaghan (Eds.), *Evaluation models: Viewpoints on educational and human services evaluation (2nd ed)* (pp. 425 – 438). Norwell, MA: Kluwer.
- Preskill, H., & Torres, R. T. (1999). Building capacity for organizational learning through evaluative inquiry. *Evaluation*, 5(1), 42 – 60.

APPENDIX A

IUSM Schematic for Program Evaluation



APPENDIX B

ASC Clerkship Questionnaire

Learning Objectives and Policies

1. Provide a list of stated clerkship objectives and corresponding institutional learning objectives and methods of instruction and assessment. (LCME 6.1)

Clerkship Learning Objective	Institutional Learning Objective	Method(s) of Instruction	Method(s) of Assessment	Is this assessment formative or summative?
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.
	Choose an item.			Choose an item.

2. Were the clerkship objectives developed internally or adopted/adapted from an external source(s)? (LCME 6.1)
3. How are clerkship objectives provided to the following individuals across centers? Please indicate if it is verified whether or not the individuals received the objectives⁴. (LCME 6.1, 8.7)

	BL	EV	FW	IN	LA	MU	NW	SB	TH
Students									
Residents									
Preceptors									

4. How are clerkship policies provided to students across centers? (LCME 8.7)

⁴ Examples of how this could be verified include, but are not limited to, requiring a read receipt if objectives are sent via email or requiring individuals to sign and submit a document indicating they received the objectives.

Clinical Skills and Encounters

5. Please complete the following table. (LCME 6.2, 6.4, 8.6, 8.7)

	Total Weeks	% Ambulatory (Clinical Experiences Only)	#Sites Used*	Typical Hours per Week of Formal Instruction**	Clinical Encounter Criteria*** (Check if Yes)	Patient Log (Check if Yes)
BL					<input type="checkbox"/>	<input type="checkbox"/>
EV					<input type="checkbox"/>	<input type="checkbox"/>
FW					<input type="checkbox"/>	<input type="checkbox"/>
IN					<input type="checkbox"/>	<input type="checkbox"/>
LA					<input type="checkbox"/>	<input type="checkbox"/>
MU					<input type="checkbox"/>	<input type="checkbox"/>
NW					<input type="checkbox"/>	<input type="checkbox"/>
SB					<input type="checkbox"/>	<input type="checkbox"/>
TH					<input type="checkbox"/>	<input type="checkbox"/>

* Include the number of sites used for inpatient teaching and the number of sites used for outpatient teaching in the clerkship in the following formats: # inpatient/# outpatient.

** Include the sum of lectures, conferences, and teaching rounds; show the range of hours if there is significant variation across sites.

*** Has the clerkship defined criteria for the kinds of patients, clinical conditions, or procedural skills?

6. What are the required clinical experiences with patients? What % of students met each required clinical experience? For those who did not meet a specific clinical experience, how did they make it up? (If less than 80% met each required clinical experience, please describe how the clerkship addressed this.) (LCME 6.2, 8.6)

7. Which clinical skills are assessed in your clerkship? Describe the methods used in the clerkship to assess core clinical skills. How are preceptors prepared to assess these skills statewide? (LCME 4.5, 6.2, 8.6, 8.7)

Learning Activities/Academic Environment

8. Does your clerkship provide students with an opportunity to engage in self-directed learning? Self-Directed learning must incorporate all of the following: a) medical students' self-assessment of learning needs, (b) independent identification of information sources, (c) appraisal of the quality of information sources, and (d) dissemination of findings. If yes, please describe. (LCME 6.3)
 - a. Medical students' self-assessment of learning needs
 - b. Independent identification of information sources
 - c. Appraisal of the quality of information sources
 - d. Dissemination of findings
9. Some clerkships may provide students with an opportunity to engage in service learning⁵. Does yours? If yes, please describe. If no, how does your clerkship encourage and support service learning? (LCME 6.6)
10. Does your clerkship provide students with an opportunity to work on health care teams that include health professionals from other professions (e.g., nursing, social work)? If yes, please describe. (LCME 6.7)

Monitoring Duty Hours and Student Workload

11. How does your clerkship collect and monitor duty hours? (LCME 8.8)
12. Are there any violations of duty hours? What are they and how has the clerkship addressed them? (LCME 8.8)
13. How does your clerkship monitor workload? Do any comments from student evaluations suggest issues with workload? (LCME 8.8)

⁵ Service learning is a structured learning experience that combines preparation, a service learning experience, and reflection. Students who engage in service learning provide community service in response to community-identified concerns and draw connections between their service and academic coursework.

Assessment of Student Learning

Please provide a copy of all assessment tools and rating rubrics used in your clerkship.

14. Please complete the following table. (LCME 6.2, 8.7, 9.7, 9.8)

	% of Student's Final Grade						Clinical Skills Observed (Check if Yes)	Mid-Rotation Feedback (Check if Provided)
	NBME Subject Exams	Internal Written Exams	Oral Exams or Presentations	Faculty/Resident Rating	OSCE/S P Exams	Other*		
BL							<input type="checkbox"/>	<input type="checkbox"/>
EV							<input type="checkbox"/>	<input type="checkbox"/>
FW							<input type="checkbox"/>	<input type="checkbox"/>
IN							<input type="checkbox"/>	<input type="checkbox"/>
LA							<input type="checkbox"/>	<input type="checkbox"/>
MU							<input type="checkbox"/>	<input type="checkbox"/>
NW							<input type="checkbox"/>	<input type="checkbox"/>
SB							<input type="checkbox"/>	<input type="checkbox"/>
TH							<input type="checkbox"/>	<input type="checkbox"/>

* Please describe the specific activity.

15. Is a narrative assessment of student performance submitted in addition to or as a component of the final clerkship grade? Describe the mechanism in place to provide a narrative summary of student performance. (LCME 9.5)

16. Describe the process for documenting and sharing mid-rotation feedback regarding student progress on required clinical encounters, self-care, etc. As a result of the mid-rotation feedback process, what % of students had their clerkship experience modified in order to ensure all core requirements had been met? (LCME 9.7)

Use of Assessment and Evaluation Data

17. Provide examples of changes made to your clerkship based on feedback from the previous ASC review. (LCME 8.3)

18. Provide examples of changes made to your clerkship based on any deficiencies from the following outcome measures: (a) NBME Subject Exams; (b) Other Exams (e.g., Internal Written, Oral); and (c) Grade Distributions. (LCME 8.4)

19. Provide examples of changes made to your clerkship based on feedback from the following data sources: (a) IUSM clerkship evaluations; (b) IUSM preceptor evaluations; (c) IUSM resident evaluations; and (d) AAMC Graduation Questionnaire. (LCME 8.5)

20. How often do you as clerkship director look at the following with clerkship faculty/preceptors (a) equivalence across sites; (b) outcomes; (c) evaluations; and (d) content? (LCME 8.3, 8.4, 8.5, 8.7)

Faculty and Resident Participation/Development

21. Describe the formal process for preceptor appointment and de-selection as it relates to their teaching duties. (LCME 4.3)

22. How are preceptors recruited and developed to teach students? (LCME 4.5)

23. What % of students at each campus is taught by resident physicians during the clerkship? (LCME 3.1, 8.7)

24. Identify best practices and challenges (e.g., institutional barriers) in the clerkship.

APPENDIX C

BSC Retreat Agenda
Monday, July 7, 2014
9:00am – 12:00pm

1. **Agenda/goals** – appx. 10 mins
 - a. Relevant LCME Standards
 - b. Review of agenda
 - c. Expectations of committee members
2. **Chair Report** – appx. 30 mins
 - a. Implementation of action plans from 2013 BSC Retreat
 - b. Additional accomplishments from the academic year
3. **Small Group Discussion of findings⁶** – appx. 30 mins
 - a. Based on your review of findings, what are the strengths of the basic science curriculum?
 - b. Based on your review of findings, what are areas in the basic science curriculum in need of attention?
 - c. Based on your review of findings, which LCME Standards are currently not being met?
4. **Small Group Discussion of Action Plans⁷** – appx. 40 mins
 - a. Brief discussion of findings from previous group
 - b. What themes, if any, emerged across the instruments?
 - c. What policies/procedures should be established and/or revisited?
 - d. What additional data need to be collected?
5. **Large Group Discussion of Action Plans⁸** – appx. 40 mins
6. **Summary of Action Plans/Timeline for Implementation & Follow-up⁹** – appx. 30 mins

⁶ Approximately 3-4 weeks before the retreat, committee members were assigned to a specific section of the binder (e.g., student evaluations). While they were encouraged to review all sections, they were expected to attend the retreat having reviewed the section and identified strengths/areas in need of attention.

⁷ To ensure action plans were not generated in isolation, a representative from each of the specific section groups formed a new group to discuss findings across all data sources, themes, and potential action plans.

⁸ Groups shared the action plans they identified as well as the priority they placed on each action plan.

⁹ Once a list of action plans had been identified by each group, the committee chair facilitated a discussion to determine which action plans will be implemented in the upcoming academic year, the timeline for implementation of each action plan, and the timeline for follow-up to ensure action plans are implemented.

APPENDIX D

CCCC Retreat Agenda**Monday, July 21, 2014****10:00am – 1:00pm**

1. **Agenda/goals** – appx. 10 mins
 - a. Relevant LCME Standards
 - b. Review of agenda
 - c. Expectations of committee members
2. **Chair Report** – appx. 30 mins
 - a. Implementation of action plans from 2013 CCCC Retreat
 - b. Additional accomplishments from the academic year
3. **Assessment of Clerkship Objectives: Feedback from OSCEs** – appx. 10 mins
4. **Small Group Discussion of findings¹⁰** – appx. 30 mins
 - a. Based on your review of findings, what are the strengths of the clinical curriculum?
 - b. Based on your review of findings, what are areas in the clinical curriculum in need of attention?
 - c. Based on your review of findings, which LCME Standards are currently not being met?
5. **Small Group Discussion of Action Plans¹¹** – appx. 40 mins
 - a. Brief discussion of findings from previous group
 - b. What themes, if any, emerged across the instruments?
 - c. What policies/procedures should be established and/or revisited?
 - d. What additional data need to be collected?
6. **Large Group Discussion of Action Plans¹²** – appx. 40 mins
7. **Summary of Action Plans/Timeline for Implementation & Follow-up¹³** – appx. 20 mins

¹⁰ Approximately 3-4 weeks before the retreat, committee members were assigned to a specific section of the binder (e.g., student evaluations). While they were encouraged to review all sections, they were expected to attend the retreat having reviewed the section and identified strengths/areas in need of attention.

¹¹ To ensure action plans were not generated in isolation, a representative from each of the specific section groups formed a new group to discuss findings across all data sources, themes, and potential action plans.

¹² Groups shared the action plans they identified as well as the priority they placed on each action plan.

¹³ Once a list of action plans had been identified by each group, the committee chair facilitated a discussion to determine which action plans will be implemented in the upcoming academic year, the timeline for implementation of each action plan, and the timeline for follow-up to ensure action plans are implemented.

APPENDIX E

**CCSC Retreat Agenda
Tuesday, August 12, 2014
10:00am – 2:00pm**

1. **Introduction (Dr. Alan Ladd)** – appx. 20 minutes
 - a. Relevant LCME Standards and schematic for program evaluation
 - b. Overview of agenda and goals for retreat
 - c. Accomplishments from the 2013-2014 academic year
2. **Academic Standards Committee (Dr. Mike Klemsz)** – appx. 45 minutes
 - a. Key findings
 - b. Action plans and timelines
 - c. Areas CCSC can support ASC/Areas CCSC needs to address
3. **Basic Science Component (Dr. Maureen Harrington)** – appx. 45 minutes
 - a. Key findings
 - b. Action plans and timelines
 - c. Areas CCSC can support BSC/Areas CCSC needs to address
4. **Clinical Component (Dr. Nancy Butler)** – appx. 45 minutes
 - a. Key findings
 - b. Action plans and timelines
 - c. Areas CCSC can support CCCC/Areas CCSC needs to address
5. **Small Group Discussion of Findings and Action Plans¹⁴** - appx. 40 minutes
 - a. Based on your review of findings, what are the strengths of the undergraduate medical curriculum?
 - b. Based on your review of findings, what are areas in the undergraduate medical curriculum in need of attention?
 - c. Based on your review of findings, which LCME Standards are currently not being met?
 - d. What policies/procedures should be established and/or revisited based on these findings?
6. **Sharing of Small Group Findings and Action Plans with Large Group¹⁵** – appx. 20 minutes
7. **Summary of Action Plans/Timeline for Implementation & Follow-up¹⁶** – appx. 25 minutes

¹⁴ Committee members were provided with results from the AAMC Graduation Questionnaire, the IUSM Learning Environment Survey, the ISTEP Learning Environment Study (Medical Students' Perceptions of the Learning Environment), and Student Performance Indicators (e.g., OSCEs, USMLE Step Scores).

¹⁵ Groups shared key findings and corresponding action plans they identified as well as the priority they placed on each action plan.

¹⁶ Once a list of action plans had been identified by each group, the committee chair facilitated a discussion to determine which action plans will be implemented in the upcoming academic year, the timeline for implementation of each action plan, and the timeline for follow-up to ensure action plans have been implemented.