

# Identifying the role of the medical librarian in clinical competency entrustment

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Association of Academic Health Sciences Libraries

Competency-Based Medical Education Task Force

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# What is CBME?

- ▶ CBME is a learned-centered, time-agnostic, outcomes-based approach to the design, implementation, assessment and evaluation of medical education using an organizing framework of competencies (Frank et al. 2010, Boyd et al. 2017).
- ▶ Competencies are predominantly in the literature as understood as observable and measurable abilities that, when actively integrated in practice, constitute physician competence. (Frank et al. 2010, Boyd et al. 2017).

# What are EPAs?

- ▶ Core group of 13 activities that all residents entering their first year of residency should be able to complete without supervision.
- ▶ EPAs are units of professional practice, defined as tasks or responsibilities that trainees are entrusted to perform unsupervised once they have attained sufficient specific competence. EPAs are independently executable, observable, and measurable in their process and outcome, and, therefore, suitable for entrustment decisions. (EPA Curriculum Designer Toolkit)

EPA 1

- Gather a history and perform a physical examination.

EPA 2

- Prioritize a differential diagnosis following a clinical encounter.

EPA 3

- Recommend and interpret common diagnostic and screening tests.

EPA 4

- Enter and discuss orders and prescriptions.

EPA 5

- Document a clinical encounter in the patient record.

EPA 6

- Provide an oral presentation of a clinical encounter.

EPA 7

- Form clinical questions and retrieve evidence to advance patient care.

EPA 8

- Give or receive a patient handover to transition care responsibility.

EPA 9

- Collaborate as a member of an interprofessional team.

EPA 10

- Recognize a patient requiring urgent or emergent care and initiate evaluation and management.

EPA 11

- Obtain informed consent for tests and/or procedures.

EPA 12

- Perform general procedures of a physician.

EPA 13

- Identify system failures and contribute to a culture of safety and improvement.

## EPA 7: Form clinical questions and retrieve evidence to advance patient care

|   |   |   |
|---|---|---|
| <b>1. Description of the activity</b>   | <p>On day 1 of residency, it is crucial that residents be able to identify key clinical questions in caring for patients, identify information resources, and retrieve information and evidence that will be used to address those questions. Day 1 residents should have basic skill in critiquing the quality of the evidence and assessing applicability to their patients and the clinical context. Underlying the skill set of practicing evidence-based medicine is the foundational knowledge an individual has and the self-awareness to identify gaps and fill them.</p> <p><b>Functions</b></p> <ul style="list-style-type: none"> <li>• Develop a well-formed, focused, pertinent clinical question based on clinical scenarios or real-time patient care.</li> <li>• Demonstrate basic awareness and early skills in appraisal of both the sources and content of medical information using accepted criteria.</li> <li>• Identify and demonstrate the use of information technology to access accurate and reliable online medical information.</li> <li>• Demonstrate basic awareness and early skills in assessing applicability/generalizability of evidence and published studies to specific patients.</li> <li>• Demonstrate curiosity, objectivity, and the use of scientific reasoning in acquisition of knowledge and application to patient care.</li> <li>• Apply the primary findings of one's information search to an individual patient or panel of patients.</li> <li>• Communicate one's findings to the health care team (including the patient/family).</li> <li>• Close the loop through reflection on the process and the outcome for the patient.</li> </ul> |   |
| <b>2. Most relevant domains of competence</b>   | <input type="checkbox"/> Patient Care<br><input checked="" type="checkbox"/> Knowledge for Practice<br><input checked="" type="checkbox"/> Practice-Based Learning and Improvement<br><input type="checkbox"/> Interpersonal and Communication Skills   | <input type="checkbox"/> Professionalism<br><input type="checkbox"/> Systems-Based Practice<br><input type="checkbox"/> Interprofessional Collaboration<br><input type="checkbox"/> Personal and Professional Development |
| <b>3. Competencies within each domain critical to entrustment decisions</b><br><br>(See Appendix C) | KP 3    PBLI 6<br>KP 4    PBLI 7<br>PBLI 1   PBLI 9<br>PBLI 3   ICS 2   |   |

| Critical Competency  | Pre-Entrustable Behaviors   | Entrustable Behaviors  |
|--|---|--|
| <b>PBLI 3:</b><br>Identify and perform learning activities that address one's gaps in knowledge, skills, or attitudes    | Engages in learning activities based on externally provided and readily available curricular materials, irrespective of learning style, preferences, or appropriateness of activity. Self-directed learning goals do not specify any outcome measures. (PEDS, PSYCH)  | Engages in learning activities and sets goals based on both internal and external analysis of gaps in knowledge, skills, and attitudes. Matches learning activities to learning preferences and styles. Seeks evidence-based information to meet learning goals (e.g., practice guidelines, Cochrane database, PubMed). (PEDS, PSYCH)  |
| <b>PBLI 6:</b><br>Locate, appraise, and assimilate evidence from scientific studies related to patients' health problems | Rarely "slows down" to reconsider an approach to a problem, ask for help, or seek new information. Needs assistance to translate medical information needs into well-formed clinical questions. Unfamiliar with strengths and weaknesses of the medical literature. Accepts the findings of clinical research studies without critical appraisal. (IM, PEDS, PSYCH)   | Routinely "slows down" to reconsider an approach to a problem, ask for help, or seek new information. Can translate medical information needs into well-formed, searchable clinical questions. Understands levels of evidence and can use advanced search methods. Able to critically appraise a topic by analyzing the major outcomes; however, may need guidance in understanding the subtleties of the evidence. (IM, PEDS, PSYCH)  |
| <b>PBLI 7:</b><br>Use information technology to optimize learning and care   | Generally does not initiate attempts to use information technology without mandatory assignments and direct help. Unable to choose between multiple available databases for clinical query or for addressing learning needs. Unable to filter or prioritize the information retrieved, resulting in too much information, much of which is not useful. Failure to achieve success may worsen perception of ease of using information technology, leading to resistance to adopting new technologies. (PEDS, EM) | Demonstrates a willingness to try new technology for patient care assignments or learning. Able to identify and use several available databases, search engines, or other appropriate tools, resulting in a manageable volume of information, most of which is relevant to the clinical question. Basic use of an electronic health record (EHR) is improving, as evidenced by greater efficacy and efficiency in performing needed tasks. Beginning to identify shortcuts to finding the right information quickly, such as using filters. Also avoids shortcuts that lead one astray from the correct information or perpetuate incorrect information in the EHR. (PEDS, EM) |

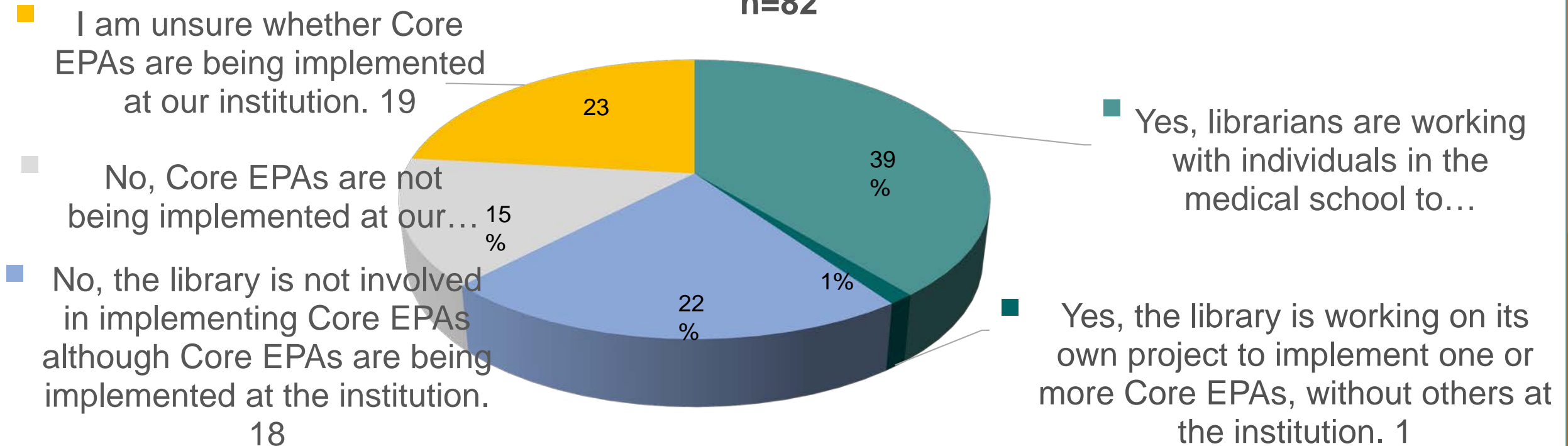
# CBME Taskforce Activities to Date

- ▶ Formed Spring 2016 to evaluate how EPAs were being implemented and potential new areas of engagement for librarians
- ▶ Core tasks were to identify libraries participating in Core EPA activities and develop a methodology to characterize the nature of their participation.
- ▶ A survey was developed in Qualtrics and sent to medical schools via the AAHSL listserv in fall of 2016.
- ▶ The survey was distributed to all 164 AAHSL member libraries in September 2016, garnering a 52% response rate or 85 members.
- ▶ Results were analyzed using SPSS and with the expertise of a statistician.

# Survey Results: What Are Librarians doing in CBME & EPAs?

## Q5. Is your library involved in implementing Core EPAs in the undergraduate medical curriculum at your medical school?

n=82

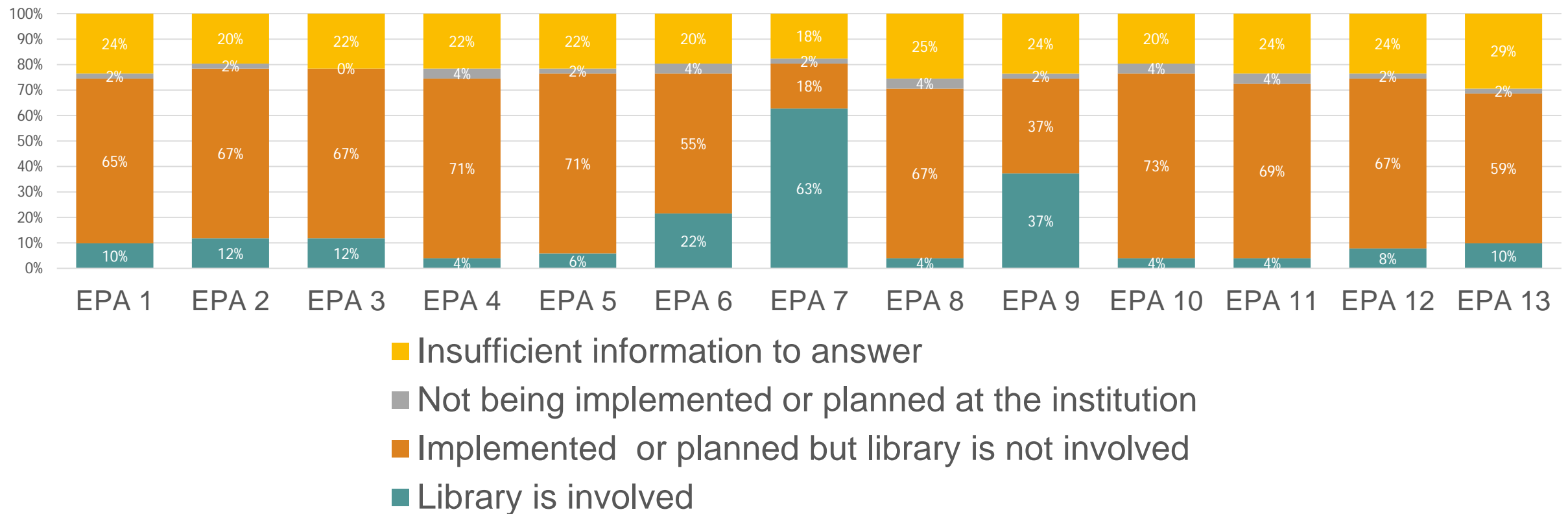




# Survey Results: Which EPAs are Being Implemented?

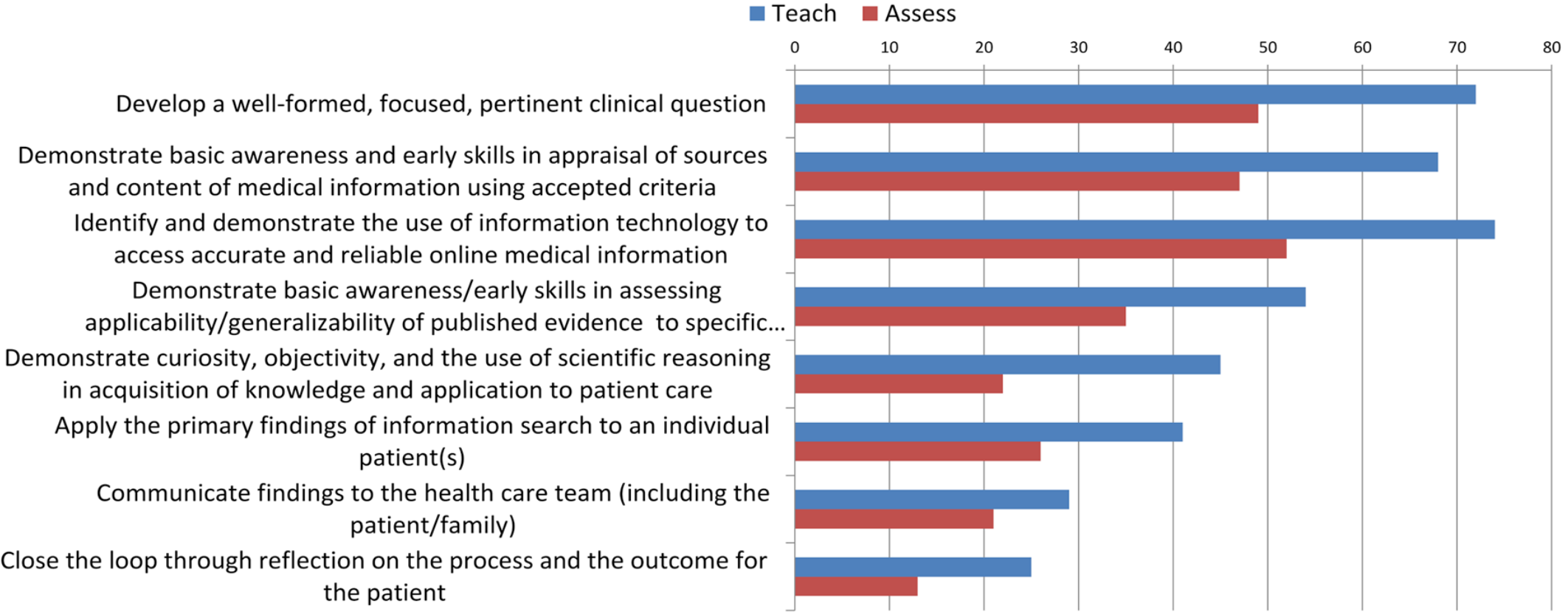
## Q6. Which Core EPAs are being planned and/or implemented in the undergraduate medical curriculum at your medical school?

n=51



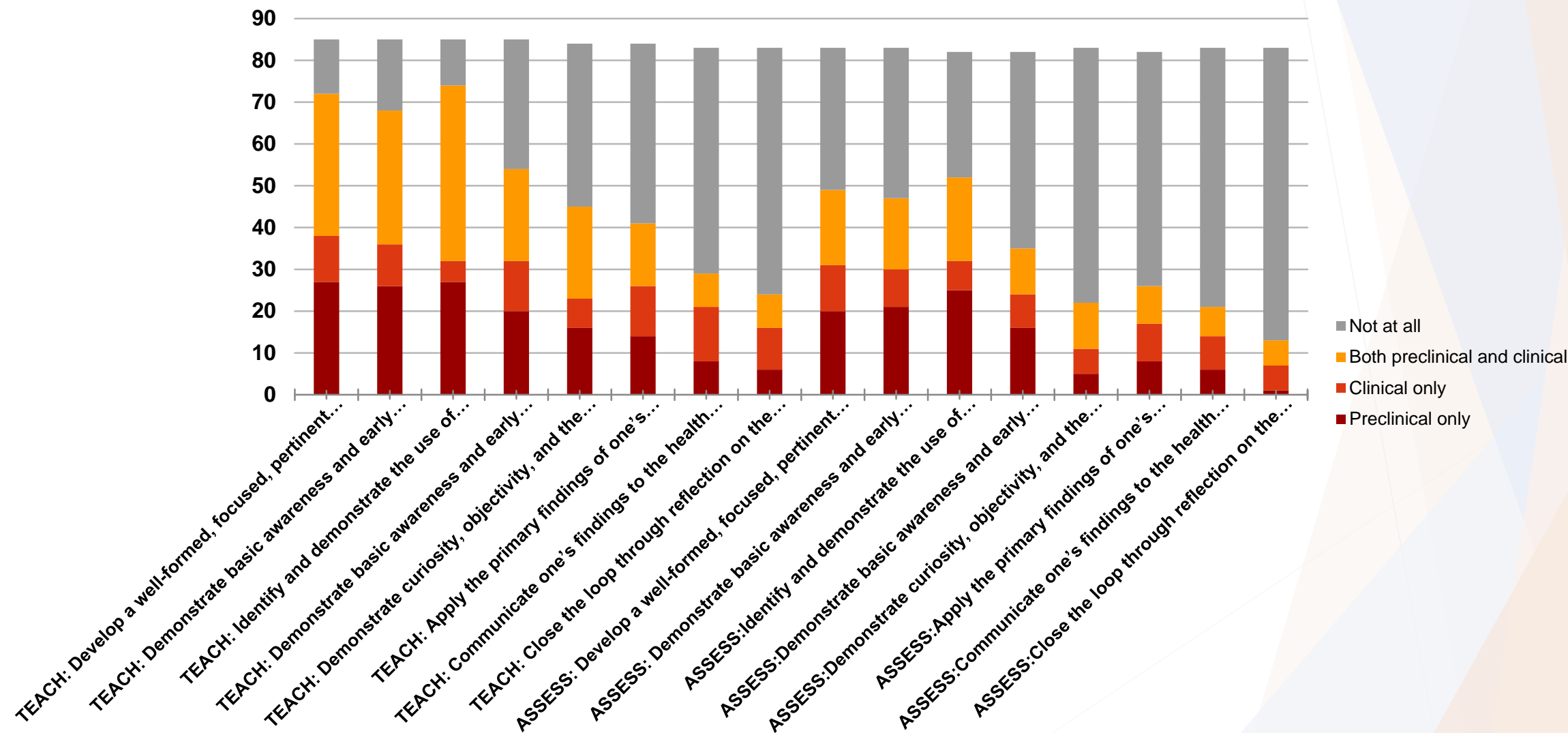
# Survey Results: What Functions of EPA 7 Are Being Taught or Assessed?

Libraries Teaching and/or Assessing Skills Related to EPA 7 (n=84)

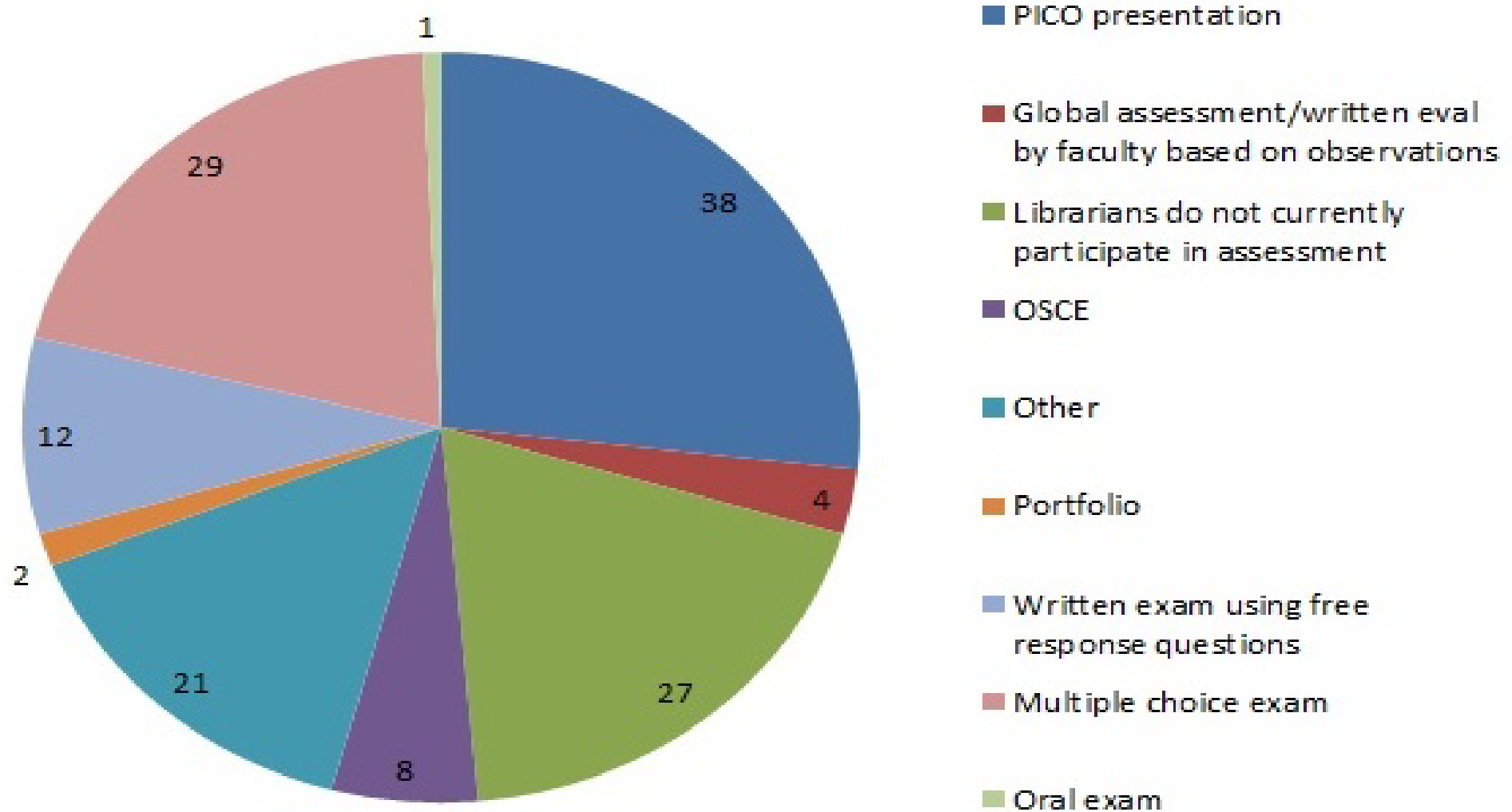


# Survey Results: When are Libraries Teaching & Assessing?

In What Part of the Curriculum Do Libraries Teach and/or Assess Functions of EPA 7?



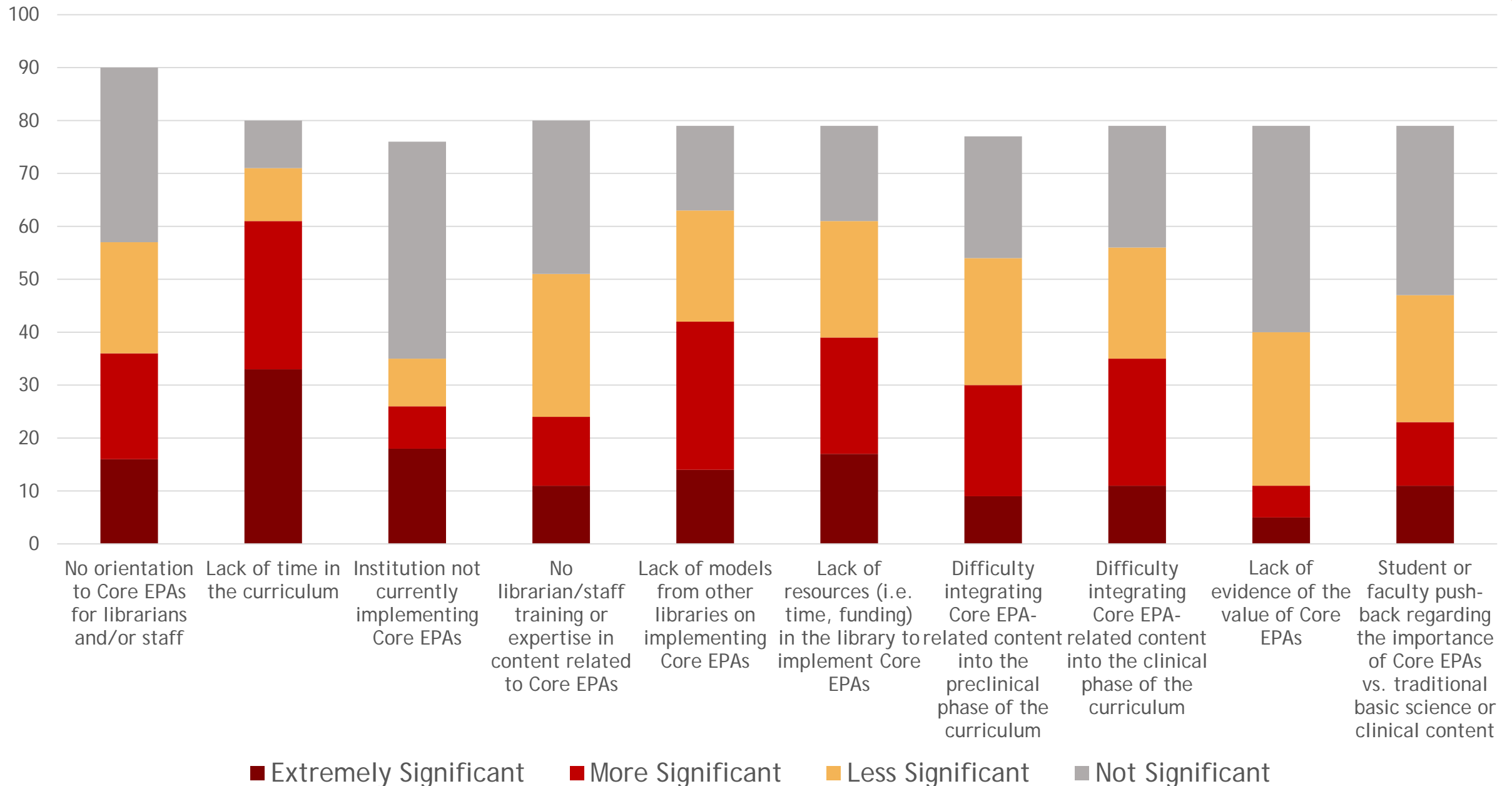
# Survey Results: CBME/EPA Assessment Modalities



# Challenges teaching and assessing EPA 7: In the Literature

- ▶ Not much research out there at all for EPA 7 especially, what there is demonstrates challenges.
- ▶ Program Directors do not think that residents can proficiently form or answer clinical questions using the biomedical literature. (Pearlman 2017 and Lindeman 2015)
  - ▶ Pearlman: When program directors were asked for possible reasons for residents' lack of preparation for EPA 7 (form a clinical question), responses ranged from residents relying on online reviews and not using primary literature to the lack of modeling from senior residents and faculty. Because this skill is routinely emphasized during medical school, the low program director confidence rate is concerning and may reflect needed emphasis on assessment of this EPA in undergraduate medical education in a summative fashion
  - ▶ Lindeman: 38% of Surgery Residency Program Directors think students are competent in EPA 7 versus 87.0% of student self report of confidence in performance of the Core EPAs.
- ▶ UGME and GME literature does confirm what librarians have long known. This is a hard skill to teach, assess, and promote across learner contexts.
- ▶ This is a skill being discussed in clinical frameworks.

# Challenges and Barriers: The Librarian Perspective



# Areas of Opportunity

- ▶ Use the EPA framework to advocate for librarian's role in medical education
- ▶ Demonstrate where you are already teaching and/or assessing these skills, what you are doing is transferable
- ▶ Work with faculty champions to get involved in curricular renewal discussions particularly around CBME
- ▶ Use the EPAs to demonstrate that librarians are a valuable part of the clinical team and teaching Entrustable activities like question formation, appraisal, and critical thinking.

# Where to go from here with EPAs?

- ▶ Pilot extended
- ▶ LCME not requiring EPAs as part of accreditation (yet! Still in pilot)
- ▶ As EPAs become a standard set of competencies for all medical schools, beyond the 10 pilot schools and early adopters, they can be a powerful tool to increase information literacy activities in a curriculum and lead to more teaching and assessment by librarians. Variability in responses notwithstanding, the data from the survey demonstrates that librarians are interested in how EPA's will change their role in medical education.



Questions?



# References

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