# Competency-Based Medical Education & the Role of Medical Librarians: Trends, Challenges, and Opportunities Association of Academic Health Sciences Libraries • Task Force on Competency-Based Medical Education



Nancy Adams, MLIS, EdD, Penn State College of Medicine Emily Brennan, MLIS, Medical University of South Carolina, Heather Collins, MLS, AHIP, *chair*, University of Kansas Medical Center Iris Kovar-Gough, MA, MLIS, AHIP, Michigan State University Elizabeth Lorbeer, EdM, MLS, Western Michigan University Joseph Nicholson, MLIS, MPH, New York University Rikke Ogawa, MLS, AHIP, University of California, Los Angeles Judy Spak, MLS, Yale University, Kelly Thormodson, MLIS, University of North Dakota Megan von Isenburg, MSLS, AHIP, Duke University



#### PURPOSE

Medical librarians at academic medical centers frequently teach in undergraduate and graduate medical curricula, but the extent to which they are involved in competency-based medical education<sup>1,2</sup> and Entrustable Professional Activities<sup>3</sup> (EPAs) is unknown. Furthermore, as EPAs and competency-based medical education continue to transform curricula, identifying gaps and opportunities in the teaching and assessment of competencies related to EPAs 7 (EBM), and 13 (identify system failures) is needed to develop the nature and extent of librarian involvement in medical curricula.

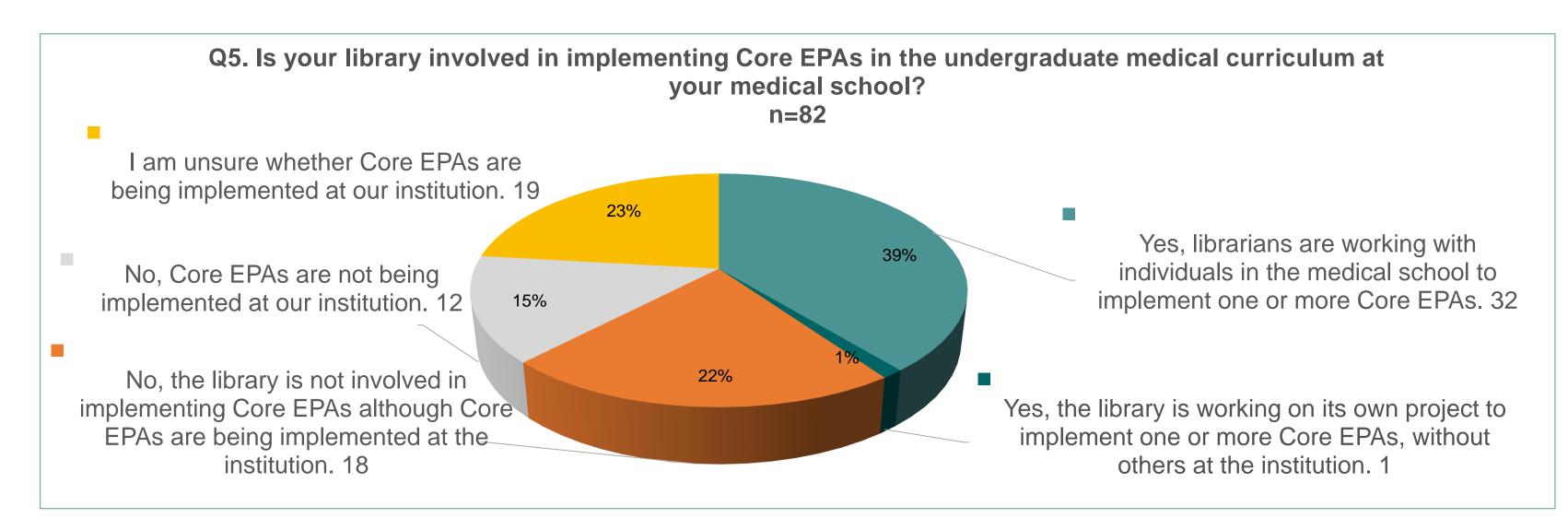
## APPROACH

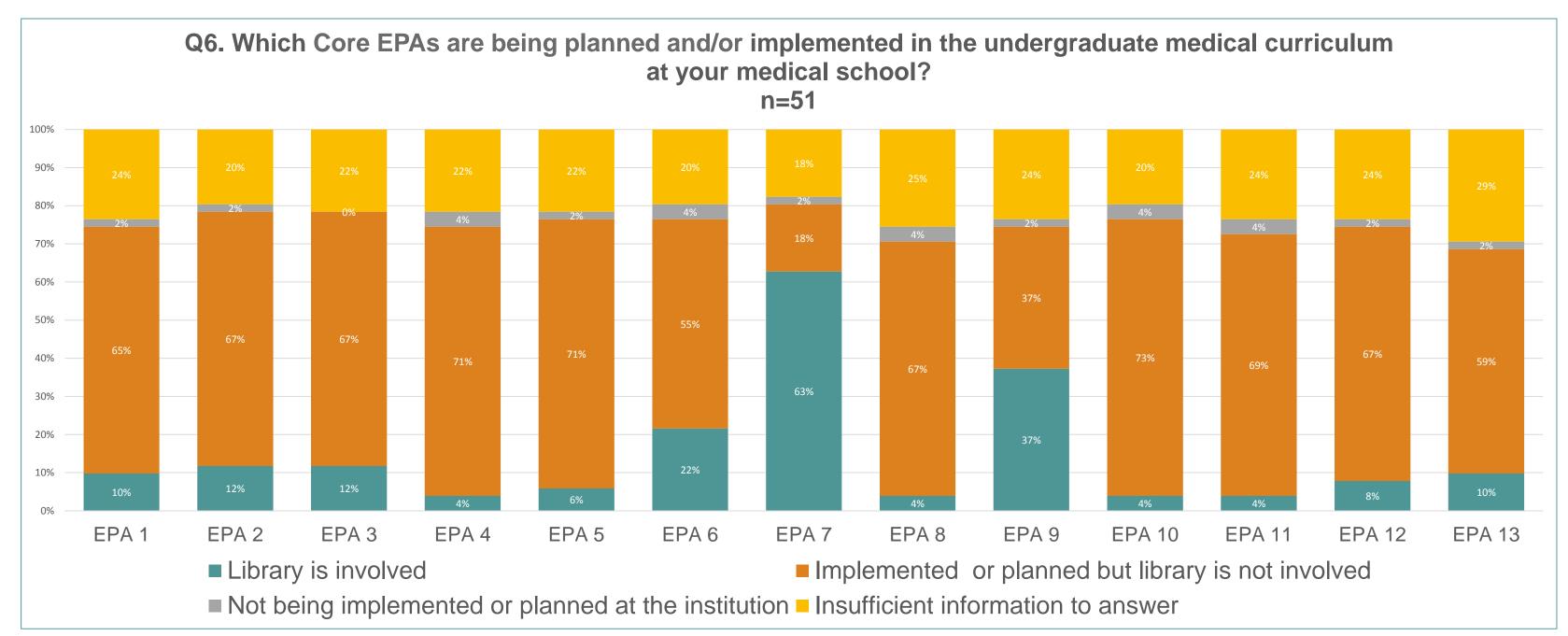
The AAHSL Competency-Based Medical Education (CBME) Task Force was created in March of 2016 to investigate librarian involvement in CBME and EPAs. As part of its charge, the Task Force has conducted a literature review, environmental scan, and interviewed librarians at EPA pilot schools using the Bunton approach<sup>4</sup>. The Task Force developed a survey to measure current and desired levels of engagement regarding the teaching and assessment of EPAs and associated competencies<sup>5</sup>. The survey, based on previous work by Blanco et al<sup>6</sup>. and the Wilder Collaboration Framework<sup>7</sup>, was distributed to all 164 AAHSL member libraries in September 2016, garnering a 52% response rate or 85 members.

## **FUNCTIONS OF EPA 7**

- 1. Develop a well-formed, focused, pertinent clinical question based on clinical scenarios or real-time patient care.
- 2. Demonstrate basic awareness and early skills in appraisal of both the sources and content of medical information using accepted criteria.
- 3. Identify and demonstrate the use of information technology to access accurate and reliable online medical information.
- 4. Demonstrate basic awareness and early skills in assessing applicability/generalizability of evidence and published studies to specific patients.
- 5. Demonstrate curiosity, objectivity, and the use of scientific reasoning in acquisition of knowledge and application to patient care.
- 6. Apply the primary findings of one's information search to an individual patient or panel of patients.
- 7. Communicate one's findings to the health care team (including the patient/family).
- 8. Close the loop through reflection on the process and the outcome for the patient.

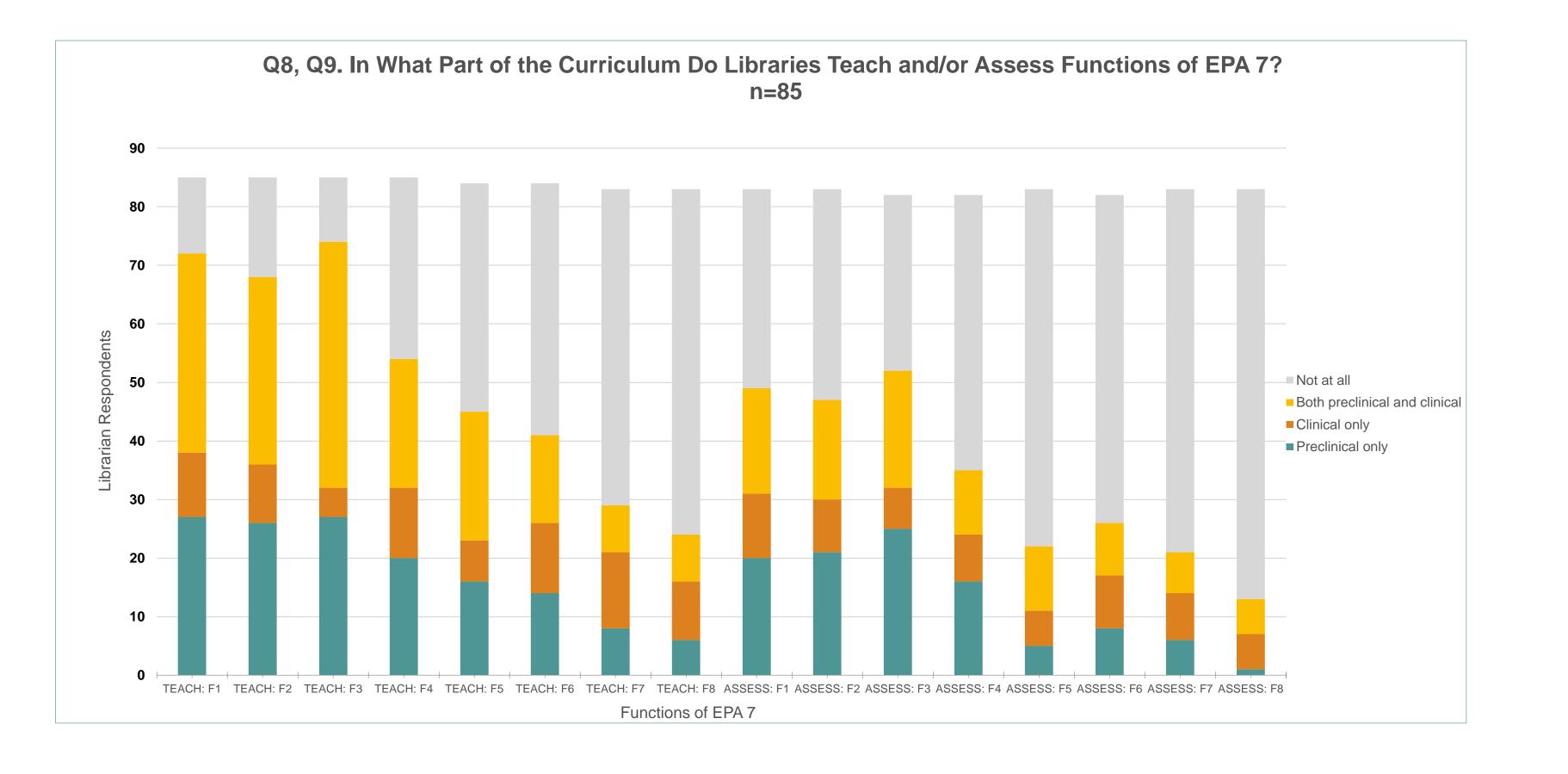
## RESULTS





Chi square analyses were performed to compare those libraries involved in teaching and/or assessing functions of EPA 7 explicitly, versus those teaching the same functions without being involved in a formal EPA project. This analysis found no significant difference in the amount of teaching and/or assessing EPA 7 between librarians who specifically identified their work as EPA-related and those who did not. 90% (n=76) of responding librarians (n=84) were teaching and/or assessing functions of EPA 7.

For EPAs 6 (provide an oral presentation of a clinical encounter) and 9 (collaborate as a member of an Interprofessional team), 59% percent of librarian survey respondents are involved in teaching and/or assessing these competencies.



#### DISCUSSION

- Librarians are involved in teaching and assessing content of EPAs, but their involvement may not be formally recognized by either the librarians or administration.
- Most (90%, n=76) librarians are involved in teaching or assessing functions of EPA 7, which dovetails with their expertise in retrieving and accessing information resources.
- Librarians are also involved in teaching and/or assessing in unexpected areas such as EPA 6 (provide and oral presentation of a clinical encounter) and EPA 9 (collaborate as a member of an Interprofessional team).

#### SIGNIFICANCE

- Core EPA teaching and assessment should involve the subject-area expertise of medical librarians as part of the interprofessional team.
- Librarian experts in under-taught and under-assessed areas, like the functions described in EPA 7, are being overlooked as teaching partners.
- Institutions working toward implementation of EPAs should examine, document, and integrate the curricular efforts of the medical librarians(s) who are likely already teaching/assessing functions of EPA 7 and other EPAs.
- Programmatically including the expertise of librarians can more efficiently utilize subject-expert time and knowledge to meet the needs of both learners and the broader medical profession.

### REFERENCES

- 1. Frank JR, Snell LS, Cate OT, et al. Competency-based medical education: theory to practice. Med Teach. 2010;32(8):638-645
- 2. Ten Cate O. Nuts and bolts of entrustable professional activities. J Grad Med Educ. 2013;5(1):157-158.
- 3. Association of American Medical Colleges (AAMC). Core Entrustable Professional Activities for Entering Residency: Curriculum Developers' Guide 2014.
- 4. Bunton SA. Using qualitative research as a means to an effective survey instrument. Acad Med. 2016;91(8):1183.
- 5. Association of College and Research Libraries. Framework for Information Literacy for Higher Education. 2016; 18. Available at: http://www.ala.org/acrl/standards/ilframework. Accessed 11/4/2016.
- 6. Blanco MA, Capello CF, Dorsch JL, Perry G, Zanetti ML. A survey study of evidence-based medicine training in US and Canadian medical schools. J Med Libr Assoc. 2014;102(3):160-168.
- 7. Mattessich PW, Murray-Close M, Monsey BR, Amherst HWF. Collaboration--what makes it work: [a review of research literature on factors influencing successful collaboration]. Saint Paul, MN: Fieldstone Alliance; 2007.

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