

Emergency Preparedness and Response (EPR) Education Among U.S. Pharmacy Programs

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Introduction

- Emergency preparedness and response (EPR) involves the planning for and response to disasters.
- Public Health and EPR PharmD Standards/Competencies:**
 - Public Health Inclusion in Standards/Competencies:
 - ACPE Standards 2016 Appendix 1 include public health as a required didactic PharmD curriculum element.
 - EPR Inclusion in Standards/Competencies:
 - NAPLEX Competency Statements include “Emergency preparedness protocols” in Area 1, Statement 1.5.0, “Advocate individual and population-based health and safety.”
 - EPR Omissions in Standards/Competencies:
 - ACPE 2016 Standards, CAPE Outcomes 2013, PCOA Content
- Opportunities for EPR Impact to Public Health:**
 - AACP Public Health SIG Paper “Public Health and the CAPE 2013 Educational Outcomes: Inclusion, Pedagogical Considerations and Assessment” highlights an opportunity for pharmacists to oversee population-based initiatives and recommends EPR as an integrated public health competency area of didactic PharmD curricula.
 - Literature pertaining to teaching and assessment of EPR in U.S. pharmacy programs is lacking.
- Study Objective:**
 - To assess EPR curricula among AACP members in the United States.

Methods

- The AACP Public Health Special Interest Group’s Emergency Preparedness and Response identified gaps in the literature regarding EPR content in pharmacy education.
- The Committee created a 16-item questionnaire and ensured face validity.
- Institutional Review Board approval was obtained from all institutions.
- The survey consisted of four sections: curriculum, assessment, public health, and advocacy (Table 1).
- A QualtricsXM electronic survey was administered to all 142 AACP member institutions in the U.S.
- Responses were collected anonymously and analyzed in an aggregate form to ensure confidentiality.

Results

- Overall response rate:** 42/142 (29.5%).
 - Responses per question varied.
- Composition of Respondents:**
 - Private institutions (62%) & class size less than 100 (74%).
- Additional Training Beyond PharmD:**
 - 4 of 5 responded that EPR instructors have additional training beyond PharmD.

Results (Continued)

- How EPR was offered (Figure 1):**
 - Most programs embedded EPR content in a required course (70%).

19 respondents:	Offered as a required didactic course
9 respondents:	Offered in experiential education
8 respondents:	Offered as an elective didactic course
6 respondents:	Offered as a co-curricular opportunity
6 respondents:	Offered as a simulation
1 respondent:	Offered as a service-learning experience

- EPR-based Practice Opportunities (Figure 2):**
 - 43% lacked EPR practice opportunities for students.
 - Nine institutions offered EPR experiential education opportunities.
- Need for Resource Adequacy:**
 - Need was noted for future EPR instruction (e.g., additional faculty, training sites, and guidance on covering EPR in curricula)
- Methods of Assessment of EPR Content (Figure 3):**
 - EPR content assessed in summative (30%) and formative (20%) formats.
- Collaboration Related to EPR (Figure 4):**
 - Only 20% had interprofessional collaborations for EPR education – most frequently collaboration was with nursing programs.
 - Community collaboration occurred frequently with local and state health departments.
- Advocacy (Figure 5):**
 - Advocacy efforts were favored supporting pharmacists’ state-level roles in EPR and creating state/national networks of EPR faculty and practitioners.

Table 1. Survey Content by Section

Section	Questionnaire Item
Curriculum	Please describe how EPR is taught in your curriculum.
	Is it a stand-alone course or embedded into a required course?
	Please describe the expertise of your faculty who are currently teaching EPR content in your pre-APPE and APPE curriculum.
	Are there practice opportunities for students to gain experience in EPR?
	Do you have collaborations for EPR within your own institution?
Assessment	What type of resources do you need for future EPR instruction?
	Please describe the type of assessment you are currently using for EPR content.
Public Health	Please select the organizations with which your pharmacy program has established collaborations.
Advocacy	Which of the following initiatives do you recommend?

Figure 1. EPR in Curriculum

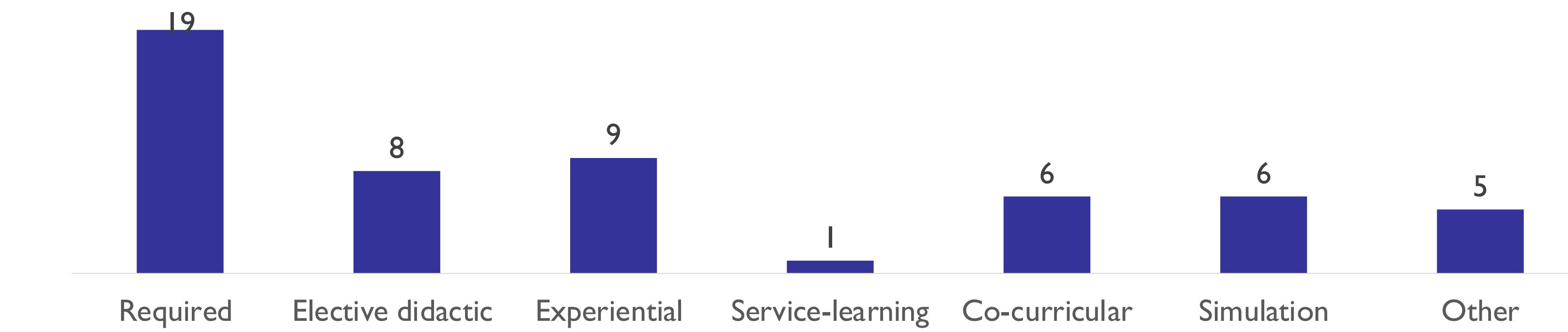


Figure 2. Practice Opportunities

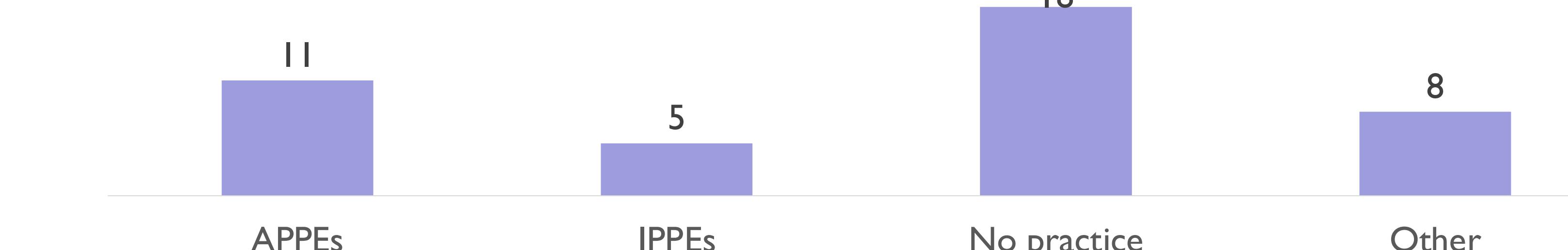


Figure 3. Assessment Findings



Figure 4. Collaborating Organizations

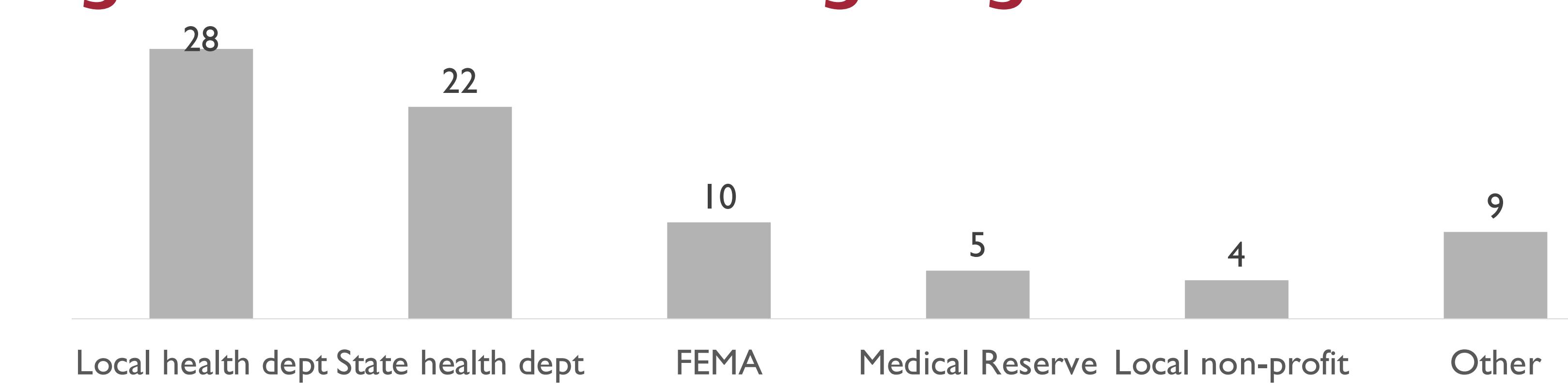
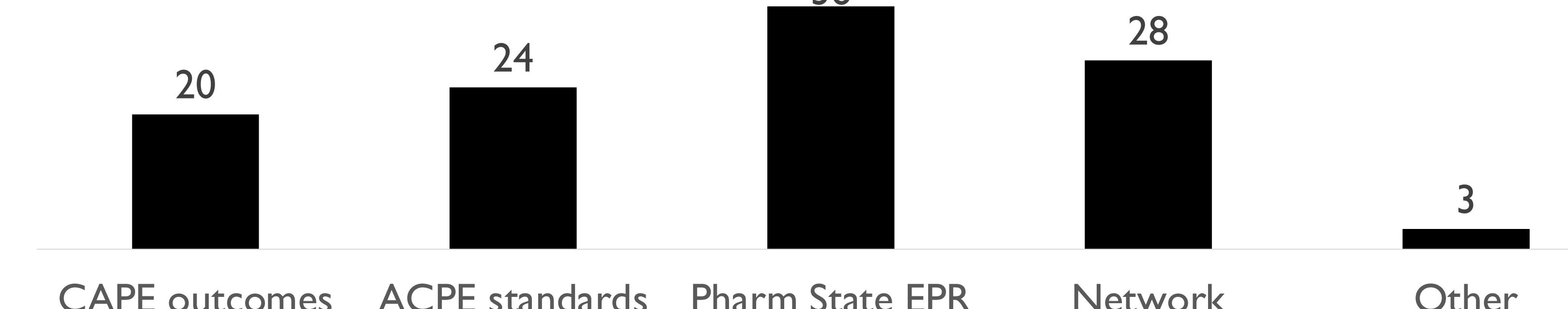


Figure 5. Advocacy Initiatives



Implications

- EPR education is delivered in various formats across U.S. programs.
- Most programs embedded EPR content in required courses and practice opportunities were limited.
- Additional resources are needed to deliver effective EPR education, including faculty, training, and guidance on EPR curricular inclusion.
- Advocacy efforts should surround local, state, and federal-level pharmacist roles in EPR and development of EPR faculty and practitioner network.

Acknowledgements: Dr. W Mark Moore (Campbell University)

The authors have no conflicts of interest.

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