

## INTRODUCTION

Core EPAs for New Pharmacy Graduates were developed by the American Association of Colleges of Pharmacy (AACP) to promote practice-ready graduates.<sup>1</sup>

The University of Colorado Skaggs School of Pharmacy (CU) introduced EPAs for entry-level PharmD students (2017), and for mid-career, distance-education, post-baccalaureate PharmD (North American and International Trained; NTPD and ITPD) and MS Clinical Pharmacy (MS) students (2019). CU's EPAs include AACP Core and more robust, faculty-driven, school-specific EPAs for these mid-career students with local practice needs and perceived greater skills. EPAs are required in 6 practice domains.

We report EPA levels and trends of distance students within the first 5 semesters.

## AIMS

The aims of this program evaluation are to:

- Identify and assess EPA application trends across distance-based clinical pharmacy programs;
- Assess entrustment performance by each of six EPA practice domains;
- Assess entrustment levels reported by students and preceptors;
- Identify necessary EPA curricular development changes for each distance-education clinical pharmacy program.

## METHODS – 1, RESULTS - 1

**Methods:** EPAs are completed at Introductory (community or health-system) and/or Advanced Pharmacy Practice Experience (IPPE, APPE) sites or work sites.

**Results:** 76 total EPAs. IPPEs: 36% (n=27), with 81% (n=22) community; APPEs: 5% (n=4). Work site: 59% (n=45). 100% MS, 86% NTPD at work.

## METHODS - 2

**Students complete 20 EPAs\***, with a minimum number required in each of six **practice domains**: 1. Patient care provider-8; 2. Interprofessional team member-2; 3. Population health promoter-1; 4. Information master-1; 5. Practice Manager-4; 6. Self-developer-4 in any other chosen domain. Students choose 10 EPAs for refinement. \*Excepting NTPD students, who complete only 4 EPAs as part of Domain 6 -Self-developer.

**Preceptors received evaluation training** live and/or via email communications.

**Students and preceptors rate level of entrustment.** To pass, both must rate entrustment at a level 3 (action with reactive supervision), of five levels (1=observation only, 5=teaches others). Data are tracked through the school's learning management system (eValue™).

**Results are labeled as:** "Confirmed" - preceptor confirmed student's entrustment level  $\geq 3$ ; "Rejected" - preceptor scored student at  $< 3$ . Student may attempt same EPA again, or another EPA.

**Descriptive information** is reported as medians (interquartile range, IQR), and as preceptor scores, unless otherwise stated. **Domain 6 EPAs** were assigned to original domains for analysis. **Comparisons** between and among entrustment levels were conducted with the Wilcoxon rank-sum test, using median EPA levels; significance defined as  $p < 0.05$ ; NSS=not statistically significant.

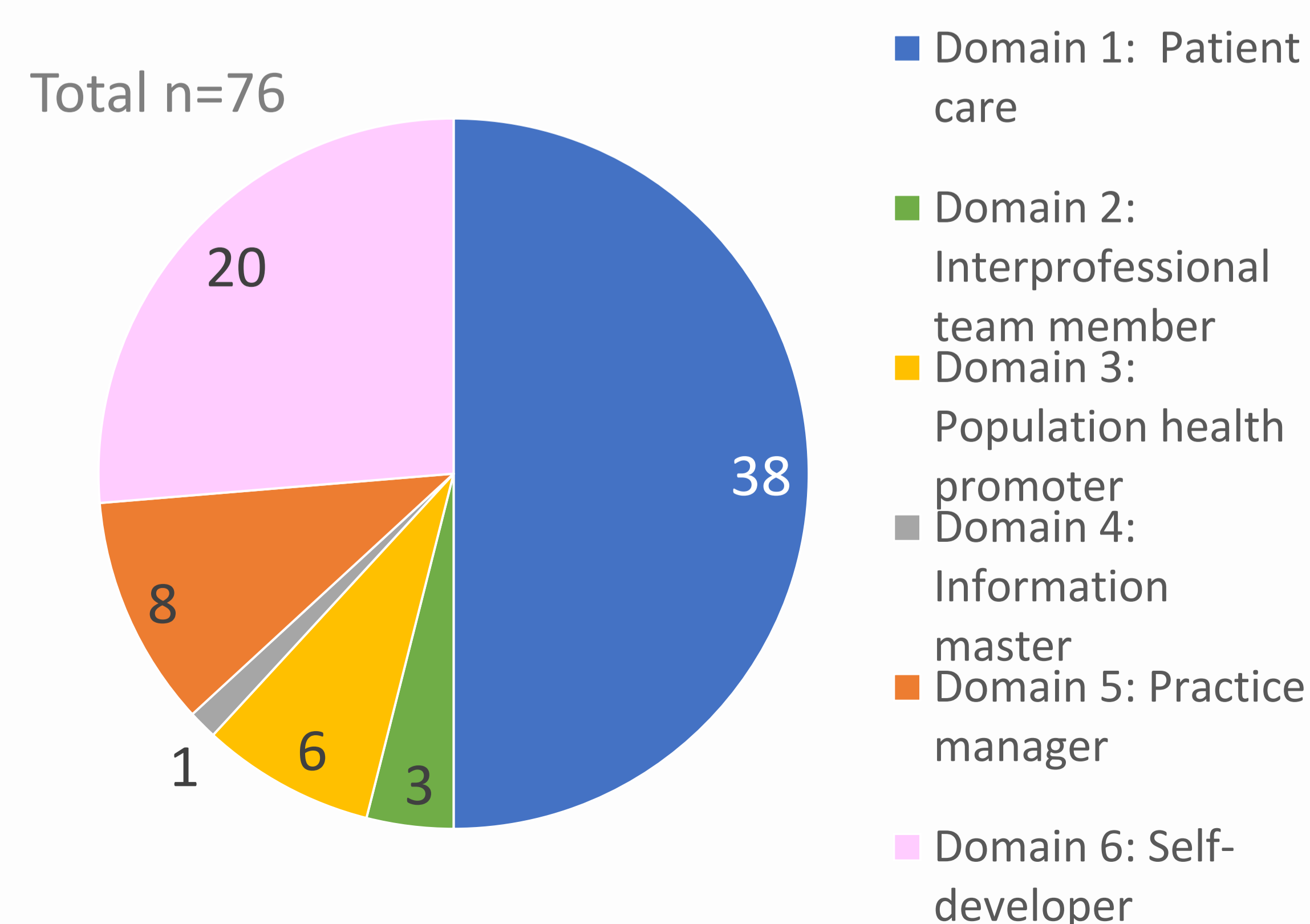
## RESULTS - 2

### Demographics

**Students (n):** Total = 18; NTPD=9, ITPD=7, MS=2

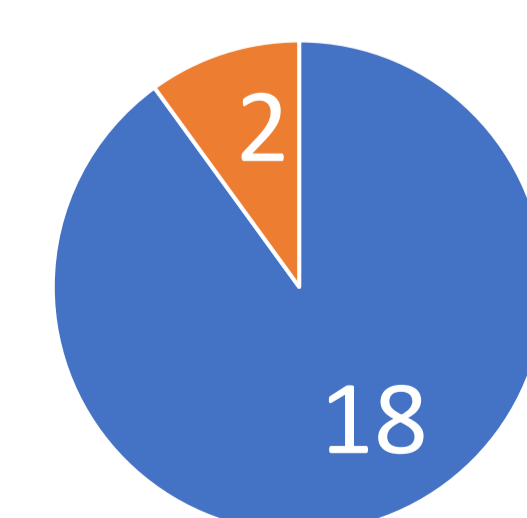
**Pharmacy degree country:** Egypt, India & Philippines=4, US=3, Guyana, Ghana and Nigeria=1

### EPAs by domain

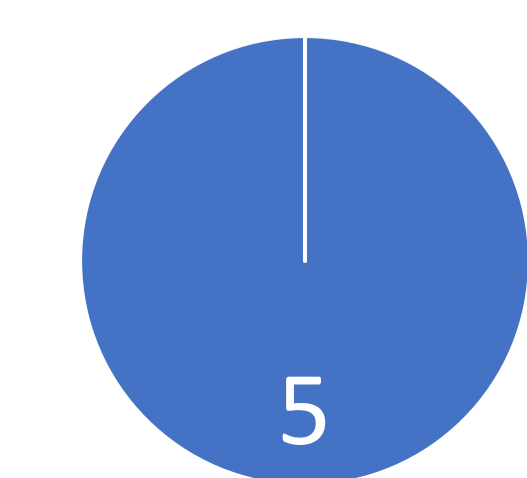


### EPAs by domain choice

#### Dom. 6: Self-developer EPAs



#### Refined EPAs



## RESULTS - 3

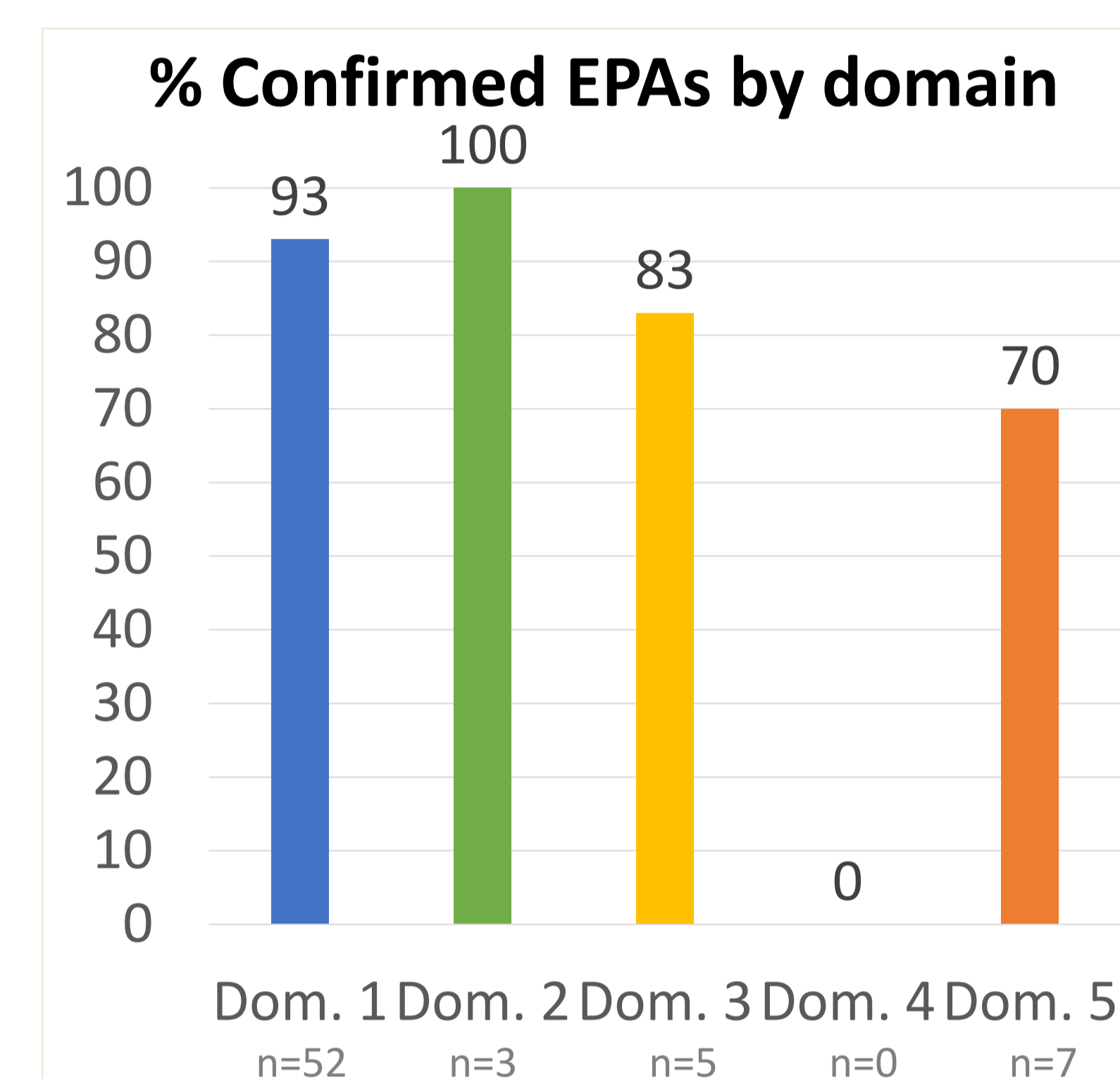
### EPA levels

**Pass rate:** Confirmed=89% (n=67), Rejected=11% (n=9)

**Program Scores (n), (median, IQR):** NTPD (n=28): 5 (4,5);

ITPD (n=28): 4 (4,4); MS (n=20): 4 (3.25, 4);  $p < 0.001$  NTPD v. MS; 0.003 NTPD v. ITPD; NSS ITPD v. MS

**Overall scores (median, IQR):** Student=4 (4,5), Preceptor=4 (3,5); NSS



### Overall (Student vs. preceptor)

- 25% (n=19) students rated EPA levels lower,
- 52.6% (n=40) the same, and
- 22.4% (n=17) higher than the preceptor.

**Refined scores (mean):** 4.4 (n=5); all remained unchanged from first attempt.

## CONCLUSIONS

- EPAs are a successful way to assess practice-based skills of global pharmacists in distance-based, post baccalaureate programs
- EPAs are successfully completed in varied practice setting types and levels.
- Frequency of chosen domains in initial semesters, and as choice EPAs, may indicate students' perceived local practice and/or personal development needs, noting also the influence of program requirements for each.
- High confirmation rates in Domains 1 and 2 may confirm the success of these focus areas in our curricula, and student skills and comfort.
- NTPD students (US licensed practitioners) scored significantly higher, possibly reflecting practice levels among US pharmacists.
- These students and their preceptors rate entrustment levels similarly.
- Entrustment levels of refined EPAs are at independent levels and remain consistent, possibly indicating students' comfort with them.
- Ongoing analysis of these findings may inform future EPA requirements in our distance-based, post-baccalaureate programs.

## REFERENCES

1. Pittenger AL, Chapman SA, Frail CK, et al. Entrustable professional activities for pharmacy practice. Am J Pharm Educ. 2016;80(4):Article 57. **Notes:** Results of this program evaluation are not considered generalizable.