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Comparison of post-doctoral pharmacy training programs:
Medical Information fellowships and Drug Information residencies

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Background

- Pharmacy graduates interested in post-doctoral training opportunities in Medical Information (MI) or Drug Information (DI) have the option to pursue either a fellowship within the pharmaceutical industry or a clinical residency.
- Limited resources exist for pharmacy students to gain insight into the differences between Medical Information or Drug Information training programs.
- Drug Information residencies are typically accredited by the American Society of Health-System Pharmacists (ASHP) and must meet pre-determined competency areas, goals, and objectives.[1]
- Medical Information fellowships do not have an accrediting body, but typically contain experiential learning in a specialty area at a sponsor company.[2] Most Medical Information fellowships are affiliated with an academic institution.[3]

Objective

- To identify the similarities and differences between Medical Information fellowship and Drug Information residency post-doctoral pharmacy training in regards to core responsibilities, available opportunities, and skillsets developed.

Methods

- Drug Information residencies were identified by reviewing the ASHP and the American College of Clinical Pharmacy (ACCP) residency directories for qualifying programs. In addition, an online search engine query was conducted to locate nonindexed, non-ASHP accredited residencies.
- Medical Information fellowships were identified by an online search engine query. In addition, a search of the ASHP Personal Placement Service (PPS) for the 2017 Midyear Clinical Meeting was conducted for qualifying medical information fellowships.
- Drug Information residencies and Medical Information fellowships identified for inclusion were reviewed by investigation of their online program websites or program brochures to classify core responsibilities and skillsets developed.
- Each program was reviewed independently by two investigators.
- A descriptive analysis of development opportunities was conducted.

Results

- A total of 23 Drug Information residencies—14 ASHP-accredited and 9 non-ASHP-accredited—and 33 Medical Information fellowships were identified. See Figure 3 and Figure 4
- Professional development opportunities offered most by ASHP accredited Drug Information residencies include teaching (100%), formulary management (100%), adverse drug reaction/medication error reporting (100%), research/medication utilization evaluation (100%), and policy development (100%). See Figure 1
- Professional development opportunities offered most by Medical Information fellowships include creating standard response documents (94%), collaborating with cross-functional teams (91%), teaching/precepting (91%), responding to medical inquiries (88%), and reviewing promotional materials (73%). See Figure 2

Figure 1. Professional development opportunities offered in DI residencies
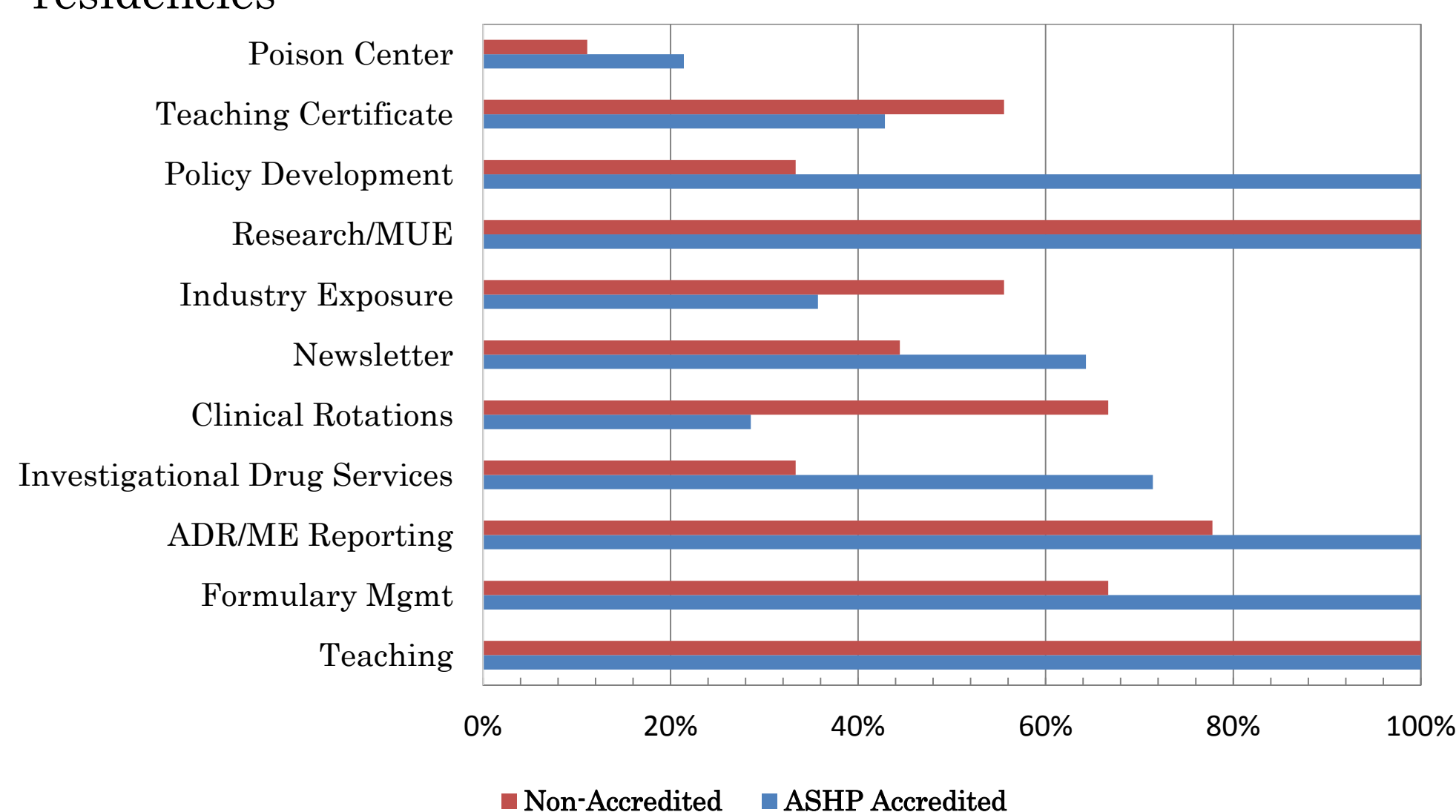

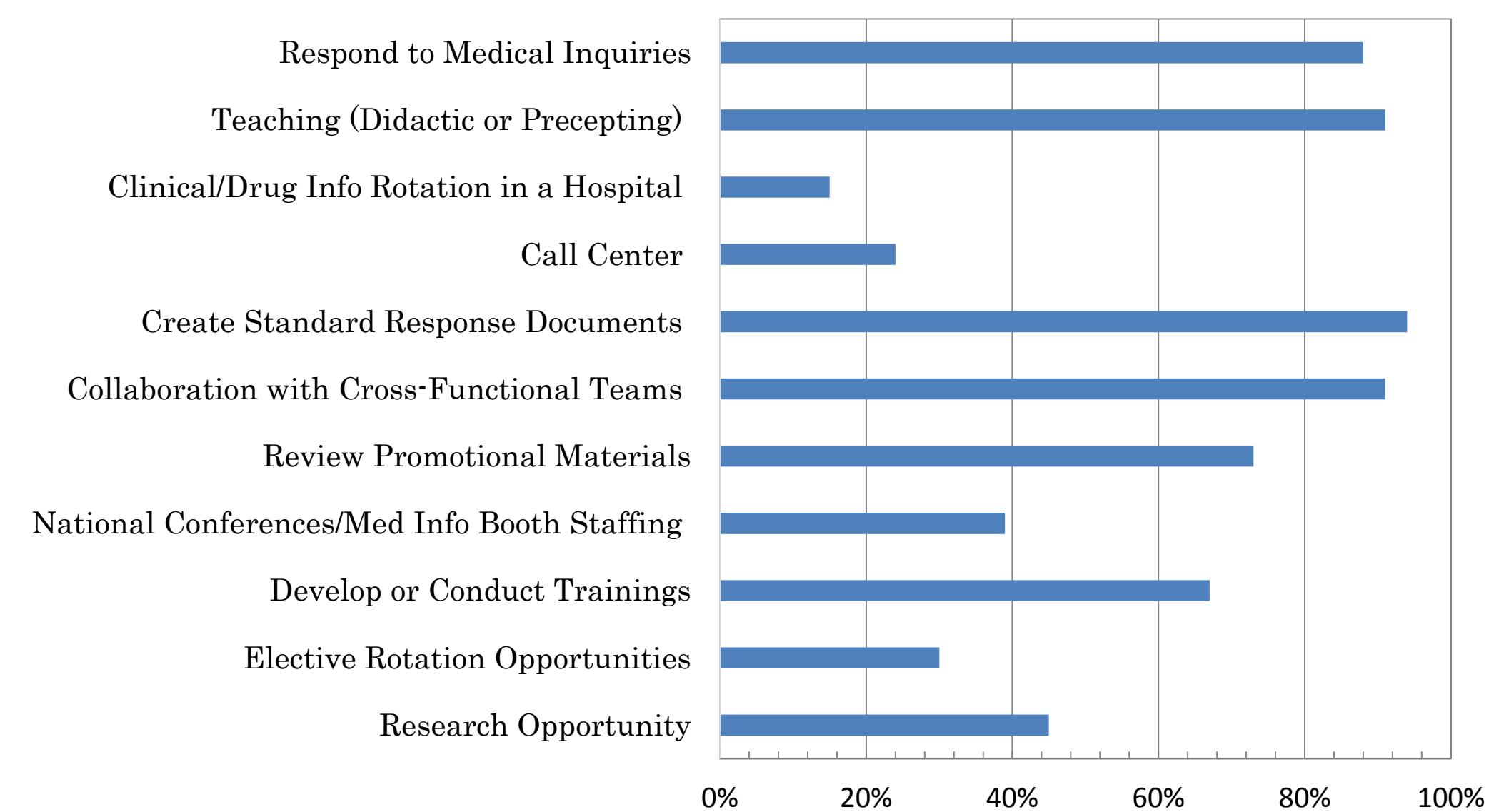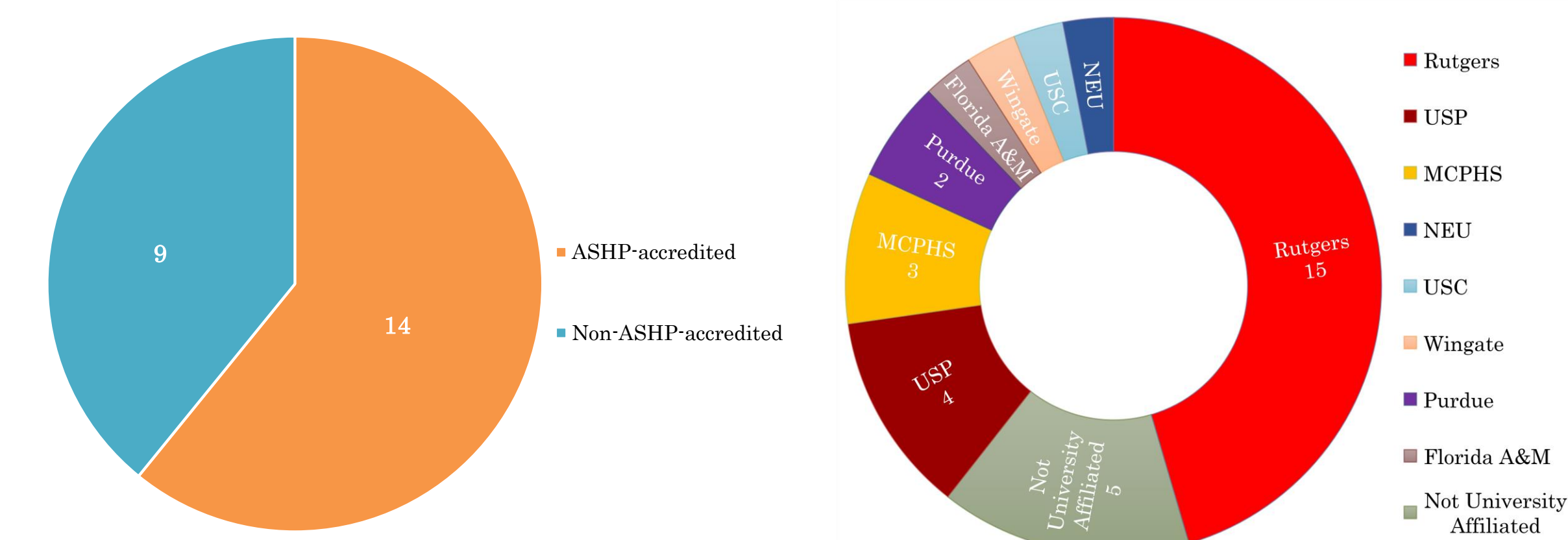Figure 2. Professional development opportunities offered in MI fellowships

Table 1. Comparison of core skills and activities within MI and DI training programs

	Medical Information Fellowship	Drug Information Residency
Therapeutic Focus	Yes – therapeutic area focused	No – responsible for all possible medical inquiries
Consumer Types	Healthcare professionals Patients Payors Compendia External organizations	Healthcare professionals Patients Lawyers
Inquiries Received	Adverse drug events Clinical use Comparative use Dosage and administration Drug interactions Missed doses Monitoring Patient assistance Pharmacology/mechanism of action Physical and chemical properties Product availability Product quality complaints Product settlements Specific populations Stability, storage, or packaging	Adverse drug events Clinical use Dosage and administration Drug identification (including foreign) Drug interactions Legal/policy Literature retrieval Medication errors Pharmacology/mechanism of action Pharmacokinetics/Pharmacodynamics Policy or procedure updates Product availability Product cost Specific populations Stability and compatibility Toxicology
Regulatory Oversight	Yes – FDA Guidance Documents and Code of Federal Regulations	No
Response Method	Primary: Standard response documents Mail, email, fax, or verbal	Primary: Customized responses Verbal through call center Email and fax optional
Response Time	Verbal– immediately (minutes) Electronic requests – Generally 1 to 2 business days Escalated inquiries– Generally 1 business week	Per requestor's timeframe (minutes to weeks)
Training	Product related Software/technology Standard operating procedure	Inquiry response process Systematic searching/resources available Documentation system
Job Prospects	Academia Federal Government Medical Affairs Medical Information Center Medical Information Manager Medical Science Liaison (MSL)	Academia Clinical Pharmacist Drug Information Specialist Federal Government Health System Management Medical Information Manager
Teaching/ Precepting	APPE pharmacy students Didactic teaching responsibilities	APPE pharmacy students PGY1/PGY2 residents Didactic teaching responsibilities

Results (continued)

Figure 3. DI Residency Programs

Figure 4. MI Fellowship Programs

Limitations

- Publicly available information on each program may not fully represent all activities available.
- Program availability and program structure are subject to change, and can not be reflected accordingly in the scope of this project.

Conclusions

- Drug Information residents and Medical Information fellows undergo similar training and skill set development, however, key differences include primary work setting, consumer types, and regulatory oversight.

References

1. American Society of Health-System Pharmacists. Residency Accreditation. Available at: https://www.ashp.org/professional-development/residency-information/residency-program-directors/residency-accreditation. Accessed November 14th, 2017.
2. Larochelle PA, Giang DK, Silva MA, et al. Post-PharmD industry fellowship opportunities and proposed guidelines for uniformity. Am J Pharm Educ. 2009; 73(1):20.
3. Melillo S, Gangadharan A, Johnson H, et al. Postdoctoral pharmacy industry fellowships: a descriptive analysis of programs and postgraduate positions. Am J Health Syst Pharm. 2012; 69(1):63-8.

Disclosures

Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation.
Michael Hogan: Postdoctoral Fellow – Rutgers University
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*The views expressed do not necessarily represent the views of the agency or the United States.