

# Physician Perspective: Utilization of Advanced Practice Providers (APPs) in Infectious Disease

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## BACKGROUND

- With recent shortfalls in applicants completing formal Infectious Disease (ID) fellowship programs, shortages of ID physicians is a challenge recognized by the clinical workforce and Infectious Diseases Society of America (IDSA).
- More Advanced Practice Providers (APPs) are being used in sub-specialties within ID to expand and extend existing practices.
- APPs clinical scope, roles, and opportunities for education are not well understood, including the number of practicing APPs in ID.
- There is no formal training, guidance, or national education opportunities for APPs working in ID.
- We developed a physician survey to better understand the APP workforce in ID, the perceived barriers to APP utilization, and educational opportunities.

## METHODS

**Design:** Voluntary anonymous physician survey data

**Site:** United States, and other locations

**Survey period:** Dec 1, 2019 – Jan 31, 2020

**Survey population:** Infectious Disease physicians who completed formal ID training.

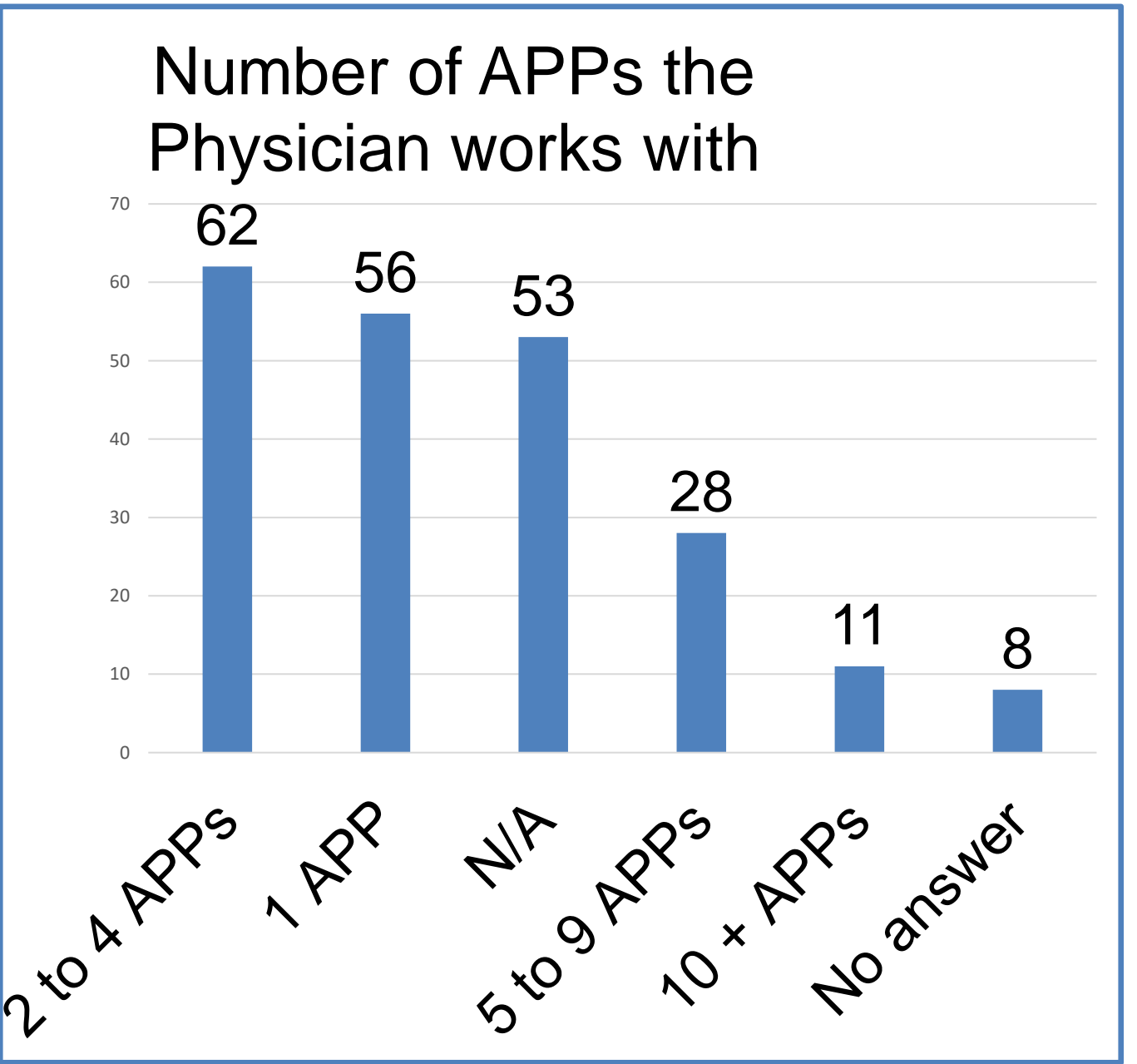
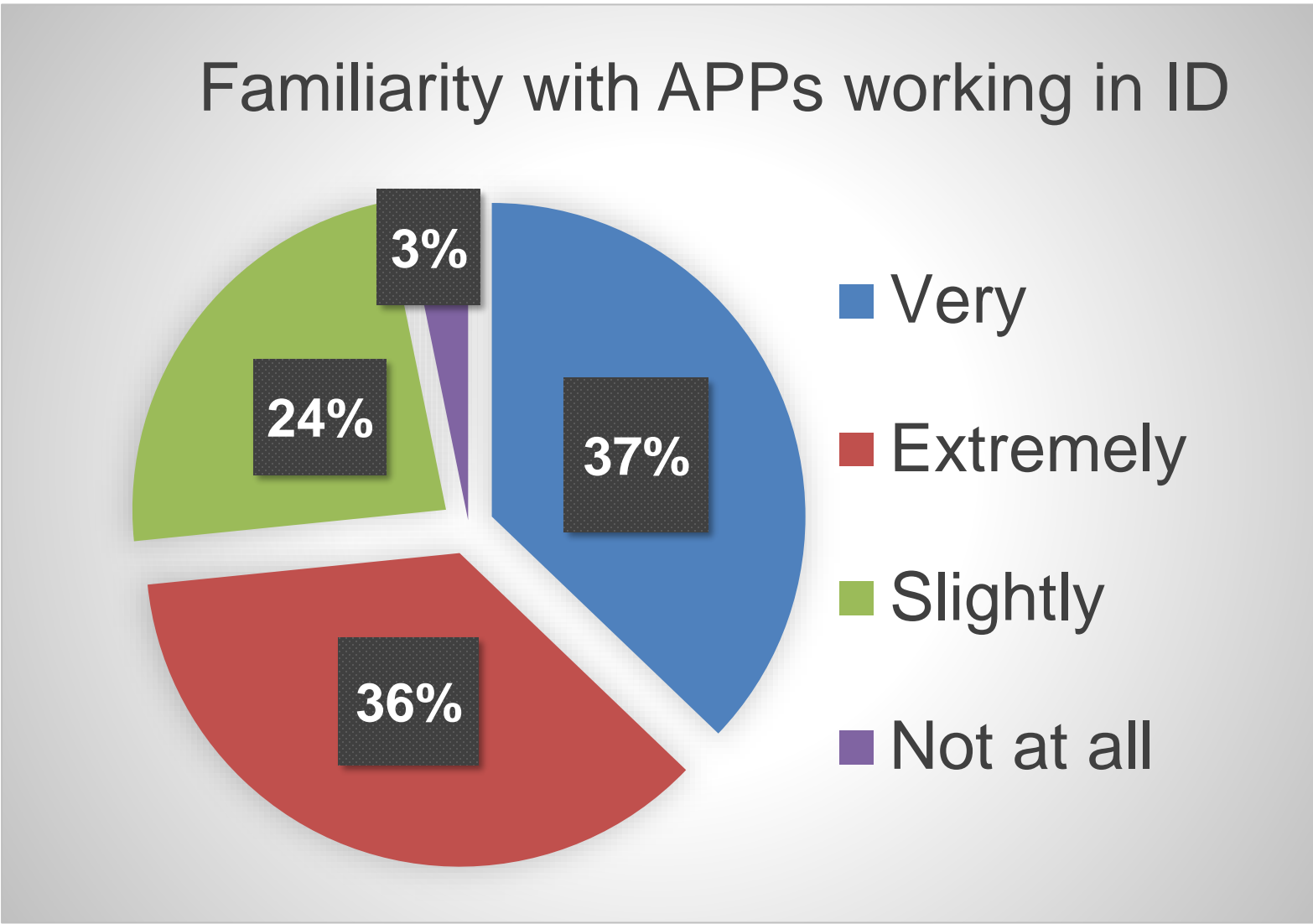
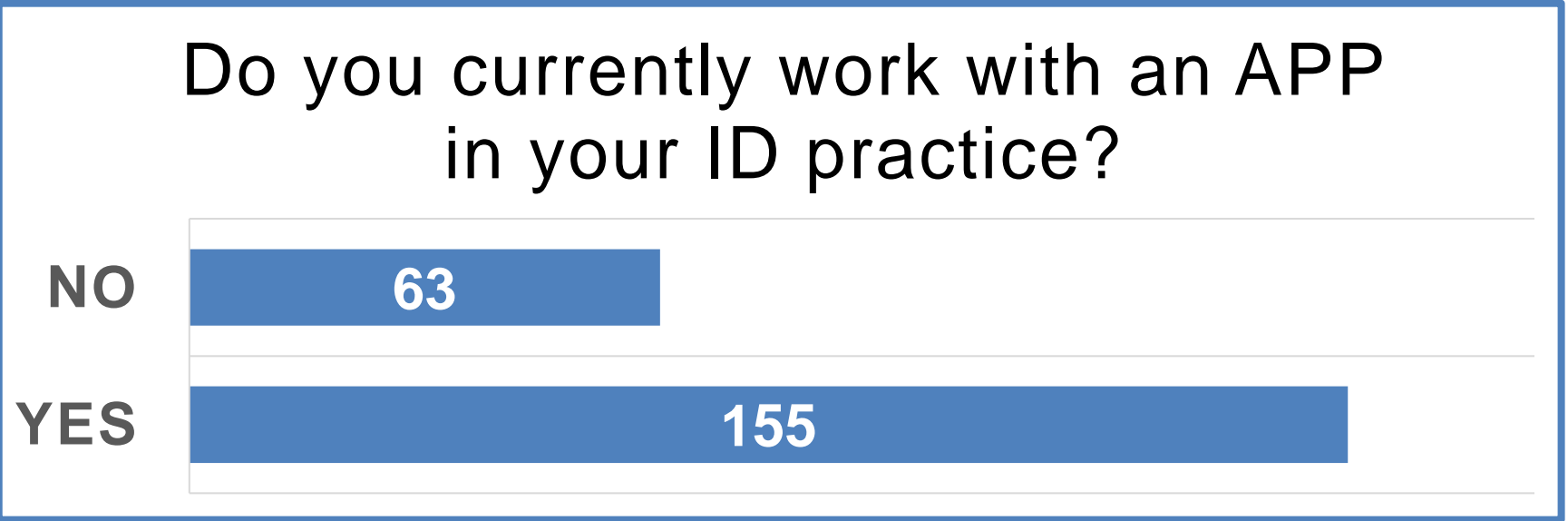
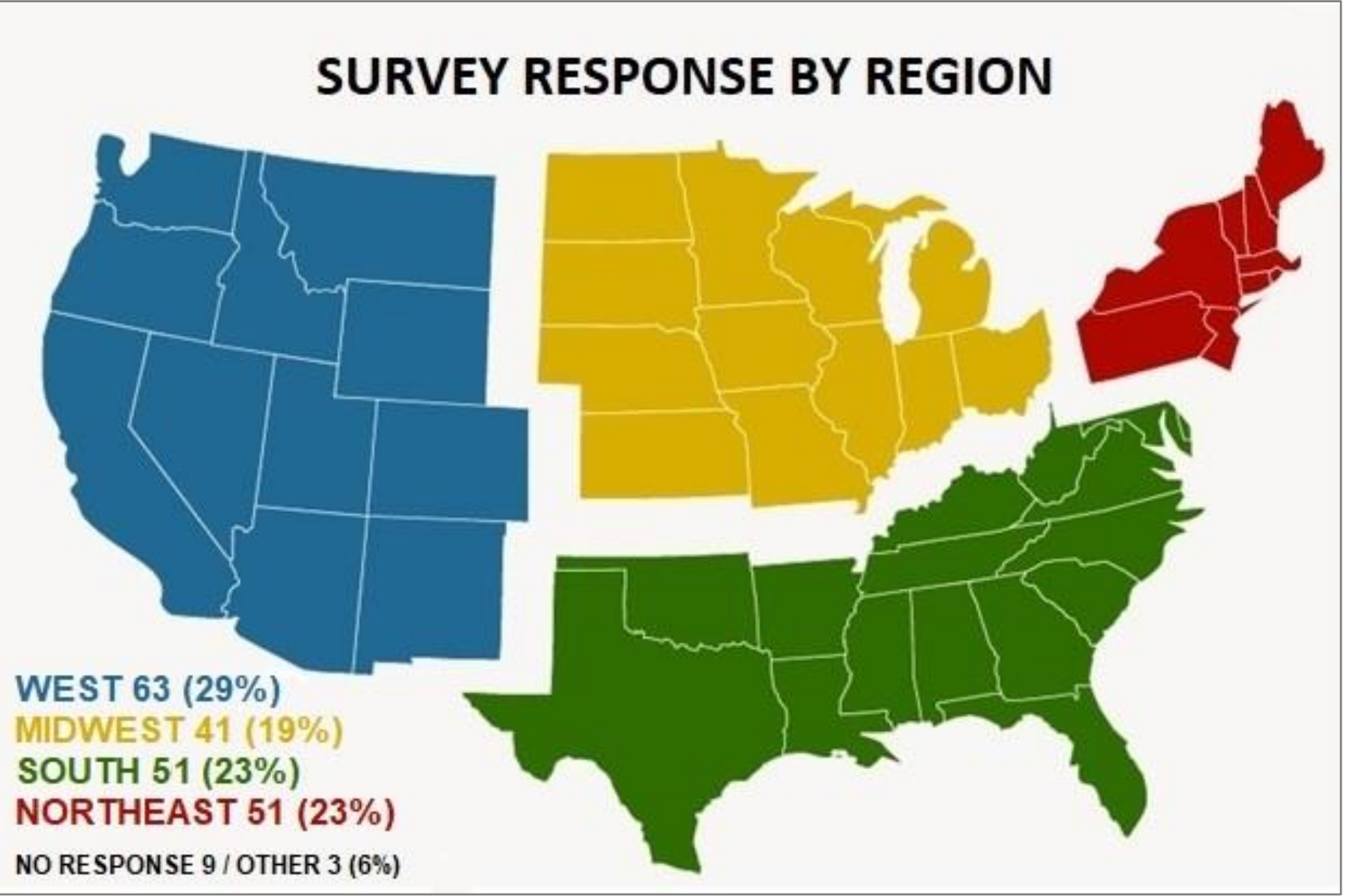
Physician survey links were distributed by social media, key stakeholder emails, and IDSA online community forum. Anonymous data were gathered via REDCap data collection survey tool. Below are the physician questions:

- Are you an Infectious Disease Attending, who has completed ID fellowship training?
- To what degree are you familiar with the utilization of APPs working ID?
- Do you currently work with an APP in your group or practice? If yes, how many?
- If no, what are some reasons you don't have an APP in your practice?
- What services do you provide at your practice?
- What is your primary practice setting?
- What is your ID practice zip code?

## RESULTS, n = 218

Physician Care Provided	n = 218 (%)
Inpatient Adult ID	185 (85%)
Outpatient Adult ID	162 (74%)
HIV Outpatient care	152 (70%)
HIV Inpatient care	137 (63%)
Clinical Education	132 (61%)
Antimicrobial Stewardship	131 (60%)
OPAT	128 (59%)
Clinical Research	111 (51%)
Infection Control	104 (48%)
Transplant ID	83 (38%)
Travel Medicine	79 (36%)
Infusion Center	38 (17%)
Pediatric ID	26 (12%)
Other	4 (2%)

Type of ID practice setting	n = 218 (%)
University/Medical school	104 (48%)
Hospital/Clinic	80 (37%)
Private Practice	28 (13%)
Federal Government	5 (2%)
Prefer not to answer	1 (0%)



## RESULTS, n = 142 (\*no response, n = 76)

Physician Responses	n (%)
Reported reasons/concerns for not having APPs	n = 142 (%)
No concerns	81 (57%)
No standardized ID specific training	22 (15%)
Practice has sufficient staffing	19 (13%)
Amount of time training would take	17 (12%)
Loss of physician revenue	16 (11%)
Not comfortable providing job training	12 (8%)
Legal (malpractice) ramifications	11 (8%)
Concerned about proper billing	10 (7%)
Do not feel equipped to provide oversight	7 (5%)
Other reasons (Open End Responses)	
Knowledge gaps	6 (4%)
Lack of funding	5 (4%)
Lack of weekend/call coverage	4 (3%)
Decision made by other administration	3 (2%)
In process of hiring APP	2 (1%)

## DISCUSSION AND CONCLUSIONS

- Results of 218 surveys demonstrate collaboration between ID physicians and APPs exists to meet current workforce needs.
- 57% of physicians reported no concerns with utilizing APPs in ID (n = 142).
- Lack of APP ID specific training is a perceived concern/barrier to utilization of APPs.
- Opportunity exists for formal ID education and resource development both to enhance APPs clinical skills and address perceived knowledge gaps.
- Inclusion of APPs in the ID workforce may allow for expansion into more resource limited areas to continue to provide high quality patient care.