

# Results From the First Annual Association of Professors of Dermatology Program Directors Survey

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## PRACTICE POINTS

- The first annual Association of Professors of Dermatology program directors survey allows faculty to compare their programs to other dermatology residency programs across the United States.
- The results should inspire opportunities for growth, improvement, and collaboration among dermatology residency programs.

The first annual Association of Professors of Dermatology (APD) program director (PD) survey was distributed in November 2022 and included 53 respondents from individual Accreditation Council for Graduate Medical Education (ACGME) programs. This survey included 137 in-depth questions to identify similarities and differences among programs regarding 12 broad categories: program characteristics; PD demographics; impact of the COVID-19 pandemic on residency training; available resources; quality improvement; clinical instruction; didactic instruction; research content; diversity, equity, and inclusion; wellness; evaluation systems; and graduation outcomes of postgraduate year (PGY) 4 residents. The survey provided preliminary insight to similarities and differences between programs,

such as varying academic time and research resources, while also challenging norms seen in areas of diversity, equity, and inclusion. As future surveys are optimized to obtain greater response rates, these metrics can be captured in a centralized database accessible to PDs to reflect trends and identify strengths and weaknesses of dermatology residency programs.

*Cutis.* 2023;112:116-119, E2-E3.

Educational organizations across several specialties, including internal medicine and obstetrics and gynecology, have formal surveys<sup>1</sup>; however, the field of dermatology has been without one. This study aimed to establish a formal survey for dermatology program directors (PDs) and clinician-educators. Because the Accreditation Council for Graduate Medical Education (ACGME) and American Board of Dermatology surveys do not capture all metrics relevant to dermatology residency educators, an annual survey for our specialty may be helpful to compare dermatology-specific data among programs. Responses could provide context and perspective to faculty and

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Dr. Tvedten reports no conflict of interest. Drs. Nambudiri, Mathes, Daveluy, Murina, and Motaparathi are dermatology residency program directors at their respective institutions and serve on the Association of Professors of Dermatology (APD) Residency Program Directors Section Steering Committee. These are elected positions without financial compensation.

The eTables are available in the Appendix online at [www.mdedge.com/dermatology](http://www.mdedge.com/dermatology).

Supplemental information including all data collected from the program director survey also is available online at [www.mdedge.com/dermatology](http://www.mdedge.com/dermatology).

This material has been provided by the authors to give readers additional information about their work.

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doi:10.12788/cutis.0854

residents who respond to the ACGME annual survey, as our Association of Professors of Dermatology (APD) survey asks more in-depth questions, such as how often didactics occur and who leads them. Resident commute time and faculty demographics and training also are covered. Current ad hoc surveys disseminated through listserves of various medical associations contain overlapping questions and reflect relatively low response rates; dermatology PDs may benefit from a survey with a high response rate to which they can contribute future questions and topics that reflect recent trends and current needs in graduate medical education. As future surveys are administered, the results can be captured in a centralized database accessible by dermatology PDs.

## Methods

A survey of PDs from 141 ACGME-accredited dermatology residency programs was conducted by the Residency Program Director Steering Committee of the APD from November 2022 to January 2023 using a prevalidated questionnaire. Personalized survey links were created and sent individually to each PD's email listed in the ACGME accreditation data system. All survey responses were captured anonymously, with a number assigned to keep de-identified responses separate and organized. The survey consisted of 137 survey questions addressing topics that included program characteristics, PD demographics, the impact of the COVID-19 pandemic on clinical rotation and educational conferences, available resident resources, quality improvement, clinical and didactic instruction, research content, diversity and inclusion, wellness, professionalism, evaluation systems, and graduate outcomes.

Data were collected using Qualtrics survey tools. After removing duplicate and incomplete surveys, data were analyzed using Qualtrics reports and Microsoft Excel for data plotting, averages, and range calculations.

## Results

One hundred forty-one personalized survey links were created and sent individually to each program's filed email obtained from the APD listserv. Fifty-three responses were recorded after removing duplicate or incomplete surveys (38% [53/141] response rate). As of May 2023, there were 144 ACGME-accredited dermatology residency programs due to 3 newly accredited programs in 2022-2023 academic year, which were not included in our survey population.

**Program Characteristics**—Forty-four respondents (83%) were from a university-based program. Fifty respondents (94%) were from programs that were ACGME accredited prior to 2020, while 3 programs (6%) were American Osteopathic Association accredited prior to singular accreditation. Seventy-one percent (38/53) of respondents had 1 or more associate PDs.

**PD Demographics**—Eighty-seven percent (45/52) of PDs who responded to the survey graduated from a US allopathic medical school (MD), 10% (5/52) graduated

from a US osteopathic medical school (DO), and 4% (2/52) graduated from an international medical school. Seventy-four percent (35/47) of respondents were White, 17% (8/47) were Asian, and 2% (1/47) were Black or African American; this data was not provided for 4 respondents. Forty-eight percent (23/48) of PDs identified as cisgender man, 48% (23/48) identified as cisgender woman, and 4% (2/48) preferred not to answer. Eighty-one percent (38/47) of PDs identified as heterosexual or straight, 15% (7/47) identified as gay or lesbian, and 4% (2/47) preferred not to answer.

**Impact of COVID-19 Pandemic on Residency Training**—Due to the COVID-19 pandemic, 88% (45/51) of respondents incorporated telemedicine into the resident clinical rotation schedule. Moving forward, 75% (38/51) of respondents indicated that their programs plan to continue to incorporate telemedicine into the rotation schedule. Based on 50 responses, the average of educational conferences that became virtual at the start of the COVID-19 pandemic was 87%; based on 46 responses, the percentage of educational conferences that will remain virtual moving forward is 46%, while 90% (46/51) of respondents indicated that their programs plan to use virtual conferences in some capacity moving forward. Seventy-three percent (37/51) of respondents indicated that they plan to use virtual interviews as part of residency recruitment moving forward.

**Available Resources**—Twenty-four percent (11/46) of respondents indicated that residents in their program do not get protected time or time off for CORE examinations. Seventy-five percent (33/44) of PDs said their program provides funding for residents to participate in board review courses. The chief residents at 63% (31/49) of programs receive additional compensation, and 69% (34/49) provide additional administrative time to chief residents. Seventy-one percent (24/34) of PDs reported their programs have scribes for attendings, and 12% (4/34) have scribes for residents. Support staff help residents with callbacks and in-basket messages according to 76% (35/46) of respondents. The majority (98% [45/46]) of PDs indicated that residents follow-up on results and messages from patients seen in resident clinics, and 43% (20/46) of programs have residents follow-up with patients seen in faculty clinics. Only 15% (7/46) of PDs responded they have schedules with residents dedicated to handle these tasks. According to respondents, 33% (17/52) have residents who are required to travel more than 25 miles to distant clinical sites. Of them, 35% (6/17) provide accommodations.

**Quality Improvement**—Seventy-one percent (35/49) of respondents indicated their department has a quality improvement/patient safety team or committee, and 94% (33/35) of these teams include residents. A lecture series on quality improvement and patient safety is offered at 67% (33/49) of the respondents' programs, while morbidity and mortality conferences are offered in 73% (36/49).

**Clinical Instruction**—Our survey asked PDs how many months each residency year spends on a certain rotational service. Based on 46 respondents, the average number of months dedicated to medical dermatology is 7, 5, and 6 months for postgraduate year (PGY) 2, PGY3, and PGY4, respectively. The average number of months spent in other subspecialties is provided in the Table. On average, PGY2 residents spend 8 half-days per week seeing patients in clinic, while PGY3 and PGY4 residents see patients for 7 half-days. The median and mean number of patients staffed by a single attending per hour in teaching clinics are 6 and 5.88, respectively. Respondents indicated that residents participate in the following specialty clinics: pediatric dermatology (96% [44/46]), laser/cosmetic (87% [40/44]), high-risk skin cancer (ie, immunosuppressed/transplant patient) (65% [30/44]), pigmented lesion/melanoma (52% [24/44]), connective tissue disease (52% [24/44]), teledermatology (50% [23/44]), free clinic for homeless and/or indigent populations (48% [22/44]), contact dermatitis (43% [20/44]), skin of color (43% [20/44]), oncology dermatology (41% [19/44]), and bullous disease (33% [15/44]).

Additionally, in 87% (40/46) of programs, residents participate in a dedicated inpatient consultation service. Most respondents (98% [45/46]) responded that they utilize in-person consultations with a teledermatology supplement. Fifteen percent (7/46) utilize virtual teledermatology (live video-based consultations), and 57% (26/46) utilize asynchronous teledermatology (picture-based consultations). All respondents (n=46) indicated

that 0% to 25% of patient encounters involving residents are teledermatology visits. Thirty-three percent (6/18) of programs have a global health special training track, 56% (10/18) have a Specialty Training and Advanced Research/Physician-Scientist Research Training track, 28% (5/18) have a diversity training track, and 50% (9/18) have a clinician educator training track.

**Didactic Instruction**—Five programs have a full day per week dedicated to didactics, while 36 programs have at least one half-day per week for didactics. On average, didactics in 57% (26/46) of programs are led by faculty alone, while 43% (20/46) are led at least in part by residents or fellows.

**Research Content**—Fifty percent (23/46) of programs have a specific research requirement for residents beyond general ACGME requirements, and 35% (16/46) require residents to participate in a longitudinal research project over the course of residency. There is a dedicated research coordinator for resident support at 63% (29/46) of programs. Dedicated biostatistics research support is available for resident projects at 42% (19/45) of programs. Additionally, at 42% (19/45) of programs, there is a dedicated faculty member for oversight of resident research.

**Diversity, Equity, and Inclusion**—Seventy-three percent (29/40) of programs have special diversity, equity, and inclusion programs or meetings specific to residency, 60% (24/40) have residency initiatives, and 55% (22/40) have a residency diversity committee. Eighty-six percent (42/49) of respondents strongly agreed that their current residents represent diverse ethnic and racial backgrounds (ie, >15% are not White). eTable 1 shows PD responses to this statement, which were stratified based on self-identified race. eTable 2 shows PD responses to the statement, “Our current residents represent an inclusion of gender/sexual orientation,” which were stratified based on self-identified gender identity/sexual orientation. Lastly, eTable 3 highlights the percentage of residents with an MD and DO degree, stratified based on PD degree.

**Wellness**—Forty-eight percent (20/42) of respondents indicated they are under stress and do not always have as much energy as before becoming a PD but do not feel burned out. Thirty-one percent (13/42) indicated they have 1 or more symptoms of burnout, such as emotional exhaustion. Eighty-six percent (36/42) are satisfied with their jobs overall (43% agree and 43% strongly agree [18/42 each]).

**Evaluation System**—Seventy-five percent (33/44) of programs deliver evaluations of residents by faculty online, 86% (38/44) of programs have PDs discuss evaluations in-person, and 20% (9/44) of programs have faculty evaluators discuss evaluations in-person. Seventy-seven percent (34/44) of programs have formal faculty-resident mentor-mentee programs. Clinical competency committee chair positions are filled by PDs, assistant PDs, or core faculty members 47%, 38%, and 16% of the time, respectively.

### Resident Time Dedicated to a Dermatology Subspecialty

Subspecialty	Mean no. of months per year (range)		
	PGY2	PGY3	PGY4
Medical dermatology	6.95 (0–11)	5.47 (0–9)	5.56 (0–10)
Dermatologic surgery	1.31 (0–3)	1.67 (0–3)	1.68 (0–4)
Pediatric dermatology	1.2 (0–4)	1.2 (0–5)	1.05 (0–3)
Inpatient consultations	0.91 (0–4)	1.47 (0–3)	1 (0–4)
Dermatopathology	0.87 (0–2)	1.12 (0–2)	1.15 (0–2)
Cosmetic dermatology	0.32 (0–2)	0.42 (0–2)	0.51 (0–2)
Elective	0.06 (0–1)	0.21 (0–2)	0.66 (0–2)
Other	0.38 (0–12)	0.45 (0–12)	0.39 (0–12)

Abbreviation: PGY, postgraduate year.

*Graduation Outcomes of PGY4 Residents*—About 28% (55/199) of graduating residents applied to a fellowship position, with the majority (15% [29/55]) matching into Mohs micrographic surgery and dermatologic oncology (MSDO) fellowships. Approximately 5% (9/199) and 4% (7/199) of graduates matched into dermatopathology and pediatric dermatology, respectively. The remaining 5% (10/199) of graduating residents applied to a fellowship but did not match. The majority (45% [91/199]) of residency graduates entered private practice after graduation. Approximately 21% (42/199) of graduating residents chose an academic practice with 17% (33/199), 2% (4/199), and 2% (3/199) of those positions being full-time, part-time, and adjunct, respectively.

### Comment

The first annual APD survey is a novel data source and provides opportunities for areas of discussion and investigation. Evaluating the similarities and differences among dermatology residency programs across the United States can strengthen individual programs through collaboration and provide areas of cohesion among programs.

*Diversity of PDs*—An important area of discussion is diversity and PD demographics. Although DO students make up 1 in 4 US graduating medical students, they are not interviewed or ranked as often as MD students.<sup>2</sup> Diversity in PD race and ethnicity may be worthy of investigation in future studies, as match rates and recruitment of diverse medical school applicants may be impacted by these demographics.

*Continued Use of Telemedicine in Training*—Since 2020, the benefits of virtual residency recruitment have been debated among PDs across all medical specialties. Points in favor of virtual interviews include cost savings for programs and especially for applicants, as well as time efficiency, reduced burden of travel, and reduced carbon footprint. A problem posed by virtual interviews is that candidates are unable to fully learn institutional cultures and social environments of the programs.<sup>3</sup> Likewise, telehealth was an important means of clinical teaching for residents during the height of the COVID-19 pandemic, with benefits that included cost-effectiveness and reduction of disparities in access to dermatologic care.<sup>4</sup> Seventy-five percent (38/51) of PDs indicated that their program plans to include telemedicine in resident clinical rotation moving forward.

*Resources Available*—Our survey showed that resources available for residents, delivery of lectures and program time allocated to didactics, protected academic or study

time for residents, and allocation of program time for CORE examinations are highly variable across programs. This could inspire future studies to be done to determine the differences in success of the resident on CORE examinations and in digesting material.

*Postgraduate Career Plans and Fellowship Matches*—Residents of programs that have a home MSDO fellowship are more likely to successfully match into a MSDO fellowship.<sup>5</sup> Based on this survey, approximately 28% of graduating residents applied to a fellowship position, with 15%, 5%, and 3% matching into desired MSDO, dermatopathology, and pediatric dermatology fellowships, respectively. Additional studies are needed to determine advantages and disadvantages that lead to residents reaching their career goals.

*Limitations*—Limitations of this study include a small sample size that may not adequately represent all ACGME-accredited dermatology residency programs and selection bias toward respondents who are more likely to participate in survey-based research.

### Conclusion

The APD plans to continue to administer this survey on an annual basis, with updates to the content and questions based on input from PDs. This survey will continue to provide valuable information to drive collaboration among residency programs and optimize the learning experience for residents. Our hope is that the response rate will increase in coming years, allowing us to draw more generalizable conclusions. Nonetheless, the survey data allow individual dermatology residency programs to compare their specific characteristics to other programs.

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## APPENDIX

**eTABLE 1. Race/Ethnicity of Dermatology Residents<sup>a</sup>**

PD race/ethnicity	No. of responses
White	
Somewhat agree	3
Strongly agree	27
Strongly disagree	2
Asian	
Somewhat agree	1
Strongly agree	5
Strongly disagree	0
Prefer not to answer	
Somewhat agree	0
Strongly agree	3
Strongly disagree	0
Asian, Other	
Somewhat agree	0
Strongly agree	1
Strongly disagree	0
Asian, White	
Somewhat agree	0
Strongly agree	1
Strongly disagree	0
Black or African American	
Somewhat agree	0
Strongly agree	1
Strongly disagree	0

Abbreviation: PD, program director.

<sup>a</sup>After stratification based on self-identified race of dermatology PD, data includes number of PD responses to the statement, "Our current residents represent ethnic/racial backgrounds, >15% are not Caucasian." Measured on a 5-point scale (strongly agree to strongly disagree).

**eTABLE 2. Gender Identity/Sexual Orientation Backgrounds of Dermatology Residents<sup>a</sup>**

PD gender identity/sexual orientation	No. of responses
<b>Cisgender man</b>	21
Gay or lesbian	6
Neither agree nor disagree	1
Somewhat agree	1
Strongly agree	4
Heterosexual or straight	15
Neither agree nor disagree	5
Somewhat agree	2
Strongly agree	8
<b>Cisgender woman</b>	20
Heterosexual or straight	20
Neither agree nor disagree	3
Somewhat agree	5
Somewhat disagree	2
Strongly agree	10
<b>Prefer not to answer</b>	3
Gender Identity	3
Sexual Orientation	3
Strongly agree	3

Abbreviation: PD, program director.

<sup>a</sup>After stratification based on self-identified gender/sexual orientation of dermatology PDs, data includes number of responses to the statement, "Our current residents represent an inclusion of gender/sexual orientation." Measured on a 5-point scale (strongly agree to strongly disagree).

**eTABLE 3. Percentage of Residents in a Dermatology Program who are MD or DO Graduates Stratified by Degree Earned by PD<sup>a</sup>**

PD degree	MD residents in program, %	DO residents in program, %
International medical school graduate (IMG)	100	0
US allopathic medical school (MD)	95	5
US osteopathic medical school (DO)	22	78

Abbreviation: PD, program director.

<sup>a</sup>Percentages of MD residents and DO residents in a program were calculated by dividing the number of reported residents with an MD degree (Q55) by the total number of residents in the program (Q52) and by dividing the number of reported residents with a DO degree (Q55) by the total number of residents in the program (Q52), respectively. These percentages were then stratified based on PD degree.

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