

2018 and Beyond

Practicing Urologists Across the Globe



American
Urological
Association

Advancing Urology™

American Urological Association

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The American Urological Association would like to thank all the members of the global urologic community for their continued support and participation in the Annual Census.

Table of Contents

Summary 2

ABOUT THE AMERICAN
UROLOGICAL ASSOCIATION
(AUA) 3

Introduction 4

DATA AND METHODS 5

DATA SOURCES 5

DATA ELEMENTS 5

DATA ANALYSIS 5

DATA GENERALIZABILITY . . . 5

Primary Observations 6

GLOBAL COMPARISONS 7

COUNTRIES WITH THE
MOST OBVIOUS CHANGES
FROM 2015 TO 2018 8

LIST OF TABLES 9

FINDINGS 10

DISCUSSION 41

CONTRIBUTORS 42



| SUMMARY

PURPOSE

The American Urological Association (AUA) published its first report on practicing urologists across the globe in 2016 using the 2015 AUA Annual Census data.

The AUA is releasing an updated report on practicing urology globally using data primarily from the 2018 AUA Annual Census. Findings from this report help build a base for both longitudinal and cross-country comparisons of the urology workforce landscape.

METHODS

Data describing the urology workforce and clinical practice were primarily collected through the 2018 AUA Census. Three questions related to the use of AUA clinical guidelines and the treatment of advanced prostate cancer and minimally invasive procedures were from the 2017 AUA Annual Census. Weighted analyses of samples to represent the entire population of practicing urologists within the United States were performed and used as baselines for comparison. Due to the inaccessibility of national master files of practicing urologists outside the United States, unweighted sample analyses of practicing urologists in other countries were performed and compared. Continents and countries with 20 or more respondents were included in this report.

RESULTS

A total of 4,217 practicing urologists from 110 countries completed the Census, including 2,393 from the United States and 1,824 from outside the United States. Remarkable variations are observed in workforce characteristics and practice patterns across countries and continents. The variations include demographics, work setting, employment status, work hours and patient encounters, use of electronic health records, adherence to clinical practice guidelines in clinical decision-making, other professional roles, and the number of weeks used for vacation. Smaller variations were seen in sub-specialization and planned retirement age.

CONCLUSIONS

Findings from this study provide descriptive accounts of the various global experiences and information that may bridge knowledge gaps, inform urology workforce planning and implementation, and ultimately, improve global urologic health.

About the American Urological Association (AUA)

THE ORGANIZATION

Founded in 1902, the AUA is a premier urologic association providing invaluable support to the urologic community.

AUA MISSION

The AUA mission is to promote the highest standards of urological clinical care through education, research and the formulation of health care policy.

AUA VISION

The AUA vision is to be the premier professional association for the advancement of professional urologic patient care.

AUA ANNUAL CENSUS

The AUA's Annual Census (AUAnet.org/Census) is a systematically designed, specialty-wide survey of urology. The primary goal of the Census is to provide a definitive source of data surrounding the urologic community, such as providers' geographic distribution, demographic characteristics, education and training, and patterns of urology practice. The data collected assist in filling knowledge gaps and meeting research needs while, ultimately, improving patient care.

For more information about the AUA, please visit AUAnet.org.



INTRODUCTION

Millions of individuals who are affected by urologic diseases and conditions, such as urologic cancers, sexual dysfunction/infertility and urinary incontinence, are clinically cared for by urologists. As surgical specialists, urologists must also demonstrate expertise in internal medicine, pediatrics, gynecology and other specialties due to the overlap of various conditions. As the global population grows and ages, the demand for urologists has intensified. Research about the urologic workforce and practice, including cross-national variations, is increasing in importance. Such research is needed in order to prepare the appropriate workforce to meet future population needs and improve global health. The objective of this study was to characterize and compare urologists across the globe on workforce demographics, training, sub-specialization, practice

setting, employment status, professional roles, workload and productivity, the adoption of new techniques, and other characteristics of clinical practice through a single questionnaire and a comparable analytical approach. Findings from this study provide information that can bridge knowledge gaps, inform urology workforce planning and implementation, and ultimately, improve urologic care worldwide.

The American Urological Association (AUA) published its first report on the practicing urologists across the globe in 2016 using the 2015 Annual Census data. The AUA is releasing an updated report on practicing urologists globally using data primarily from the 2018 Annual Census. Findings from this report help build a base for both longitudinal and cross-country comparisons of the urology workforce.

Data and Methods

DATA SOURCES

Data used in this study were primarily collected through the 2018 Annual Census, a systematically designed annual survey of urology. The exceptions are Tables 14, 15 and 16, where data were collected from the 2017 AUA Annual Census. Among the AUA's more than 20,000 members throughout the world, two-thirds are based within the United States. The 2018 AUA Annual Census was launched during the AUA Annual Meeting in San Francisco on May 18, 2018, and remained online to both AUA members and non-members until September 30, 2018. Each respondent was assigned an identification number prior to completing the Census questions, which ensures that no respondent could take the survey more than once. In this study, 4,217 practicing urologists from 110 countries completed the Census, including 2,393 practicing urologists from the United States and 1,824 practicing urologists from outside the U.S.

DATA ELEMENTS

Data collected from practicing urologists include demographics (age, gender and race), education and training, geographical location of practice, practice setting, size of practice, subspecialty areas, years of practice in urology, employment status, clinical work hours per week, patient encounters per week, other professional roles, use of electronic health records (EHRs), and intended retirement age.

DATA ANALYSIS

Data were analyzed using both IBM-SPSS 22.0 and MS Excel and presented at both the continent and country levels. Only continents and countries with 20 or more responses were reported. Countries and territories with less than 20 respondents were merged into one group within each continent for analysis and; were reported as part of their corresponding continents as listed below in order of the number of responses in the AUA Annual Census:

North America: Puerto Rico, Panama, Costa Rica, El Salvador, Guatemala, Honduras, Jamaica, Cuba, Nicaragua, Trinidad and Tobago, Haiti, Barbados, Cayman Islands, Mauritania, Saint Lucia, Saint Vincent and the Grenadines, Virgin Islands (U.S.);

South America: Ecuador, Venezuela, Uruguay, Paraguay, Aruba;

Europe: France, Switzerland, Poland, Netherlands, Greece, Russian Federation, Portugal, Romania, Ireland,

Great Britain, Slovakia (Slovak Republic), Austria, Belgium, Bulgaria, Albania, Czech Republic, Denmark, Finland, Hungary, Iceland, Serbia, Sweden, Latvia, Luxembourg, Republic of Macedonia, Norway;

Africa: Algeria, Cameroon, Ghana, Kenya, Morocco, Mozambique, Namibia, Nigeria, Senegal, South Africa, Sudan, Tunisia, Zimbabwe;

Oceania: New Zealand, French Polynesia;

Asia: Israel, Taiwan, Pakistan, Saudi Arabia, Iran, Iraq, Lebanon, Myanmar, Burma, Singapore, Thailand, United Arab Emirates, Hong Kong, Vietnam, Indonesia, Jordan, Sri Lanka, Kuwait, Malaysia, Armenia, Cambodia, Georgia, Kazakhstan, Maldives, Syria, Syrian Arab Republic.

DATA GENERALIZABILITY

Due to the availability of a master file of all practicing urologists within the United States, weighted analyses of the samples representing the entire population of practicing urologists in the U.S., that were reported previously, were used as baselines for comparison in this study. Samples from urologists outside the U.S. were directly analyzed without the adjustment for non-response due to the inaccessibility of such practicing urologist master files in other countries. Thus, results regarding practicing urologists from outside the U.S. apply solely to the Census samples and may not be generalizable.



| PRIMARY OBSERVATIONS

GLOBAL COMPARISONS

- A total of 4,217 practicing urologists from 110 countries completed the 2018 AUA Annual Census, including 2,393 practicing urologists in the United States and 1,824 practicing urologists from outside of the United States. Continents and countries with 20 or more respondents were included in this report (TABLE 1).
- Practicing urologists are younger in China, Bolivia, Colombia and Mexico, reporting median ages of 42, 45, 46 and 46, respectively. In contrast, practicing urologists are relatively older with a median age of 58 in the United Kingdom, Spain and Germany (TABLE 2).
- Fellowship training rates for practicing urologists vary by location. In the Republic of Korea, 100 percent of urologists have fellowship training, while the lowest percentage of fellowship-trained urologists was found in Bangladesh, where only 15 percent had this additional training (TABLE 4).
- Oncology and Endourology/Stone Disease are the most common fellowship training areas (TABLE 5) and subspecialties (TABLE 12) for urologists around the globe.
- Urologists in Spain have the highest median number of years in practice (27), while those in Bolivia have the lowest median number of years (9) (TABLE 6).
- Urologists in Canada have the highest median number of work hours per week (60), followed by India (56), the United States (55) and Germany (55) (TABLE 7); while practicing urologists in the Republic of Korea, India and Canada see the most patients at 100 or more per week (TABLE 8).
- Practicing urologists in Germany reported the highest median number of hours performing non-clinical work (12) (TABLE 7).



Urologists are most likely to report holding concurrent roles, including educator, researcher and practice manager or administrator (TABLE 17).

- Practice size varies significantly around the globe, with Egypt having the highest median number of urologists (20) in a single practice (TABLE 9).
- Urologists around the world are most likely to work in a university hospital setting (TABLE 11). Urologists in the Republic of Korea, the United Kingdom and Japan are more likely to be employees than those in the Philippines, Brazil, Bolivia and Australia, where urologists are more likely to work in private practice (TABLE 10).
- More than 75 percent of urologists around the globe

report performing major surgical procedures (TABLE 13). The percentage of urologists using minimally invasive procedures was highest in China (94.3 percent), India (89.0 percent) and Chile (87.5). This percentage was relatively lower in the United Kingdom (44.2 percent), Egypt (48.4 percent) and Bolivia (50 percent) (TABLE 15).

- Most practicing urologists around the globe treat advanced prostate cancer. The percentage of practicing urologists treating patients with advanced prostate cancer was highest in the Philippines (97.6 percent) and lowest in Egypt (48.4 percent) (TABLE 14).
- The percentage of urologists who use AUA clinical guidelines when making clinical decisions was highest in China and the Philippines (100 percent) and Chile (96.9 percent) (TABLE 16).
- The use of electronic health records (EHR) is widespread, with more than 62 percent of urologists in non-U.S. countries reporting EHR use. Of the urologists outside the United States that use EHRs, more than 85 percent report an improvement in the quality and accuracy of their work (TABLE 18).



Practicing urologists outside the United States are more likely to participate in telemedicine programs (20.9 percent) compared to U.S. urologists (11.7 percent). Telemedicine use is highest among urologists in China (66.7 percent), Australia (40.9 percent), the Dominican Republic (40.0 percent) and Canada (39.5 percent) (TABLE 19).

- The percentage of urologists prescribing opioids for patients undergoing surgical procedures is markedly lower outside the United States (54.3 percent). However, more than 70 percent of urologists in the United States reported a reduction in the number of opioid prescriptions for surgical procedures compared to three years ago (TABLE 20).
- Nearly two-thirds of non-U.S. urologists receive enough funding from their practices to attend in-person meetings and to obtain continued medical education (TABLE 21).



A higher percentage of urologists outside the United States report satisfaction with their work-life balance (73.3 percent), and the median number of vacation weeks across all countries globally is the same (TABLE 23).

- The global variation in the median planned retirement ages reported by urologists is narrow, ranging from 65 to 70. An exception is China, where urologists' median planned retirement age is 63 (TABLE 24). In every reported country, the primary reasons urologists plan to retire later are they enjoy practicing or they want to practice; economic pressure was also reported as one of the deciding factors reported by urologists in Argentina, Spain and China (TABLE 25).

COUNTRIES WITH THE MOST OBVIOUS CHANGES FROM 2015 TO 2018

The results from the 2015 report serve as baselines for comparison.¹

- **Canada:** The median number of patient encounters in a typical week increased by approximately 11 percent from 2015 to 2018 (TABLE 8) among the practicing urologists in Canada. During that same period, the percentage of urologists who have a concurrent role as a researcher decreased by 36.4 percent (TABLE 17).
- **Colombia:** The largest decrease was seen in the percentage of urologists in private practices from 39.3 percent in 2015 to 32.0 percent in 2018 (TABLE 10).
- **India:** The largest decrease was seen in the number of respondents to the AUA Annual Census by 11 percent (TABLE 1). The highest increases were reported in both the median number of clinical work hours by 33.3 percent and the total number of work hours per week by 27.3 percent (TABLE 7).
- **Dominican Republic:** The largest decreases were reported in the number of clinical hours per week by 43.3 percent, the total number of works hours per week by 40.0 percent (TABLE 7) and the median number of patient encounters in a typical week by 28.6 percent between 2015 and 2018 (TABLE 8). In contrast, the largest increase was seen in the number of urologists who have a concurrent role as educators by 105.6 percent (TABLE 17).
- **Germany:** Practicing urologists in Germany reported increases in the mean number of urologists per practice by 66.7 percent (TABLE 9) and the median number of years practicing urology by 33.3 percent between 2015 and 2018 (TABLE 6).
- **Italy:** The largest decreases were seen in both the median number of patient encounters in a typical week by 40.0 percent (TABLE 8), and the median number of years practicing urology by 28.0 percent between 2015 and 2018 (TABLE 6); while a four-time increase was reported in the percent of urologists in private practice (TABLE 10).
- **Japan:** Obvious decreases were seen in the percentage of fellowship-trained urologists from 81.8 percent in 2015 to 59.5 percent in 2018 (TABLE 4), the median number of clinical work hours per week by 25.0 percent, the total number of work hours per week by 25.9 percent (TABLE 7) and the median number of patient encounters in a typical week by 25.0 percent between 2015 and 2018 (TABLE 8).
- **Philippines:** The largest increases were reported in the median number of urologists per practice by three times (TABLE 9) and the number of urologists who also had a concurrent role as a practice administrator or manager by 77.4 percent (TABLE 17) between 2015 and 2018. The highest decrease was also seen in the median number of total work hours per week by 40.0 percent (TABLE 7) during that period.
- **Turkey:** The largest decreases were seen in the percentage of urologists who had a concurrent role as an educator by 52.4 percent or as a researcher by 50.3 percent (TABLE 17).

¹ <https://www.auanet.org/Documents/research/census/AUA-International-Census-2015.pdf>

List of Tables

TABLE 1: Geographic Distribution of Respondents by Continents and Countries with 20 or More Respondents

TABLE 2: Median Age of Practicing Urologists

TABLE 3: Gender of Practicing Urologists

TABLE 4: Formal Fellowship Training

TABLE 5: Most Common Fellowship Training Areas

TABLE 6: Clinical Experience

TABLE 7: Number of Work Hours in a Typical Week

TABLE 8: Patient Encounters

TABLE 9: Practice Size

TABLE 10: Practice Setting and Employment Status

TABLE 11: Most Common Primary Practice Settings

TABLE 12: Most Common Subspecialty Areas

TABLE 13: Percentage of Practicing Urologists Who Perform Surgical Procedures

TABLE 14: Percentage of Practicing Urologists Who Treat Patients with Advanced Prostate Cancer in Their Practice

TABLE 15: Percentage of Practicing Urologists Who Utilize Minimally Invasive Procedures Using Laparoscopy or Robotics in Their Practice

TABLE 16: Percentage of Practicing Urologists Who Utilize AUA Clinical Guidelines When Making Clinical Decisions

TABLE 17: Concurrent Professional Roles

TABLE 18: Electronic Health Records Use and Improvement of Patient Care

TABLE 19: Telemedicine Participation

TABLE 20: Current Level and Trend of Opioid Prescription for Surgical Procedures

TABLE 21: Does Your Practice Provide Enough Financial Support for You to Gain In-Person Interaction with Other Urologists or Obtain Needed CME?

TABLE 22: Percentage of Urologists Who Have Enough Time to Keep Up with Changes in the Field of Urology

TABLE 23: Vacation Leave and Work-Life Balance

TABLE 24: Median Age at Planned Full Retirement from Practice

TABLE 25: Top Three Reasons Leading to Late Retirement



| FINDINGS

Table 1 shows 4,217 practicing urologists from 110 countries completed the 2018 Annual Census, comprised of 2,393 samples representing 12,660 practicing urologists in the United States and 1,824 practicing urologists from outside of the U.S. Continents and countries with 20 or more respondents were included in this report.

TABLE 1
Geographic Distribution of Respondents by Continents and Countries with 20 or More Respondents

Continent/Country		Number of Respondents
United States		2,393
Non-U.S. Countries		1,824
North America	Canada	83
	Dominican Republic	41
	Mexico	119
	Other North American Countries	88
	Continent Total[^]	331
South America	Argentina	126
	Bolivia	20
	Brazil	282
	Chile	27
	Colombia	50
	Peru	41
	Other South American Countries	31
	Continent Total	577
Europe	Germany	46
	Italy	49
	Spain	28
	United Kingdom	31
	Other European Countries	141
	Continent Total	295
Africa	Egypt	25
	Other African Countries	46
	Continent Total	71
Oceania	Australia	22
	Other Oceania Countries	7
	Continent Total	29
Asia	Bangladesh	20
	China	28
	India	89
	Japan	84
	Republic of Korea	26
	Philippines	82
	Turkey	41
	Other Asian Countries	151
	Continent Total	521

[^] The number of respondents were calculated at both country and continent levels using the samples within the jurisdiction.
(Data source: The 2018 AUA Annual Census)

Based on the median age in years, practicing urologists are the youngest in China (42), Bolivia (45), Colombia (46) and Mexico (46). Urologists are the oldest in the United Kingdom (58), Spain (58) and Germany (58), as shown in Table 2.

TABLE 2
Median Age of Practicing Urologists

Continent/Country		Median Age [^]
United States		56
Non-U.S. Countries		51
North America	Canada	50
	Dominican Republic	49
	Mexico	46
	Other North American Countries	53
	Continent Total[^]	50
South America	Argentina	47
	Bolivia	45
	Brazil	49
	Chile	53
	Colombia	46
	Peru	55
	Other South American Countries	57
	Continent Total	49
Europe	Germany	58
	Italy	55
	Spain	58
	United Kingdom	58
	Other European Countries	52
	Continent Total	56
Africa	Egypt	53
	Other African Countries	49
	Continent Total	51
Oceania	Australia	54
	Other Oceania Countries	57
	Continent Total	54
Asia	Bangladesh	48
	China	42
	India	52
	Japan	54
	Republic of Korea	48
	Philippines	54
	Turkey	51
	Other Asian Countries	52
Continent Total	51	

[^]Median ages were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Table 3 shows urology is a male-dominated profession globally; the percentages of female urologists are relatively high in Colombia (22.0%), Australia (18.2%), Italy (12.2%) and the Dominican Republic (9.8%).

TABLE 3
Gender of Practicing Urologists

Continent/Country		Percent of Women (%)	Percent of Practices Making Efforts to Hire Women (%)
United States		9.2	78.2
Non-U.S. Countries		4.5	64.1
North America	Canada	8.6	55.6
	Dominican Republic	9.8	87.1
	Mexico	6.7	70.5
	Other North American Countries	8.0	58.2
	Continent Total[^]	7.9	66.0
South America	Argentina	2.4	54.9
	Bolivia	5.0	61.5
	Brazil	1.4	60.2
	Chile	3.7	52.9
	Colombia	22.0	69.2
	Peru	5.0	67.9
	Other South American Countries	6.5	57.7
	Continent Total	4.2	60.0
Europe	Germany	4.4	78.0
	Italy	12.2	63.4
	Spain	3.6	40.0
	United Kingdom	3.2	76.2
	Other European Countries	2.9	63.4
	Continent Total	4.8	65.2
Africa	Egypt	0.0	58.8
	Other African Countries	0.0	71.4
	Continent Total	0.0	66.7
Oceania	Australia	18.2	76.2
	Other Oceania Countries	0.0	100.0
	Continent Total	13.8	81.5
Asia	Bangladesh	0.0	66.7
	China	3.6	92.9
	India	2.3	63.6
	Japan	2.4	78.9
	Republic of Korea	0.0	63.2
	Philippines	2.4	70.6
	Turkey	0.0	48.0
	Other Asian Countries	4.7	55.0
Continent Total	2.7	65.1	

[^]Percentages were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

As shown in Table 4, practicing urologists are most likely to have fellowship training in the Republic of Korea (100.0%), China (89.3%), Canada (79.5%) and Australia (72.7%), and least likely to have such training in Bangladesh (15.0%), India (27.0%) and Colombia (28.0%).

TABLE 4
Formal Fellowship Training

Continent/Country		Percent of Fellowship Trained Urologists (%)
United States		37.4
Non-U.S. Countries		56.3
North America	Canada	79.5
	Dominican Republic	58.5
	Mexico	47.9
	Other North American Countries	45.5
	Continent Total[^]	56.5
South America	Argentina	62.7
	Bolivia	35.0
	Brazil	54.3
	Chile	55.6
	Colombia	28.0
	Peru	56.1
	Other South American Countries	67.7
	Continent Total	54.1
Europe	Germany	71.7
	Italy	55.1
	Spain	39.3
	United Kingdom	51.6
	Other European Countries	64.5
	Continent Total	60.3
Africa	Egypt	72.0
	Other African Countries	65.2
	Continent Total	67.6
Oceania	Australia	72.7
	Other Oceania Countries	71.4
	Continent Total	72.4
Asia	Bangladesh	15.0
	China	89.3
	India	27.0
	Japan	59.5
	Republic of Korea	100.0
	Philippines	31.7
	Turkey	58.5
	Other Asian Countries	68.2
	Continent Total	53.9

[^]Percentages were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Table 5 shows oncology is the most common fellowship training area for practicing urologists across the globe, followed by endourology/stone disease, and female pelvic medicine and reconstructive surgery.

TABLE 5
Most Common Fellowship Training Areas

Continent/Country		Common Fellowship Training Area		
		Most Common	2nd Most Common	3rd Most Common
United States		Oncology	Robotic Surgery	Pediatrics
Non-U.S. Countries		Oncology	Endourology/Stone Disease	Erectile Dysfunction
North America	Canada	Oncology	Endourology/Stone Disease	Pediatrics
	Dominican Republic	Endourology/Stone Disease	Oncology	Male Infertility
	Mexico	Endourology/Stone Disease	Oncology	Erectile Dysfunction
	Other North American Countries	Endourology/ Stone Disease	Oncology	Renal Transplantation
	Continent Total[^]	Endourology/Stone Disease	Oncology	Erectile Dysfunction
South America	Argentina	Oncology	Endourology/Stone Disease	Erectile Dysfunction
	Bolivia	Endourology/Stone Disease	Oncology	Erectile Dysfunction/ Male Infertility
	Brazil	Oncology	Endourology/Stone Disease	Erectile Dysfunction
	Chile	Oncology	Endourology/Stone Disease	Erectile Dysfunction/ Male Reconstruction/ Trauma
	Colombia	Endourology/Stone Disease	Oncology	Male Infertility
	Peru	Endourology/Stone Disease	Oncology	Renal Transplantation
	Other South American Countries	Endourology/ Stone Disease	Oncology	Robotic Surgery
	Continent Total	Oncology	Endourology/Stone Disease	Erectile Dysfunction
Europe	Germany	Oncology	Endourology/Stone Disease	Erectile Dysfunction
	Italy	Oncology	Endourology/Stone Disease	Female Pelvic Medicine and Reconstructive Surgery
	Spain	Oncology	Robotic Surgery	Endourology/Stone Disease/Research
	United Kingdom	Oncology	Endourology/Stone Disease	Erectile Dysfunction
	Other European Countries	Oncology	Endourology/ Stone Disease	Erectile Dysfunction/ Robotic Surgery
	Continent Total	Oncology	Endourology/Stone Disease	Erectile Dysfunction

(Continued on page 16.)

TABLE 5
Most Common Fellowship Training Areas (Continued)

Continent/Country		Common Fellowship Training Area		
		Most Common	2nd Most Common	3rd Most Common
Africa	Egypt	Endourology/Stone Disease	Erectile Dysfunction	Male Infertility
	Other African Countries	Oncology	Endourology/ Stone Disease	Erectile Dysfunction/ Male Infertility
	Continent Total	Endourology/Stone Disease	Oncology	Erectile Dysfunction
Oceania	Australia	Oncology/Female Pelvic Medicine and Reconstructive Surgery		Endourology/Stone Disease
	Other Oceania Countries	Oncology		
	Continent Total	Oncology	Female Pelvic Medicine and Reconstructive Surgery	Endourology/Stone Disease
Asia	Bangladesh	Oncology	Research	N/A
	China	Oncology	Endourology/Stone Disease	Research
	India	Endourology/Stone Disease	Oncology	Renal Transplantation
	Japan	Oncology	Endourology/Stone Disease	Research
	Republic of Korea	Oncology	Endourology/Stone Disease	Female Pelvic Medicine and Reconstructive Surgery/Research
	Philippines	Endourology/Stone Disease	Oncology	Pediatrics
	Turkey	Oncology	Endourology/Stone Disease	Erectile Dysfunction
	Other Asian Countries	Endourology/ Stone Disease	Oncology	Erectile Dysfunction
	Continent Total	Oncology	Endourology/Stone Disease	Erectile Dysfunction

^Percentages were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

In Table 6, practicing urologists in Spain, Japan and Germany had the most years in the practice of urology, with respective median years of 27, 24 and 24, compared with Bolivia, Bangladesh and China with the fewest median years of 9, 10 and 10.

TABLE 6
Clinical Experience

Continent/Country		Median Number of Years Practicing Urology [^]
United States		21
Non-U.S. Countries		18
North America	Canada	18
	Dominican Republic	14
	Mexico	15
	Other North American Countries	19
	Continent Total[^]	17
South America	Argentina	15
	Bolivia	9
	Brazil	19
	Chile	23
	Colombia	15
	Peru	17
	Other South American Countries	20
Continent Total	18	
Europe	Germany	24
	Italy	18
	Spain	27
	United Kingdom	22
	Other European Countries	17
	Continent Total	20
Africa	Egypt	23
	Other African Countries	16
	Continent Total	18
Oceania	Australia	20
	Other Oceania Countries	19
	Continent Total	20
Asia	Bangladesh	10
	China	10
	India	19
	Japan	24
	Republic of Korea	15
	Philippines	18
	Turkey	15
	Other Asian Countries	17
Continent Total	17	

[^]Median numbers of years were calculated at both country and continent levels using the samples within the jurisdiction.
(Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Table 7 shows practicing urologists had both the longest median work hours and hours spent on clinical duties per week in Canada (60/50), India (56/48), the United States (55/48) and Germany (55/40).

TABLE 7
Number of Work Hours in a Typical Week

Continent/Country		Median Number of Work Hours per Week		
		Total	Clinical Work	Non-Clinical Work
United States		55	48	5
Non-U.S. Countries		42	30	8
North America	Canada	60	50	10
	Dominican Republic	24	17	6
	Mexico	33	25	5
	Other North American Countries	46	40	6
	Continent Total[^]	45	36	6
South America	Argentina	37	24	5
	Bolivia	13	10	4
	Brazil	40	30	8
	Chile	40	32	5
	Colombia	30	20	5
	Peru	28	24	6
	Other South American Countries	27	20	8
Continent Total	37	30	6	
Europe	Germany	55	40	12
	Italy	46	34	10
	Spain	43	30	10
	United Kingdom	45	35	10
	Other European Countries	45	30	10
Continent Total	46	35	10	
Africa	Egypt	40	25	10
	Other African Countries	44	35	8
	Continent Total	43	30	8
Oceania	Australia	48	40	10
	Other Oceania Countries	47	30	15
	Continent Total	47	40	10
Asia	Bangladesh	48	36	10
	China	52	40	5
	India	56	48	8
	Japan	43	30	10
	Republic of Korea	41	30	10
	Philippines	27	20	5
	Turkey	30	20	5
	Other Asian Countries	44	32	8
Continent Total	43	30	8	

[^]Median numbers were calculated at both country and continent levels using the samples within the jurisdiction.

(Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Practicing urologists in the Republic of Korea, India and Canada saw the most patients per week (135, 100 and 100, respectively); meanwhile, they spent the shortest time with patients in a typical office visit (from 6 minutes to 12 minutes), as shown in Table 8.

TABLE 8
Patient Encounters

Continent/Country		Median Number of Patient Encounters in a Typical Week	Median Number of Minutes Spent with a Patient in a Typical Office Visit
United States		75	16
Non-U.S. Countries		60	15
North America	Canada	100	12
	Dominican Republic	50	17
	Mexico	40	25
	Other North American Countries	58	15
	Continent Total[^]	50	17
South America	Argentina	70	15
	Bolivia	52	15
	Brazil	60	20
	Chile	50	20
	Colombia	80	16
	Peru	40	15
	Other South American Countries	40	20
Continent Total	60	15	
Europe	Germany	85	15
	Italy	30	20
	Spain	50	14
	United Kingdom	40	15
	Other European Countries	50	15
Continent Total	50	15	
Africa	Egypt	75	15
	Other African Countries	50	15
	Continent Total	51	15
Oceania	Australia	60	15
	Other Oceania Countries	40	15
	Continent Total	50	15
Asia	Bangladesh	50	15
	China	30	10
	India	100	10
	Japan	60	10
	Republic of Korea	135	6
	Philippines	60	15
	Turkey	50	15
	Other Asian Countries	70	10
Continent Total	70	10	

[^]Median numbers were calculated at both country and continent levels using the samples within the jurisdiction.

(Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

As shown in Table 9, the median practice size varies greatly from the highest (Egypt [20 urologists]), China (12 urologists), and Spain (11 urologists) to the lowest (India, Australia, the Dominican Republic and Mexico [3 urologists]).

TABLE 9
Practice Size

Continent/Country		Median Number of Urologists per Practice
United States		6
Non-U.S. Countries		5
North America	Canada	5
	Dominican Republic	3
	Mexico	3
	Other North American Countries	3
	Continent Total[^]	3
South America	Argentina	5
	Bolivia	4
	Brazil	5
	Chile	10
	Colombia	7
	Peru	6
	Other South American Countries	4
	Continent Total	5
Europe	Germany	5
	Italy	7
	Spain	11
	United Kingdom	8
	Other European Countries	7
	Continent Total	7
Africa	Egypt	20
	Other African Countries	4
	Continent Total	5
Oceania	Australia	3
	Other Oceania Countries	4
	Continent Total	3
Asia	Bangladesh	5
	China	12
	India	3
	Japan	8
	Republic of Korea	6
	Philippines	5
	Turkey	5
	Other Asian Countries	5
Continent Total	5	

[^]Median numbers were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

As shown in Table 10, practicing urologists are most likely to work in private practices in the Philippines (62.2%), Brazil (60.6%), Bolivia (60.0%) and Australia (59.1%) versus least likely to work in private practices in the Republic of Korea (7.7%), China (10.7%) and the United Kingdom (12.9%). Table 10 also shows practicing urologists are most likely to work as employees in the Republic of Korea (88.5%), the United Kingdom (87.1%) and Japan (82.1%), and least likely to be employed in the Philippines (8.5%), Brazil (18.8%) and Mexico (25.2%).

TABLE 10
Practice Setting and Employment Status

Continent/Country		Percent of Urologists in Private Practice (%)	Percent of Urologists Who Are Employees Only (%)
United States		56.9	58.1
Non-U.S. Countries		37.7	44.1
North America	Canada	37.3	16.9
	Dominican Republic	46.3	36.6
	Mexico	47.9	25.2
	Other North American Countries	48.9	33.0
	Continent Total[^]	45.3	26.6
South America	Argentina	47.6	27.8
	Bolivia	60.0	40.0
	Brazil	60.6	18.8
	Chile	18.5	48.1
	Colombia	32.0	48.0
	Peru	29.3	53.7
	Other South American Countries	45.2	22.6
	Continent Total	50.3	28.1
Europe	Germany	39.1	56.5
	Italy	14.3	61.2
	Spain	17.9	64.3
	United Kingdom	12.9	87.1
	Other European Countries	25.5	63.1
	Continent Total	23.7	64.4
Africa	Egypt	28.0	80.0
	Other African Countries	23.9	56.5
	Continent Total	25.4	64.8
Oceania	Australia	59.1	27.3
	Other Oceania Countries	28.6	42.9
	Continent Total	51.7	31.0
Asia	Bangladesh	30.0	80.0
	China	10.7	60.7
	India	38.2	53.9
	Japan	13.1	82.1
	Republic of Korea	7.7	88.5
	Philippines	62.2	8.5
	Turkey	17.1	53.7
	Other Asian Countries	20.5	70.9
Continent Total	27.8	59.3	

[^]Percentages were calculated at both country and continent levels using the samples within the jurisdiction.

(Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Globally, the most common primary practice setting for urologists is the university hospital, followed by public and private hospitals, and then private practices as shown in Table 11.

TABLE 11
Most Common Primary Practice Settings

Continent/Country		Most Common Primary Practice Settings		
		Most Common	2 nd Most Common	3 rd Common
United States		Single urology groups	University hospitals	Multispecialty groups
Non-U.S. Countries		University hospitals	Solo practices	Private hospitals
North America	Canada	University hospitals	Solo practices	Single urology groups
	Dominican Republic	Private hospitals	University hospitals	Single urology groups
	Mexico	Non-university hospitals	Solo practices	Private hospitals
	Other North American Countries	Solo Practices	Single urology groups	Non-university hospitals
	Continent Total[^]	University hospitals	Solo practices	Single urology groups
South America	Argentina	University hospitals	Multi-specialty groups	Single urology groups
	Bolivia	Single urology groups	Multi-specialty groups/non-university hospitals	
	Brazil	Single urology groups	University hospitals	Solo practices
	Chile	Non-university hospitals/private hospitals		University hospitals
	Colombia	Private hospitals	University hospitals	Single urology groups
	Peru	Non-university hospitals	Private hospitals	
	Other South American Countries	Private hospitals	Single urology groups and Non-university hospitals	
	Continent Total	Single urology groups	University hospitals	Private hospitals
Europe	Germany	University hospitals	Solo practices	Non-university hospitals
	Italy	University hospitals	Private hospitals	Non-university hospitals
	Spain	University hospitals	Multi-specialty groups	Non-university hospitals/private hospitals
	United Kingdom	University hospitals	Non-university hospitals	Multi-specialty groups
	Other European Countries	University hospitals	Non-university hospitals	Private hospitals
	Continent Total	University hospitals	Non-university hospitals	Private hospitals

(Continued on page 23.)

TABLE 11
Most Common Primary Practice Settings (Continued)

Continent/Country		Most Common Primary Practice Settings		
		Most Common	2 nd Most Common	3 rd Common
Africa	Egypt	University hospitals	Multi-specialty groups	Private hospitals
	Other African Countries	University hospitals	Private hospitals	Solo practices
	Continent Total	University hospitals	Private hospitals	Single urology groups /solo practices
Oceania	Australia	Single urology groups	Solo practices	Non-university hospitals
	Other Oceania Countries	Non-university hospitals	Multi-specialty groups	
	Continent Total	Non-university hospitals	Single urology groups	Solo practices
Asia	Bangladesh	Solo practices	University hospitals/non-university hospitals	
	China	University hospitals	Non-university hospitals	Multi-specialty groups
	India	Private hospitals	University hospitals	Solo practices
	Japan	University hospitals	Non-university hospitals	Private hospitals
	Republic of Korea	University hospitals	Non-university hospitals/single urology groups/solo practices	
	Philippines	Solo practices	Private hospitals	University hospitals
	Turkey	University hospitals	Private hospitals	Solo practices
	Other Asian Countries	University hospitals	Non-university hospitals	Private hospitals
	Continent Total	University hospitals	Private hospitals	Solo practices

^Most common practice settings were selected at both country and continent levels using the samples within the jurisdiction.
 (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Table 12 shows oncology and endourology/stone disease are the top two urology subspecialty areas among practicing urologists worldwide. Other common subspecialty areas include laparoscopic surgery, erectile dysfunction, female pelvic medicine and reconstructive surgery, male genitourinary reconstruction, and robotic surgery.

TABLE 12
Most Common Subspecialty Areas

Continent/Country		Most Common Subspecialties		
		Most Common	2 nd Most Common	3 rd Common
United States		Oncology	Endourology/Stone Disease	Erectile Dysfunction
Non-U.S. Countries		Oncology	Endourology/Stone Disease	Erectile Dysfunction
North America	Canada	Oncology	Endourology/Stone Disease	Erectile Dysfunction/ Laparoscopic Surgery
	Dominican Republic	Endourology/Stone Disease	Oncology	Erectile Dysfunction
	Mexico	Endourology/Stone Disease	Oncology	Erectile Dysfunction
	Other North American Countries	Endourology / Stone Disease	Oncology	Erectile Dysfunction
	Continent Total[^]	Endourology/Stone Disease	Oncology	Erectile Dysfunction
South America	Argentina	Oncology	Endourology/Stone Disease	Laparoscopic Surgery
	Bolivia	Endourology/Stone Disease	Oncology	Laparoscopic Surgery
	Brazil	Endourology/Stone Disease	Oncology	Erectile Dysfunction
	Chile	Oncology	Endourology/Stone Disease	Erectile Dysfunction
	Colombia	Oncology	Endourology/Stone Disease	Female Pelvic Medicine and Reconstructive Surgery
	Peru	Endourology/Stone Disease	Oncology	Laparoscopic Surgery
	Other South American Countries	Endourology / Stone Disease	Oncology	Laparoscopic Surgery
	Continent Total	Oncology	Endourology/Stone Disease	Erectile Dysfunction

(Continued on page 25.)

TABLE 12
Most Common Subspecialty Are (Continued)

Continent/Country		Most Common Subspecialties		
		Most Common	2 nd Most Common	3 rd Common
Europe	Germany	Oncology	Endourology/Stone Disease	Erectile Dysfunction
	Italy	Oncology	Endourology/Stone Disease	Laparoscopic Surgery
	Spain	Oncology	Laparoscopic Surgery	Endourology/Stone Disease
	United Kingdom	Oncology	Endourology/Stone Disease	Erectile Dysfunction
	Other European Countries	Oncology	Endourology / Stone Disease	Erectile Dysfunction
	Continent Total	Oncology	Endourology/Stone Disease	Erectile Dysfunction
Africa	Egypt	Endourology/Stone Disease	Oncology	Male Genitourinary Reconstruction
	Other African Countries	Oncology	Male Infertility	Endourology / Stone Disease / Erectile Dysfunction
	Continent Total	Oncology/Endourology/Stone Disease		Male Infertility
Oceania	Australia	Endourology/Stone Disease	Oncology	Erectile Dysfunction
	Other Oceania Countries	Oncology	Endourology / Stone Disease	Laparoscopic Surgery
	Continent Total	Endourology/Stone Disease	Oncology	Laparoscopic Surgery
Asia	Bangladesh	Endourology/Stone Disease	Oncology	Laparoscopic Surgery/Pediatrics
	China	Oncology	Endourology/Stone Disease	Laparoscopic Surgery
	India	Endourology/Stone Disease	Oncology	Laparoscopic Surgery
	Japan	Oncology	Laparoscopic Surgery	Robotic Surgery/Endourology/Stone Disease
	Republic of Korea	Oncology/Laparoscopic Surgery		Endourology/Stone Disease/Robotic Surgery
	Philippines	Oncology/Endourology/Stone Disease		
	Turkey	Oncology	Endourology/Stone Disease	Laparoscopic Surgery
	Other Asian Countries	Endourology / Stone Disease	Oncology	Erectile Dysfunction
	Continent Total	Oncology	Endourology/Stone Disease	Laparoscopic Surgery

^Most common subspecialties were selected at both country and continent levels using the samples within the jurisdiction.
 (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Most practicing urologists perform surgical procedures across the globe as shown in Table 13. The percentage of practicing urologists who perform surgical procedures is reported as 100% in the Republic of Korea, Bangladesh, Spain, Chile and Bolivia. In contrast, urologists performing rates of surgical procedures are relatively lower in Germany (78.3%), Japan (84.5%), Canada (89.2%) and the United Kingdom (90.3%).

TABLE 13
Percentage of Practicing Urologists Who Perform Surgical Procedures

Continent/Country		Percent of Urologists Who Perform Major Surgical Procedures (%)
United States		80.2
Non-U.S. Countries		93.9
North America	Canada	89.2
	Dominican Republic	92.7
	Mexico	94.1
	Other North American Countries	93.2
	Continent Total[^]	92.4
South America	Argentina	93.7
	Bolivia	100.0
	Brazil	96.5
	Chile	100.0
	Colombia	94.0
	Peru	97.6
	Other South American Countries	93.5
	Continent Total	95.8
Europe	Germany	78.3
	Italy	93.9
	Spain	100.0
	United Kingdom	90.3
	Other European Countries	88.7
	Continent Total	89.2
Africa	Egypt	96.0
	Other African Countries	95.7
	Continent Total	95.8
Oceania	Australia	95.5
	Other Oceania Countries	100.0
	Continent Total	96.6
Asia	Bangladesh	100.0
	China	92.9
	India	98.9
	Japan	84.5
	Republic of Korea	100.0
	Philippines	98.8
	Turkey	95.1
	Other Asian Countries	95.4
Continent Total	95.0	

[^]Percentages were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Most practicing urologists treat patients with advanced prostate cancer across the globe, as shown in Table 14. The percentages of practicing urologists who treat patients with advanced prostate cancer were the highest in the Philippines (97.6%), Colombia (92.9%) and Bolivia (92.9%). In contrast, treating patients with advanced prostate cancer was relatively lower in Egypt (48.4%), Canada (56.1%) and Brazil (58.4%).

TABLE 14
Percentage of Practicing Urologists Who Treat Patients with Advanced Prostate Cancer in Their Practice

Continent/Country		Urologists Who Treat Advanced Prostate Cancer		
		Total Number of Urologists	Number of Urologists Who Answered Yes	Percentage (%)
Non-U.S. Countries		1,985	1,522	76.9
North America	Canada	98	55	56.1
	Dominican Republic	55	45	81.8
	Mexico	123	106	86.2
	Other North American Countries	77	68	88.3
	Continent Total[^]	353	274	77.6
South America	Argentina	122	111	91.0
	Bolivia	14	13	92.9
	Brazil	281	164	58.4
	Chile	32	28	87.5
	Colombia	56	52	92.9
	Peru	37	31	83.8
	Other South American Countries	53	40	75.5
	Continent Total	595	439	73.8
Europe	Germany	52	48	92.3
	Italy	50	34	68.0
	Spain	42	34	81.0
	United Kingdom	43	29	67.4
	Other European Countries	126	96	76.2
	Continent Total	313	241	77.0
Africa	Egypt	64	31	48.4
	Other African Countries	57	53	93.0
	Continent Total	121	84	69.4
Oceania	Australia	27	20	74.1
	Other Oceania Countries	3	2	66.7
	Continent Total	30	22	73.3
Asia	Bangladesh	26	17	65.4
	China	35	32	91.4
	India	82	73	89.0
	Japan	97	84	86.6
	Republic of Korea	31	24	77.4
	Philippines	85	83	97.6
	Turkey	32	20	62.5
	Other Asian Countries	182	129	69.7
Continent Total	573	462	80.6	

[^]Percentages and numbers were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2017 AUA Annual Census - Percentages from unweighted samples from the 2017 AUA Annual Census for countries outside the U.S. were reported. No report on the U.S. urologists was made because this question was not asked in the same year.)

Variations were seen among practicing urologists who utilize minimally invasive procedures using laparoscopy or robotics across the globe in Table 15. The percentages of practicing urologists who utilize minimally invasive procedures were the highest in China (94.3%), India (89.0%) and Chile (87.5%). In contrast, utilizing minimally invasive procedures using laparoscopy or robotics was relatively lower in the United Kingdom (44.2%), Egypt (48.4%) and Bolivia (50.0%).

TABLE 15
Percentage of Practicing Urologists Who Utilize Minimally Invasive Procedures Using Laparoscopy or Robotics in Their Practice

Continent/Country		Percentage of Urologists Who Utilize Minimally Invasive Procedures		
		Total Number of Urologists	Number of Urologists Who Answered Yes	Percentage (%)
Non-U.S. Countries		1,985	1,418	71.4
North America	Canada	98	72	73.5
	Dominican Republic	55	36	65.5
	Mexico	123	99	80.5
	Other North American Countries	77	45	58.4
	Continent Total[^]	353	252	71.4
South America	Argentina	122	75	61.5
	Bolivia	14	7	50.0
	Brazil	281	202	71.9
	Chile	32	28	87.5
	Colombia	56	40	71.4
	Peru	37	29	78.4
	Other South American Countries	53	42	79.2
	Continent Total	595	423	71.1
Europe	Germany	52	33	63.5
	Italy	50	41	82.0
	Spain	42	36	85.7
	United Kingdom	43	19	44.2
	Other European Countries	126	95	75.4
	Continent Total	313	224	71.6
Africa	Egypt	64	31	48.4
	Other African Countries	57	31	54.4
	Continent Total	121	62	51.2
Oceania	Australia	27	18	66.7
	Other Oceania Countries	3	2	66.7
	Continent Total	30	20	66.7
Asia	Bangladesh	26	21	80.8
	China	35	33	94.3
	India	82	73	89.0
	Japan	97	80	82.5
	Republic of Korea	31	23	74.2
	Philippines	85	57	67.1
	Turkey	32	24	75.0
	Other Asian Countries	185	126	68.1
	Continent Total	573	437	76.3

[^]Percentages and numbers were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2017 AUA Annual Census - Percentages from unweighted samples from the 2017 AUA Annual Census for countries outside the U.S. were reported. No report on the U.S. urologists was made because this question was not asked in the same year.)

Most practicing urologists utilize AUA clinical guidelines when making clinical decisions across the globe, as shown in Table 16. The percentages of practicing urologists who utilize AUA clinical guidelines when making clinical decisions were the highest in China and the Philippines (100.0%), and Chile (96.9%). In contrast, utilizing AUA clinical guidelines when making clinical decisions was relatively lower in Australia (66.7%), the United Kingdom (69.8%) and Italy (72.0%).

TABLE 16
Percentage of Practicing Urologists Who Utilize AUA Clinical Guidelines When Making Clinical Decisions

Continent/Country		Practicing Urologists Who Utilize AUA Clinical Guidelines		
		Total Number of Urologists	Number of Urologists Who Answered Yes	Percentage (%)
Non-U.S. Countries		1,985	1,763	88.8
North America	Canada	98	89	90.8
	Dominican Republic	55	51	92.7
	Mexico	123	117	95.1
	Other North American Countries	77	75	97.4
	Continent Total[^]	353	332	94.1
South America	Argentina	122	109	89.3
	Bolivia	14	11	78.6
	Brazil	281	261	92.9
	Chile	32	31	96.9
	Colombia	56	53	94.6
	Peru	37	35	94.6
	Other South American Countries	53	53	100.0
	Continent Total	595	553	92.9
Europe	Germany	52	39	75.0
	Italy	50	36	72.0
	Spain	42	35	83.3
	United Kingdom	43	30	69.8
	Other European Countries	126	100	79.4
	Continent Total	313	240	76.7
Africa	Egypt	64	58	90.6
	Other African Countries	57	50	87.7
	Continent Total	121	108	89.3
Oceania	Australia	27	18	66.7
	Other Oceania Countries	3	3	100.0
	Continent Total	30	21	70.0
Asia	Bangladesh	26	19	73.1
	China	35	35	100.0
	India	82	70	85.4
	Japan	97	73	75.3
	Republic of Korea	31	29	93.5
	Philippines	85	85	100.0
	Turkey	32	29	90.6
	Other Asian Countries	185	169	91.4
Continent Total	573	509	88.8	

[^]Percentages and numbers were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2017 AUA Annual Census - Percentages from unweighted samples from the 2017 AUA Annual Census for countries outside the U.S. were reported. No report on the U.S. urologists was made because this question was not asked in the same year.)

Practicing urologists are most likely to be an educator concurrently in Chile (29.6%), Brazil (20.6%), Canada (18.1%) and Colombia (18.0%) as opposed to Italy (4.1%), Bangladesh (5.0%), China (7.1%) and Spain (7.1%) as shown in Table 17. Additionally, practicing urologists are most likely to be a concurrent researcher in Egypt (24.0%), Canada (15.7%), Chile (14.8%) and Spain (14.3), compared to Bolivia (0.0%), Argentina (1.6%) and the Dominican Republic (2.4%). Practicing urologists are likely to serve as a practice manager or administrator in Chile (14.8%), Brazil (8.9%), the Philippines (11.0%) and Bangladesh (10.0%).

TABLE 17
Concurrent Professional Roles

Continent/Country		Percentage of Urologists with Concurrent Roles		
		Educator (%)	Researcher (%)	Practice Manager or Administrator (%)
United States		9.9	7.5	3.6
Non-U.S. Countries		13.4	9.4	4.3
North America	Canada	18.1	15.7	4.8
	Dominican Republic	14.6	2.4	2.4
	Mexico	9.2	7.6	2.5
	Other North American Countries	9.1	2.3	2.3
	Continent Total[^]	12.1	7.6	3.0
South America	Argentina	12.7	1.6	1.6
	Bolivia	15.0	0.0	0.0
	Brazil	20.6	11.0	8.9
	Chile	29.6	14.8	14.8
	Colombia	18.0	6.0	2.0
	Peru	7.3	7.3	2.4
	Other South American Countries	19.4	6.5	6.5
	Continent Total	17.9	7.8	6.1
Europe	Germany	8.7	8.7	2.2
	Italy	4.1	10.2	0.0
	Spain	7.1	14.3	0.0
	United Kingdom	16.1	12.9	0.0
	Other European Countries	10.6	12.1	2.8
	Continent Total	9.5	11.5	1.7
Africa	Egypt	16.0	24.0	0.0
	Other African Countries	17.4	21.7	2.2
	Continent Total	16.9	22.5	1.4
Oceania	Australia	9.1	9.1	4.5
	Other Oceania Countries	0.0	14.3	14.3
	Continent Total	6.9	10.3	6.9
Asia	Bangladesh	5.0	5.0	10.0
	China	7.1	10.7	0.0
	India	10.1	11.2	4.5
	Japan	11.9	13.1	2.4
	Republic of Korea	11.5	7.7	0.0
	Philippines	13.4	7.3	11.0
	Turkey	9.8	7.3	2.4
	Other Asian Countries	12.6	7.9	5.3
Continent Total	11.3	9.2	5.0	

[^]Percentages were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

As shown in Table 18, the electronic health records (EHR) systems are most commonly used by practicing urologists in Australia (95.5%), the United States (95.3%), Canada (89.2%) and South Korea (88.0%), and least commonly used in Bangladesh (20.0%), the Philippines (32.9%) and Germany (41.9%).

TABLE 18
Electronic Health Records Use and Improvement of Patient Care

Continent/Country		Percentage of Urologists	
		Use Electronic Health Records (EHR) System (%)	Believe Using an EHR System Increases the Quality and Accuracy of Work (%)
United States		95.3	41.3
Non-U.S. Countries		62.4	85.6
North America	Canada	89.2	64.9
	Dominican Republic	82.9	85.3
	Mexico	62.2	91.9
	Other North American Countries	55.7	83.7
	Continent Total[^]	69.6	80.5
South America	Argentina	62.1	88.3
	Bolivia	70.0	92.9
	Brazil	66.7	90.1
	Chile	84.0	85.7
	Colombia	68.8	90.9
	Peru	56.1	87.0
	Other South American Countries	66.7	90.0
	Continent Total	66.1	89.5
Europe	Germany	41.9	61.1
	Italy	59.6	100.0
	Spain	74.1	85.0
	United Kingdom	71.0	63.6
	Other European Countries	62.7	83.3
	Continent Total	61.4	81.4
Africa	Egypt	50.0	100.0
	Other African Countries	40.9	94.4
	Continent Total	44.1	96.7
Oceania	Australia	95.5	81.0
	Other Oceania Countries	85.7	83.3
	Continent Total	93.1	81.5
Asia	Bangladesh	20.0	100.0
	China	72.0	88.9
	India	58.0	86.3
	Japan	47.9	82.9
	Republic of Korea	88.0	90.9
	Philippines	32.9	81.5
	Turkey	56.1	87.0
	Continent Total	54.9	86.5

[^]Most common practice settings were selected at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Participating in telemedicine is most common among practicing urologists in China (66.7%), Australia (40.9%), the Dominican Republic (40.0%) and Canada (39.5%), and least common among practicing urologists in the Republic of Korea (4.2%), Chile (11.1%), Japan (12.0%) and the Philippines (12.2%), as shown in Table 19.

TABLE 19
Telemedicine Participation

Continent/Country		Percentage of Urologists Who Participate in a Telemedicine Program (%)
United States		11.7
Non-U.S. Countries		20.9
North America	Canada	39.5
	Dominican Republic	40.0
	Mexico	21.2
	Other North American Countries	11.5
	Continent Total[^]	25.5
South America	Argentina	18.5
	Bolivia	20.0
	Brazil	16.4
	Chile	11.1
	Colombia	18.4
	Peru	29.3
	Other South American Countries	32.3
	Continent Total	18.7
Europe	Germany	13.6
	Italy	14.6
	Spain	17.9
	United Kingdom	19.4
	Other European Countries	19.4
	Continent Total	17.6
Africa	Egypt	13.6
	Other African Countries	28.9
	Continent Total	23.9
Oceania	Australia	40.9
	Other Oceania Countries	42.9
	Continent Total	41.4
Asia	Bangladesh	15.8
	China	66.7
	India	33.0
	Japan	12.0
	Republic of Korea	4.2
	Philippines	12.2
	Turkey	19.4
	Other Asian Countries	18.1
Continent Total	20.8	

[^]Percentages were calculated at both country and continent levels using the samples within the jurisdiction.

(Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Table 20 shows opioids were prescribed for patients undergoing surgical procedures the most among practicing urologists in the United States (89.4%), Canada (79.0%) and Bangladesh (77.8%) versus the least in the Philippines (29.1%), Peru (30.8%) and Mexico (33.9%). Also seen in Table 20, practicing urologists in the countries where opioids were prescribed the most are more likely to report they have reduced the number of opioid prescriptions for patients undergoing surgical procedures compared to three years ago.

TABLE 20
Current Level and Trend of Opioid Prescription for Surgical Procedures

Continent/Country		Percentage of Urologists Prescribing Opioid	
		Prescribe Opioids for Patients Undergoing Surgical Procedures (%)	Reduce the Number of Opioid Prescriptions for Surgical Procedures (%)
United States		89.4	72.3
Non-U.S. Countries		54.3	31.2
North America	Canada	79.0	54.7
	Dominican Republic	45.9	31.3
	Mexico	33.9	27.0
	Other North American Countries	53.0	36.4
	Continent Total[^]	51.6	41.0
South America	Argentina	56.1	23.5
	Bolivia	47.4	28.6
	Brazil	65.0	33.9
	Chile	46.2	25.0
	Colombia	53.1	19.2
	Peru	30.8	16.7
	Other South American Countries	35.5	54.5
	Continent Total	56.7	30.2
Europe	Germany	72.7	17.2
	Italy	46.9	26.1
	Spain	66.7	31.3
	United Kingdom	61.3	16.7
	Other European Countries	49.3	32.3
	Continent Total	55.6	26.4
Africa	Egypt	44.0	45.5
	Other African Countries	65.0	20.0
	Continent Total	56.9	27.8
Oceania	Australia	72.7	50.0
	Other Oceania Countries	57.1	25.0
	Continent Total	69.0	47.4
Asia	Bangladesh	77.8	42.9
	China	66.7	11.8
	India	41.4	34.3
	Japan	48.2	10.3
	Republic of Korea	52.0	8.3
	Philippines	29.1	13.0
	Turkey	50.0	29.4
	Other Asian Countries	66.0	40.7
	Continent Total	51.5	28.2

[^]Most common practice settings were selected at both country and continent levels using the samples within the jurisdiction.
(Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

The percentage of practicing urologists who have enough funding to attend in-person meetings for face-to-face interaction with other urologists or to obtain needed continued medical education are higher in Australia (90.9%/90.9%), the Philippines (88.6%/85.4%), the Dominican Republic (87.2%/89.5%) and the United States (75.8%/82.4%) and low in Egypt (41.7%/38.1%), Turkey (44.7%/44.7%) and Colombia (44.7%/45.8%) as shown in Table 21.

TABLE 21

Does Your Practice Provide Enough Financial Support for You to Gain In-Person Interaction with Other Urologists or Obtain Needed CME?

Continent/Country		Percentage of Urologists with Enough Funding to	
		Attend In-person Meetings for Face-to-face Interaction with Other Urologists (%)	Obtain Needed Continued Medical Education (%)
United States		75.5	82.4
Non-U.S. Countries		64.7	65.3
North America	Canada	52.6	56.3
	Dominican Republic	87.2	89.5
	Mexico	75.2	75.4
	Other North American Countries	57.7	64.0
	Continent Total[^]	66.7	69.3
South America	Argentina	59.1	59.1
	Bolivia	61.1	55.0
	Brazil	70.2	72.1
	Chile	48.0	33.3
	Colombia	44.7	45.8
	Peru	73.0	70.7
	Other South American Countries	83.9	76.7
	Continent Total	65.2	64.7
Europe	Germany	73.2	70.5
	Italy	47.8	56.3
	Spain	48.1	42.3
	United Kingdom	46.4	55.2
	Other European Countries	63.1	62.9
	Continent Total	58.8	60.2
Africa	Egypt	41.7	38.1
	Other African Countries	47.5	40.5
	Continent Total	45.3	39.7
Oceania	Australia	90.9	90.9
	Other Oceania Countries	100.0	100.0
	Continent Total	93.1	93.1
Asia	Bangladesh	64.7	68.4
	China	79.2	88.0
	India	75.3	74.7
	Japan	52.9	51.6
	Republic of Korea	54.5	68.4
	Philippines	88.6	85.4
	Turkey	44.7	44.7
	Other Asian Countries	63.2	64.3
	Continent Total	67.1	68.1

[^]Most common practice settings were selected at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Table 22 shows practicing urologists who are more likely to have enough time to keep up with changes in the field of urology by reading scientific papers or journals in China (92.9%), the Dominican Republic (92.7%), Republic of Korea (92.3%) and Egypt (92.0%); through attending in-person scientific meetings in Bangladesh and Australia (100%), the Philippines (96.3%) and Egypt (96.0%); through attending webinars in China (75.0%), the Dominican Republic (73.2%), the Republic of Korea (65.4%) and Bolivia (65.0%).

TABLE 22

Percentage of Urologists Who Have Enough Time to Keep Up with Changes in the Field of Urology (Scientific Papers or Journals, In-Person Meetings, Webinars)

Continent/Country		Percentage of Urologists		
		Read Scientific Papers or Journals (%)	Attend In-person Scientific Meetings (%)	Attend Webinars (%)
United States		81.7	82.7	64.3
Non-U.S. Countries		85.3	86.6	50.9
North America	Canada	84.3	85.5	57.8
	Dominican Republic	92.7	92.7	73.2
	Mexico	89.9	84.0	58.0
	Other North American Countries	86.4	90.9	38.6
	Continent Total[^]	88.0	87.3	54.5
South America	Argentina	91.3	90.5	42.1
	Bolivia	90.0	80.0	65.0
	Brazil	87.2	89.4	49.6
	Chile	74.1	88.9	37.0
	Colombia	74.0	92.0	44.0
	Peru	78.0	87.8	46.3
	Other South American Countries	96.8	90.3	48.4
	Continent Total	86.3	89.4	47.2
Europe	Germany	69.6	84.8	26.1
	Italy	91.8	87.8	51.0
	Spain	75.0	71.4	57.1
	United Kingdom	71.0	77.4	29.0
	Other European Countries	87.2	80.9	51.1
	Continent Total	82.4	81.4	45.4
Africa	Egypt	92.0	96.0	44.0
	Other African Countries	89.1	87.0	56.5
	Continent Total	90.1	90.1	52.1
Oceania	Australia	81.8	100.0	59.1
	Other Oceania Countries	100.0	100.0	71.4
	Continent Total	86.2	100.0	62.1
Asia	Bangladesh	85.0	100.0	60.0
	China	92.9	85.7	75.0
	India	80.9	85.4	52.8
	Japan	71.4	70.2	56.0
	Republic of Korea	92.3	92.3	65.4
	Philippines	90.2	96.3	56.1
	Turkey	85.4	73.2	61.0
	Other Asian Countries	84.1	85.4	47.0
Continent Total	83.5	84.6	54.9	

[^]Percentages and numbers were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2017 AUA Annual Census - Percentages from unweighted samples from the 2017 AUA Annual Census for countries outside the U.S. were reported. No report on the U.S. urologists was made because this question was not asked in the same year.)

TABLE 22 (Continued)

Percentage of Urologists Who Have Enough Time to Keep Up with Changes in the Field of Urology (Videos or Podcasts, Live CME Classes, Online Learning)

Continent/Country		Percentage of Urologists		
		Watch Videos or Podcasts (%)	Attend Live CME Classes (%)	Attend Online Learning (%)
United States		74.8	72.9	76.2
Non-U.S. Countries		72.0	48.4	63.9
North America	Canada	56.6	49.4	67.5
	Dominican Republic	87.8	61.0	82.9
	Mexico	77.3	48.7	78.2
	Other North American Countries	67.0	46.6	63.6
	Continent Total[^]	70.5	50.0	71.9
South America	Argentina	73.0	31.7	65.9
	Bolivia	90.0	55.0	75.0
	Brazil	75.2	35.1	64.9
	Chile	55.6	22.2	48.1
	Colombia	60.0	28.0	56.0
	Peru	78.0	51.2	70.7
	Other South American Countries	87.1	45.2	67.7
	Continent Total	74.0	35.4	64.6
Europe	Germany	47.8	54.3	56.5
	Italy	67.3	49.0	57.1
	Spain	60.7	35.7	53.6
	United Kingdom	41.9	54.8	54.8
	Other European Countries	70.2	53.2	63.8
	Continent Total	62.4	51.2	59.7
Africa	Egypt	84.0	48.0	56.0
	Other African Countries	82.6	52.2	58.7
	Continent Total	83.1	50.7	57.7
Oceania	Australia	77.3	77.3	72.7
	Other Oceania Countries	71.4	71.4	57.1
	Continent Total	75.9	75.9	69.0
Asia	Bangladesh	85.0	80.0	85.0
	China	89.3	64.3	89.3
	India	74.2	67.4	51.7
	Japan	57.1	33.3	51.2
	Republic of Korea	80.8	50.0	65.4
	Philippines	78.0	76.8	68.3
	Turkey	82.9	36.6	51.2
	Other Asian Countries	75.5	60.3	61.6
Continent Total	74.7	58.3	61.0	

[^]Percentages and numbers were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Percentages from unweighted samples from the 2017 AUA Annual Census for countries outside the U.S. were reported. No report on the U.S. urologists was made because this question was not asked in the same year.)

Practicing urologists who take the most prolonged vacation leave reside in the United Kingdom and Australia (6 weeks), followed by Canada and Germany (5 weeks) and the shortest vacation leave occurs in China, Japan and the Republic of Korea (2 weeks) as shown in Table 23. The percentages of practicing urologists who are satisfied with their work-life balance are the highest in the Dominican Republic (97.6%), the Philippines (93.9%), Italy (85.4%), Peru (85.0%) and Bolivia (85.0%). No correlation between the amount of vacation leave and satisfaction with the work-life balance of practicing urologists was found.

TABLE 23
Vacation Leave and Work-Life Balance

Continent/Country		Median Number of Weeks of Vacation Leave	Percent of Urologists Who Are Satisfied with Their Work-Life Balance (%)
United States		4	53.8
Non-U.S. Countries		4	73.3
North America	Canada	5	55.1
	Dominican Republic	3	97.6
	Mexico	4	81.5
	Other North American Countries	4	75.0
	Continent Total[^]	4	75.5
South America	Argentina	4	84.1
	Bolivia	3	85.0
	Brazil	4	79.4
	Chile	4	76.9
	Colombia	4	78.0
	Peru	4	85.0
	Other South American Countries	4	96.8
	Continent Total	4	81.7
Europe	Germany	5	54.5
	Italy	4	85.4
	Spain	4	84.6
	United Kingdom	6	48.4
	Other European Countries	5	63.6
	Continent Total	5	66.1
Africa	Egypt	4	66.7
	Other African Countries	4	71.7
	Continent Total	4	70.0
Oceania	Australia	6	72.7
	Other Oceania Countries	8	85.7
	Continent Total	6	75.9
Asia	Bangladesh	4	72.2
	China	2	50.0
	India	4	69.7
	Japan	2	47.6
	Republic of Korea	2	65.4
	Philippines	4	93.9
	Turkey	4	55.0
	Other Asian Countries	4	66.9
Continent Total	3	66.8	

[^]Percentages and median numbers were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

As shown in Figure 24, the median planned retirement age for practicing urologists in almost all reported countries falls between 65 and 70. The only exception is China, where urologists planned to retire at the age of 63.

TABLE 24
Median Age at Planned Full Retirement from Practice

Continent/Country		Median Planned Retirement Age
United States		68
Non-U.S. Countries		69
North America	Canada	65
	Dominican Republic	65
	Mexico	68
	Other North American Countries	68
	Continent Total[^]	66
South America	Argentina	70
	Bolivia	65
	Brazil	70
	Chile	70
	Colombia	65
	Peru	70
	Other South American Countries	70
	Continent Total	70
Europe	Germany	67
	Italy	70
	Spain	70
	United Kingdom	67
	Other European Countries	67
	Continent Total	67
Africa	Egypt	66
	Other African Countries	65
	Continent Total	65
Oceania	Australia	67
	Other Oceania Countries	70
	Continent Total	68
Asia	Bangladesh	65
	China	63
	India	70
	Japan	70
	Republic of Korea	65
	Philippines	67
	Turkey	68
	Other Asian Countries	69
Continent Total	67	

[^]Median ages were calculated at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Enjoying practicing and wanting to keep working are the two top reasons leading to late retirement among all urologists across the globe, as shown in Table 25. Economic pressure was considered the third top reason leading to late retirement in most countries except Argentina, Spain and China, where it was listed as the second top reason for late retirement.

TABLE 25
Top Three Reasons Leading to Late Retirement

Continent/Country		Top Reason Leading to Late Retirement		
		Most Common	2 nd Most Common	3 rd Most Common
United States		Enjoy practicing	Want to keep working	Economic pressure
Non-U.S. Countries		Enjoy practicing	Want to keep working	Economic pressure
North America	Canada	Enjoy practicing	Want to keep working	Economic pressure
	Dominican Republic	Enjoy practicing	Want to keep working	Economic pressure
	Mexico	Enjoy practicing	Want to keep working	Economic pressure
	Other North American Countries	Enjoy practicing	Want to keep working	Economic pressure
	Continent Total[^]	Enjoy practicing	Want to keep working	Economic pressure
South America	Argentina	Enjoy practicing	Economic pressure	Want to keep working
	Bolivia	Enjoy practicing	Want to keep working	Economic pressure
	Brazil	Enjoy practicing	Want to keep working	Economic pressure
	Chile	Enjoy practicing	Want to keep working	Economic pressure
	Colombia	Enjoy practicing	Want to keep working	Economic pressure
	Peru	Enjoy practicing/Want to keep working		Economic pressure
	Other South American Countries	Enjoy practicing	Want to keep working	Economic pressure
	Continent Total	Enjoy practicing	Want to keep working	Economic pressure
Europe	Germany	Enjoy practicing	Want to keep working	Economic pressure
	Italy	Enjoy practicing	Want to keep working	Economic pressure
	Spain	Enjoy practicing	Economic pressure	Want to keep working
	United Kingdom	Enjoy practicing	Want to keep working	Economic pressure
	Other European Countries	Enjoy practicing	Want to keep working	Economic pressure
	Continent Total	Enjoy practicing	Want to keep working	Economic pressure

(Continued on page 40.)

TABLE 25

Top Three Reasons Leading to Late Retirement (Continued)

Continent/Country		Top Reason Leading to Late Retirement		
		Most Common	2 nd Most Common	3 rd Most Common
Africa	Egypt	Enjoy practicing	Want to keep working	Economic pressure
	Other African Countries	Enjoy practicing	Want to keep working	Economic pressure
	Continent Total	Enjoy practicing	Want to keep working	Economic pressure
Oceania	Australia	Enjoy practicing		Want to keep working
	Other Oceania Countries	Enjoy practicing	Want to keep working	Economic pressure
	Continent Total	Enjoy practicing	Want to keep working	Economic pressure
Asia	Bangladesh	Want to keep working	Enjoy practicing	Inability to recruit a replacement
	China	Enjoy practicing	Economic pressure	Want to keep working
	India	Enjoy practicing	Want to keep working	Economic pressure
	Japan	Enjoy practicing/Want to keep working		Economic pressure
	Republic of Korea	Enjoy practicing	Want to keep working	Economic pressure
	Philippines	Enjoy practicing	Want to keep working	Economic pressure
	Turkey	Enjoy practicing	Want to keep working	Economic pressure
	Other Asian Countries	Enjoy practicing	Want to keep working	Economic pressure
	Continent Total	Enjoy practicing	Want to keep working	Economic pressure

^Top reasons were determined at both country and continent levels using the samples within the jurisdiction. (Data source: The 2018 AUA Annual Census - Reported results are based on the weighted samples from the U.S. practicing urologists and unweighted samples from urologists in countries outside the U.S.)

Discussion

In this study, practicing urologists across the globe were compared at both the continent level and selected country level with regard to the key issues affecting the urologist workforce. Variations in workforce characteristics and practice patterns across countries and continents were observed.

Population growth and aging, health care improvement, new therapeutic possibilities, and rising expectations of health care cost-effectiveness present prominently among several critical challenges facing the health care workforce. These challenges have made the provision of health care much more complex than in the past. To address various challenges and meet global needs for urological care, one must understand urologists: their demographics, training, sub-specialization, practice setting, employment status, workload and productivity, adoption of new techniques, and adherence to clinical guidelines.

The results of the AUA Annual Census are subject to limitations. First, the United States is the only country with a national urologist master file with large samples available to be used in this study. As such, estimates were weighted to represent the U.S. practicing urologist population through the adjustment of non-response. In contrast, estimated values for other countries that were used in this study were based on samples because of the lack of country-specific urologist master files and; therefore, may not represent the true landscape of urologists in these countries. Second, sample sizes vary greatly from country to country, which may result in biases due to small sample sizes. Such variations also make it difficult to detect statistically significant differences among countries with low Census response counts, especially those with samples of 20 or fewer. Third, non-U.S. practicing urologists who connected with the AUA through membership, the Annual Meeting or other education activities may differ from practicing urologists in their home countries in many ways. Fourth, Census data were self-reported, non-validated, and subject to the usual survey biases and possible misrepresentation. Finally, the AUA Annual Census questionnaire was written in English only; thus, the results of this study may be subject to language barrier bias.

Urology is a well-established surgical specialty. However, information on the urology workforce across the globe is rarely available. The available studies published are limited in terms of the number of countries covered, and the scope of these studies is outdated and hard to compare internationally. Through a single questionnaire and a comparable analytical approach, findings from our study help characterize urologists across the globe on workforce demographics, training, practicing characteristics and roles, workload and productivity, the adoption of new techniques, the adherence to practice guidelines in clinical decision-making, and other aspects of clinical practice. Members of the urology community can use this report to understand urologists in their countries and compare their countries with the rest of the world. The knowledge gaps bridged will inform urology workforce planning and implementation and, ultimately, improve global urologic care.

Contributors

PROJECT ADVISORS:

John D. Denstedt, MD, FRCSC, FACS, FCAHS - AUA International Member Committee Chair and AUA Secretary
Danil V. Makarov, MD, MHS – AUA Data Committee Chair, AUA Census Advisory Panel Chair
David F. Penson, MD, MPH – Science and Quality Council Chair, AUA Census Advisory Panel Member
Benjamin N. Breyer, MD, MAS – AUA Data Committee Member, AUA Census Advisory Panel Member
Amanda C. North, MD – AUA Workforce Work Group Chair, AUA Census Advisory Panel Member
Jennifer Robles, MD, MPH – AUA Census Advisory Panel Member
Marybeth Farquhar, Ph.D., MSN, RN – Executive Vice President, Research, Quality and Scientific Affairs

RESOURCE GROUPS:

AUA International Membership Committee
AUA Census Advisory Panel
AUA Institutional Review Group
AUA Data Committee
AUA Workforce Work Group

PROJECT TEAM:

Raymond Fang, MSc, MASc – Data Director, Principal Investigator
William Meeks, III, MA – Data Operations Manager, Survey Programming and Statistical Analysis
John Murphy, MSc – Statistical Analyst, Statistical Analysis
Roxann Nottingham – Communication and Outreach Coordinator, Coordination & Communication
Keonna Feaster Confesor, MSc – Data Program Analyst, Analysis and Reporting

THE KEY STAFF COLLABORATORS: (IN ALPHABETICAL ORDER)

Lori Agbonkhese – Senior Manager, International Programs
Patricia Banks – Vice President & Chief Marketing Officer
Diane Bieri, JD – Vice President & General Counsel
Christine Frey – Senior Manager, Corporate Communications
Jessica Kessler – Coordinator, Marketing and Communications
Kathleen Shanley, Ph.D. – Executive Vice President for Public Policy and Advocacy

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