



2021

The State of the
Urology Workforce
and Practice in the
United States



American
Urological
Association

American Urological Association (AUA)

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Preface

The AUA Annual Census, a data-rich approach to better understanding the urologic workforce, practice patterns and diverse experiences within urology, was launched in 2014. It is a complex survey designed to systematically collect reliable data about the urologic workforce from multiple perspectives for use in supporting decision making, policy development and evidence-based research.

Since 2014, the AUA Census has been further developed and distributed around the world. It has been structured as a two-part survey to support both cross-sectional and longitudinal studies. Base questions are designed to track trends on fundamental workforce factors such as geographical location, demographic characteristics, education and training, and urology practice patterns. While base questions are repeated each year, a set of new questions focusing on yearly priority topics identified by the AUA are added to each annual Census. In 2021, the priority census topic areas focused on the causes and impacts of burnout, long-term structural and practical impacts of COVID-19, telemedicine utilization and reimbursement, benign prostatic hyperplasia (BPH) and smoking cessation.

The AUA Annual Census provides invaluable information to help fill knowledge gaps. Urologic care providers, researchers and health policy decision-makers are encouraged to use the information in this report and past reports to inform their clinical practice, and fuel scientific research and the formation of health care policy. Public use datasets from current and previous years are available for use in AUA member-driven research studies.

Continuing the tradition, the 2022 AUA Annual Census will be launched in May as an online survey and remain open through the end of September 2022. All urologic community members are encouraged to participate to ensure that the AUA Annual Census remains representative and beneficial for AUA members.



Danil V. Makarov, MD, MHS

Chair, AUA Data Committee
Associate Professor of Urology, Population
Health, and Health Policy
NYU School of Medicine
Veterans Affairs New York Harbor
Healthcare System-Brooklyn



David F. Penson, MD, MPH

Chair, AUA Science and Quality Council
The Paul V. Hamilton, M.D. and Virginia E. Howd
Chair in Urologic Oncology
Professor of Urologic Surgery and Medicine
Vanderbilt University Medical Center

The American Urological Association thanks all the members of the urology community for their continued support and participation in the Annual Census.

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OF UROLOGY®
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AUA Annual Census

YOUR CENSUS COUNTS

The 2018 AUA Annual Census included
5,870 PARTICIPANTS
from
114 COUNTRIES



AUA Data and Statistical Services

Comprehensive Professional Data Analysis

Workforce Research Support
AUA Annual Census Data
American Board of Urology (ABU) Results
National Practice Identification, Survey Data
National Survey Data

Real-World Clinical and Claim Data
ICD9 Registry Data
ICD9 Procedure Codes
Healthcare Cost and Utilization Data

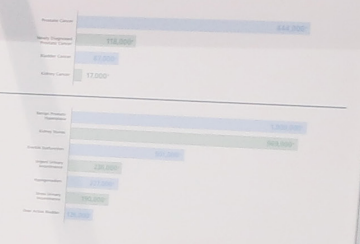
Where do urologists practice in the United States?



Number of Practicing Urologists by State of Primary Practice Location

AQUA

Real-World Clinical Data for Research
AUA Quality Registry
Number of Patients by Urologic Conditions from 2014 to 2018



EXECUTIVE SUMMARY

The American Urological Association (AUA) is committed to providing education, research, advocacy and data required to address the increasing challenges and opportunities associated with providing quality urologic care. These data about the urology workforce and practice patterns play an important role in generating knowledge that will inform urologic care and workforce policy.

The AUA Annual Census is a primary data source that explores the profession of urology from multiple angles through the collection of information from practicing urologists and other professionals worldwide. Data collection for the 2021 AUA Annual Census began online in May 2021 and continued until the end of September 2021. A total of 3,403 urologists and other urologic care professionals, representing 96 countries and jurisdictions throughout the world, completed the 2021 AUA Annual Census. The results on U.S. practicing urologists were adjusted for non-responses and are reported in this annual publication.

Definition of the Urologist Population

Practicing urologists are defined as those with valid medical licenses reported in the National Provider Identifier (NPI) file who are listed as either urologists or pediatric urologists. Those who were reported as either surgeons or specialists in the NPI file and those who did not report a medical degree (MD or DO) were checked against the American Board of Urology (ABU) certification records maintained by the American Board of Medical Specialties (ABMS). Urologists in residency training were excluded from this report; however, their results will be published separately.

The 2021 U.S. urologist population consists of a total of 13,790 practicing urologists, an increase of 3.3 percent from 13,352 practicing urologists in 2020.

Data Collection and Justification for Non-Response

The 2021 AUA Annual Census was in the field during the second year of the COVID-19 pandemic and therefore affected by lower participation. Nevertheless, a total of 3,403 respondents completed the 2021 AUA Annual Census—2,585 of whom were from the United States. Of these, 1,742 Census respondents were validated to be practicing urologists in the United States and formed the Census sample data for analysis for this report.

The U.S. practicing urologist population file and the Census survey sample file were linked using post-stratification factors (i.e., gender, location, certification status, years since initial certification) to adjust for the non-response bias by the assigned proper sample weight.

KEY FINDINGS

- In 2021, 13,790 urologists were identified as “practicing urologists” in the U.S. Of those practicing urologists, 88.1 percent are “actively” practicing, meaning they devote at least 25 hours per week to clinical activities (TABLE 1-1).
- Both the number urologists and the urologist-to-population ratio, in the U.S., continued to increase between 2015 and 2021 (FIGURE 1-1). Among the 50 U.S. states, New York became the state with the highest urologist-to-population ratio for the first time, while Nevada remained the state with the lowest ratio (TABLE 1-2).
- 10.4 percent of practicing urologists in the U.S. maintained their primary practices outside of metropolitan areas (TABLE 1-5). The likelihood of practicing urologists maintaining their primary practice locations in non-metropolitan areas increases with age (FIGURE 1-6).
- While the urologic workforce in the U.S. is predominantly male, the percentage of female practicing urologists continued to rise to 10.9 percent in 2021 from 10.3 percent a year ago (FIGURE 2-1).
- The number of Hispanic practicing urologists and African American/Black practicing urologists continued to increase from 497 (3.8 percent) and 268 (2.1 percent) in 2020 to 584 (4.4 percent) and 321 (2.4 percent) in 2021, respectively (FIGURE 2-3, FIGURE 2-4).
- 38 percent of practicing urologists in the U.S. speak languages other than English (TABLE 2-8). Whereas, 79 percent of practicing urologists reported that at least 10 percent of their patient population speak Spanish (TABLE 2-9).
- Overall, 40.2 percent of practicing urologists completed at least one fellowship training during their career (TABLE 3-3). A higher percentage of female practicing urologists completed fellowship training compared to their male counterparts especially for those aged 45 and older (56.7

percent and 31.4 percent, respectively) (FIGURE 3-1).

- Oncology (11.8 percent), Pediatrics (7.5 percent) and Robotic Surgery (7.3 percent) were the top three areas of fellowship training reported in 2021 (TABLE 3-4), which is consistent with the top three areas reported in 2020.
- Approximately 80 percent of practicing urologists in the U.S. are certified by the American Board of Urology (TABLE 3-6).
- After annual decreases between 2017 and 2019, the percentage of practicing urologists who practiced in private settings (i.e., solo practices, single urology groups, multispecialty groups) has stabilized at 51 percent since 2020 (FIGURE 4-1). The practicing urologists in private settings are more likely to be male (TABLE 4-2) and older in age (FIGURE 4-2).
- The majority of respondents (58.4 percent) indicated that they did not have a primary subspecialty. Among those with a primary subspecialty, Oncology (11.3 percent), Pediatrics (7.1 percent), and Female Pelvic Medicine and Reconstructive Surgery (5.8 percent) were most selected as the primary subspecialty (TABLE 4-6).
- Nearly 77 percent of practicing urologists indicated they work directly with advanced practice providers within their practices (TABLE 4-4).
- The median number of hours practicing urologists worked per week was 55. Nearly 34 percent reported working more than 60 hours in a typical week (TABLE 5-1).
- The average number of minutes spent with a patient during a typical office visit was higher for female practicing urologists (19.3) compared to their male counterparts (16.5) (FIGURE 5-2).
- Approximately 55 percent of practicing urologists plan to fully retire after the age of 65 (TABLE 5-13). This was more common in male urologists (59.5 percent) and less common in female urologists (22.5) (TABLE 5-14).
- Female urologists reported lower satisfaction with work and life balance compared to their male counterparts (TABLE 6-3). Particularly, only 42.5 percent of female urologists agreed their work schedule leaves them enough time for personal and/or family life while 66.4 percent of male urologists felt this way (TABLE 6-4).
- The top three primary sources of workplace dissatisfaction among practicing urologists are use of electronic health records, not enough time for personal and/or family life, and decreasing reimbursement (TABLE 6-11).
- Based on the responses to the Maslach Burnout Inventory (MBI) questionnaire, the overall professional burnout rate remained at a similar level in 2016 and 2021 (TABLE 6-16). However, the burnout rate for female urologists increased from 35.3 percent in 2016 to 49.2 percent in 2021 (FIGURE 6-1).
- Among practicing urologists who experienced burnout, nearly 46 percent of them reported that the COVID-19 pandemic attributed to burnout (TABLE 7-1).
- For approximately 20 percent of practicing urologists, their retirement plans were impacted by the COVID-19 pandemic (TABLE 7-2).
- In 2020, only about 30 percent of practicing urologists reported their primary practices were able to maintain 90 percent or higher of their normal revenue. In comparison, nearly 60 percent reported this level of financial success in 2021 (TABLE 7-3).
- Approximately 81 percent of practicing urologists participated in telemedicine in 2021, highest in academic medical centers (92.7 percent) and lowest in solo practices (50.7 percent) (TABLE 8-1). Among those 10,548 practicing urologists who participated in telemedicine during the COVID-19 pandemic, 93.3 percent reported they would continue to participate after the pandemic abates (TABLE 8-4).
- Regarding the overall quality of visits, approximately one in three and one in six practicing urologists who participated in telemedicine reported video visits and audio-only visits are about the same as or better than in-person visits, respectively (FIGURE 8-2, FIGURE 8-3).

- Practicing urologist who participated in telemedicine reported some key barriers to patients' ability to receive telemedicine services. The top three are lack of knowledge in using the patient portal/software needed for telemedicine visits (67.6 percent) adequate conferencing tool (49.6 percent) and high-speed Internet service to enable video visits (43.9 percent) (TABLE 8-6).
- 90 percent of practicing urologists treat patients with benign prostatic hyperplasia (BPH) (TABLE 9-1).
- Amongst the five commonly used medications to treat patients with BPH, medically, alpha-blockers had the highest usage at 78.5 percent (TABLE 9-3)
- The top three selected tests routinely performed on patients undergoing BPH procedures were Post-Void Residual (96.9 percent), Urinalysis (91.1 percent) and Cystoscopy (84.0 percent) (TABLE 9-6).
- Advising patients to quit smoking using various counseling or medications is common among practicing urologists. However, nearly 15 percent of urologists do not usually do smoking cessation treatment (TABLE 10-1).
- A lack of time (66.4 percent), patients' willingness to quit smoking (41.6 percent) and a lack of comfort with prescribing medication for smoking cessation (40.4 percent) are the highest reported barriers for the delivery of smoking cessation by practicing urologists (TABLE 10-3).
- Practicing urologists also believed the best way for urologists to help patients quit smoking is to recommend quitting smoking and then refer patients out for structured support (TABLE 10-4).



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.

About the AUA Annual Census

The AUA supports the generation and dissemination of urologic knowledge through a sophisticated statistical approach. The AUA's Annual Census is a systematically designed, specialty-representative survey of urology (similar to the U.S. Census). The results of the AUA's Annual Census are weighted to adjust for non-response bias to accurately represent the entire specialty and address the broad landscape of urology.

This publication serves as a primary source of information for the urology workforce in its effort to convey the needs and demands of the urologic community effectively. The findings also depict workforce characteristics, current clinical practice, and recent educational and practicing trends, along with procedures to treat urologic conditions. The results from this publication provide an array of information that can bridge knowledge gaps, provide data to meet increasing research needs and, ultimately, improve patient care. Besides publications on practicing urologists in the United States, publications on practicing urologists and urology residents across the globe are also available.

Definition of Terms

PRACTICING STATUS

In order to understand the manner in which this report classifies urologists, a Definition of Terms is provided:

- **UROLOGISTS:** Physicians and surgeons who are specially trained for the diagnosis and treatment of genitourinary and adrenal gland diseases in patients of any age and of either sex
- **PRACTICING UROLOGISTS:** Urologists who maintain current medical licensures and treat patients with urologic conditions
- **PRACTICING UROLOGISTS IN THE UNITED STATES:** Practicing urologists with primary practice locations in at least one of the 50 U.S. states or the District of Columbia
- **ACTIVE PRACTICING UROLOGISTS:** Practicing urologists who treat patients with urologic conditions and who work at least 25 clinical hours per week
- **CERTIFIED UROLOGISTS:** Urologists who are certified either by the American Board of Urology or American Osteopathic Board of Surgery

LEVEL OF RURALITY

The zip code of each practicing urologist's primary practice location was converted to a rural-urban commuting area (RUCA) code based on RUCA3.10 (developed collaboratively by the Health Resources and Service Administration's Office of Rural Health Policy [ORHP], the United States Department of Agriculture's Economic Research Service [ERS], the WWAMI Rural Health Research Center [RHRC] based on 2010 United States Census work-commuting data and 2012 United States Census Bureau revised urban area definition based on 2010 Census data and 2013 zip codes).

RUCA3.10 codes were grouped into four levels of rurality. An area with a population size $\geq 50,000$ was defined as a Metropolitan Area. An area with a population size $< 50,000$ was defined as a Non-Metropolitan Area. The Non-Metropolitan Area was further classified: Micropolitan Area (population = 10,000-49,999), Small Town (population = 2,500-9,999) and Rural Area (population $< 2,500$).

Glossary

90% CI	90 Percent Confidence Interval
90% MOE	Margin of Error at 90 Percent Confidence Level
ABMS	American Board of Medical Specialties
ABU	American Board of Urology
AOBS	American Osteopathic Board of Surgery
APN	Advanced Practice Nurse
APP	Advanced Practice Provider
AUA	American Urological Association
CME	Continuing Medical Education
DO	Doctor of Osteopathic Medicine
EHR	Electronic Health Record
HMO	Health Maintenance Organization
MD	Medical Doctor
NP	Nurse Practitioner
NPI	National Provider Identifier
PA	Physician Assistant
PRO	Patient-Reported Outcomes
RUCA	Rural-Urban Commuting Area
VA	Veteran Affairs

Methodology

Data in the AUA Annual Census were collected and analyzed using the survey methodology developed by Groves et al.ⁱⁱ Two data files were established. One file was a population file containing basic demographic, geographic and certification information for all practicing urologists in the U.S. in 2021. The other file was a sample data file containing a broad range of information collected from the Census. The population file and the Census survey sample file were linked through post-stratification factors to adjust for non-responses and each respondent's contribution in a Census survey by assigned sample weight.

PRACTICING UROLOGIST POPULATION

Practicing urologists were identified jointly from the NPI file (which includes all physicians in the U.S. who hold valid medical licenses), ABU certification records maintained by the ABMS if the following criteria were met:

- Either urology or pediatric urology was listed as the medical specialty.
- A provider was listed as a surgeon or a specialist and matched to either the 2021 ABU certification records as a urologist. Manual checks of all individual urologists' and urologic surgeons' websites were performed to confirm that these physicians provided urologic care in 2021.
- Urologists in residency training were excluded from this report.
- Additionally, urologists who were identified as certified by the ABU and/or AOBS but not listed in the NPI file were excluded in order to ensure the inclusion of only currently practicing urologists.

ORGANIZATION OF QUESTIONS

The Census consists of “base” and “supplemental” questions. Base questions that target the entire urology specialty will be asked annually in order to identify cross-sectional and longitudinal patterns. Examples of base question topics include practice status, clinical practice setting, primary and secondary subspecialties, patient encounters and employment status. Supplemental questions will vary each year and focus on emerging

issues; these questions may be distributed to all participants or a random subset of participants.

CENSUS TIMELINE

The AUA Annual Census officially launches in May and is available online to respondents through September of that same year. Census data are analyzed and reported in the annual publication *The State of the Urology Workforce and Practice in the United States*, which is available in the spring of the following year.

CENSUS DATA COLLECTION

Data collection for the 2021 AUA Annual Census began on May 7, 2021 and ended on September 30, 2021. Each respondent was assigned an identification number prior to the submission of responses to the Census questions. This step ensured the results could be linked to the population file and no respondent could take the survey more than once. The 2021 Census was conducted entirely online due to the COVID-19 worldwide pandemic and the resulting adoption of the virtual AUA Annual Meeting.

A total of 3,403 respondents completed the 2021 AUA Annual Census—1,742 of whom were practicing urologists in the U.S. Those who self-reported as practicing urologists were checked against the practicing urologist population file and removed if there were no matches found. Those urologists who were either practicing outside the U.S. or in residency training were removed from this study. The responses from the practicing urologists outside the U.S. were analyzed and reported separately at a later time.

SAMPLE WEIGHTING

In order to adjust for non-responses and resulting biases in the 2021 AUA Census sample, a standard post-stratification weighting techniqueⁱⁱⁱ was used to identify post-stratification factors. Identified factors include gender, geographic location, certification status and years since initial certification. These factors are used to develop stratification cells for calculating sample weights.

CENSUS REPORTING WITH STATISTICAL CONFIDENCE

Results were based on either the practicing urologist population data (Section 1) or weighted Census samples (Sections 2 through 10) described earlier in this report. Reported statistics based on the population data were preferred, given the lack of sampling bias. In contrast, when reported findings were based on weighted Census samples, error estimates were reported in the form of either a margin of error (MOE) or a confidence interval (CI), with an estimation of measurement precision at a 90 percent level of confidence.

DATA ANALYSIS

After the post-stratification weighting adjustment, the Census data were analyzed with IBM® SPSS® Complex Samples 27.0.

MARGIN OF ERROR (MOE)

Estimates of characteristics of the practicing urologists, from the AUA Census sample data, can differ from those that would be obtained if all practicing urologists were surveyed. MOE values at the 90 percent confidence level were used to measure and report the precision of each estimate. The MOE is the difference between an estimate and its upper or lower confidence bounds. The AUA reports both estimates and their associated MOE values in alignment with how this information is reported in the U.S. Census/American Community Survey.

CONFIDENCE INTERVALS (CI)

Estimates based on the AUA Census samples can differ from those that would be obtained if all practicing urologists were surveyed. A 90 percent confidence interval (90% CI) was used to mark the upper or lower confidence bounds of the estimated parameter by Census samples with 90 percent statistical confidence.

LIMITATIONS

The results of the AUA Annual Census are subject to the following limitations:

- As a population-based and weighted survey, the AUA Annual Census data analysis relied on the absolute number of responses to report statistics for small geographic, demographic and clinical categories. Racial/ethnic minority groups were not well represented in the urologist population and, therefore, were difficult to analyze.
- The AUA Annual Census is subject to sampling and estimate errors. Thus, the MOE is the appropriate tool used for comparing two groups.
- The practicing urologist population in the U.S. was based on the assumption that urologists who maintain their medical licenses in the Census year are considered practicing urologists.
- Geographic classifications, such as rurality levels and state, were determined based on the primary office location in the NPI file. The actual geographic coverage for each practicing urologist may extend beyond the area reported.
- Census data are self-reported, non-validated and subject to bias or misrepresentation.

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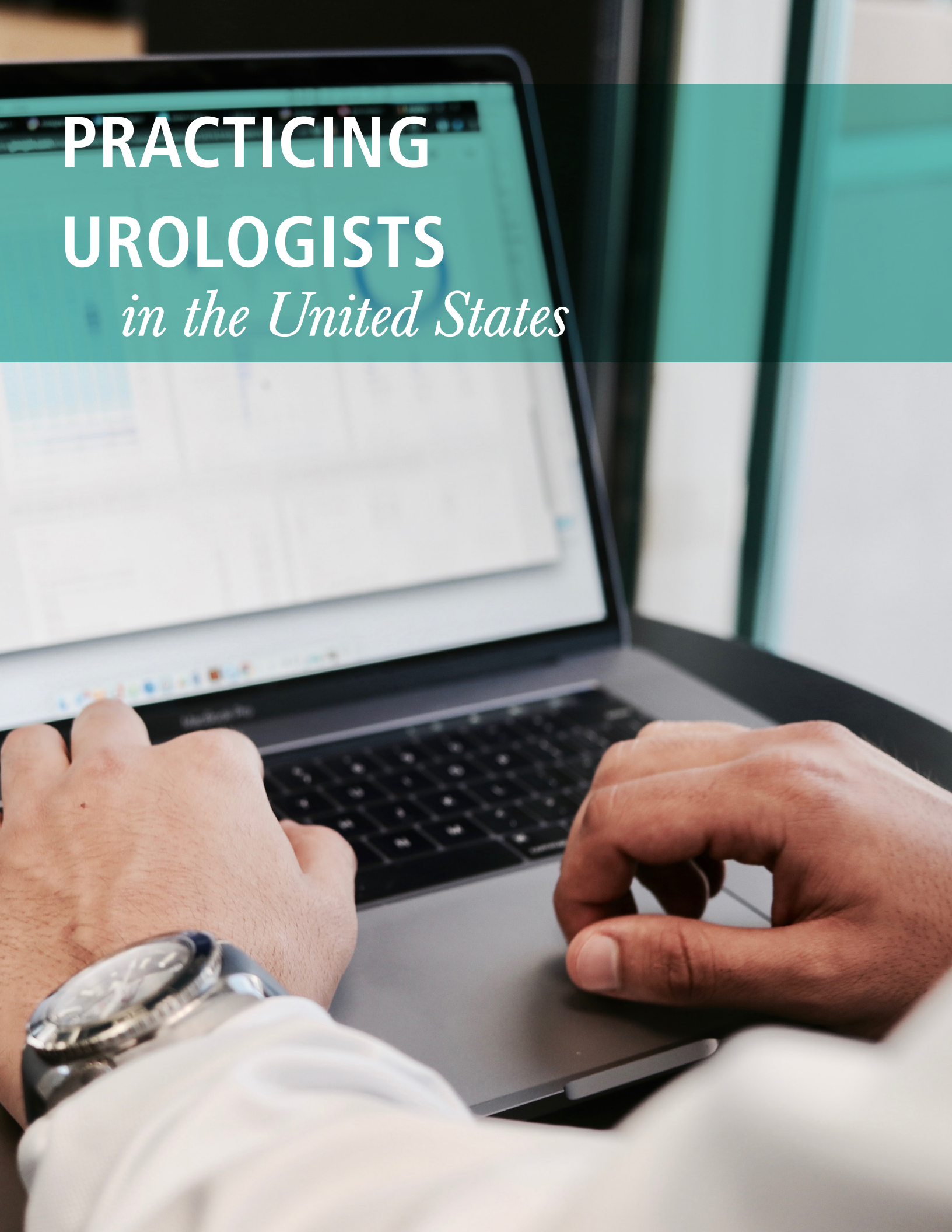
FIGURE 8-2: Participation in Telemedicine Programs (by Metropolitan Status)

FIGURE 8-3: Comparison of Visits between Video Visits and In-Person Office Visits

FIGURE 8-4: Comparison of Visits between Audio Visits and In-Person Office Visits

PRACTICING UROLOGISTS

in the United States



Section 1: Geographic Distribution

Primary Observations

- In 2021, 13,790 urologists were identified as “practicing urologists” in the U.S. Of those practicing urologists, 88.1 percent are “actively” practicing, meaning they devote at least 25 hours per week to clinical activities (TABLE 1-1).
- Both the number of urologists and the urologist-to-population ratio, in the U.S., continued to increase between 2015 and 2021 (FIGURE 1-1). Among the 50 U.S. states, New York became the state with the highest urologist-to-population ratio for the first time, while Nevada remained the state with the lowest ratio [TABLE 1-2].
- 10.4 percent of practicing urologists in the U.S. maintained their primary practices outside of metropolitan areas (TABLE 1-5). The likelihood of practicing urologists maintaining their primary practice locations in non-metropolitan areas increase with age (FIGURE 1-5).

TABLE 1-1
Practicing Status

Practicing Status	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Total Practicing Urologists	13,790	100.0	N/A
Active Practicing Urologists	12,145	88.1	1.5

(Data sources: National Provider Identifier 09/2021 file, ABU certification records from the ABMS Directory of Board Certified Medical Specialists, AUA 2021 Annual Census.) N/A indicates the total number of practicing urologists was determined by the AUA urologist master file rather than by a sample estimate. Active practicing urologists are defined as those who work 25 or more clinical hours per week.

TABLE 1-2**Urologist-to-Population Ratio (by State of Primary Practice Location)
(Ranked from Highest to Lowest)**

State	Population	Number of Practicing Urologists*	Urologist-to-Population Ratio [^]	Relative Position
U.S. (50 States & D.C.^{^^})	331,343,567	13,790	4.16	National Average
New York	19,299,981	1,089	5.64	High
Massachusetts	6,912,239	375	5.43	
New Hampshire	1,372,203	73	5.32	
Vermont	623,251	32	5.13	
Pennsylvania	12,804,123	656	5.12	
Maryland	6,065,436	303	5.00	
Rhode Island	1,061,509	52	4.90	
Connecticut	3,552,821	174	4.90	
South Dakota	896,581	43	4.80	
New Jersey	8,874,520	422	4.76	
Louisiana	4,627,002	217	4.69	Medium High
Ohio	11,714,618	541	4.62	
Hawaii	1,406,430	64	4.55	
Tennessee	6,944,260	314	4.52	
Montana	1,085,004	49	4.52	
West Virginia	1,767,859	79	4.47	
Minnesota	5,706,398	255	4.47	
Illinois	12,569,321	558	4.44	
Florida	21,944,577	957	4.36	
Washington	7,796,941	336	4.31	
Oregon	4,289,439	184	4.29	Medium
Maine	1,354,522	58	4.28	
North Carolina	10,701,022	456	4.26	
Wisconsin	5,852,490	249	4.25	

TABLE 1-2

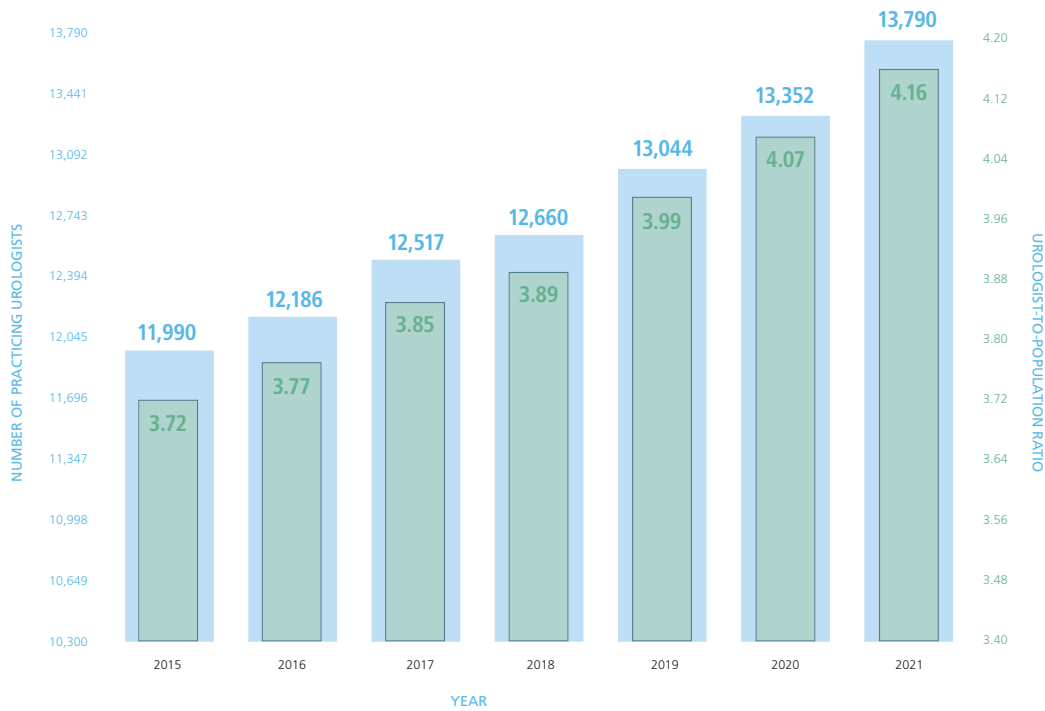
**Urologist-to-Population Ratio (by State of Primary Practice Location)
(Ranked from Highest to Lowest) (Continued)**

State	Population	Number of Practicing Urologists*	Urologist-to-Population Ratio [^]	Relative Position
Michigan	9,992,427	422	4.22	Medium
Delaware	990,334	40	4.04	
Virginia	8,603,985	347	4.03	
Indiana	6,805,663	274	4.03	
Missouri	6,169,038	248	4.02	
South Carolina	5,277,830	210	3.98	
Kentucky	4,480,713	177	3.95	
Kansas	2,917,224	114	3.91	
Colorado	5,893,634	229	3.89	
Nebraska	1,951,996	73	3.74	
California	39,613,493	1478	3.73	
Alabama	4,934,193	184	3.73	
Arizona	7,520,103	279	3.71	
Oklahoma	3,990,443	146	3.66	
Iowa	3,167,974	115	3.63	
Alaska	724,357	26	3.59	Low
Wyoming	581,075	20	3.44	
Georgia	10,830,007	372	3.43	
Arkansas	3,033,946	104	3.43	
North Dakota	770,026	25	3.25	
Texas	29,730,311	934	3.14	
Mississippi	2,966,407	92	3.10	
New Mexico	2,105,005	58	2.76	
Idaho	1,860,123	51	2.74	
Utah	3,310,774	90	2.72	
Nevada	3,185,786	82	2.57	

(Data sources: National Provider Identifier 09/2021 file, ABU certification records from the ABMS Directory of Board Certified Medical Specialists.) *In reporting results from the 2021 AUA Census, states with fewer than 50 reported urologists were manually checked against these urologists' websites. ^Urologist-to-population ratio is per 100,000 population. ^^ The District of Columbia was not listed separately due to its incomparability with other U.S. states.

FIGURE 1-1

Number of Practicing Urologists and Urologist-to-Population Ratio (per 100,000 Population) from 2015 to 2021

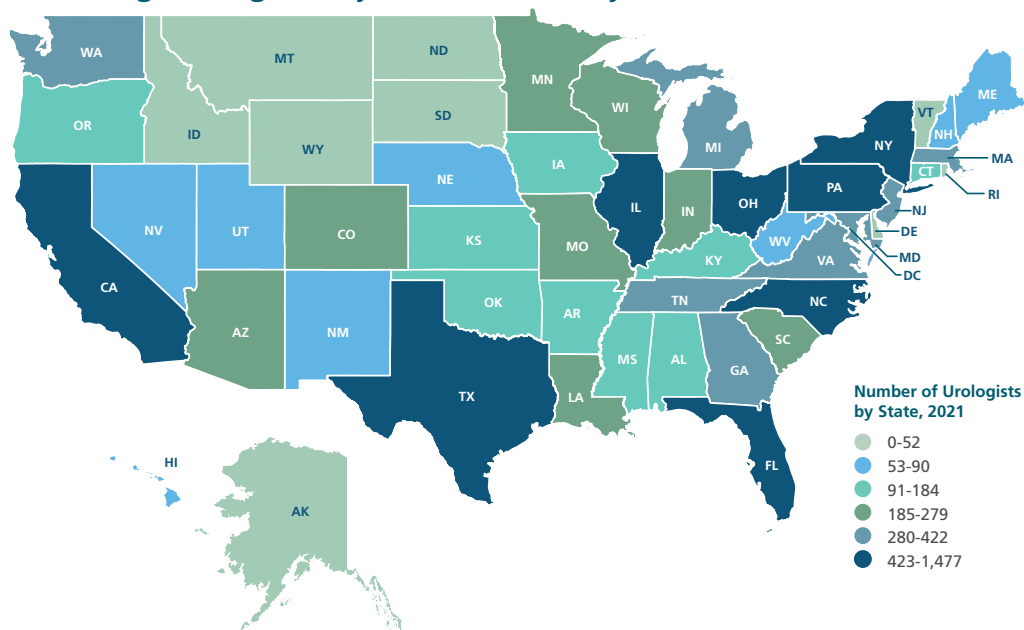


Blue: Number of practicing urologists; Green: Urologist-to-population ratio (per 100,000 population).

(Data sources: National Provider Identifier 09/2021 file, ABU certification records from the ABMS Directory of Board Certified Medical Specialists, and U.S. Census Bureau U.S. population files.)

FIGURE 1-2

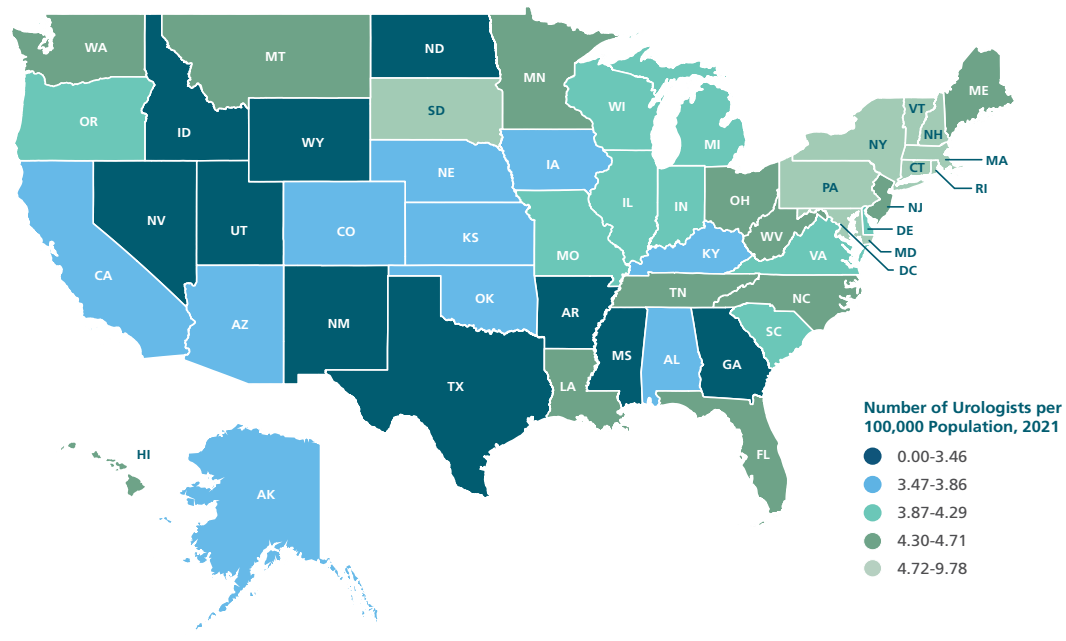
Number of Practicing Urologists (by State of Primary Practice Location)



(Data sources: National Provider Identifier 09/2021 file, ABU certification records from the ABMS Directory of Board Certified Medical Specialists.)

FIGURE 1-3

Practicing Urologist-to-Population Ratio (by State of Primary Practice Location)



(Data sources: National Provider Identifier 09/2021 file, ABU certification records from the ABMS Directory of Board Certified Medical Specialists.)

TABLE 1-3

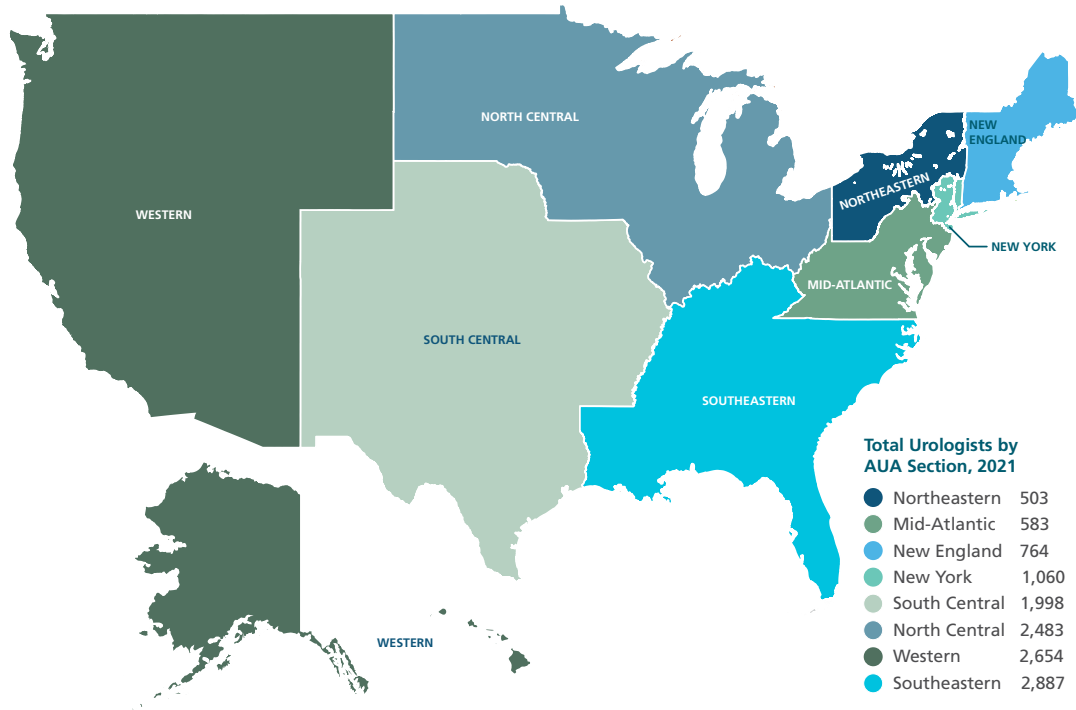
AUA Sections (United States Only)*

AUA Section	Number of Practicing Urologists	Percent (%)
Southeastern	2,886	20.9
Western	2,658	19.3
North Central	2,483	18.0
South Central	1,998	14.5
Mid-Atlantic	1,416	10.3
New York	1,060	7.7
New England	764	5.5
Northeastern	524	3.8
Total	13,790	100.0

(Data sources: National Provider Identifier 09/2021 file, ABU certification records from the ABMS Directory of Board Certified Medical Specialists.) *Some AUA Sections have non-U.S. members who were not included in this report due to a lack of urologist population files in those countries. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

FIGURE 1-4

Number of Practicing Urologists (by AUA Section Based on Primary Practice Location) (U.S. Only)*



Provider Identifier 09/2021 file, ABU certification records from the ABMS Directory of Board Certified Medical Specialists.) *Some AUA Sections have non-U.S. urologists who were not included in this report due to a lack of urologist population files in those countries.

TABLE 1-4

County of Primary Practice Location

Supply of Practicing Urologists	Count of Counties	Percent (%)
Counties with No Urologists	1,956	62.2
Counties with at least 1 Urologist	1,188	37.8
Counties with 1 Urologist	289	9.2
Counties with 2-3 Urologists	279	8.9
Counties with 4-8 Urologists	273	8.7
Counties with 9 or more Urologists	347	11.0
Total	3,144	100.0

(Data sources: National Provider Identifier 09/2021 file, ABU certification records from the ABMS Directory of Board Certified Medical Specialists.)

TABLE 1-5

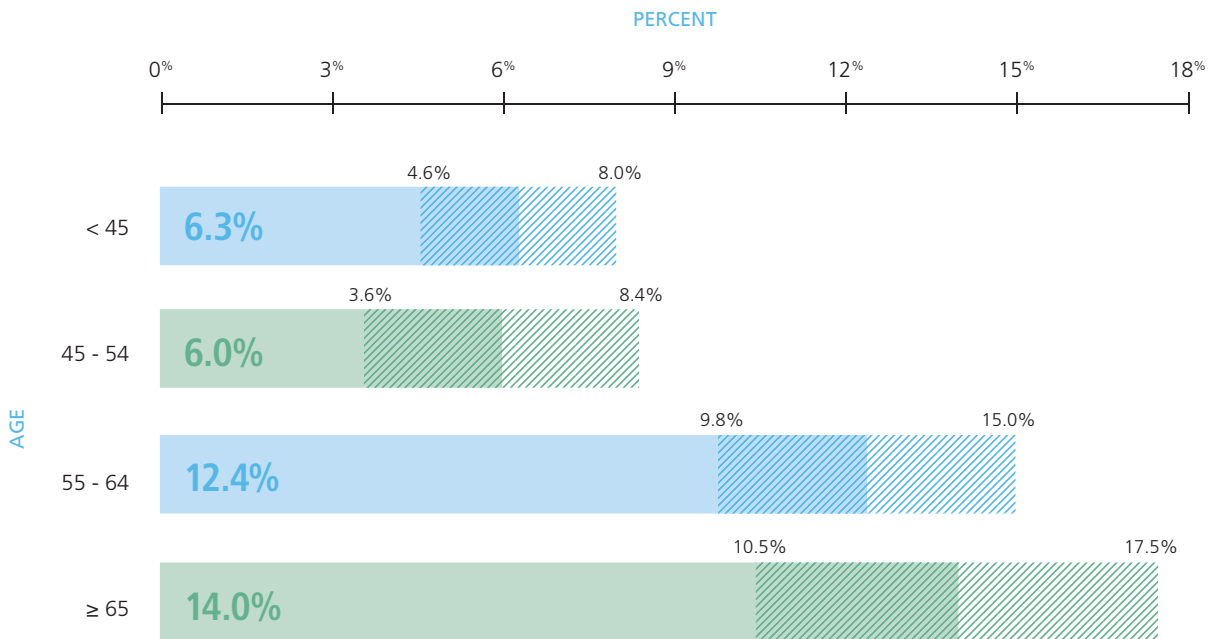
Rurality Level of Primary Practice Location

Rurality Level*	Number of Practicing Urologists	Percent (%)
Metropolitan Areas^	12,360	89.6
Non-Metropolitan Areas	1,430	10.4
Micropolitan	1,134	8.2
Small Town	233	1.7
Rural	63	0.5
Total	13,790	100.0

(Data sources: National Provider Identifier 09/2021 file, Rural-Urban Commuting Area Codes Data from RUCA3.10) *An area was classified as a Metropolitan Area with a population size ≥ 50,000 or A Non-Metropolitan Area otherwise. The Non-Metropolitan Area was further classified as Micropolitan Area (population = 10,000-49,999), Small Town (population = 2,500-9,999) and Rural Area (population < 2,500).

FIGURE 1-5

Percentage of Practicing Urologists Whose Primary Practice Locations Are in Non-Metropolitan Areas (by Age)*



(Data sources: National Provider Identifier 09/2021 file, weighted samples from the 2021 AUA Annual Census and Rural-Urban Commuting Area Codes Data from RUCA3.10.)

*Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

Section 2: Demographics and Topics in Diversity, Equity and Inclusion

Primary Observations

- While the urologic workforce in the U.S. is predominantly male, the percentage of female practicing urologists continued to rise to 10.9 percent in 2021 from 10.3 percent a year ago (FIGURE 2-1).
- The numbers of practicing urologists with Hispanic ethnicity and African American/Black race continued to increase from 497 (3.8 percent) and 268 (2.1 percent) in 2020 to 584 (4.4 percent) and 321 (2.4 percent) in 2021, respectively (FIGURE 2-3, FIGURE 2-4).
- 38 percent of practicing urologists in the U.S. speak languages other than English (TABLE 2-8). On the other hand, approximately 79 percent of practicing urologists had a 10 percent or more patient population speaking Spanish (TABLE 2-9).

TABLE 2-1

Age

Age Groups	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
≤ 34	719	5.2	1.1
35-44	3,414	24.8	1.4
45-54	2,795	20.3	1.1
55-64	2,750	19.9	1.1
≥ 65	4,112	29.8	0.9
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median age is 54.

TABLE 2-2

Documented Gender

Documented Gender	Total Number	Percent (%)
Male	12,281	89.1
Female	1,509	10.9
Total	13,790	100.0

(Data source: National Provider Identifier 09/2021 file.)

TABLE 2-3**Expanded Gender Identities (Multiple Selection Allowed)**

Self-Identified Gender	Number	+/- MOE (#)	Percent (%)	+/- MOE (%)
Male	12,111	71.0	87.8	0.5
Female	1,500	10.3	10.9	0.1
Non-binary, Transgender or Other Gender Terms Used	48	*	*	*
Prefer Not to Answer	165			

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

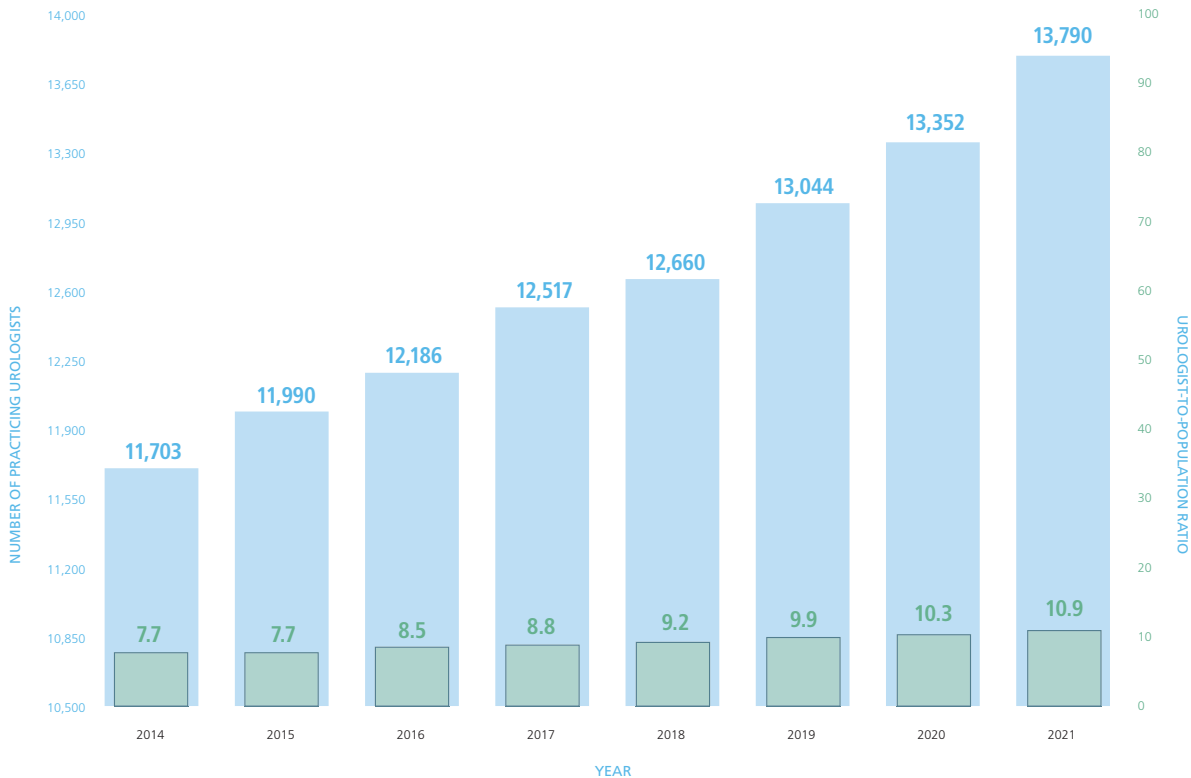
TABLE 2-4**Self-Identified Sexual Orientation (Multiple Selection Allowed)**

Self-Identified Sexual Orientation	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Straight/Heterosexual	12,661	91.8	1.2
Gay or Lesbian	208	1.5	*
Others or Use of Other Terms	164	1.2	*
Prefer Not to Answer	778	5.6	1.0

(Data source: Weighted samples from the 2021 AUA Annual Census.) ^Percentages were calculated using the total number of practicing urologists (13,790) in the United States as the denominator. The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. Sums from percentages may contrast with 100 percent due to multiple selections. *The estimated value should be used with caution due to small samples.

FIGURE 2-1

Total Number of Practicing Urologists and Percentage of Female Practicing Urologists in the Workforce from 2014 to 2021

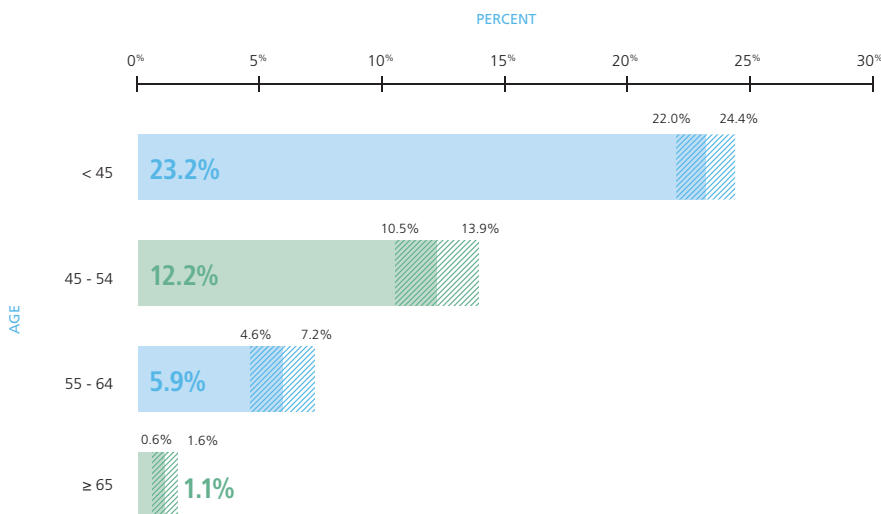


Blue: Total number of practicing urologists; Green: Percentage of female practicing urologists.

(Data sources: National Provider Identifier files and weighted samples from the AUA Annual Census from 2014 - 2021.)

FIGURE 2-2

Percentage of Female Practicing Urologists in the Workforce (by Age)*



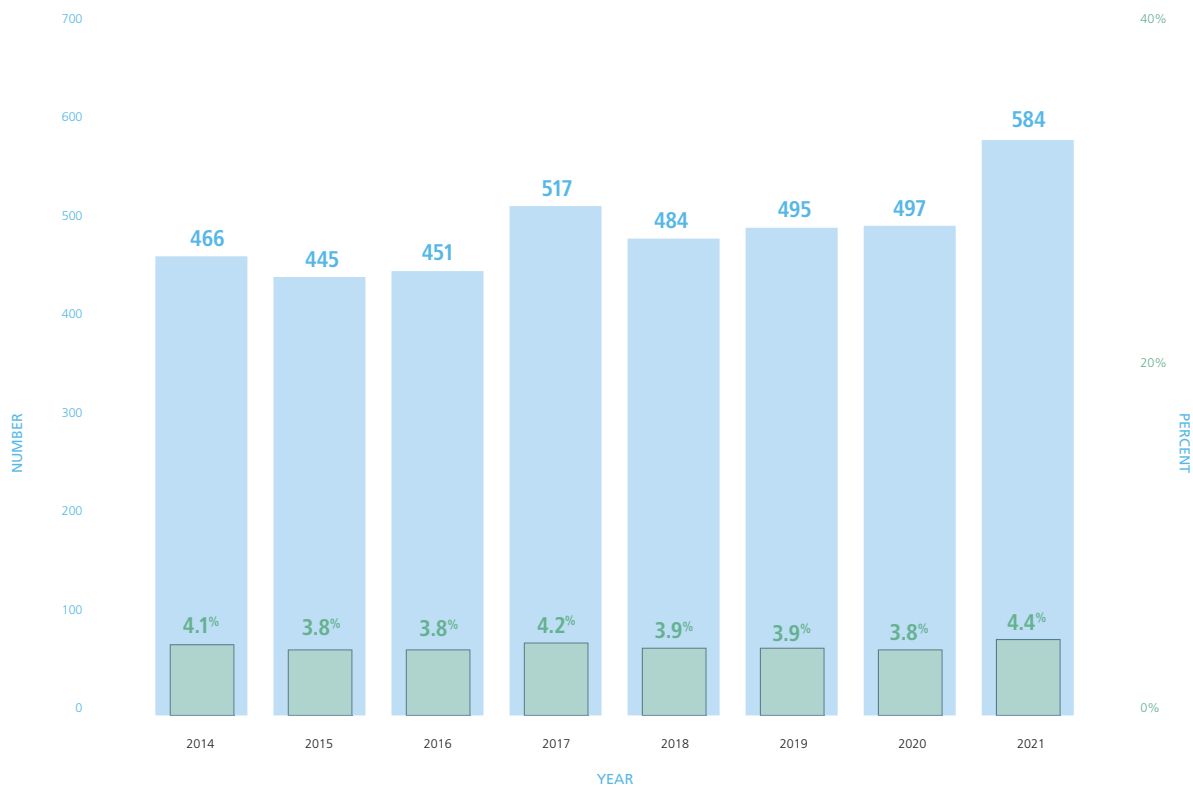
(Data sources: National Provider Identifier 09/2021 file and weighted samples from the 2021 AUA Annual Census.) Each percentage within the bar represents the proportion of women in the workforce within the specified age groups. For example, among practicing urologists under 45 years of age, 23.2 percent are women. *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

TABLE 2-5
Hispanic Ethnicity

Hispanic Ethnicity	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Hispanic	584	4.4	0.9
Non-Hispanic	12,806	95.6	0.9
Total Reported	13,390	100.0	
Not Reported	400		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.)

FIGURE 2-3
Hispanic Practicing Urologists in the Workforce



Blue: Total number of Hispanic practicing urologists; Green: Percentage of Hispanic practicing urologists.

(Data sources: Weighted samples from the AUA Annual Census from 2014 - 2021.)

TABLE 2-6

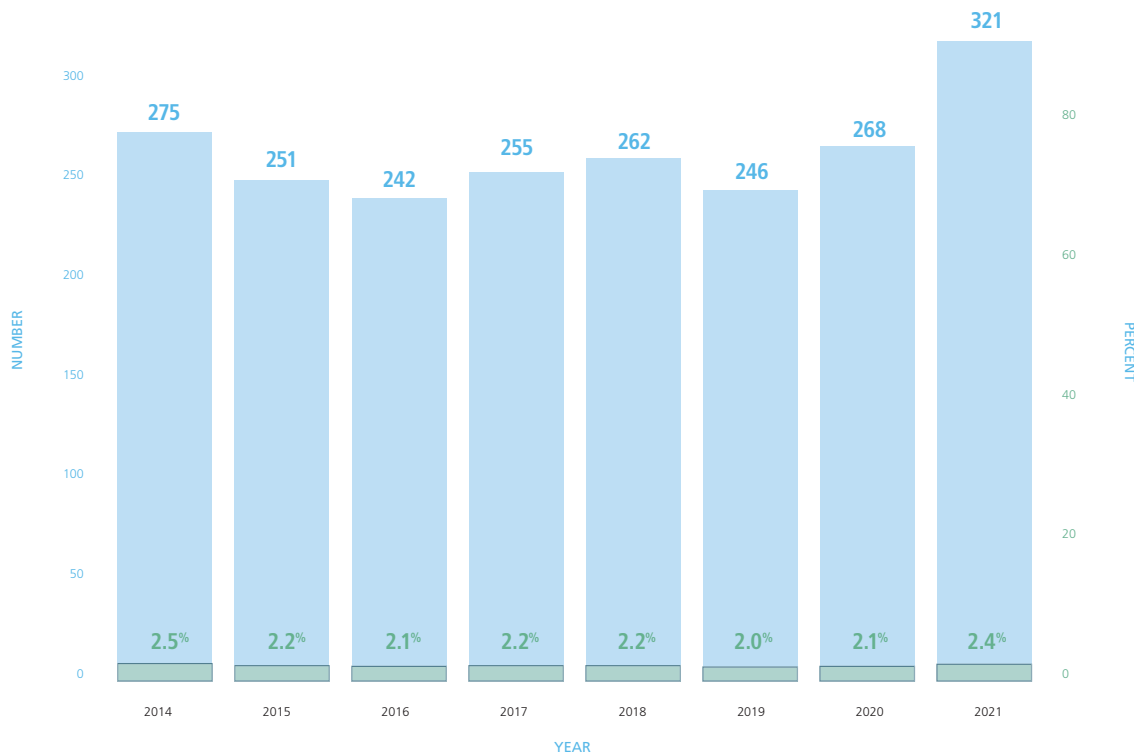
Race

Race [^]	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
White	10,991	83.3	1.7
Asian	1,695	12.8	1.6
African American/Black	321	2.4	0.7
Other Races Including Multiple Races	190	1.4	*
Total Reported	13,197	100.0	
Not Reported	593		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) [^]Practicing urologists in each race group can have either Hispanic ethnicity or non-Hispanic ethnicity. *The estimated value should be used with caution due to small samples.

FIGURE 2-4

African American/Black Practicing Urologists in the Workforce



Blue: Total number of African American/Black practicing urologists; Green: Percentage of African American/Black practicing urologists. (Data sources: Weighted samples from the AUA Annual Census from 2014 - 2021.)

TABLE 2-7**Relationship Status**

Relationship Status	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Married / Partnered	12,230	91.7	1.2
Married Without a Previous Marriage	10,138	76.0	2.0
Remarried After Divorce or Widowhood	1,759	13.2	1.6
Partnered	333	2.5	0.7
Single	572	4.3	0.9
Divorced/Separated/Widowed	540	4.0	0.9
Total Reported	13,342	100.0	
Not Reported	448		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.)

TABLE 2-8**Languages Spoken by U.S. Practicing Urologists (Multiple Selection Allowed)**

Language	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
English Only	8,365	62.0	2.1
Spanish	1,937	14.4	1.6
French and German	598	4.4	0.9
Chinese, Korean, Japanese and Vietnamese	440	3.3	0.8
Hindi, Punjabi, Telugu, Marathi, Gujarati and Tamil	279	2.1	0.7
Arabic	236	1.7	*
Other Languages	111	0.8	*

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents were those who reported their language information could select more than one answer, so the total number of counts may differ from the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

TABLE 2-9**Non-English Languages Spoken by 10 Percent or More of Patient Population (Multiple Selection Allowed)**

Language	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Spanish	8,050	78.3	2.0
Chinese	613	6.0	1.2
Arabic	441	4.3	1.1
Russian	388	3.8	1.0
Vietnamese	317	3.1	0.8
Korean	164	1.6	*
Tagalog	170	1.7	*
French	99	1.0	*
Other Languages	669	6.5	1.2
English Dominated	592	5.8	1.1
Total Reported	10,275	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

TABLE 2-10**Experiences with Negative Differential Treatment in Primary Practices Due to Selected Identity Areas (Multiple Selection Allowed)**

Identity Areas	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
I Have Not Experienced Negative Differential Treatment within the Listed Areas	10,892	79.0	2.3
Gender	1,335	9.7	1.2
Race/Ethnicity	892	6.5	*
Pregnancy/Child Care	459	3.3	*
Religious Affiliation	322	2.3	*
Gender Expression/Gender Identity	242	1.8	*
Sexual Orientation	198	1.4	*
I Prefer Not to Answer	648	4.7	1.2

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

TABLE 2-11**Experiences with Negative Differential Treatment in Primary Practices Due to Selected Identity Areas (by Gender) (Multiple Selection Allowed)**

Gender-Related Identity Areas	Male Practicing Urologists Represented			Female Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
I Have Not Experienced Negative Differential Treatment within the Listed Areas	10,542	85.8	2.5	350	23.2	5.5
Gender	334	2.7	*	1,001	66.3	6.7
Pregnancy/Child Care	105	0.9	*	354	23.4	*

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

TABLE 2-12**Experiences with Negative Differential Treatment in Primary Practices Due to Selected Identity Areas (by Race) (Multiple Selection Allowed)**

Race-Related Identity Areas	Practicing Urologists Reported as White			Practicing Urologists Reported as Non-White		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
I Have Not Experienced Negative Differential Treatment within the Listed Areas	8,770	83.1	2.4	1,678	66.5	6.3
Race/Ethnicity	334	3.2	*	500	19.8	*
Religious Affiliation	225	2.1	*	66	2.6	*

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

TABLE 2-13**Limitations on Seeing Certain Patients Due to Selected Identity Areas (Multiple Selection Allowed)**

Identity Areas	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
I Have Not Experienced Negative Differential Treatment within the Listed Areas	12,507	90.7	1.7
Gender	688	5.0	1.2
Pregnancy/Child Care	140	1.0	*
Religious Affiliation	93	0.7	*
Gender Expression/Gender Identity	90	0.7	*
Race/Ethnicity	76	0.6	*
Sexual Orientation	0	0.0	*
I Prefer Not to Answer	443	3.2	*

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

TABLE 2-14**Limitations on Seeing Certain Patients Due to Selected Identity Areas (by Gender) (Multiple Selection Allowed)**

Identity Areas	Male Practicing Urologists Represented			Female Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
I Have Not Experienced Negative Differential Treatment within the Listed Areas in Table 2-11	11,409	92.9	1.8	1,098	72.8	6.0
Gender	297	2.4	*	391	25.9	5.8

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

Section 3: Professional Preparation, Credentialing, Experience and Planned Retirement

Primary Observations

- Overall, 40.2 percent of practicing urologists completed at least one fellowship training during their career (TABLE 3-3). A higher percentage of female practicing urologists completed fellowship training compared to their male counterparts especially for those aged 45 and older (56.7 percent and 31.4 percent, respectively) (FIGURE 3-1).
- Oncology (11.8 percent), Pediatrics (7.5 percent) and Robotic Surgery (7.3 percent) were the top three areas of fellowship training reported in 2021 (TABLE 3-4), which is consistent with the top three areas reported in 2020.
- Approximately 80 percent of practicing urologists in the U.S. are certified by the American Board of Urology (TABLE 3-6).

TABLE 3-1
Medical School Location

Medical School Location	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Within the U.S.	12,118	87.9	1.5
Outside the U.S.	1,672	12.1	1.5
Asia	741	5.4	1.1
North and South America	391	2.8	0.8
Europe	173	1.3	*
Africa	165	1.2	*
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples.

TABLE 3-2**Age at Completion of Residency**

Age	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
≤ 30	1,133	8.2	1.3
31	2,507	18.2	1.7
32	3,787	27.5	1.9
33	2,647	19.2	1.8
34	1,430	10.4	1.4
35	932	6.8	1.2
≥ 36	1,354	9.8	1.2
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median age at completion of residency is 32. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

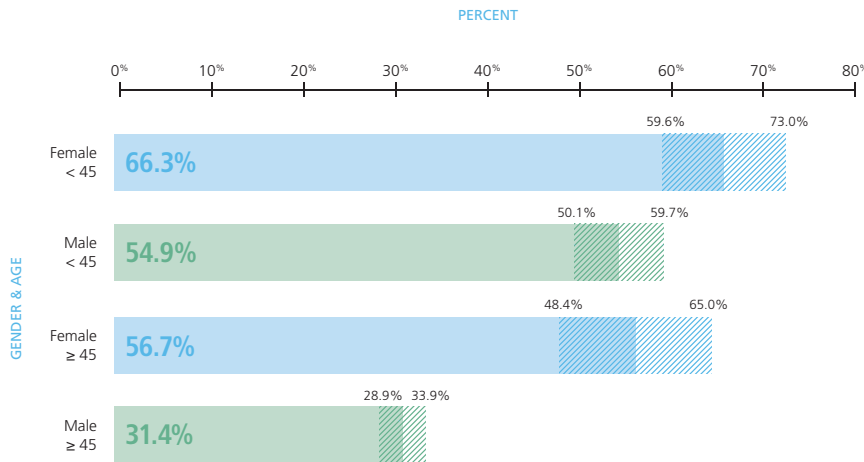
TABLE 3-3**Completion of Fellowship Training**

Fellowship Status	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
No Fellowship Training	8,243	59.8	2.1
Fellowship Trained	5,547	40.2	2.1
One	3,723	27.0	1.9
Two or More	1,823	13.2	1.4
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Fellowship training is defined as participation in a fellowship program with a duration of one year or longer. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

FIGURE 3-1

Percentage of Practicing Urologists with Completed Fellowship Training (by Gender and Age)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) Fellowship training is defined as participation in a fellowship program with a duration of one year or longer. *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

TABLE 3-4

Fellowship Areas (Multiple Selection Allowed)

Fellowship Areas	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Oncology	1,630	11.8	1.4
Pediatrics	1,037	7.5	1.2
Robotic Surgery	1,010	7.3	1.1
Endourology/Stone Disease	954	6.9	1.1
Female Pelvic Medicine and Reconstructive Surgery	706	5.1	0.8
Laparoscopic Surgery	645	4.7	0.9
Male Infertility	421	3.1	0.7
Male Genitourinary Reconstruction	417	3.0	0.7
Erectile Dysfunction	375	2.7	0.7
Renal Transplantation	200	1.5	*

(Data source: Weighted samples from the 2021 AUA Annual Census.) Fellowship training is defined as participation in a fellowship program with a duration of one year or longer. The respondents could select more than one answer, so the total number of counts may differ from the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

TABLE 3-5**Number of State Medical Licenses**

Number of Licenses	Practicing Urologists Represented	
	Number	Percent (%)
1	10,673	77.4
2	2,508	18.2
3	475	3.5
4	126	0.9
Total Reported	13,782	100.0
Not Reported	8	
Total	13,790	

(Data source: National Provider Identifier 09/2021 file.)

TABLE 3-6**American Board of Urology (ABU) Certification Status**

Certification Status	Practicing Urologists Represented	
	Number	Percent (%)
Certified by ABU	11,089	80.4
Not Certified by ABU	2,701	19.6
Total Reported	13,790	100.0

(Data source: National Provider Identifier 09/2021 file.)

Section 4: Urology Practice Characteristics and Performance Assessment

Primary Observations

- After annual decreases between 2017 and 2019, the percentage of practicing urologists who practiced in private settings (i.e., solo practices, single urology groups, multispecialty groups) has stabilized at 51 percent since 2020 (FIGURE 4-1). The practicing urologists in private settings are more likely to be male (TABLE 4-2) and older in age (FIGURE 4-2).
- The majority of respondents (58.4 percent) indicated that they did not have a primary subspecialty. Among those with a primary subspecialty, Oncology (11.3 percent), Pediatrics (7.1 percent), and Female Pelvic Medicine and Reconstructive Surgery (5.8 percent) were most selected as the primary subspecialty (TABLE 4-6).
- Nearly 77 percent of practicing urologists indicated they work directly with advanced practice providers within their practices (TABLE 4-4).

TABLE 4-1
Primary Practice Setting

Primary Practice Setting	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Private Practices	7,162	51.9	2.2
Solo Practices	1,160	8.4	1.3
Single Urology Groups	4,119	29.9	2.0
Multispecialty Groups	1,882	13.6	1.5
Institutional Settings	6,518	47.3	2.2
Academic Medical Centers	3,892	28.2	2.0
Public or Private Hospitals	2,283	16.6	1.7
Private Hospital	1,007	7.3	1.2
Veteran Affairs (VA) and Non-VA Military Hospitals	556	4.0	0.9
Other Public Hospitals	721	5.2	1.0
Community Health Centers/HMOs/Managed Care Organizations/Nursing Homes	342	2.5	0.9
Other Settings [^]	111	0.8	*
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples. ^Other settings include federal, state or local government, industry (pharmaceuticals, EHR vendors, device manufacturers, etc.).

TABLE 4-2

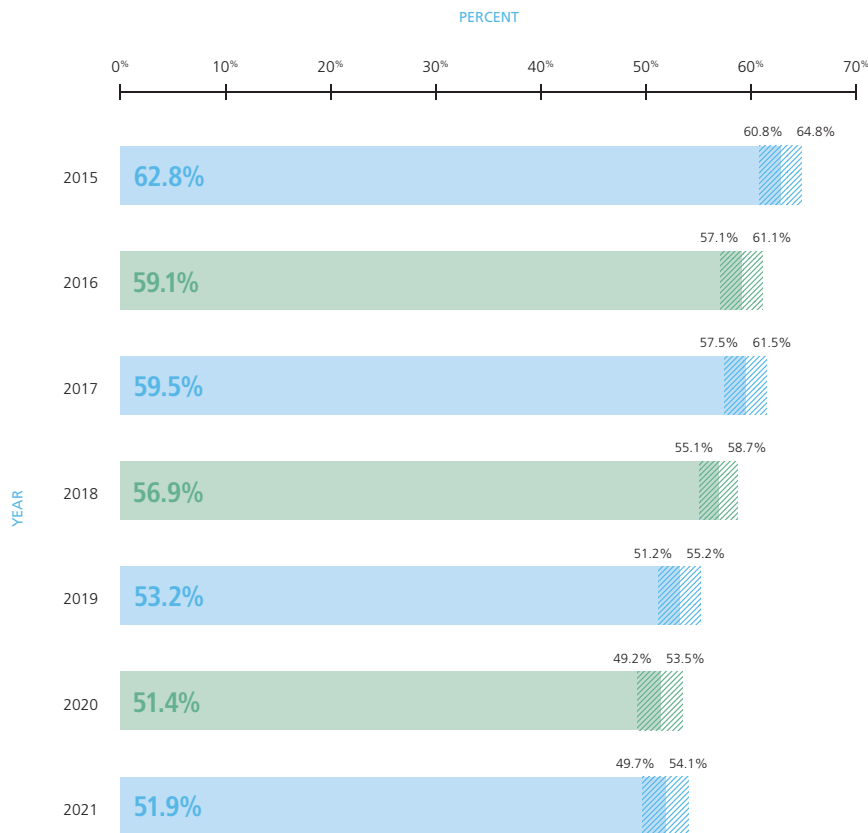
Primary Practice Setting by Gender

Primary Practice Setting	Male Practicing Urologists Represented			Female Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Private Practices	6,682	54.4	2.4	480	31.8	5.2
Academic Medical Centers	3,210	26.1	2.1	682	45.2	5.7
Public and Private Hospitals	2,008	16.4	1.8	275	18.2	4.7
Other Settings^	381	3.1	*	72	4.8	*
Total	12,281	100.0		1,509	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. ^ Other settings include federal, state or local government, industry (pharmaceuticals, EHR vendors, device manufacturers, etc.). *The estimated value should be used with caution due to small samples.

FIGURE 4-1

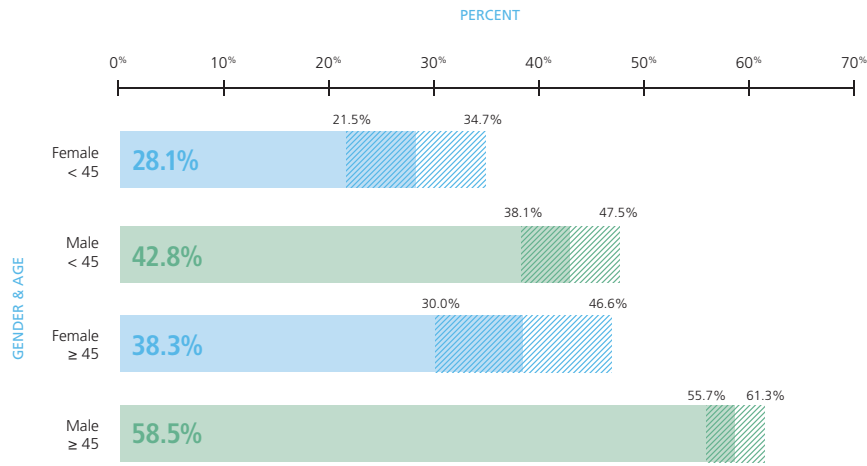
Percentage of Practicing Urologists in Private Practice from 2015 to 2021*



(Data source: Weighted samples from the AUA Annual Census from 2015 to 2021.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

FIGURE 4-2

Percentage of Practicing Urologists in Private Practices (by Gender and Age)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

TABLE 4-3

Number of Practicing Urologists per Practice (By Practice Setting)

Number of Practicing Urologists	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
All Practice Settings			
1	1,975	14.3	1.6
2	1,347	9.8	1.3
3	1,318	9.6	1.3
4	991	7.2	1.1
5 - 9	3,052	22.1	1.8
10 - 15	1,970	14.3	1.5
> 15	3,138	22.8	1.8
Total	13,790	100.0	
Academic Medical Centers			
1 - 9	1,191	30.6	3.6
10 - 19	1,500	38.5	3.9
≥ 20	1,201	30.9	3.8
Total	3,892	100.0	
Public and Private Hospitals			
1 - 2	764	33.5	5.2
3 - 4	739	32.4	5.1
≥ 5	780	34.2	4.9
Total	2,283	100.0	
Private Practices (Solo, Single-Specialty and Multispecialty)			
1	1,451	20.3	2.5
2 - 3	1,529	34.1	2.8
4 - 6	1,465	20.5	2.4
7 - 15	1,222	17.1	2.3
≥ 16	1,495	20.9	2.5
Total	7,162	100.0	
Other Settings[^]			
1 - 5	232	51.1	11.5
≥ 6	221	48.9	11.5
Total	431	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) [^]Other Settings include community health centers, HMOs and managed care organizations. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 4-4

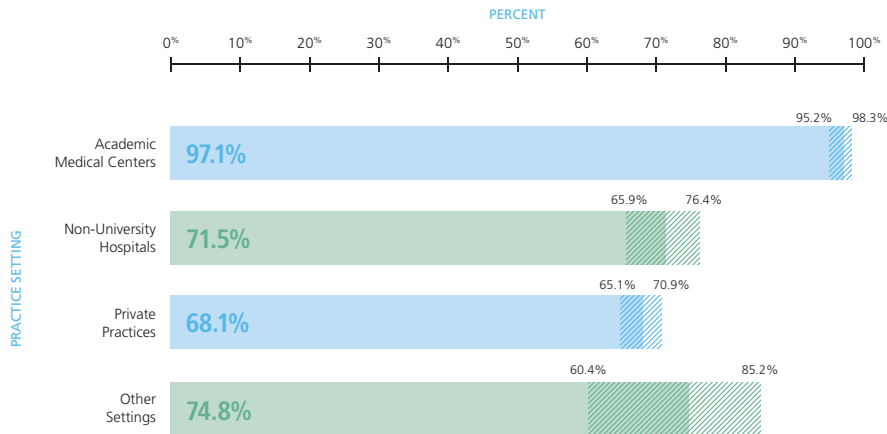
Practicing Urologists Who Work Directly with at Least One Advanced Practice Provider (APP)

Number of Advanced Practice Providers	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
None	3,146	23.5	1.9
At Least One	10,267	76.5	1.9
1 - 2	3,327	24.8	1.9
3 - 4	2,335	17.4	1.6
5 - 9	2,443	18.2	1.7
≥ 10	2,162	16.1	1.6
Total Reported	13,413	100.0	
Not Reported	377		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Advanced practice providers (APP) include physician assistants (PA), nurse practitioners (NP) and advanced practice nurses (APN). Working directly with APPs means working with at least one PA, NP or APN in the urologists' primary practices or medical teams.

FIGURE 4-3

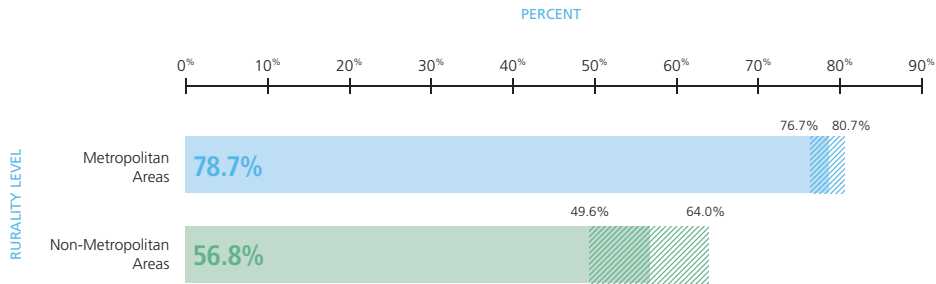
Percentage of Practicing Urologists Who Work Directly with at Least One APP (by Practice Setting)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) ^Other Settings include community health centers, HMOs and managed care organizations. *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits. Working directly with APPs means working with at least one PA, NP or APN in the urologists' primary practices or medical teams.

FIGURE 4-4

Percentage of Practicing Urologists Who Work Directly with at Least One APP (by Metropolitan Status)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits. Working directly with APPs means working with at least one PA, NP or APN in the urologists’ primary practices or medical teams.

TABLE 4-5

Number of Office Locations per Practice

Number of Office Locations	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
1	4,682	34.0	2.2
2	2,397	17.4	1.7
3	1,628	11.8	1.4
4	1,261	9.1	1.3
≥ 5	3,822	27.7	2.0
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median number of office locations per practice is 2.

TABLE 4-6**Primary Subspecialty Areas**

Primary Subspecialty Areas	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
General without Subspecialty	8,056	58.4	2.1
Oncology	1,559	11.3	1.5
Pediatrics	986	7.1	1.2
Female Pelvic Medicine and Reconstruction	794	5.8	1.0
Endourology/Stone Disease	663	4.8	1.0
Robotic Surgery	598	4.3	0.8
Erectile Dysfunction	405	2.9	0.8
Male Infertility	307	2.2	*
Male Genitourinary Reconstruction	249	1.8	*
Other Subspecialty	172	1.2	*
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples.

TABLE 4-7**Any Subspecialty Area (Multiple Selection Allowed)**

Subspecialty Areas	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Endourology/Stone Disease	9,231	66.9	2.1
Oncology	9,137	66.3	2.1
Erectile Dysfunction	7,858	57.0	2.2
Robotic Surgery	5,296	38.4	1.8
Laparoscopic Surgery/Renal Transplantation	4,795	34.8	1.9
Female Pelvic Medicine and Reconstruction	4,479	32.5	2.1
Male Infertility	4,136	30.0	2.1
Pediatrics	2,892	21.0	1.8
Male Genitourinary Reconstruction	1,354	9.8	1.4

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists.

TABLE 4-8**Reported Subspecialty Area among Those Practicing Urologists without a Primary Subspecialty Area (Multiple Selection Allowed)**

Subspecialty Areas	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Endourology/Stone Disease	6,398	79.4	2.4
Oncology	6,173	76.6	2.4
Erectile Dysfunction	5,967	74.1	2.6
Male Infertility	3,315	41.1	2.9
Female Pelvic Medicine and Reconstruction	3,188	39.6	2.8
Laparoscopic Surgery/Renal Transplantation	2,698	33.5	2.4
Robotic Surgery	2,591	32.2	2.1
Pediatrics	1,695	21.0	2.4
Other Subspecialties	750	9.3	1.8
No Subspecialty Area Reported	982	12.1	1.9

(Data source: Weighted samples from the 2021 AUA Annual Census.) Those 8,056 respondents who indicated without a primary subspecialty area could select more than one answer, so the total number of counts may be more than the total number of practicing urologists.

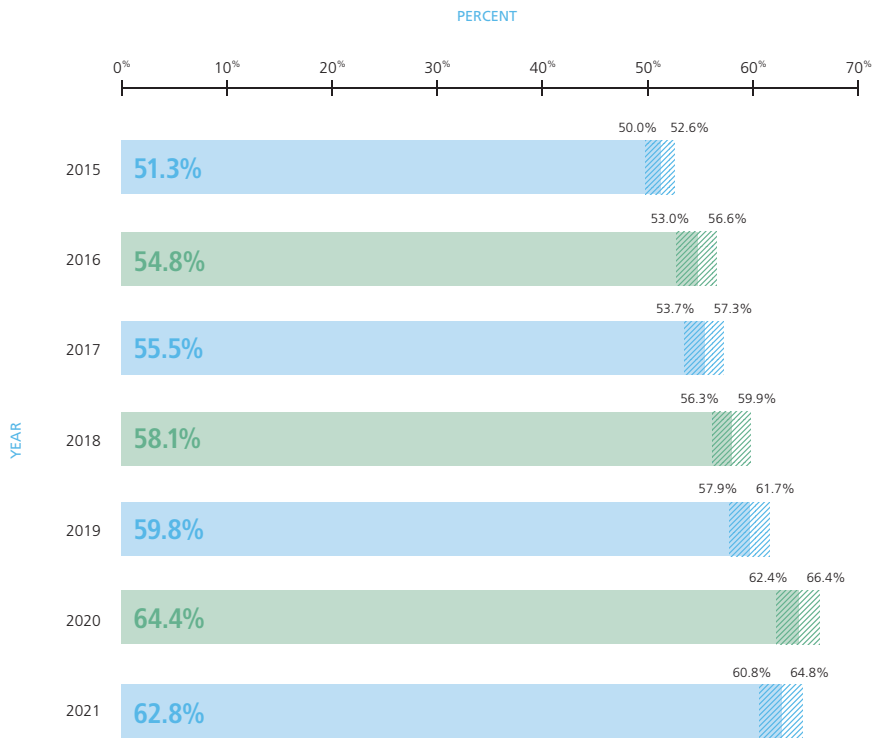
TABLE 4-9**Employment Status**

Employment Status	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
I Am the Sole Owner of My Practice	1,218	8.8	1.3
I Am a Partner in My Practice	3,529	25.6	1.8
I Am an Employee of My Practice	8,662	62.8	2.0
A Combination of the Above	381	2.8	0.7
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.)

FIGURE 4-5

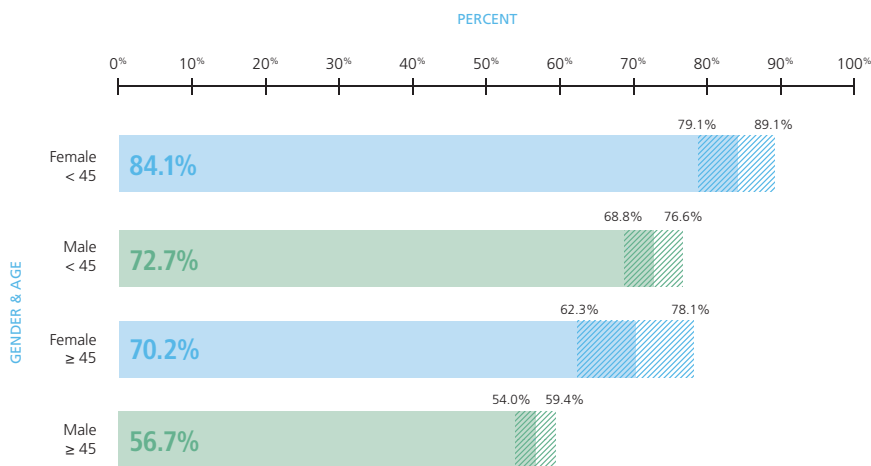
Percentage of Employed Practicing Urologists from 2015 to 2021*



(Data source: Weighted samples from the AUA Annual Census from 2015 to 2021.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

FIGURE 4-6

Percentage of Employed Practicing Urologists (by Gender and Age)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

TABLE 4-10**Primary Practice Routinely Uses Quality Measures to Assess My Performance**

Responses	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
My Primary Practice Routinely Uses Quality Measures to Assess My Performance	9,114	77.4	2.8
My Primary Practice Does Not Routinely Use Quality Measures to Assess My Performance	2,665	22.6	2.8
Total Reported	11,778	100.0	
Not Reported	2,012		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 4-11**Top Barriers to Effective Performance Measurement and Quality Improvement (Multiple Selection Allowed)**

Top Barriers	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Too Much Time and/or Other Resources Needed	4,680	33.9	3.0
Not Enough Measures That Are Relevant to My Work or Improvement Needs	4,179	30.3	3.0
Available Information Systems Are Not Conducive to Collecting and Reporting Measurement Data	3,702	26.8	2.8
Non-Alignment of Measures Required by Different Payers	2,121	15.4	2.2
Too Few Cases for Reporting Currently Available Measures	1,278	9.3	*
Others	439	3.2	*
Do Not Know/Prefer Not to Answer	4,391	31.8	3.0

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples

Section 5: Volume, Scope, Location and Duration of Work

Primary Observations

- The median number of hours practicing urologists worked per week was 55. Nearly 34 percent reported working more than 60 hours in a typical week (TABLE 5-1).
- The average number of minutes spent with a patient during a typical office visit was higher for female practicing urologists (19.3) compared to their male counterparts (16.5) (FIGURE 5-2).
- Approximately 55 percent of practicing urologists plan to fully retire after the age of 65 (TABLE 5-13), more common in male urologists (59.5 percent) and less common in female urologists (22.5) (TABLE 5-14).

Volume of Work

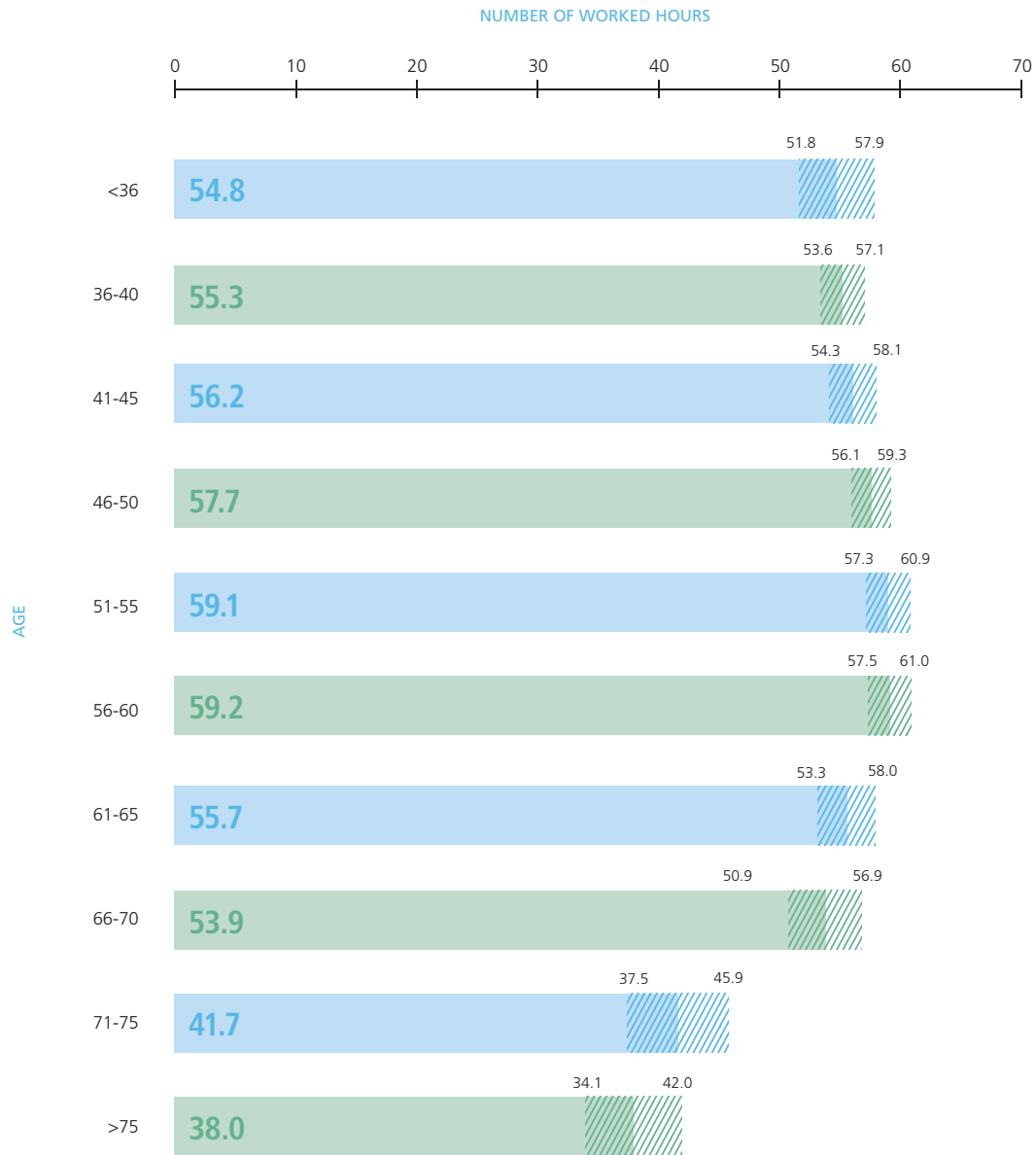
TABLE 5-1
Total Number of Hours Worked in a Typical Week

Work Hours	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
≤ 35	1,897	13.8	1.6
36 - 40	759	5.5	1.1
41 - 45	1,130	8.2	1.3
46 - 50	1,663	12.1	1.4
51 - 55	1,687	12.2	1.5
56 - 60	2,037	14.8	1.6
≥ 61	4,617	33.5	2.0
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The total numbers depicted were derived from the responses received from two separate questions about clinical and non-clinical work hours. The median number of work hours per week is 55. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

FIGURE 5-1

Average Number of Worked Hours per Week (by Age)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) The total number of work hours include both clinical and non-clinical hours. To avoid outliers, practicing urologists who reported the lowest 1 percent and highest 1 percent of the total number of hours were excluded from the analysis. *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

TABLE 5-2**Number of Clinical Hours Directly Related to Patient Care in a Typical Week**

Clinical Hours	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
< 25	1,645	11.9	1.5
≥ 25	12,145	88.1	1.5
25-30	1,064	7.7	1.3
31-35	590	4.3	1.0
36-40	2,316	16.8	1.6
41-45	1,009	7.3	1.2
46-50	2,357	17.1	1.6
51-55	854	6.2	1.0
56-60	2,223	16.1	1.6
≥ 61	1,731	12.6	1.4
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median number of clinical hours directly related to patient care per week is 46. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 5-3**Number of Non-Clinical Hours (Administration, Teaching, Research, etc.) Worked in a Typical Week**

Number of Hours	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
≤ 1	2,100	15.2	1.7
2-5	5,159	37.4	2.2
6-10	3,550	25.7	2.0
11-15	950	6.9	1.1
16-20	1,177	8.5	1.3
≥ 21	854	6.2	1.0
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median number of non-clinical hours per week is 5. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 5-4

Average Number of Worked Hours per Week (by Gender)

Work Hours	Male Practicing Urologists Represented			Female Practicing Urologists Represented			Total Practicing Urologists Represented		
	Number of Urologists	Mean Number of Hours	+/- MOE	Number of Urologists	Mean Number of Hours	+/- MOE	Number of Urologists	Mean Number of Hours	+/- MOE
Clinical Hours		45.7	0.8		43.7	2.1		45.5	0.8
Non-Clinical Hours	12,043	8.3	0.4	1,497	10.1	1.2	13,540	8.5	0.4
Total Hours		53.9	0.9		53.8	2.0		53.9	0.8

(Data source: Weighted samples from the 2021 AUA Annual Census. To avoid outliers, practicing urologists who reported the lowest 1 percent and highest 1 percent of the total number of hours were excluded from the analysis.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 5-5

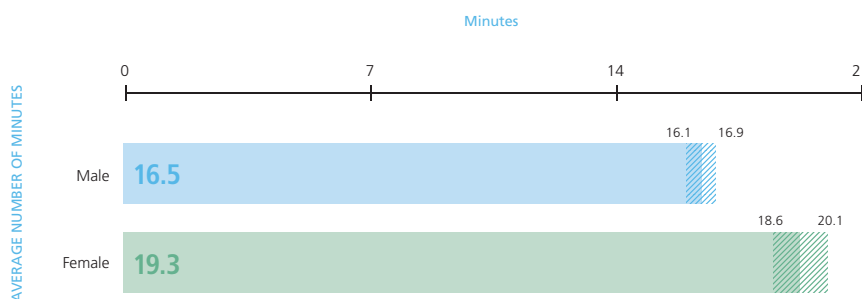
Number of Minutes Spent with a Patient in a Typical Office Visit

Minutes Spent with Patients	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
≤ 14	3,816	27.7	1.9
15 - 19	5,114	37.1	2.1
≥ 20	4,860	35.2	2.1
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census). The median number of minutes spent with a patient during a typical office visit is 15. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

FIGURE 5-2

Average Number of Minutes Spent with a Patient in a Typical Office Visit (by Urologist's Gender)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

TABLE 5-6**Number of Patient Visits/Encounters in a Typical Week**

Patient Visits/Encounters	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
≤ 50	4,348	31.5	2.1
51-75	3,624	26.3	2.0
76-100	3,698	26.8	1.9
≥ 101	2,120	15.4	1.6
Total	13,790	100	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median number of patient visits/encounters per week is 70. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 5-7**Number of Patient Visits/Encounters in a Typical Week (by Gender)**

Patient Visits/Encounters	Male Practicing Urologists Represented		Female Practicing Urologists Represented	
	Percent (%)	+/- MOE (%)	Percent (%)	+/- MOE (%)
≤ 50	30.2	2.3	42.2	5.9
51-75	25.2	2.1	34.8	5.6
76-100	28.2	2.1	15.5	3.5
> 100	16.3	1.7	7.5	*
Total	100.0		100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median number of patient visits for male and female practicing urologists are 72 and 60, respectively. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples.

TABLE 5-8**Number of Nights on Call in a Typical Week**

Nights on Call	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
0	2,936	21.3	1.8
1	4,817	34.9	1.9
2	2,738	19.9	1.7
3	1,298	9.4	1.3
≥ 4	2,000	14.5	1.6
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median number of nights on call is 1 night per week. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

*Scope of Work***TABLE 5-9****Number of Practicing Urologists Performing Major Inpatient Operative Procedures (by Age)**

Age	Practicing Urologists Represented	Practicing Urologists Who Perform Major Operative Procedures		
		Number	Percent (%)	+/- MOE (%)
< 45	4,133	3,861	93.4	2.0
45 - 54	2,795	2,473	88.5	2.6
55 - 64	2,750	2,280	82.9	3.0
≥ 65	4,112	2,254	54.8	5.0
Total	13,790	10,868	78.8	1.8

(Data source: Weighted samples from the 2021 AUA Annual Census.)

TABLE 5-10**Number of Major Inpatient Operative Procedures Performed in a Typical Month**

Number of Procedures	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
None	2,922	21.2	1.8
1 - 4	4,152	30.1	2.0
5 - 9	3,172	23.0	1.9
≥ 10	3,543	25.7	1.9
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 5-11**Additional Professional Roles (Multiple Selection Allowed)**

Professional Roles	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Educator	1,402	10.2	1.3
Researcher	1,081	7.8	1.2
Administrator/Medical Officer/Practice Manager	116	0.8	*

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

Duration of Career

TABLE 5-12

Total Number of Years of Practicing Urology Since Completion of Residency

Years of Practice	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
1 - 5	2,689	19.5	1.3
6 - 10	1,691	12.3	1.1
11 - 20	2,607	18.9	1.0
21 - 30	2,622	19.0	1.0
> 30	4,182	30.3	0.9
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median number of years practicing urology since completion of residency is 20. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 5-13

Planned Full Retirement Age

Planned Retirement Age	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
< 60	1,068	7.7	1.0
60-65	5,082	36.9	1.8
66-70	3,886	28.2	2.0
71-75	2,249	16.3	1.7
> 75	1,505	10.9	1.5
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The median age at planned full retirement from practice is 67. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 5-14

Planned Full Retirement Age (by Gender)

Planned Retirement Age	Male Practicing Urologists Represented			Female Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
< 60	768	6.3	1.0	300	19.9	4.6
60-64	1,830	14.9	1.5	400	26.5	5.1
65^	2,383	19.4	1.6	470	31.1	5.4
66-70	3,595	29.3	2.1	291	19.3	4.3
≥ 71	3,705	30.2	2.0	49	3.2	*
Total	12,281	100.0		1,509	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. ^65 was listed as a separate category because a large number of urologists plan to retire at that age. *The estimated value should be used with caution due to small samples. The median ages of planned retirement for male and female practicing urologists are 68 and 65, respectively.

Section 6: Professional Burnout and Related Topics

Primary Observations

- Female urologists reported lower satisfaction with work and life balance compared to their male counterparts (TABLE 6-3). Particularly, only 42.5 percent of female urologists agreed their work schedule leaves them enough time for personal and/or family life while 66.4 percent of male urologists felt this way (TABLE 6-4).
- The top three primary sources of workplace dissatisfaction among practicing urologists are use of electronic health records, not enough time for personal and/or family life and decreasing reimbursement (TABLE 6-11).
- Based on the responses to the Maslach Burnout Inventory (MBI) questionnaire, the overall professional burnout rate remained at a similar level in 2016 and 2021 (TABLE 6-16). However, the burnout rate for female urologists increased from 35.3 percent in 2016 to 49.2 percent in 2021 (FIGURE 6-1).

TABLE 6-1
Conflict Resolution Regarding Work and Personal Responsibility Imbalances

Conflict Resolution	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
No Conflict Experienced	3,033	22.8	2.8
Conflict Resolved in Favor of Work Responsibilities	2,620	19.7	2.4
Conflict Resolved in Favor of Personal Responsibilities	1,699	12.8	2.0
Conflict Resolved Meeting the Need of Both	4,862	36.6	3.1
Conflict Was Not Resolved	1,075	8.1	1.8
Total Reported	13,290	100.0	
Not Reported	500		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 6-2**Conflict Resolution Regarding Work and Personal Responsibility Imbalances (by Gender)**

Planned Retirement Age	Male Urologists Represented			Female Urologists Represented		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
No Conflict Experienced	2,966	25.0	3.2	67	4.6	*
Conflict Resolved in Favor of Work Responsibilities	2,140	18.1	2.6	480	33.3	6.0
Conflict Resolved in Favor of Personal Responsibilities	1,522	12.8	2.3	177	12.3	*
Conflict Resolved Meeting the Need of Both	4,309	36.4	3.4	553	38.4	5.8
Conflict Was Not Resolved	910	7.7	1.9	165	11.4	*
Total Reported	11,849	100.0		1,441	100.0	
Not Reported	432			68		
Total	12,281			1,509		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples

TABLE 6-3**Satisfaction with Work-Life Balance**

Response	Male Urologists Represented			Female Urologists Represented		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Satisfied or Very Satisfied	7,085	57.7	3.5	603	39.9	7.3
Neutral	2,429	19.8	2.7	347	23.0	5.1
Dissatisfied or Very Dissatisfied	2,760	22.5	2.8	560	37.1	7.3
Total Reported	12,274	100.0		1,509	100.0	
Not Reported	7			0		
Total	12,281			1,509		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 6-4**Work Schedule Leaves Enough Time for Personal and/or Family Life**

Response	Male Urologists Represented			Female Urologists Represented		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Yes	8,078	66.4	3.3	615	42.5	7.6
No	4,081	33.6	3.3	832	57.5	7.6
Total Reported	12,158	100.0		1,448	100.0	
Not Reported	123			61		
Total	12,281			1,509		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 6-5**Activities for Which Practicing Urologists Have Adequate Time to Complete/Participate in to Keep Up with Changes in the Field of Urology (Multiple Selection Allowed)**

Activities	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Attend Online Learning	11,290	81.9	2.4
Read Scientific Papers or Journals	10,009	72.6	2.8
Watch Videos or Podcasts	9,608	69.7	2.9
Attend Webinars	9,100	66.0	3.0
Participate in Professional Membership Societies	8,899	64.5	3.2
Attend Live CME Classes	8,505	61.7	3.1
Attend In-Person Scientific Meetings	8,254	59.9	3.2
Participate in Leadership Training	4,954	35.9	3.1

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 6-6**Practice Provides Enough Financial Support for Practicing Urologists to Obtain Needed Continuing Medical Education (CME)**

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Yes	10,435	79.1	2.8
No	2,751	20.9	2.8
Total Reported	13,186	100.0	
Not Reported	604		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.)

TABLE 6-7**Choose Medicine as a Career If I Had to Do It Over Again**

Response	Reported in 2017			Reported in 2021		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Yes	9,379	84.5	1.8	10,047	87.5	2.4
No	1,727	15.5	1.8	1,429	12.5	2.4
Total Reported	11,106	100.0		11,476	100.0	
Not Reported	1,410			2,314		
Total	12,516			13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.)

TABLE 6-8**Choose Medicine as a Career If I Had to Do It Over Again (by Gender)**

Response	Male Practicing Urologists			Female Practicing Urologists		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Yes	9,133	88.0	2.6	914	83.3	4.9
No	1,246	12.0	2.6	183	16.7	*
Total Reported	10,380	100.0		1,097	100.0	
Not Reported	1,901			412		
Total	12,281			1,509		

(Data source: Weighted samples from the 2021 AUA Annual Census.) *The estimated value should be used with caution due to small samples. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 6-9**Choose Urology as a Medical Specialty If Given the Opportunity Again**

Response	Reported in 2017			Reported in 2021		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Yes	10,802	93.4	1.2	11,364	93.0	1.7
No	762	6.6	1.2	851	7.0	1.7
Total Reported	11,564	100.0		12,215	100.0	
Not Reported	952			1,575		
Total	12,516			13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.)

TABLE 6-10**Choose Urology as a Medical Specialty If Given the Opportunity Again (by Gender)**

Response	Male Practicing Urologists			Female Practicing Urologists		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Yes	10,233	93.3	1.9	1,131	90.8	3.8
No	737	6.7	*	114	9.2	*
Total Reported	10,970	100.0		1,245	100.0	
Not Reported	1,311			264		
Total	12,281			1,509		

(Data source: Weighted samples from the 2021 AUA Annual Census.) *The estimated value should be used with caution due to small samples. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

Note: Respondents were asked to identify their three job dissatisfiers.

TABLE 6-11

Primary Workplace Dissatisfier

Factors	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Use of Electronic Health Records (EHR)	3,969	28.8	3.0
Not Enough Time for Personal and/or Family Life	2,316	16.8	2.3
Decreasing Reimbursements	1,982	14.4	2.2
Office Staffing and Complicated Requirements	1,606	11.6	2.0
CMS Mandates	1,068	7.7	1.8
Too Many Patients to See	992	7.2	1.4
Others	1,226	8.9	1.8
None of the Above	631	4.6	*
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.)

TABLE 6-12

Secondary Workplace Dissatisfier

Factors	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Office Staffing and Complicated Requirements	2,103	15.2	2.3
Use of Electronic Health Records (EHR)	2,061	14.9	2.3
Decreasing Reimbursements	1,914	13.9	2.2
Not Enough Time for Personal and/or Family Life	1,909	13.8	2.1
Too Many Patients to See	1,755	12.7	2.0
CMS Mandates/Meaningful Use Requirements	1,743	12.6	2.2
Others	1,154	8.4	1.7
None of the Above	1,151	8.3	2.0
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 6-13**Third Workplace Dissatisfier**

Factors	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Decreasing Reimbursements	2,157	15.6	2.3
Office Staffing and Complicated Requirements	1,975	14.3	2.2
Not Enough Time for Personal and/or Family Life	1,682	12.2	1.9
CMS Mandates/Meaningful Use Requirements	1,632	11.8	2.2
Use of Electronic Health Records (EHR)	1,330	9.6	1.9
Too Many Patients to See	1,272	9.2	1.8
Others	1,745	12.7	2.1
None of the Above	1,996	14.5	2.4
Total	13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

Note: Physician burnout has been linked to decreased job performance as well as increased medical errors, interpersonal conflicts and depression. The purpose of including burnout questions in the 2016 AUA Annual Census was to establish the prevalence of professional burnout among urologists and to determine the sub-groups associated with higher burnout rates. The Maslach Burnout Inventory (MBI) questions were randomly assigned to half of the respondents. Using matrix sampling, the 907 practicing urologists who received and answered the MBI questions represent the entire 1,742 practicing urologists who completed the Census. The results were weighted to represent the entire 13,790 practicing urologists in the United States. Burnout was defined as scoring high in either the emotional exhaustion (score ≥ 27) or depersonalization (score ≥ 10) categories.

TABLE 6-14**Aggregated Burnout Score - Section A: Emotional Exhaustion**

Level	Measured in 2016			Measured in 2021		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Low	8,318	68.3	2.5	8,658	62.8	3.0
Moderate	1,863	15.3	1.8	3,399	24.6	2.6
High	2,005	16.5	2.0	1,732	12.6	2.2
Total	12,186	100.0		13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 6-15

Aggregated Burnout Score - Section B: Depersonalization

Level	Measured in 2016			Measured in 2021		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
Low	5,280	43.3	2.8	6,016	43.6	3.1
Moderate	2,688	22.1	2.3	2,858	20.7	2.4
High	4,218	34.6	2.6	4,916	35.6	3.0
Total	12,186	100.0		13,790	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 6-16

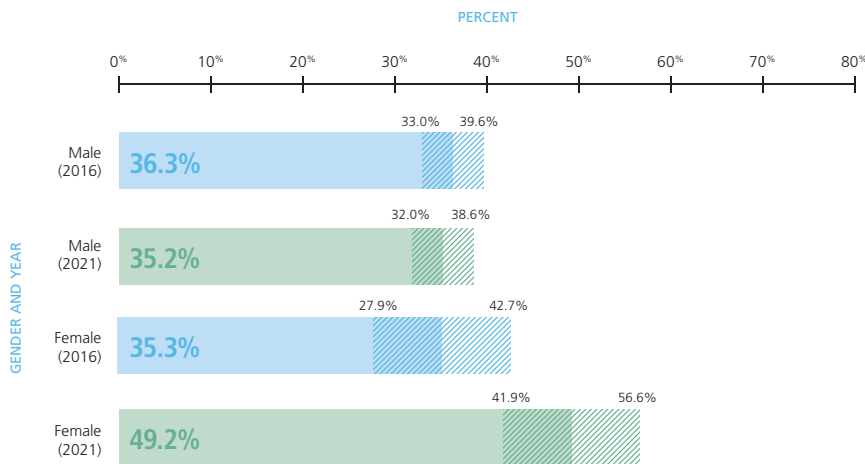
Overall Burnout Rate (2016 versus 2021)

Burnout Rate	Practicing Urologist Population	Measured in 2016			Measured in 2021			
		Burnout Population Represented			Burnout Population Represented			
		Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)	
Total	12,516	4,414	36.2	2.7	13,790	5,067	36.7	3.0

(Data source: Weighted samples from the 2021 AUA Annual Census.) Burnout status was determined based on the responses to the Maslach Burnout Inventory (MBI) questions. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

FIGURE 6-1

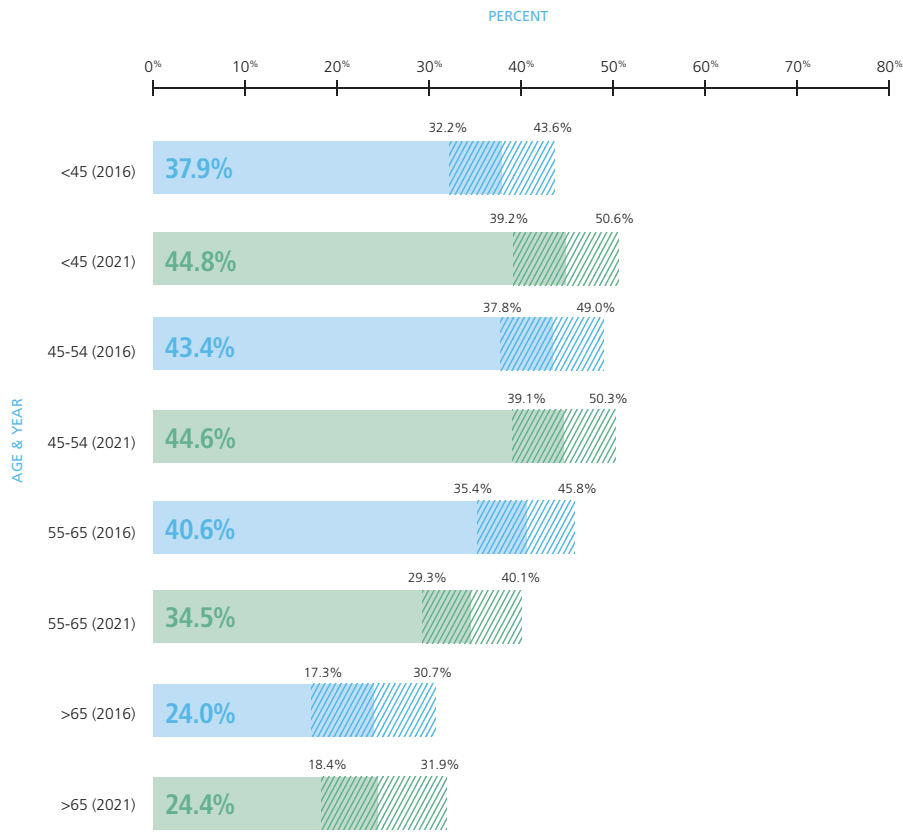
Overall Burnout Rates by Gender (2016 versus 2021)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

FIGURE 6-2

Overall Burnout Rates (by Age and Year)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

Section 7: Impact of the COVID-19 Pandemic

Primary Observations

- Among practicing urologists who experienced burnout, nearly 46 percent of them reported that the COVID-19 pandemic attributed to burnout (TABLE 7-1).
- For approximately 20 percent of practicing urologists, their retirement plans were impacted by the COVID-19 pandemic (TABLE 7-2).
- In 2020, only about 30 percent of practicing urologists reported their primary practices were able to maintain 90 percent or higher of their normal revenue. In comparison, nearly 60 percent of practicing urologists experienced this level of financial success in 2021 (TABLE 7-3).

TABLE 7-1

Impact of COVID-19 on Burnout

Impact on Burnout	Urology Practices Represented		
	Number	Percent (%)	+/- MOE (%)
Yes	4,472	45.9	3.7
No	5,265	54.1	3.7
Total Reported	9,738	100.0	
I Do Not Feel Burnout	3,663		
Not Reported	389		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 7-2

Impact of the COVID-19 Pandemic on Retirement Plans

Impact on Retirement Plans	Urology Practices Represented		
	Number	Percent (%)	+/- MOE (%)
Remains the Same	10,453	79.6	2.6
Earlier than Previously Planned	1,900	14.5	2.3
Later than Previously Planned	778	5.9	*
Total Reported	13,131	100.0	
Not Reported	659		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples.

TABLE 7-3**Percentage of Normal Revenue Maintained by My Primary Practice during the COVID-19 Pandemic (2020/2021)**

Percentage Maintained	2020			2021		
	Number	Percent (%)	+/- MOE (%)	Number	Percent (%)	+/- MOE (%)
≤ 50	1,085	10.4	2.1	565	5.3	2.0
51 - 75	2,363	22.6	3.2	740	7.0	1.8
76 - 90	3,818	36.6	3.5	2,932	27.7	3.5
> 90	3,180	30.4	3.3	6,341	59.9	3.7
Total Reported	10,446	100.0		10,578	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 7-4**Measures Used by My Primary Practice in 2020 to Address Lost Revenue Due to the COVID-19 Pandemic (Multiple Selection Allowed)**

Measures Used	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Not Filling Vacant Positions	3,684	26.7	2.9
Salary Reduction	3,559	25.8	2.7
Furloughs	3,433	24.9	2.7
Terminations/Layoff	1,886	13.7	2.2
Use of Paid Time off Benefits	1,798	13.0	2.1
Others	1,341	9.7	1.8
None of the Above	5,660	41.0	3.3

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may be more than the total number of practicing urologists. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

Section 8: Telemedicine

Primary Observations

- Approximately 81 percent of practicing urologists participated in telemedicine in 2021; highest in academic medical centers (92.7 percent) and lowest in solo practices (50.7 percent) (TABLE 8-1). Among those 10,548 practicing urologists who participated in telemedicine during the COVID-19 pandemic, 93.3 percent of them reported they would continue to participate after the pandemic abates (TABLE 8-4).
- Regarding the overall quality of visits, approximately one in three and one in six practicing urologists who participated in telemedicine reported video visits and audio-only visits are about the same or better than in-person visits, respectively (FIGURE 8-2, FIGURE 8-3).
- Practicing urologist who participated in telemedicine reported that the key barriers to patients' ability to receive telemedicine services. The top three are lack of knowledge in using the patient portal/software needed for telemedicine visits (67.6 percent); adequate conferencing tool (49.6 percent); and high-speed Internet service to enable video visits (43.9 percent) (TABLE 8-6).

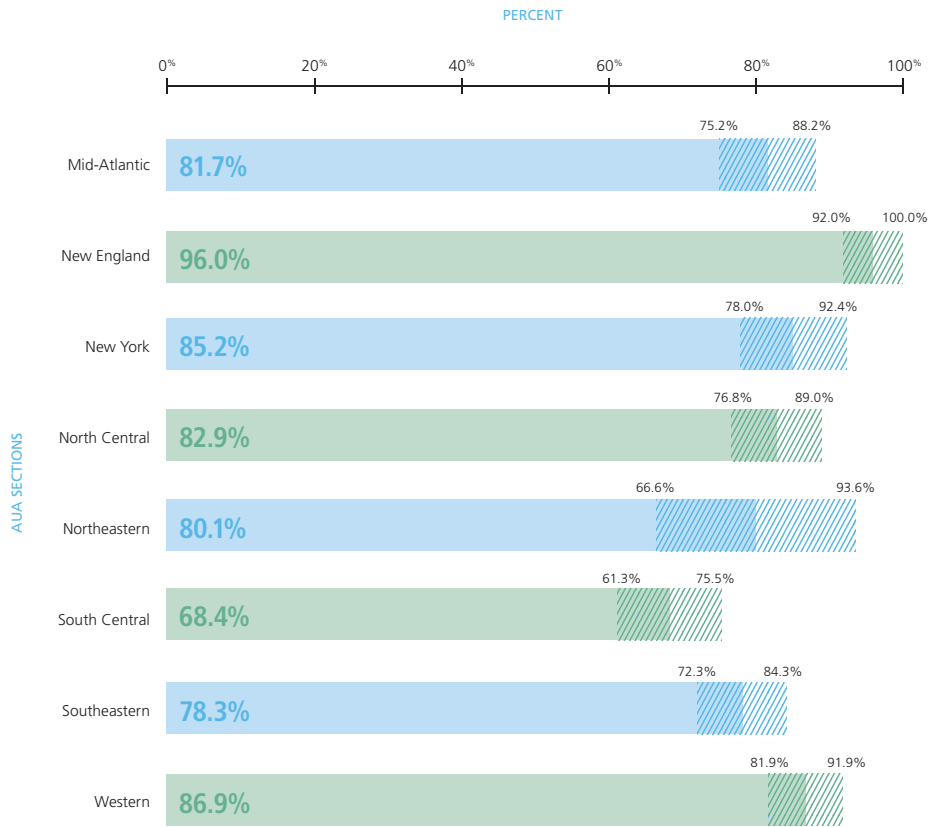
TABLE 8-1
Participation in Telemedicine Programs (by Practice Setting)

Practice Setting	Practicing Urologists Represented			
	Total Number of Urologists	Urologists Participating in Telemedicine	Percent (%)	+/- MOE (%)
Academic Medical Centers	4,053	3,758	92.7	3.3
Private and Public Hospitals	2,232	1,730	76.9	7.2
Private Practices	6,726	5,258	77.5	3.7
Solo Practices	956	485	50.7	12.2
Private Group Practice	5,770	4,734	81.9	3.6
Others [^]	544	272	58.1	*
Total Reported	13,555	11,018	81.3	2.4
Not Reported	235			
Total	13,790			

(Data source: Weighted samples from the 2021 AUA Annual Census.) [^]Other Settings include community health centers, HMOs and managed care organizations. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples.

FIGURE 8-1

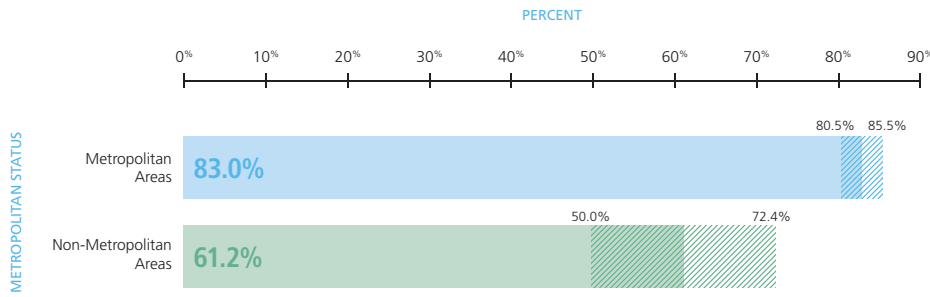
Participation in Telemedicine Programs (by AUA Section)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents who did not report their participation status were excluded in calculation. *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

FIGURE 8-2

Participation in Telemedicine Programs (by Metropolitan Status)*



(Data source: Weighted samples from the 2021 AUA Annual Census.) *Bold numbers are point estimates. The dashed bars represent upper and lower 90% confidence limits.

TABLE 8-2

Percentage of Patient Encounters Conducted by Telemedicine

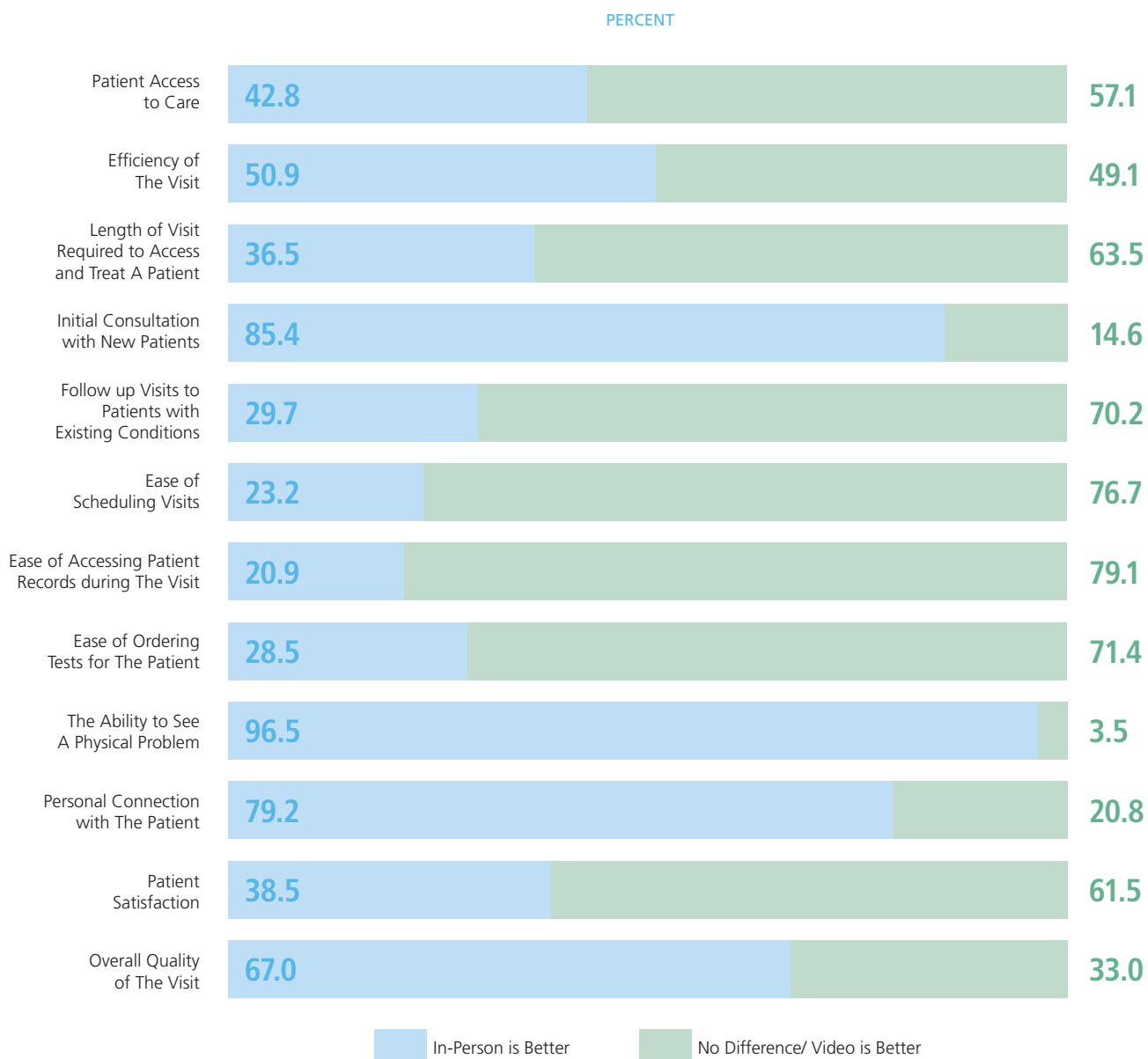
Percentage	Practicing Urologists Represented		
	Number	Percent	+/- MOE (%)
< 5	5,339	48.5	3.6
5 - 10	3,092	28.1	3.3
11 - 25	1,476	13.4	2.3
> 25	1,111	10.1	2.2
Total Reported	11,018	100.0	

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents were those who participated in a telemedicine program in 2021. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

This section focused on learning about the difference (or the differences in the experiences) between video visits and in-person visits based on a specific factor. It should be noted that for each factor they had to choose from four options (Video visit is better, Office visit is better, No difference, Not applicable)

FIGURE 8-3

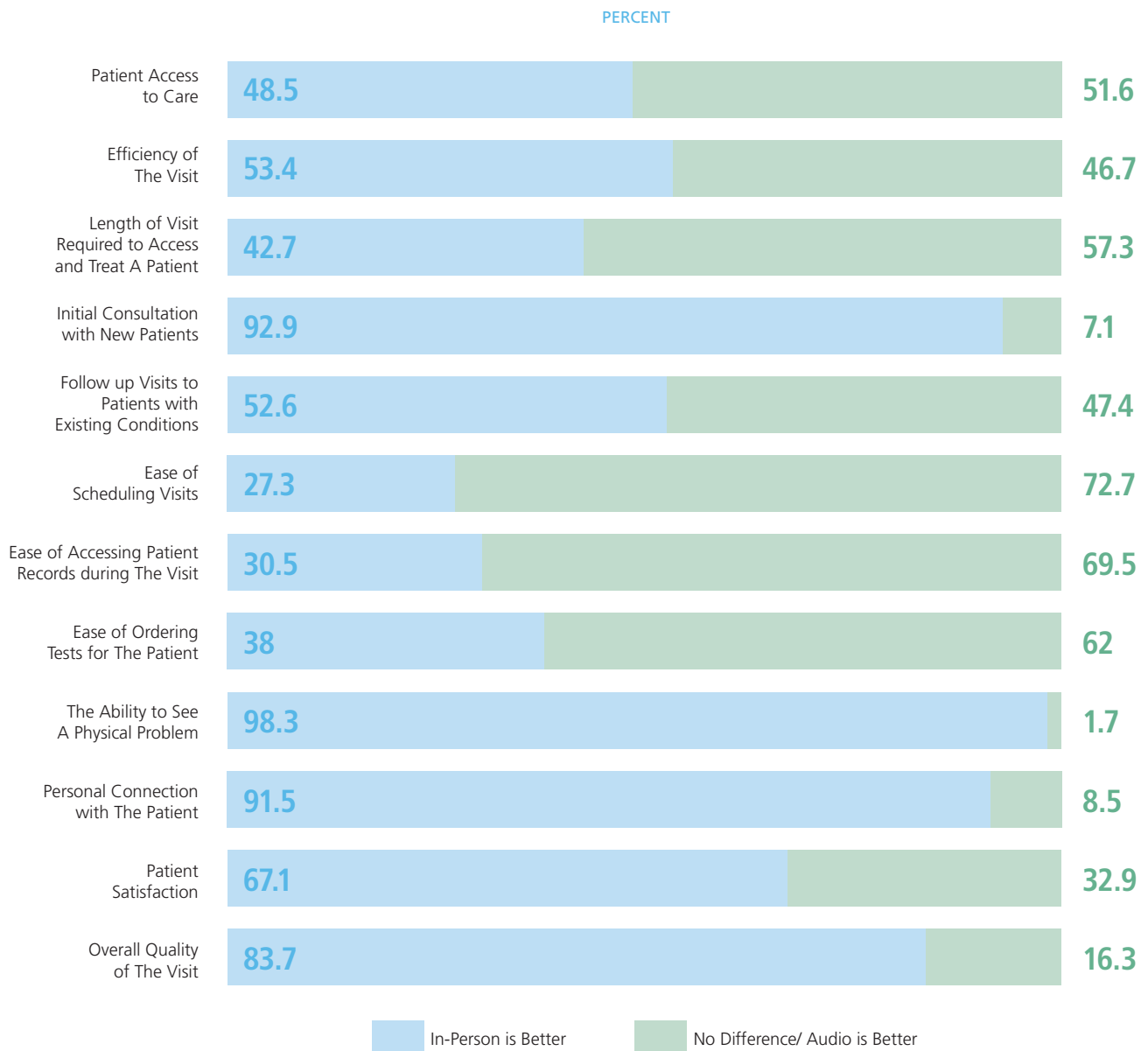
Comparison of Visits between Video Visits and In-Person Office Visits



(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents were those who participated in a telemedicine program in 2021.

FIGURE 8-4

Comparison of Visits between Audio Visits and In-Person Office Visits



(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents were those who participated in a telemedicine program in 2021.

TABLE 8-3**Percentage of Telemedicine Encounters Planned and Actually Conducted by Video and Audio**

Response	Percentage (90% CI) (%)	Metropolitan Areas	Non-Metropolitan Areas
		Percentage (90% CI) (%)	Percentage (90% CI)
Video Was Planned	70.3 (68.0 - 72.6)	70.4 (68.0-72.7)	69.5 (60.1-78.9)
Video Was Conducted	58.5 (56.2 - 60.9)	58.8 (56.4-61.2)	54.3 (43.6-65.0)
Video Was Converted to Audio	11.8 (10.7 - 12.9)	11.6 (10.5-12.7)	15.2 (9.1-21.3)
Audio Was Planned	29.7 (27.4 - 31.9)	29.6 (27.2-32.0)	30.5 (21.1-39.9)
Total	100.0	100.0	100.0

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents were those who participated in a telemedicine program in 2021.

TABLE 8-4**Anticipated Continuation of Using Telemedicine after the COVID-19 Pandemic Abates**

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
No	706	6.7	*
Yes	9,842	93.3	2.3
Continue to Utilize Telemedicine at the Same Level	4,193	39.8	3.3
Increase Telemedicine Use	1,327	12.6	2.4
Decrease Telemedicine Use	4,322	41.0	3.7
Total Reported	10,548	100.0	
Not Reported	470		
Total	11,018		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Respondents were those who participated in a telemedicine program in 2021. *The estimated value should be used with caution due to small samples.

TABLE 8-5**Types of Visits My Patients May Prefer If Telemedicine Services Continued to Be Offered in the Future (In-Person vs Telemedicine)**

Preference	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Most Patients Prefer In-Person Visits but Are Open to Telemedicine - If Telemedicine Can Provide the Same Level Quality of Care	4,447	47.6	3.9
Most Patients Would Prefer In-Person Visits as Long as In-Person Visits Are Available	3,258	34.9	3.7
Most Patients Would Prefer Telemedicine Visits as Long as the Quality Of Care Is Comparable to That of In-Person Visits	1,576	16.9	2.8
Others	67	*	*
Total Reported	9,347	100.0	
Not Reported	494		
Total	9,842		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Respondents were those who anticipated continuation of using telemedicine after the COVID-19 pandemic abates. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples.

TABLE 8-6**Key Barriers to Patients' Ability to Receive Telemedicine Services**

Barriers	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Lack of Knowledge in Using the Patient Portal/ Software Needed for Telemedicine Visits	7,450	67.6	3.5
Lack of Adequate Conferencing Tool	5,466	49.6	3.8
Lack of High-Speed Internet Service to Enable Video Visits	4,839	43.9	3.6
Lack of Comfort in Conducting Sensitive Medical Discussions Using the Patient Portal	1,103	10.0	2.1
Others	869	7.9	1.9
I Do Not Know	835	7.6	2.0

(Data source: Weighted samples from the 2021 AUA Annual Census.) Respondents were those who participated in a telemedicine program in 2021.

TABLE 8-7**Having Quality Improvement Tools Specific to the Provision of Telemedicine Would Be Helpful**

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Yes	5,806	57.9	4.0
No	1,223	12.2	2.4
Maybe	2,998	29.9	3.7
Total Reported	10,027	100.0	
Not Reported	991		
Total	11,018		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Respondents were those who participated in a telemedicine program in 2021.

Note: Some online urologic services for men, such as Roman and Hims, provide phosphodiesterase type 5 inhibitors (PDE5i) and other treatments to patients based on a form of telemedicine referred to as asynchronous communication.

TABLE 8-8**Prescription of PDE5i to a New Patient through Asynchronous Online Communication**

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Yes	814	6.2	*
No	12,257	93.8	1.7
Maybe	13,071	100.0	
Total Reported	719		
Not Reported	13,790		
Total	11,018		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors. *The estimated value should be used with caution due to small samples.

Section 9: Benign Prostatic Hyperplasia (BPH)

Primary Observations

- 90 percent of practicing urologists treat patients with benign prostatic hyperplasia (BPH) (TABLE 9-1).
- Amongst the five commonly used medications to treat patients with BPH, medically, alpha-blockers had the highest usage at 78.5 percent (TABLE 9-3).
- The top three of selected tests routinely performed on patients undergoing BPH procedures were Post-Void Residual (96.9 percent), Urinalysis (91.1 percent) and Cystoscopy (84.0 percent) (TABLE 9-6).

TABLE 9-1
Treating Patients with Benign Prostatic Hyperplasia (BPH)

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Treat Patients with BPH	12,121	90.0	1.8
Do Not Treat Patients with BPH	1,344	10.0	1.8
Total Reported	13,465	100.0	
Not Reported	325		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 9-2
Treating Patients with Benign Prostatic Hyperplasia (BPH) Medically

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Yes	12,100	89.6	1.9
No	1,404	10.4	1.9
Total Reported	13,505	100.0	
Not Reported	285		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 9-3**Mean Percentage of Patients Treated for BPH Medically by Selected Medications**

Medication	Mean Percent (%)	90% Confidence Interval of Mean (%)	Standard Deviation (%)
5-Alpha Reductase Inhibitors	23.9	22.6 - 25.3	19.0
Alpha-Blockers	78.5	77.2 - 79.8	17.7
Anticholinergics	10.5	9.9 - 11.1	9.8
Beta-3-Bgonists	7.8	7.3 - 8.3	8.3
PDE5i	9.8	9.0 - 10.5	11.3
Others	1.2	0.9 - 1.5	4.8

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select all medications they treat patients with BPH with a percentage and the sum of the percentages for all medications must be 100%.

TABLE 9-4**Treating Patients with Benign Prostatic Hyperplasia (BPH) Surgically**

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Yes	11,021	81.0	2.5
No	2,580	19.0	2.5
Total Reported	13,601	100.0	
Not Reported	189		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 9-5

Anticipated Future Volume of Selected Procedures for Treating BPH over the Next Three Years

Procedures	Percentages of Practicing Urologists Represented					
	Increase		Decrease		About the Same	
	Percent (%)	+/- MOE (%)	Percent (%)	+/- MOE (%)	Percent (%)	+/- MOE (%)
Transurethral Resection/Incision of the Prostate	12.7	2.4	26.9	3.4	60.6	3.7
Transurethral Ablation of the Prostate	15.7	3.8	22.6	4.1	61.7	4.1
Simple Prostatectomy	18.2	4.1	25.2	4.0	56.5	5.0
Photoselective Vaporization of The Prostate (PVP)	24.0	4.4	29.8	4.3	46.2	4.9
Prostate Urethral Lift (PUL)	65.3	4.3	10.6	2.9	24.1	4.0
Transurethral Microwave Therapy (TUMT)	*	*	66.7	8.5	27.2	*
Rezūm™ (Water Vapor Therapy)	65.6	5.6	9.4	*	25.1	5.2
Laser Enucleation (i.e., HOLEP/THULEP)^	66.3	7.2	9.0	*	24.7	6.7
Prostatic Artery Embolization (PAE)	49.6	7.1	12.7	*	37.7	7.0
Prostatic Stents	35.8	*	46.6	11.9	17.6	*
Aquablation	74.3	7.4	6.9	*	18.9	*

(Data source: Weighted samples from the 2021 AUA Annual Census.) The original survey question is: Do you anticipate your volume of the following procedures treating BPH to increase, decrease or remain the same over the next three years? The respondents were those who treated patients with BPH surgically in 2021. *The estimated value should be used with caution due to small samples. HOLEP and THULEP stand for holmium laser enucleation of the prostate and thulium laser enucleation of the prostate, respectively.

TABLE 9-6**Selected Tests Routinely Performed on Patients Undergoing BPH Procedures (Multiple Selection Allowed)**

Tests	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Post-Void Residual	10,680	96.9	1.1
Urinalysis	10,035	91.1	2.3
Cystoscopy	9,256	84.0	2.6
Urine Culture	6,113	55.5	3.5
Uroflowmetry	5,831	52.9	3.6
Transrectal Prostate Ultrasound	4,060	36.8	3.3
Pressure Flow Studies (Urodynamics)	2,212	20.1	2.8
Prostate Magnetic Resonance Imaging and Others	1,205	8.5	1.8

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents were those who treated patients with BPH surgically in 2021. The respondents could select more than one answer, so the total number of counts may differ from the total number of practicing urologists.

TABLE 9-7**Factors that Influenced Decision to Conduct Surgical Intervention for Patients with BPH (Multiple Selection Allowed)**

Considerations	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Worsening Symptoms (i.e., increasing IPSS [^])	10,517	95.4	1.3
Progression to Severe Disease	10,242	92.9	2.1
Patient Desire to Stop Medications	9,232	83.8	2.5
Medication Intolerance	8,994	81.6	2.9
Medication Non-Adherence	4,037	36.6	3.4
Direct to Consumer Marketing	1,670	15.2	2.5
Others	147	*	*
Prostate Magnetic Resonance Imaging and Others	1,205	8.5	1.8

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents were those who treated patients with BPH surgically in 2021. *The estimated value should be used with caution due to small samples. The respondents could select more than one answer, so the total number of counts may differ from the total number of practicing urologists. [^]IPSS stands for International Prostate Symptom Score.

TABLE 9-8**Observation of Higher Rates of Severe Disease at the Time of Surgery for Patients with BPH**

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
No	3,589	34.5	3.6
Yes, I Believe Greater Adoption of Pharmacologic Therapy Has Delayed Surgical Intervention	6,005	57.8	3.8
Yes, but I Have No Explanation	651	6.3	1.8
Yes, I Believe Patient Adherence to Pharmacologic Therapy Has Decreased over Time	145	*	*
Total Reported	10,391	100.0	
Not Reported	631		
Total	11,021		

(Data source: Weighted samples from the 2021 AUA Annual Census.) : Original survey question is: Among patients undergoing surgical treatment for BPH, have you observed higher rates of severe disease (e.g., urinary retention, larger gland size, obstructive uropathy) at the time of surgery? The respondents were those who treated patients with BPH surgically. *The estimated value should be used with caution due to small samples. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

Section 10: Role of Urologists in Smoking Cessation

Primary Observations

- Advising patients to quit smoking using various counseling or medications is common among practicing urologists. However, nearly 15 percent of urologists do not provide smoking cessation treatment (TABLE 10-1).
- A lack of time (66.4 percent), patients’ willingness to quit smoking (41.6 percent) and a lack of comfort with prescribing medication for smoking cessation (40.4 percent) are the highest reported barriers for the delivery of smoking cessation by practicing urologists (TABLE 10-3).
- Practicing urologists also believed the best way for urologists to help patients quit smoking is to recommend quitting smoking and then refer patients out for structured support (TABLE 10-4).

TABLE 10-1
How Smoking Cessation Treatment Is Approached within the Practice (Multiple Selection Allowed)

Approaches	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
I Advise Users to Quit, but Provide No Counseling or Medications	8,026	58.2	3.3
I Refer Patients to Seek Care with Providers outside the Urology Clinic	4,829	35.0	3.2
I Suggest Publicly Available Resources Like 1-800-QUITNOW	1,171	8.5	1.7
I Do My Own Counseling and Prescribe Medications	842	6.1	1.5
Someone on My Team (APP, RN) Does the Counseling and We Prescribe Medications	435	3.2	*
I Do Not Usually Do Any Cessation Treatment	2,055	14.9	2.4

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may differ from the total number of practicing urologists. *The estimated value should be used with caution due to small samples.

TABLE 10-2**Selected Urological Conditions for Which Patients Are Counseled to Stop Smoking (Multiple Selection Allowed)**

Urologic Conditions	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Urologic Cancers	11,028	94.0	1.7
Erectile Dysfunction	9,783	83.4	2.8
Infertility	5,906	50.3	3.4
Incontinence	3,639	31.0	2.9
Other Urological Diseases	883	7.5	1.9

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may differ from the total number of practicing urologists.

TABLE 10-3**Barriers to the Delivery of Smoking Cessation Treatment within Practices (Multiple Selection Allowed)**

Barriers	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Lack of Time	9,157	66.4	3.0
Patients Are Not Ready or Not Willing to Quit	5,736	41.6	3.2
I Am Uncomfortable Prescribing the Medications for Smoking Cessation	5,570	40.4	3.2
Poorly Compensated Relative to Time Spent	3,712	26.9	2.8
I Am Uncomfortable Performing Smoking Cessation Counseling	2,018	14.6	2.2
No Impact on Patients' Urologic Outcomes	573	4.2	*
No Effective Treatments Available	481	3.5	*
No Barriers to the Delivery of Smoking Cessation Treatment in the Urology Clinic	1,683	12.2	2.1

(Data source: Weighted samples from the 2021 AUA Annual Census.) The respondents could select more than one answer, so the total number of counts may differ from the total number of practicing urologists. *The estimated value should be used with caution due to small samples. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 10-4**Best Way for Urologists to Help Patients Quit Smoking**

Type of Help	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Urologists Recommend Quitting Smoking, Then Refer Patients out for Structured Support	8,102	70.8	3.2
Urologists Recommend Quitting Smoking Only	1,483	13.0	2.4
Urologists Provide Full Smoking Cessation Treatment	581	5.1	1.6
Urologists Play No Role in Smoking Cessation	367	3.2	*
Urologists Order Medication, but Refer Patients out for Counseling	301	2.6	*
Urologists Order Medication, but Leave Counseling to Advanced Practice Providers in a Clinic	286	2.5	*
None of the Above and Other	315	2.8	*
Total Reported	11,436	100.0	
Not Reported	2,354		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) *The estimated value should be used with caution due to small samples. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 10-5**Cigarette Smoking Is a Significant Contributor to Urologic Disease**

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Strongly Agree	9,636	70.9	3.1
Agree	3,655	26.9	3.0
Neutral/Disagree/Strongly Disagree	309	2.3	*
Total Reported	13,600	100%	
Not Reported	190		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) *The estimated value should be used with caution due to small samples. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

TABLE 10-6**It Is Important for Urologists to Screen for and Provide Smoking Cessation Treatment to Patients**

Response	Practicing Urologists Represented		
	Number	Percent (%)	+/- MOE (%)
Strongly Agree	3,354	25.2	2.8
Agree	4,510	33.9	3.1
Neutral	3,621	27.2	2.9
Disagree	1,420	10.7	1.9
Strongly Disagree	400	3.0	*
Total Reported	13,303	100.0	
Not Reported	487		
Total	13,790		

(Data source: Weighted samples from the 2021 AUA Annual Census.) *The estimated value should be used with caution due to small samples. Sums from numbers and percentages may contrast with calculated totals due to intrinsic rounding errors.

Contributors

PRINCIPAL PHYSICIAN ADVISORS:

Danil V. Makarov, MD, MHS - Data Committee Chair
David F. Penson, MD, MPH - Science and Quality Council Chair
Amanda C. North, MD - Workforce Work Group Chair

PROGRAM OVERSIGHT:

Marybeth Farquhar, PhD, MSN, RN - Executive Vice President for Research, Quality and Scientific Affairs

KEY PROJECT TEAM:

Raymond Fang, MSc, MASc - Data Director, Principal Investigator
William Meeks III, MA - Data Operations Manager, Survey Programming and Statistical Analysis
Keonna Feaster Confesor, MSc - Data Program Analyst (Coordinator), Project Coordination and Management
Genevieve Hood - Data Analysis Coordinator, Project Communication
Rachel S. Mbassa, MSc - Data Research Manager, Project Support

ADVISORY GROUPS:

AUA Data Committee
AUA Workforce Work Group

KEY CONTRIBUTORS: (IN ALPHABETICAL ORDER)

Benjamin M. Brucker, MD
Matthew R. Cooperberg, MD
David F. Friedlander, MD, MPH
Matthew T. Gettman, MD
Khurshid R. Ghani, MD
Nathan Grunewald, MD
Andrew Harris, MD
Melise A. Keays, MD
Josh Langston, MD
Richard K. Lee, MD
Patrick H. McKenna, MD

Lambda P. Msezane, MD
Matthew E. Nielsen, MD
Sandip Prasad, MD, MPHIL
Raj Pruthi, MD
Sanoj Punnen, MD
Matthew J. Resnick, MD
Jennifer Robles, MD, MPH
Daniel J. Sadowski, MD
Jeremy B. Shelton, MD
Aaron Spitz, MD
Hung-Jui (Ray) Tan, MD, MSHPM

KEY STAFF COLLABORATORS: (IN ALPHABETICAL ORDER)

Patricia Banks - Executive Vice President, Chief Marketing and Development Officer
Diane Bieri, JD - Vice President and General Counsel
Heather Corkin - Marketing Manager
Kathleen Shanley, PhD - Executive Vice President for Public Policy and Advocacy

References

- ⁱ Health Resources and Service Administration, the Department of Agriculture and WWAMI Rural Health Research Center. Zip Code Rural-Urban Commuting Area Codes (RUCAs) Approximation Version 3.10. (April 1, 2015). Last Accessed on January 12, 2020, from <http://depts.washington.edu/uwruca/ruca-approx.php>.
- ⁱⁱ Groves, RM et al. (2009). *Survey Methodology*, Hoboken, NJ: John Wiley & Sons.
- ⁱⁱⁱ National Center for Research Methods (January 27, 2015). Adjusting for Non-response by Weighting. Retrieved from <http://restore.ac.uk/PEAS/nonresponse.php>.
- ^{iv} Hogg, RV

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