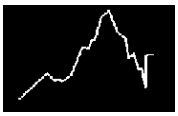

Virginia Department of Health Professions
Healthcare Workforce Data Center

2008 Virginia Physician Workforce Survey Findings and Recommendations

July 2010

Virginia Department of Health Professions
Healthcare Workforce Data Center
Perimeter Center
9960 Mayland Drive, Suite 300
Richmond, Virginia 23233
804-367-2115, 804-527-4466(fax)
E-mail: hwdc@dhp.virginia.gov

Virginia Department of Health Professions
Healthcare Workforce Data Center
Advisory Council

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Preface

In August 2006, the Governor issued Executive Order 31 to create a Health Reform Commission charged with recommending ways to improve Virginia's healthcare system. The Commission addressed key issues relating to access to care; quality, transparency and prevention; long-term care; and healthcare workforce. In its September 2007 report, the Commission projected a shortage of approximately 22,600 nurses and 1,500 physicians in Virginia by 2020 and indicated that Virginia would be experiencing a growing need for direct support professionals, physician extenders, and other healthcare providers to address the requirements of the elderly, disabled, and others in long-term settings. They recommended the formation of the Healthcare Workforce Data Center within the Department of Health Professions (DHP). DHP was considered a natural repository of the Center because it maintains Virginia's licensure database for over 80 health professions and more than 300,000 practitioners. In the spring of 2008, the Governor designated Workforce Investment Act (WIA) discretionary funds for the Center's establishment, and in FY 2010, supplemental WIA funds were awarded to the Center for continued data collection and analysis activities.

The Center's mission is to:

> *improve the healthcare system in the Commonwealth by improving data collection and measurement of the Commonwealth's healthcare workforce through regular assessment of workforce supply and demand*.[1] [2]

The Center's focus for FY2009 was to define the chief nursing and physician supply and demand issues. Also during FY2009, the Center's administrative structure was established, its website was instituted, and the Healthcare Workforce Advisory Council (the "Advisory Council") and three committees were formed. The Advisory Council, comprised of approximately 20 stakeholders, included representatives from state agencies, members of the General Assembly, and constituent organizations knowledgeable about healthcare workforce issues in Virginia and nationally. Specific expertise was provided by the: (1) Physicians Workforce Committee, (2) Nursing Workforce Committee, and (3) Healthcare Workforce Information Network.

During the Center's first full year beginning in FY2010, the Department's in-house research capabilities were determined and consultant research partners selected. Data from existing 2007 and 2008 licensure renewal surveys for physicians and nurses and nursing education program survey were made available for consultant analysis and reporting. Subsequently, DHP's existing nursing and physician surveys were revised to better ensure that the data gathered would be of most direct relevance to workforce. The revised workforce surveys will become part of the on-line licensure renewals process for

[1] Commonwealth of Virginia Health Reform Commission (2007). *Roadmap for Virginia's Health: A Report of the Governor's Health Reform Commission September 2007.*

[2] In the spring of 2008, Governor Timothy Kaine designated Workforce Investment Act (WIA) discretionary funds for the establishment of the Center under the direction of the DHP Director, Sandra Whitley Ryals. Supplemental WIA funds were awarded for FY2010 for continued data collection and analysis activities.

calendar year 2010 and 2011. Further, a new online initial application workforce survey for all professions was developed and is slated to launch before the end of calendar year 2009.
The current report is the first in a series of reports from the Virginia Department of Health Professions Healthcare Workforce Data Center (the Center) designed to inform on the workforce status of Virginia's physicians. The source data were drawn from the latest physician licensure renewal survey completed for 2008 and analyzed and reported through the support of research partners.[3] Future reports will be based upon the results of a revised physician licensure renewal questionnaire specifically designed to address the issues identified by the Physicians Workforce Committee and the Advisory Council and the data needs of state agencies and others identified by the Healthcare Workforce Information Network Committee.

The recommendations for modifying the 2008 survey, the 2008 survey instrument, and the new survey instrument for 2010-2011 are provided in the Appendix to this report.

Note to Researchers: In addition to the information provided in the current report, the Department of Health Professions Healthcare Workforce Data Center also maintains frequency tables and cross-tabulations of the data obtained from the 2008 survey from the document entitled, "DHP Healthcare Workforce Data Center Physician Workforce Licensure Renewal Survey 2008 Data Cube - Results from Physicians (Doctors of Osteopathy & Medical Doctors.)" It may be accessed from:
http://www.dhp.virginia.gov/dhp_programs/hwdc/default.htm.

[3] The current report was prepared with the consultation and technical assistance of Linda Lacey and Associates, North Carolina under Contract HWDC-2008 and the Department of Health Administration and Policy at George Mason University, Fairfax, Virginia (Dr. P. J. Maddox, Luann Wittenburg, and Adam McCutcheon) under a memorandum of understanding.

Virginia Department of Health Professions
Healthcare Workforce Data Center

Findings from the 2008 Virginia Physician Workforce Survey

Introduction

With an increasing population comes a greater demand for healthcare services, especially for those over age 65. As the first of the nation's 78 million baby boomers begin to reach age 65 in 2011, the healthcare workforce will be faced with a growing number of older patients who are living longer and have complex health needs.[4] As with the U.S. population, Virginia's populace has continued to rise for decades. The U.S. Census Bureau July 1, 2008 estimate for Virginia was 7.77 million, up by over 310,000 from their July 1, 2004 estimate.[5] Virginia's relative increase has outpaced the national growth. Between April 1, 2000 and July 1, 2008, Virginia's population increased by 9.7% and the U.S. by 8%. [6] The most recent U.S. Census Bureau projections for the Commonwealth point to an even greater increase (12.6%) by 2020, resulting in approximately **one million** more Virginians than today. Along with the overall growth, the projected population is also estimated to be aging. Today, Virginia residents aged 65 and older comprise about 12 percent of the population. By 2020, latest estimates indicate that they will constitute approximately 16 percent.[7] Essential to meet this growing demand is an adequate supply of health care providers.

The U.S. Bureau of Labor Statistics' *Occupational Outlook Handbook, 2008-09 Edition* indicates that over 633,000 jobs were held by Doctors of Medicine or Doctors of Osteopathy in 2006. Of these, 15% were self-employed, about half were employed by others and worked in physician offices, and 18 % were employed by hospitals. The remainder worked in governmental settings, educational institutions, and outpatient care centers. With the increasing expansion of healthcare related industries, the overall growth and aging of the population and the need to replace retiring practitioners, employment opportunities are projected to grow 14% between 2006 and 2016. This is faster than average for all occupations. However, the Bureau of Labor Statistics cautions that future service demand projections are highly sensitive to changes in consumer preferences, reimbursement policies, legislation, the development of new healthcare technologies, and patients relying on other healthcare providers (e.g., physician assistants and nurse practitioners).[8]

[4] Institute of Medicine (2008, April 14). News from the National Academies. Accessed November 11, 2009 at: http://www8.nationalacademies.org/onpinews/newsitem.aspx?RecordID=12089.
[5] U.S. Census Bureau, NST-EST 2008-01 Population Estimates from America Fast Facts.
[6] U.S. Census Bureau, State & County Quick Facts. Accessed November 16, 2009 at: http://www.quickfacts.census,gov/qfd/states/51000.html.
[7] U.S. Census Bureau, Population Division (2005). *Interim State Population Projections for Five-Year Age Groups by Sex: July 1, 2004 to 2030.*
[8] U.S. Bureau of Labor Statistics, *Occupational Outlook Handbook: 2008-09 Edition*. Accessed November 7, 2009 at: http://www.bls.gov/oco/ocos074.htm.

Physicians are a critical part of the healthcare delivery system in Virginia. In recent years the medical schools within the state have increased their number of graduates from about 400 each year to more than 550 in the past two years. This has been done in response to expectations of a physician shortage in the United States and in Virginia within the next decade. However, simply increasing the number of graduates does not guarantee that Virginia will have the number and type of physicians needed by her citizens in the future. Understanding the workforce behavior of physicians licensed in Virginia is an important element in being able to plan for the state's needs. This report provides some insight into the personal and professional characteristics of licensed physicians in Virginia in 2008 and those who reported practicing.

Study Methods

Physicians with a license to practice in the state of Virginia are required to renew their licenses in even numbered years during their birth month. During the 2008 renewal cycle, an on-line questionnaire focused on workforce status and behaviors was made available to those physicians using the Internet to complete the renewal process. The questionnaire was available from December, 2007 through February, 2009. The short periods before and after the year 2008 were provided to accommodate those who wished to renew early or were a bit late. It should be noted that not all physicians renewing their Virginia license in 2008 did so via the Internet. Table 1 reports the numbers of renewals and survey respondents.

Table 1. Physician workforce survey response rates

# of physician license renewals in 2008 [a]	# of workforce survey respondents	Survey response rate for all licensed physicians renewing their Virginia license in 2008
29,472	18,221	61.8%

Note: This count is from the Virginia Renewal Count Report for the period 12/1/07 – 2/28/09 for the occupational groups Medicine & Surgery and Osteopathy & Surgery.

The survey response rate is calculated using the total number of physicians renewing, regardless of whether they had access to the on-line survey questionnaire during the renewal process or not. A more refined response rate would use a count of physicians renewing online as the denominator and will be employed in future research and reporting.

The pool of survey respondents included all types of physicians licensed within the state of Virginia – even a few (n=31) whose license status was 'inactive'. Those few inactive cases were removed from the analysis file to ensure that the following statistics are based on physicians either actively engaged in medical practice within the state of Virginia or authorized to do so.

This report is organized in two sections: 1) a review of all survey respondents by reported work location, inside or outside of Virginia; and 2) a review of those reporting they were actively practicing in Virginia. For this report, physicians were identified as being in or out of the Virginia workforce on the basis of their practice location zip code. The next licensure renewal survey will enable specific work address analysis. For the purposes of this report, if practice location zip code was not provided, the address of

record provided by the licensee was used. Physicians having a practice zip code within Virginia or, lacking that information, an address of record within the state, were assumed to be a part of the Virginia workforce. Therefore, it is possible that some of physicians identified as within the Virginia workforce do not have a practice location within the state. This is certainly true for physicians who practice as a locum tenans. However, some may also be temporarily or permanently out of practice. All physicians not identified as being in the Virginia workforce are assumed to be outside of the Virginia workforce.

Physicians were asked to identify themselves in terms of their work effort in medicine each week. Those who devote 30 hours or more per week have been categorized as full time, those working less than 30 hours per week are assigned a part time status. This is a self reported measure of work effort with very little (less than 1%) missing data. In those few cases when a physician failed to report work status other data elements (i.e., hours per week spent in direct patient care, in research, in teaching, or in administration) were examined and full or part-time employment status was inferred from this additional information. The data elements that measure how physicians spend time in a typical week could not be used to construct a total sum of hours worked in a typical week because it is possible that time spent in research or teaching activities may also be hours devoted to patient care. The categories are not mutually exclusive.

Finally, readers should keep in mind that the numbers (counts) presented in the tables that follow are based on the Virginia physicians who renewed their license on-line during the 2008 renewal period and completed the physician workforce survey questionnaire. Although the responses were not drawn from a statistically derived random sample, the response rate is relatively high as shown in Table 1. Also, the reader should note that data collection for this study occurred over a period of 15 months, so the findings presented here are not a 'snapshot' of the physician workforce in Virginia at a specific point in time but rather a rolling view of the 2008 physician workforce in the state during that time period.

Findings

Comparison of Responding Physicians by their Status in the Virginia Workforce

The majority of physicians responding to the workforce survey questionnaire reported actively practicing in the Virginia workforce. Table 2 shows the status of respondents in this regard and also reports the total number of respondents included in the analyses that follow.

Table 2. Survey respondent status in the Virginia workforce

In the Virginia workforce?	Count	Percent
No	5,338	29.3
Yes	12,852	70.5
License status = inactive	31	0.2
Total number of respondents	18,221	100%
Number of active respondents	18,190	

Tables 3 through 6 summarize some of the training characteristics of physicians with an active license to practice in Virginia. More than two-thirds were educated in allopathic (MD) schools of medicine; however, there was a large amount of missing data in this survey item. So the proportion is probably

much higher (see Table 3.) A recent study of the physician workforce in the United States[9] reported that 95% are trained in allopathic programs and 5% in schools of osteopathy (DO).

The majority of physicians licensed in Virginia in 2008 attended a medical school outside of Virginia, although a slightly higher proportion of those who practice in Virginia attended an in-state school of medicine (see Table 4). International medical graduates (IMGs) are also a substantial part of the population of licensed physicians in the state: about 20% (see Table 4) which is consistent with findings by the American Medical Association for Virginia.[10] In 2005, IMGs made up 23% of all active physicians in the United States according to a report by the American Association of Medical Colleges (AAMC).[11]

Table 3. Type of physician training among responding physicians licensed in Virginia

Physician type	Not in the Virginia workforce		In the Virginia workforce	
	#	%	#	%
Allopathic (MD)	3,845	72.0	8,999	70.0
Osteopathic (DO)	332	6.2	595	4.6
Not reported	1,161	21.8	3,258	25.3
Totals	5,338	100%	12,852	100%

Due to their extensive education and the national demand for physicians, Virginia's medical school graduates enjoy a national job market. However, medical education is expensive, and in Virginia, three of the four medical schools graduating students in 2008 received public funds totaling more than $50 million.[12] Therefore, retaining as many graduates as possible from state-supported schools is a matter of public policy. Compared to other states, Virginia retains fewer of its medical school graduates. In their 2006 study of state-level physician workforce characteristics, the AAMC lists Virginia as 30th out of 45 states in terms of the percentage of physicians in the workforce that attended medical school in-state. The national average at that time was 29.6%.[13]

Table 4 reveals that in 2008 that proportion was only 22.7% for Virginia. Virginia also falls below the national average in retaining physicians who complete their residency programs in the state. Nationally,

[9] "Physician Supply and Demand: Projections to 2020." U.S. Department of Health and Human Services, Health Resources and Services Administration Bureau of Health Professions. October 2006.

[10] As cited by S. Mick, P. Nayar and H. J. Caretta in "A Report Prepared for the Office of Health Policy and Planning" for the Virginia Department of Health, Commonwealth of Virginia. July 2007.

[11] "Key Physician Data by State." Association of American Medical Colleges, Center for Workforce Studies. January 2006

[12] Steven Bowman, "Analysis of Health Workforce Pipelines" presentation to the Virginia Joint Commission on Health Care, October 23, 2008. The $50 million figure is based on general funds and other public funds given to Eastern Virginia Medical School, the University of Virginia School of Medicine, and the Virginia Commonwealth University School of Medicine during the 2007-2008 year.

[13] "Key Physician Data by State." Association of American Medical Colleges, Center for Workforce Studies. January 2006.

47.6% of the active physicians practice in the same state where they completed an ACGME-accredited[14]training program.[15] In Virginia that proportion was 29.2% in 2008 (see Table 5).

Table 4. Location of medical education among responding physicians licensed in Virginia

Medical school location	Not in the Virginia workforce		In the Virginia workforce	
	#	%	#	%
In Virginia	576	10.8	2,916	22.7
Other state in the U.S.	3,522	66.0	7,257	56.5
Outside of the U.S.	1,194	22.4	2,522	19.6
Not reported	46	0.9	157	1.2
Totals	5,338	100%	12,852	100%

Table 5. Location of most recent residency training among responding physicians licensed in Virginia

Residency location	Not in the Virginia workforce		In the Virginia workforce	
	#	%	#	%
In Virginia	822	15.4	3,753	29.2
Other state in the U.S.	4,377	82.0	8,765	68.2
Outside of the U.S.	82	1.5	153	1.2
Not reported	57	1.1	181	1.4
Totals	5,338	100%	12,852	100%

Only a small portion of the physicians who completed the workforce survey were in residency or fellows training programs in 2008 (see Table 6). Many workforce studies of physicians omit residents and/or federally-employed physicians when calculating the size of the physician workforce, or adjust their contribution to the workforce by assigning them a value less than 1.0 when measuring full-time equivalents (FTEs). We are including residents and fellows in this analysis because they contribute directly to the workforce in Virginia and thus are of value to the citizens of the Commonwealth.

[14] ACGME is the Accreditation Council for Graduate Medical Education – the body that evaluates and accredits medical residency programs in the United States.

[15] "Key Physician Data by State." Association of American Medical Colleges, Center for Workforce Studies. January 2006

Table 6. Current training status among responding physicians licensed in Virginia

Training status	Not in the Virginia workforce		In the Virginia workforce	
	#	%	#	%
Resident	205	3.8	237	1.8
Fellow	235	4.4	380	3.0
Neither	4,799	89.9	11,945	92.9
Not reported	99	1.9	290	2.3
Totals	5,338	100%	12,852	100%

Physicians were asked to report their work status in medicine. The choices available in the survey were: full time – defined as 30 hours or more per week; and part time - less than 30 hours per week. There was very little missing data for this survey item – less than 1%. In many other health professions a sizeable number of practitioners retire or leave the workforce but maintain an active license to practice. This may be partly due to the fact that Virginia allows physicians to maintain a license, but with an 'inactive' status. In our study, a very small number of respondents wrote in a status description other than the choices offered – all of them indicating that they were no longer in active practice for one reason or another, but they were retaining an active license. See Table 7 for the summary.

Table 7. Work status among responding physicians licensed in Virginia

Work status in medicine	Not in the Virginia workforce		In the Virginia workforce	
	#	%	#	%
Full-time	4,703	88.1	10,967	85.3
Part-time	594	11.1	1,797	14.0
Not in practice	9	0.2	0	0.0
Not reported	32	0.6	88	0.7
Totals	5,338	100%	12,852	100%

The 2008 workforce questionnaire did not include measures of either race or gender nor does this information consistently reside in the administrative database for physician licensees. As a result, it is not possible at this point to explore the relationships between those personal demographic characteristics and location in or outside of the Virginia workforce. Research on the workforce patterns of physicians has shown that females, who are a rapidly increasing proportion of the workforce, have displayed different work and retirement patterns than their male colleagues: women were less likely to choose surgical specialties or to be located in rural areas; work fewer hours per year; and may retire earlier.[16] Similar studies of race and ethnic diversity among physicians suggest that race may be related to differences in practice specialty choice, practice setting, and location.[17]

[16] "Physician Supply and Demand: Projections to 2020." U.S. Department of Health and Human Services, Health Resources and Services Administration Bureau of Health Professions. October 2006.

[17] "Diversity in the Physician Workforce: Facts and Figures 2006." Association of American Medical Colleges. Summer, 2006.

Figure 1. Age profile of responding physicians licensed in Virginia

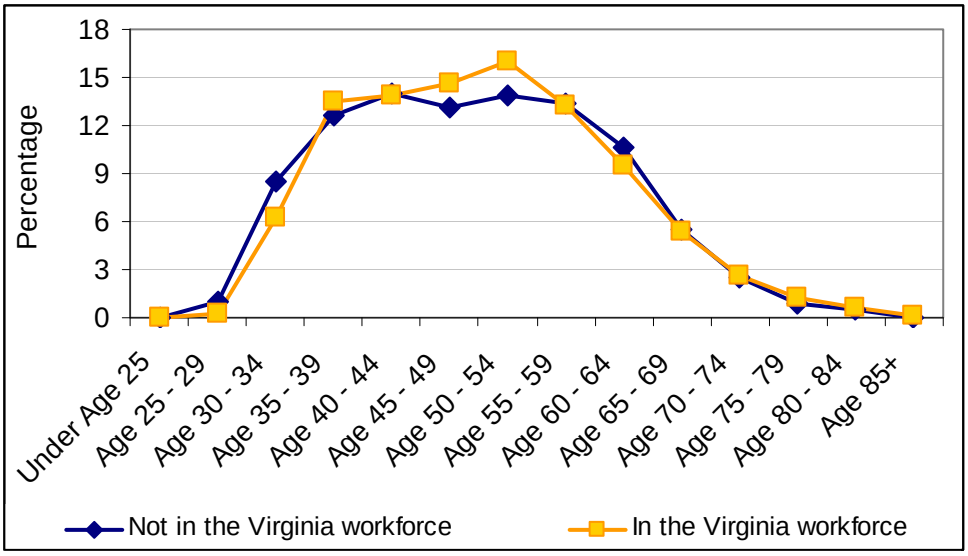


Table 8. Age profile of responding physicians licensed in Virginia

Age category	Not in the Virginia workforce		In the Virginia workforce	
	#	%	#	%
Under Age 25	1	0.0	0	0.0
Age 25 - 29	56	1.0	33	0.3
Age 30 - 34	452	8.5	808	6.3
Age 35 - 39	676	12.7	1,741	13.5
Age 40 - 44	749	14.0	1,782	13.9
Age 45 - 49	703	13.2	1,882	14.6
Age 50 - 54	741	13.9	2,061	16.0
Age 55 - 59	711	13.3	1,699	13.2
Age 60 - 64	569	10.7	1,224	9.5
Age 65 - 69	293	5.5	691	5.4
Age 70 - 74	135	2.5	334	2.6
Age 75 - 79	49	0.9	162	1.3
Age 80 - 84	24	0.4	75	0.6
Age 85+	2	0.0	23	0.2
Unknown	177	3.3	337	2.6
Totals	5,338	100%	12,852	100%

Age information was available in the workforce survey and is summarized in Table 8 and Figure 1. There are several age characteristics of the physician workforce in Virginia worth noting. First, there is little difference in the age profiles of those physicians licensed in Virginia who choose to practice in the state compared to those who practice outside of the state. Secondly, regardless of whether they practice inside or outside of Virginia, about one-third of the licensed physicians in the state are 55 years of age or older; about 10% of them are 65 or older. Even though research has shown that physicians are staying

in the workforce longer than they used to, and tend to remain in the workforce longer than other professionals,[181] there is no doubt that a substantial proportion of Virginia's experienced physicians will be leaving the workforce or reducing their involvement within the next decade. The relationship between age and work effort will be explored in the next section of this report.

Characteristics of the Physician Workforce in Virginia

This section of the report focuses just on those physicians reporting active practice within the state of Virginia. Table 9 shows the number of survey respondents that reported their work status in medicine as full or part time and their distribution within the workforce. Table 10 reports how work status differs depending on the current training status of the physician. It is difficult to know how the full or part time work patterns of Virginia's physicians compare to national patterns because there is no standard definition of what constitutes full time work. Each study tends to use a slightly different definition. However, as Virginia continues to collect this information it will become possible to assess whether the work patterns of physicians are changing over time, and in what ways.

Table 9. Work status among responding physicians in the Virginia workforce

	Survey respondents	Percentage
Full-Time: 30+ hrs per week	10,967	85.3
Part-Time: < 30 hrs per week	1,797	14.0
Not reported [a]	88	0.7
Totals	12,852	100%

[a] These physicians have a practice address or an address of record in Virginia.

Table 10. Work status by training status among responding physicians in the Virginia workforce

	Resident	Fellow	Neither	Training Status Unknown
	n=237	n=380	n=11,945	n=290
	%	%	%	%
Full-Time	94.5	90.8	85.4	67.9
Part-Time	5.5	9.2	14.3	14.1
Not reported	0.0	0.0	0.3	17.9
Totals	100%	100%	100%	99.9%

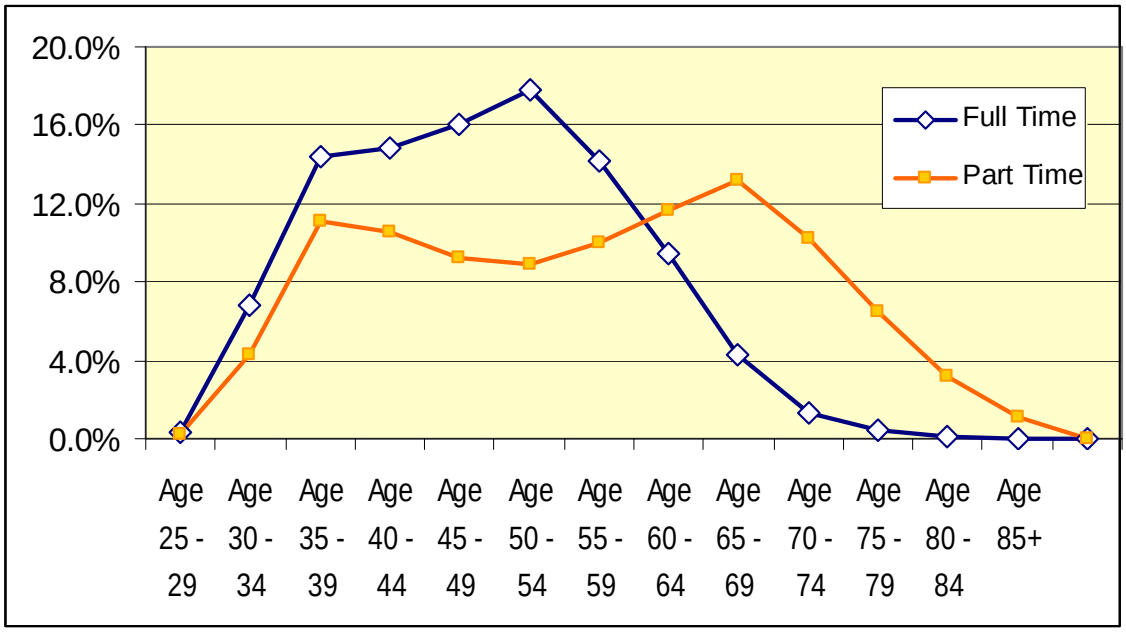
Note: Percentages may not sum to 100 due to rounding.
Note: Residents make up just 1.8% of the responding physicians; Fellows make up just 3.0%; and 2.3% did not report their training status. See Table 6.

Although Residents and Fellows are fully licensed to practice medicine, they are still in training positions. Some studies of physician workforce exclude them for that reason. They have been retained in this analysis to explore their work behavior. Although they are a very small portion of the 2008 active physician workforce in Virginia (see Table 6), almost all of them report a full time work schedule. How that work effort should be valued, relative to physicians that have completed their training, is the subject of disagreement among workforce researchers.

[18] Ibid. See the graph on page 13.

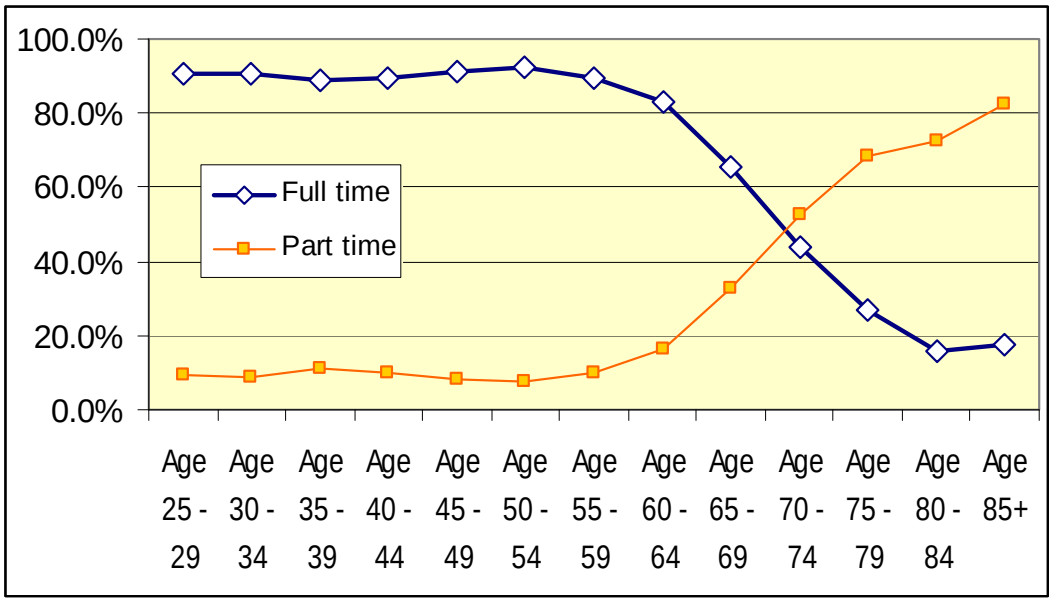
Figures 2 and 3 illustrate the ways in which work patterns differ by age among Virginia's reporting active physicians. The first shows the age distribution for physicians working full time (30 hours or more per week) versus the age distribution of those who work part time (less than 30 hours per week) in medicine. Among full time physicians, the distribution is bell-shaped with the largest proportion of that workforce in the middle age categories. The part time workforce shows a bimodal distribution with the largest proportions in the youngest and oldest age groups.

Figure 2. Distribution of Virginia's physician workforce: work status by age



Another perspective on the relationship between age and work effort is shown in Figure 3. This graph plots the percentage of each age group by whether they work full time or part time. This clearly shows that the great majority of younger physicians are at work full time in medicine, and that the number of work hours per week begins to change around age 55. By the age of 70 Virginia physicians reporting still to be in active practice were more likely to work on a part time basis than full time. Recall that one-third of Virginia's current physician workforce is age 55 or older and another 30% are between the ages of 45 and 54 (see Table 8 above). It will be interesting to see how, or if, these age-related work patterns change over the next 10 years as the 'baby boom' generation reaches a traditional retirement age.

Figure 3. Proportion of physicians in each age group by their work status



The survey questionnaire available to Virginia's physicians during the license renewal process asked them to categorize themselves in terms of the number of hours spent per week on patient care, research, teaching, and administrative activities. Table 11 summarizes the responses received from physicians actively practicing within Virginia. The majority (69%) report spending at least 40 hours per week on patient care. Only a very small percentage (3.9%) indicated they did not engage in patient care activities. About 9% reported less than 20 hours per week and 28% reported between 20 and 39 hours per week is spent on patient care.

Most physicians in Virginia are not involved in research as part of their normal work week. Only 27.8% reported spending any time in research activities, and most of them indicated less than 10 hours per week. Slightly more than half (52.3%) of all active physicians in the state provide some teaching hours in their work week. Most of those that teach devote less than 10 hours per week to that activity (see Table 11). Administrative activities are something that most physicians can't avoid: only 29.5% said they spend no time on administration. Most Virginia physicians devote between 1 and 9 hours per week to administrative tasks.

It is tempting to add together the hours reported in each activity category to derive a measure of total work hours for physicians. However, these categories are not mutually exclusive and such an approach may grossly overestimate the true number of hours worked per week by Virginia physicians. In addition, the reliability of some of this data is questionable. A subset analysis was conducted of physicians who reported zero hours per week devoted to patient care in an attempt to understand how those physicians typically spend their time. We found that 44% of them reported zero hours in each of the four activity types specified in the questionnaire, yet 83% of those same physicians indicated their work status as either full time or part time.

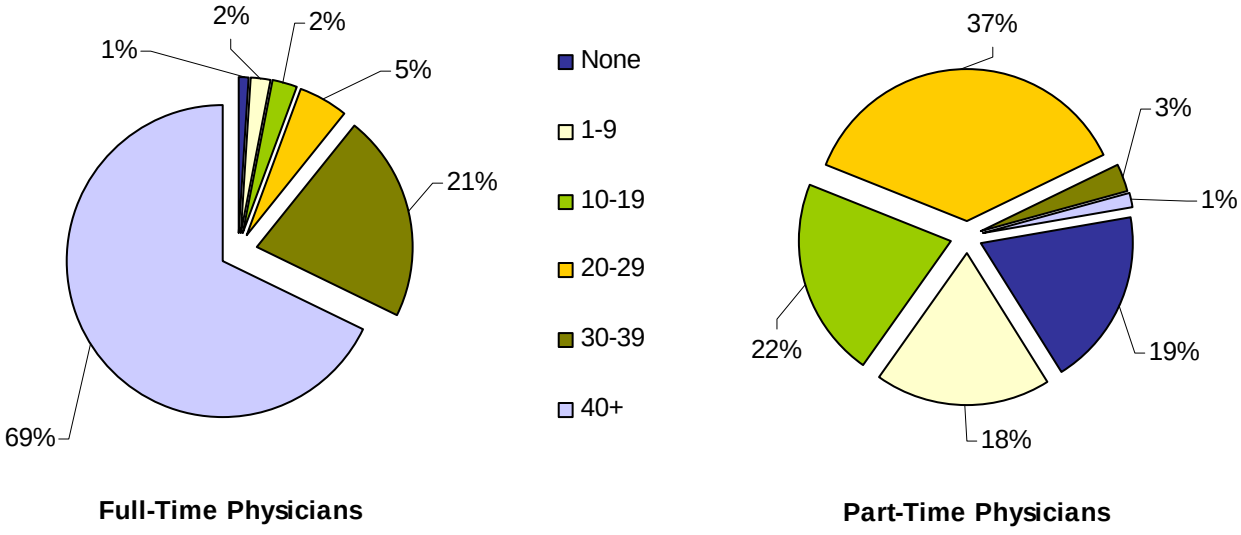
Table 11. Hours per week by activity type for responding physicians in the Virginia workforce

Hours per week in:	Patient Care		Research		Teaching		Administration	
	#	%	#	%	#	%	#	%
0	498	3.9	9,278	72.2	6,131	47.7	3,793	29.5
1 – 9	551	4.3	2,575	20.0	4,916	38.3	6,547	50.9
10 – 19	634	4.9	433	3.4	1,104	8.6	1,572	12.2
20 – 29	1,236	9.6	196	1.5	351	2.7	435	3.4
30 – 39	2,380	18.5	78	0.6	91	0.7	130	1.0
40+	7,423	57.8	100	0.8	91	0.7	204	1.6
Not reported	130	1.0	192	1.5	168	1.3	171	1.3
Totals	12,852	100%	12,852	100%	12,852	100%	12,852	99.9%

Note: Percentages may not sum to 100 due to rounding.

The pie charts in Figure 4 illustrate how the amount of time spent on patient care differs by the full or part time work status of physicians in the Virginia workforce. Ninety percent (90%) of physicians who identify themselves as full time in medicine devote at least 30 hours per week to patient care activities. Among physicians in the work place on a part time basis, 59% report spending 10 to 29 hours per week on patient care. Only 19% of the part time physicians said they spend no time in patient care activities in a typical week.

Figure 4. Hours per week spent in patient care by full or part time employment status



Tables 12 and 13 explore the various specialty areas in which Virginia's physicians practice. Table 12 reports the percentage of the total physician workforce in each specialty area, in descending order of most to least common specialty type. Physicians were asked to name both a primary specialty and a secondary specialty, if appropriate. Forty-three percent of physicians reported a secondary specialty.

Table 12. Primary and secondary specialty of responding physicians in the Virginia workforce

Clinical specialty	Primary Area		Secondary Area	
	#	%	#	%
Internal Medicine	1,912	14.9	897	7.0
Family Practice	1,861	14.5	328	2.6
Pediatrics	1,206	9.4	327	2.5
Psychiatry	867	6.7	115	0.9
Obstetrics and Gynecology	701	5.5	97	0.8
Emergency Medicine	689	5.4	157	1.2
Radiology – Diagnostic	624	4.9	109	0.8
Anesthesiology	611	4.8	48	0.4
Orthopedic Surgery	405	3.2	52	0.4
General Surgery	405	3.2	111	0.9
Cardiovascular Disease	385	3.0	118	0.9
Ophthalmology	313	2.4	47	0.4
Pathology	292	2.3	39	0.3
Neurology	222	1.7	43	0.3
Dermatology	171	1.3	37	0.3
Otolaryngology	178	1.4	21	0.2
Urology	160	1.2	36	0.3
Oncology	135	1.1	67	0.5
Physical Medicine and Rehabilitation	138	1.1	21	0.2
Plastic Surgery	132	1.0	42	0.3
Nephrology	124	1.0	44	0.3
Endocrinology and Metabolism	117	0.9	48	0.4
Neurosurgery	86	0.7	10	0.1
Allergy & Immunology	95	0.7	54	0.4
General Preventive Medicine	80	0.6	124	1.0
Radiology – Therapeutic	77	0.6	34	0.3
Family Practice Geriatrics	26	0.2	127	1.0
Medical Genetics	7	0.1	10	0.1
Other	705	5.5	2,476	19.3
Not reported	128	1.0	7,213	56.1
Totals	12,852	100%	12,852	100%

The single largest specialty concentrations within the physician workforce in Virginia are in internal medicine (14.9%), and family practice (14.5%). When the primary care specialties (internal medicine, family practice, and pediatrics) are summed together, 38.8% of the physician workforce in the state named a primary care area of practice as their primary specialty. The overall profile of primary specialties in the Virginia workforce is very similar to the national profile recently published by the AAMC.[19]

[19] "2008 Physician Specialty Data." Association of American Medical Colleges, Center for Workforce Studies. November, 2008.

Table 13. Work status and percentage of physicians age 55 and older by primary specialty area among responding physicians in the Virginia workforce

Primary clinical specialty	Full Time		Part Time		Age 55 and older	
	#	%	#	%	#	%
Family Practice Geriatrics	18	69.2	8	30.8	11	42.3
General Preventive Medicine	60	75.0	20	25.0	39	48.8
Pediatrics	934	77.4	268	22.2	354	29.4
Psychiatry	690	79.6	175	20.2	402	46.4
Allergy & Immunology	78	82.1	17	17.9	39	41.1
Neurosurgery	72	83.7	14	16.3	35	43.2
Ophthalmology	261	83.4	51	16.3	112	35.8
Family Practice	1,568	84.3	287	15.4	588	31.6
Dermatology	147	86.0	24	14.0	67	39.2
Pathology	254	87.0	38	13.0	114	39.0
Internal Medicine	1,657	86.7	246	12.9	525	27.5
Obstetrics and Gynecology	609	86.9	89	12.7	240	34.2
Emergency Medicine	600	87.1	87	12.6	152	22.1
Neurology	193	86.9	28	12.6	96	43.2
Radiology – Diagnostic	544	87.2	76	12.2	212	34.0
Otolaryngology	157	88.2	20	11.2	71	39.9
Anesthesiology	540	88.4	67	11.0	155	25.4
General Surgery	357	88.1	44	10.9	139	34.3
Orthopedic Surgery	360	88.9	42	10.4	159	39.3
Radiology – Therapeutic	69	89.6	8	10.4	20	26.0
Urology	145	90.6	15	9.4	70	43.8
Physical Medicine and Rehabilitation	127	92.0	11	8.0	24	17.4
Plastic Surgery	120	90.9	10	7.6	47	35.6
Cardiovascular Disease	356	92.5	29	7.5	136	35.3
Nephrology	114	91.9	9	7.3	36	29.0
Endocrinology and Metabolism	108	92.3	8	6.8	42	35.9
Oncology	126	93.3	8	5.9	42	31.1
Medical Genetics	7	100.0	0	0.0	2	28.6
Other specialty type	624	88.5	79	11.2	233	33.0
Specialty unknown	72	56.3	19	14.8	46	35.9
Totals	10,967	85.3%	1,797	14.0%	4,208	32.7%

Note: The percentages in the columns for full and part time work status are based on the sum of physicians in that specialty area, not on the total number of licensed physicians. Example: Of all the physicians who reported general preventive medicine as their primary specialty, 60 (75%) report a full time work status and 20 (25%) reported part time work status. The percent of physicians age 55 or older is also based on the number of physicians reporting a specific primary practice area. In the case of general preventive medicine the 48.8% age 55 or older is based on the 80 physicians that reported this specialty.
Note: Some physicians that reported a primary specialty area did not report their work status. As a result, when summing the percents of physicians in a specialty area by their full or part time status, those numbers may not sum to 100% due to unknown work status.

Table 13 delves a bit deeper into the characteristics of the physicians that practice in each of these clinical specialty areas. That table is organized by the percentage of the workforce practicing in each specialty that reports a part time work schedule. This was done to highlight which specialties attract and/or allow for physicians interested in a reduced workload or more flexible schedule. The percent of physicians age 55 and older was included to examine whether those specialties with a large part-time workforce also had a higher proportion of older physicians. That intersection might indicate clinical areas where older physicians are easing out of the workforce by moving from full time to part time engagement. However, knowing the proportion of physicians age 55 and older by specialty is valuable in itself since it can highlight areas within the physician workforce that are vulnerable to rapidly developing shortages due to retirements in the next decade.

The patterns in Table 13 are uneven in this regard. For instance, pediatrics and family practice have a relatively high proportion of physicians who practice part time, but also a lower percentage of practitioners age 55 or older. On the other hand, general preventive medicine has a high proportion of part time practitioners and high proportion age 55 or older – indicating a field that might be severely affected by retirements within the next 10 years. Be aware that some of these specialty areas contain only a small number of physicians (see Table 12 for the total numbers responding in each primary specialty area) which amplifies the percentages seen in Table 13.

Conclusions and Summary

Effective workforce planning requires accurate information about the characteristics and work behaviors of the group in question. For physicians, this means an understanding of how they move into and through the education and training pipelines which have an influence on where they practice. Our findings show that Virginia retains a smaller percentage of physicians educated in the state, and a smaller percentage of those who complete their residency experience in the state, compared to other states in the country.

Approximately one-third (32.8%) of the current physician workforce actively practicing in Virginia is age 55 or older; 10% of them are 65 or older. Our findings also reveal that about 14% of the current physician workforce in Virginia is engaged in the practice of medicine on a part time basis. And, although a part time schedule is related to the age of the physician, a small but consistent portion of younger physicians also follow a part time schedule in medicine. The lack of information about physician gender and race in the workforce survey data file prevents a better understanding of how these personal characteristics of physicians influence workforce behavior.

Finally, the specialty areas in which physicians practice in Virginia are very similar to the national profile of physicians. About 39% of the active physician workforce in Virginia is made up of primary care practitioners. Our analysis identified the clinical specialties with the highest and lowest percentage of part time practitioners and the proportion of practitioners in each specialty age 55 and over. Although some of the primary care specialties have a relatively high proportion of part time practitioners (pediatrics and family practice) they also tend to have a relatively young profile, suggesting that these

are areas of medicine that are not likely to lose a large proportion of their workforce due to age-related retirements in the next 10 years.

Limitations in the way practice location was identified in the 2008 survey questionnaire resulted in having to infer which of the physicians licensed by the state of Virginia are actively practicing within the boundaries of the state. This is something that should be corrected in the future in order to achieve a more accurate measure of the state's supply of physicians. The same concern applies to the measure of work status and the number of hours worked. In order to estimate the full time equivalent (FTE) size of the workforce a more refined measure of work hours will be needed. An FTE measure of the workforce is important because a simple head count may overstate the actual supply of physicians if a sizeable number are in the workforce on a part time basis. Likewise, the need for information about physicians' gender and race is important because research has shown that these characteristics are related to work status, specialty choice, and practice location – all important elements in workforce planning and estimating future supply.

Recommendations for future physician workforce surveys

- Merge workforce items into the physician profile data collection instrument to reduce the survey burden on physicians. A single database can be used to generate, separately, the physician profile information published on-line and a separate workforce analysis file which can be used to summarize in the aggregate the work behavior characteristics of the physician workforce in Virginia.

- Continue to collect this information in concert with the license renewal process. Consider making this information a mandatory part of the licensure process in Virginia to ensure a response rate high enough to allow for accurate workforce planning.

- Add gender, race, birth year, and medical school name and location to the initial application for licensure in Virginia. These demographic and educational characteristics are elemental for workforce planning purposes, do not change over time, and therefore need not be asked on a recurring basis.

- Detailed information on the geographic location of physician practice sites is critical both for understanding the deployment of physicians throughout the state, and for determining which areas of the state qualify as Health Shortage Service Areas (HPSAs). That designation entitles the affected area to a variety of federally funded initiatives designed to improve access to care; increase Medicare reimbursement rates for practitioners in the area; and confers special consideration on the area when applying for some federal programs. Future physician surveys should collect street-level addresses on all practice locations, including the number of hours worked each week (or month) at each location. Such detailed information will allow the greatest flexibility in mapping the underserved areas of Virginia – both rural and urban. Such information will also allow an in-depth understanding of how access to care for different medical specialties varies across the state.

- Improve on the current measures of workforce participation (e.g. a more detailed measure of hours per week) and patient care activities (how many of those hours are spent in patient care and related activities). That type of information provides the basis for estimating the number and type of physicians that will be needed in the future and in response to changes in the demographic structure of Virginia's population.

2010 Medicine and Osteopathy Workforce Survey

Question	Answer
1. Where do you currently reside?	*Dropdown: Listing of States*
1a. Other Locale	*Fill in the blank*
2. Are you in the USA on a J-1 visa?	*Dropdown Yes/No*
3. In what state was your most recent residency training?	*Dropdown: Listing of States*
3a. Other Locale	*Fill in the blank*
4. What is your current practice status?	*Dropdown*
	Intern
	Resident
	Fellow
	Completed Post Graduate Training
	Practicing MD or DO
	Not a Practicing MD or DO
	Other
4a. Other practice status	*Fill in the blank*
4b. If you are currently in a residency in Virginia, do you plan to remain in Virginia after completing your residency?	*Dropdown Yes/No*
5. What are your current total practice work hours?	
	Dropdown
	Full-Time (30 hours or more per week)
	Part-time (less than 30 hours per week)
	Inactive in Medicine
	Retired
6. In Virginia, give the number of facilities where you have admitting privileges?	*Fill in the blank*
7. What percentage of your current patients area. Medicare patients?	*Fill in the blank*
b. Medicaid patients?	*Fill in the blank*
c. Private insurance patients?	*Fill in the blank*
d. "Self pay"patients?	*Fill in the blank*
8. If you are Inactive or Retired do you plan to return to the practice of medicine?	*Dropdown*
	No
	Yes
	If Yes, within the next year
	If Yes, within 2 years
	If Yes, within 3 years
	If Yes, I do not know when
9. Please select your sex/gender.	*Dropdown*
	Male
	Female
10. Please select the menu item that best describes your ethnicity/race.	*Dropdown*
	White (Non-Hispanic) / Caucasian
	Black / African American (Non-Hispanic)
	Hispanic / Latino (Puerto Rican)
	Asian / Pacific Islander
	American Indian / Alaska Native
	Two or More Races

2010 Medicine and Osteopathy Workforce Survey

Question	Answer
10a. Other ethnicity/race	*Fill in the blank*
If you are currently INACTIVE or RETIRED, please STOP Here. Thank you for your participation!	
Practice Information	
11. Primary Practice location	
a. In what state was your practice location prior to your current practice location?	*Dropdown: Listing of States*
b. List the average hours per week spent on site at this location.	*Fill in the blank*
c. Average patient care hours each week at this location. (Do not include on-call hours)	*Fill in the blank*
d. How many of these hours are primary care?	*Fill in the blank*
e. How many hours each week do you see patients in your specialty area?	*Fill in the blank*
f. Type of patient care practice setting.	*Dropdown*
	Solo practice
	Group practice - owner/partner
	Federally-funded health center or clinic
	Free clinic - not federally funded
	Urgent care clinic
	Staff or group model HMO
	Insurance company
	Hospital - outpatient dept.
	Hospital - emergency dept.
	Hospital - inpatient dept.
	Hospital - other
	Nursing home / extended care facility
	State or local health department
	Mental health facility
	Corrections
	Medical school or parent university
	Military / DoD facility
	Veterans administration facility
	Locum tenens
	Other setting
Other practice setting	*Fill in the blank*
12. Secondary Practice locationa. Do you have a Secondary Practice location?	*Dropdown Yes/No*
b. List the average hours per week spent on site at your secondary location.	*Fill in the blank*
c. Average patient care hours each week at secondary practice location. (Do not include on-call hours)	*Fill in the blank*
d. How many of the hours at secondary practice location are primary care?	*Fill in the blank*
e. How many hours each week do you see patients in your specialty area at this secondary location?	*Fill in the blank*
f. Type of patient care practice setting at secondary practice location.	*Dropdown*
	Solo practice
	Group practice - owner/partner
	Federally-funded health center or clinic
	Free clinic - not federally funded

2010 Medicine and Osteopathy Workforce Survey

Question	Answer
	Urgent care clinic
	Staff or group model HMO
	Insurance company
	Hospital - outpatient dept.
	Hospital - emergency dept.
	Hospital - inpatient dept.
	Hospital - other
	Nursing home / extended care facility
	State or local health department
	Mental health facility
	Corrections
	Medical school or parent university
	Military / DoD facility
	Veterans administration facility
	Locum tenens
	Other setting
Other setting	*Fill in the blank*
13. Other Practice Locationa. Do you have another practice location?	*Dropdown Yes/No*
b. List the average hours per week spent on site at other practice location.	*Fill in the blank*
c. Average patient care hours each week at this practice location.(Do not include on-call hours)	*Fill in the blank*
d. How many of the hours at this practice location are primary care?	*Fill in the blank*
e. How many hours each week do you see patients in your specialty area?	*Fill in the blank*
f. Type of patient care practice setting at other practice location.	*Dropdown*
	Solo practice
	Group practice - owner/partner
	Federally-funded health center or clinic
	Free clinic - not federally funded
	Urgent care clinic
	Staff or group model HMO
	Insurance company
	Hospital - outpatient dept.
	Hospital - emergency dept.
	Hospital - inpatient dept.
	Hospital - other
	Nursing home / extended care facility
	State or local health department
	Mental health facility
	Corrections
	Medical school or parent university
	Military / DoD facility
	Veterans administration facility
	Locum tenens
	Other setting
Other type	*Fill in the blank*
14. Mark the response that best describes your current patient care practice status.	*Dropdown*
	a. I cannot accept new patients, my practice is full.
	b. I can accept some new patients, my practice is nearly full.
	c. I can accept many new patients my practice is far from full.
	d. Not applicable.

2010 Medicine and Osteopathy Workforce Survey

Question	Answer
15. In your combined practice locations, please indicate the typical number of hours per week you spend in each of the following activities: (Enter a value of zero when appropriate.) a. Patient Care	*Fill in the blank*
b. Specialty	*Fill in the blank*
c. Administrative	*Fill in the blank*
d. Medical Record Reviews	*Fill in the blank*
e. Research	*Fill in the blank*
f. Teaching	*Fill in the blank*
g. Volunteer	*Fill in the blank*
h. Other	*Fill in the blank*
16. Are you practicing actively in the Military and stationed in VA?	*Dropdown Yes/No*
17. If yes, indicate the average number of patients who are civilians that you see each week.	*Dropdown*
	1-24
	25-74
	75-149
	150 or above
18. In the next 24 months, do you plan to: (Choose all that apply)	*Checkboxes*
	Retire from patient care
	Significantly reduce patient care hours
	Move your practice to another geographic location in Virginia
	Move your practice out of state
19. When do you think that you might retire?	*Dropdown*
	In the next 5 years
	In the next 6 - 10 years
	In the next 11- 15 years