REPORT OF THE
JOINT COMMISSION ON HEALTH CARE

Final Report: Analysis of Virginia's Health Workforce Pipelines

TO THE GOVERNOR AND
THE GENERAL ASSEMBLY OF VIRGINIA

REPORT DOCUMENT NO. 90

COMMONWEALTH OF VIRGINIA
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2010

Code of Virginia § 30-168.

The Joint Commission on Health Care (the Commission) is established in the legislative branch of state government. The purpose of the Commission is to study, report and make recommendations on all areas of health care provision, regulation, insurance, liability, licensing, and delivery of services. In so doing, the Commission shall endeavor to ensure that the Commonwealth as provider, financier, and regulator adopts the most cost-effective and efficacious means of delivery of health care services so that the greatest number of Virginians receive quality health care. Further, the Commission shall encourage the development of uniform policies and services to ensure the availability of quality, affordable and accessible health services and provide a forum for continuing the review and study of programs and services.

The Commission may make recommendations and coordinate the proposals and recommendations of all commissions and agencies as to legislation affecting the provision and delivery of health care.

For the purposes of this chapter, "health care" shall include behavioral health care.

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Preface

A 2007 presentation on the shortage of geriatricians, led to a proposed study of the adequacy of Virginia's educational pipelines to meet the projected need for certain health care professionals. This is the final report of that two-year study, conducted by the Joint Commission on Health Care (JCHC). In 2009, an interim report was submitted and published as RD 118.

Projections indicate that Virginia's population and percentage of older residents will increase over the next two decades, increasing further the demand for health care services. At this time, Virginia's most critical physician shortages are in primary care, geriatric care, psychiatry, emergency medicine, and general surgery. These shortages are exacerbated by the maldistribution of physician practices which tend to located in Virginia's more urban localities. The need for additional dentists and mental health professionals was identified also.

There are a number of avenues Virginia could take to address shortages and maldistribution of health care professionals, including:

- Providing increased funding for State-supported family medicine programs,
- Funding State loan repayment programs (that were recently defunded),
- Increasing Medicaid reimbursement rates,
- Encouraging medical schools to enroll students more likely to provide services in underserved areas,
- Educating the physician workforce about geriatric care issues through physician groups and the Board of Medicine, and
- Expanding telemedicine services and payment for such services.

With these alternatives in mind, 19 policy options were presented for consideration. JCHC members voted in support of 16 options (as delineated in the final report).

On behalf of the Joint Commission and staff, I would like to thank the numerous individuals who assisted in this study, including representatives from Argosy University, Carilion Clinic, Department of Health Professions, Eastern Virginia Medical School, Edward Via Virginia College of Osteopathic Medicine, George Mason University, Hampton University, INOVA Health System, Medical Society of Virginia, National Alliance of State Pharmacy Associations, Naval Medical Center in Portsmouth, Psychiatric Society of Virginia, Radford University, Regent University, Shenandoah University, State Council of Higher Education for Virginia, University of Appalachia, University of Virginia, Virginia Commonwealth University, the Virginia Consortium, Virginia Department of Health, Virginia Psychological Association, and Virginia Tech.

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Executive Summary

This is the final report of a two-year study by the Joint Commission on Health Care (JCHC) focusing on the educational pipelines for physicians, dentists, clinical psychologists and pharmacists in the context of projected workforce shortages. The study was recommended in a 2007 presentation regarding a shortage of geriatricians in the Commonwealth. In 2009, an interim report was submitted by JCHC and published as RD 118.

Study Findings

Projections indicate that Virginia's population and percentage of older residents will increase over the next two decades, increasing further the demand for health care services. At this time, Virginia's most critical physician shortages are in primary care, geriatric care, psychiatry, emergency medicine, and general surgery. These shortages are exacerbated by the maldistribution of physician practices which tend to located in Virginia's more urban localities. The need for additional dentists and mental health professionals was identified also.

There are a number of avenues Virginia could take to address shortages and maldistribution of health care professionals, including:

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Policy Options

The 19 suggested options can be categorized into three types of general approaches: increasing funding, reviewing scope of practice, and working with other organizations and agencies as shown below.

Policy Options Address Three Types of Approaches			
	Consider Increasing Appropriations	Review Scope of Practice	Work with Existing Organizations and Agencies
Physicians	2, 3, 4, 5, 7	11	6, 8, 9, 10, 12, 13
Dentists	18	-	17
Mental Health Professionals	-	15	12, 13, 14, 16
Pharmacists	-	-	19

As indicated, JCHC members voted in support of 16 options and in opposition to three Options.

- [X] **Option 1:** Take no action.
- [x] **Option 2:** When state revenue allows, ~~restore~~ consider a budget amendment to restore funding for the State Loan Repayment Program (SLRP) & Virginia Loan Repayment Program (VLRP).
- [x] **Option 3:** When state revenue allows, increase dedicated funding for the EVMS, UVA and VCU Family Practice Residency Programs.
- [x] **Option 4:** Request by letter of the JCHC Chairman that the Department of Medical Assistance Services (DMAS) develop and report on a methodology and cost estimate for providing enhanced Direct Medical Education (DME) and Indirect Medical Education (IME) payments to graduate medical programs in Virginia that train primary care, general surgery, psychiatrists, and emergency medicine physicians. The letter would include a request that DMAS present its report to JCHC by August 30, 2011. *(Enhanced payments are expected to increase state Medicaid costs to some degree.)*
- [x] **Option 5:** When state revenue allows ~~introduce~~ consider a budget amendment (language and funding) to increase Medicaid reimbursement rates to match the level of Medicare reimbursement rates for primary care physicians.
- [x] **Option 6:** Request by letter of the JCHC Chairman that the medical schools at Eastern Virginia Medical School, University of Virginia, ~~and~~ Virginia Commonwealth University, Edward Via Virginia College of Osteopathic Medicine, and Virginia Tech Carilion School of Medicine and Research Institute make efforts to increase their enrollment of medical students from rural communities in Virginia and individuals with an interest in serving underserved and minority populations.
- [x] **Option 7:** When state revenue allows, ~~introduce~~ consider a budget amendment (language and funding) to allow the Department of Health Professions to develop a continuing medical education course focusing on medication issues of geriatric patients targeted for primary care physicians. The objective would be for the course to be offered online and at no cost to Virginia licensed physicians.
- [x] **Option 8:** Request by letter of the JCHC Chairman that the Board of Medicine include and promote geriatric care issues among its online educational resources and/or most appropriate venue.
- [x] **Option 9:** Request by letter of the JCHC Chairman that the Virginia Chapter of the American College of Physicians include and promote geriatric care issues among its online educational resources and/or most appropriate venue.
- [x] **Option 10:** Request by letter of the JCHC Chairman that the Virginia Academy of Family Physicians continue to promote geriatric training among its membership.
- [X] **Option 11:** Include in the 2010 JCHC work plan, a study of the prevalence, distribution and scope of practice for nurse practitioners and physician assistants in Virginia.
- [x] **Option 12:** Send a letter from JCHC Chairman to the Special Advisory Commission on Mandated Health Insurance Benefits to support SB 1458 (Wampler) and HB 2191 (Philips) which require health insurers, health care subscription plans, and health maintenance organizations provide coverage for the cost of telemedicine services.
- [x] **Option 13:** Request by letter of the JCHC Chairman that the Department of Human Resource Management consider and if appropriate conduct pilot programs for selected telemedicine-

covered services within the state employee health insurance program. Consideration should be given to obstetric care for high-risk pregnancies, telestroke services, and telepsychiatry.

☑ **Option 14:** Request by letter of the JCHC Chairman that the Department of Behavioral Health and Developmental Services (DBHDS) report regarding the Department's current and historical utilization of telemedicine and telepsychiatry services, effectiveness of such services, locations offering such services, use of telemedicine by CSB providers, and impediments to greater adoption and usage by the Department and CSBs. This letter would include a request that DBHDS present a report to JCHC by August 30, 2010.

☒ **Option 15:** Introduce a joint-resolution requesting that JCHC convene a task force to review allowing qualified clinical psychologists to prescribe psychopharmacological medications and report to JCHC. The report will detail licensure and educational requirements, oversight structure, changes to licensure and regulatory oversight processes, medications that may be prescribed, requirements for physician review and/or oversight for prescribing medications. The resolution would require an interim report to JCHC in 2010 with a final report by September 1, 2011. Task force participants include:

- Board of Medicine
- Board of Pharmacy
- Board of Psychology
- Medical Society of Virginia
- Psychiatric Society of Virginia
- Virginia Psychological Association
- Virginia Pharmacists Association

☑ **Option 16:** Request by letter of the JCHC Chairman that the Department of Health Professions improve the information collected and compiled about clinical psychologists which is retained in the Healthcare Workforce Data Center.

☑ **Option 17:** Request by letter of the JCHC Chairman that the Department of Health Professions improve the information collected and compiled about dentists which is retained in the Healthcare Workforce Data Center.

☑ **Option 18:** When state revenue allows consider a budget amendment (language and funding) to extend basic dental benefits to adults eligible for Medicaid.

☑ **Option 19:** Request by letter of the JCHC Chairman that the Virginia Pharmacists Association, the Virginia Department for the Aging, and local area agencies on Aging collaborate to provide and disseminate information about Medicare's Medication Therapy Management (MTM) program to pharmacists, prescription counselors, and Medicare beneficiaries that qualify for MTM services.

JCHC Staff for this Report
Stephen W. Bowman
Senior Staff Attorney/Methodologist

Chapter I. Introduction/Report Organization

This is the final report of a two-year study by the Joint Commission on Health Care (JCHC) focusing on the educational pipelines for physicians, dentists, clinical psychologists and pharmacists in the context of projected workforce shortages. The study was recommended in a 2007 presentation regarding a shortage of geriatricians in the Commonwealth. In 2009, an interim report was submitted by JCHC and published as RD 118.

Increasing Demand for Health Care and the Health Care Professional Labor Market

The statewide demand for health care services is projected to increase as the Commonwealth's population, and the over-65 population in particular, increases. Virginia's "general population is expected to increase by 17% between 2000 and 2020, whereas the growth among the population over 65 years of age…will increase by 65%" (versus 53% for the nation as a whole).[1]

Clearly an increased supply of health care practitioners will be needed to address the increased demand for health care services. In addition, targeted government and private sector efforts will be crucial as the health care labor market does not ensure that practitioners will practice where they are needed or address the specialties that are needed. Individual practice choices are based on the practitioner's priorities and not necessarily on the health care systems' needs. For example, two challenging labor supply issues for physicians include provider maldistribution and the increased preference for specialty practice. Physicians are less likely to practice in more rural and underserved areas where providers are needed, opting instead to practice in more urban settings. In addition, in spite of compelling research regarding the essential role of primary care doctors, the majority of new doctors choose to practice in more lucrative specialty fields.

Report Organization

Chapters II through V address supply and demand related to physicians, dentists, clinical psychologists, and pharmacists respectively. Each chapter discusses current provider supply and whether a significant shortage exists as well as current and potential State efforts to address any shortages. Chapter VI includes the policy options (and associated public comments) that were presented to address professional health provider shortages throughout the Commonwealth.

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[1] *Health Care Workforce and Other Initiatives to Assist Medically Underserved Communities and Populations, Annual Report July 1, 2006 to June 30, 2007,* VDH Office of Minority Health and Public Health Policy.

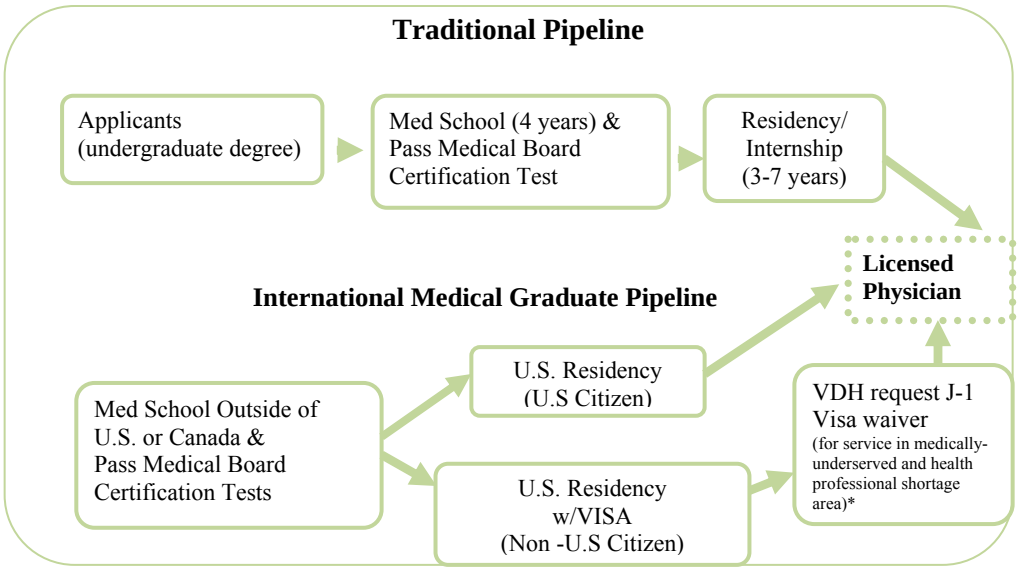
Chapter II. Physicians

Physicians provide essential health care services and specialize in the study, diagnosis, and treatment of disease or injury. They are graduates of a four year medical school and complete a residency that provides training in a specialized medical field such as cardiology, pediatrics, family medicine, or psychiatry. Residency training typically lasts three to seven years. The Kaiser Family Foundation (KFF) reported in 2009 that Virginia had 3.3 physicians per 1,000 people placing Virginia as 20th in the U.S.[2] The national average was 3.1 per 1,000.[3]

Licensure Requirements

Two paths are available to become a licensed physician in Virginia, one for U.S. medical school graduates and one for International Medical School Graduates as highlighted in Figure 1. All licensees must (i) be of good moral character; (ii) complete medical studies approved by the Board of Medicine and (iii) have satisfactorily completed one-year of post-graduate training.[4]

Figure 1: Virginia's Physician Education Licensure Paths[5]



Medical Schools in Virginia

Virginia currently has four medical schools: Eastern Virginia Medical School (EVMS) in Norfolk, University of Virginia (UVA) in Charlottesville, Virginia Commonwealth University (VCU) in Richmond, and the Edward Via Virginia College of Osteopathic

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[2] Various estimates of the number of Virginia physicians are contained within this report. In this instance, KFF data were used to allow for a comparison to national data with the same methodology.
[3] Kaiser Family Foundation State Health Facts, Nonfederal Physicians per 1,000 Population, 2008, citing American Medical Association Physicians Professional Data at http://www.statehealthfacts.org/comparemaptable.jsp?ind=689&cat=8.
[4] VA. CODE ANN. § 54.1-2930.
[5] Virginia Department of Health, *Annual Report on the Primary Care Workforce and Health Access Initiatives* (2006); Discussions with Virginia Board of Medicine representatives; John Boulett, *The International Medical Graduate Pipeline: Recent Trends in Certification and Residency Training*, Health Affairs, Vol. 25 No.2 p. 469.

Medicine (VCOM) in Blacksburg. In August 2010, the Virginia Tech/Carilion School of Medicine (VT/Carilion) will open in Roanoke and will enroll 42 students in its first class.

In 2008, 2,425 students enrolled in Virginia medical schools as displayed in Figure 2. VCU had the largest enrollment with 741 students. For the 2008 entering classes, overall 50% of the students were in-state students; EVMS had the highest percentage of in-state students with 64%. Five-hundred fifty-seven students graduated from Virginia's medical schools in 2008.

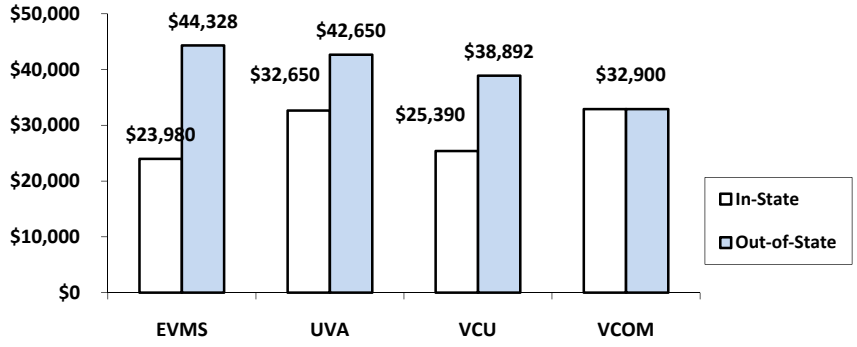
Figure 2: Virginia's Medical School Enrollments in 2008[6]

Medical School	Total Enrollment	Entering Class Size	% In-State Entering Class	No. of Graduates
EVMS	445	115	64%	107
UVA	559	145	54%	130
VCU	741	192	58%	181
VCOM	680	191	30%	139
Total	**2,425**	**643**	**50%**	**557**

Tuition and State Support for Medical Schools. In 2008, the in-state tuition for State supported medical schools ranged from almost $24,000 to $33,000 and out-of-state tuition from almost $39,000 to over $44,000. VCOM had the same tuition rate of $32,900 for in-state and out-of-state students. EVMS, UVA and VCU are supported with State general funds, whereas VCOM as a private college received no State funding. In FY2008, a total of $50.6 million in State general funds went to the three public medical as follows: $15.1 million for EVMS, $16.6 million for UVA, and $16.9 million for VCU.

State funding allows for lower tuition rates for in-state students. Figure 3 compares the in-state and out-of-state tuition for the four enrolling medical schools.

Figure 3: In and Out-of-State Tuition for Virginia Medical Schools 2008-09[7]

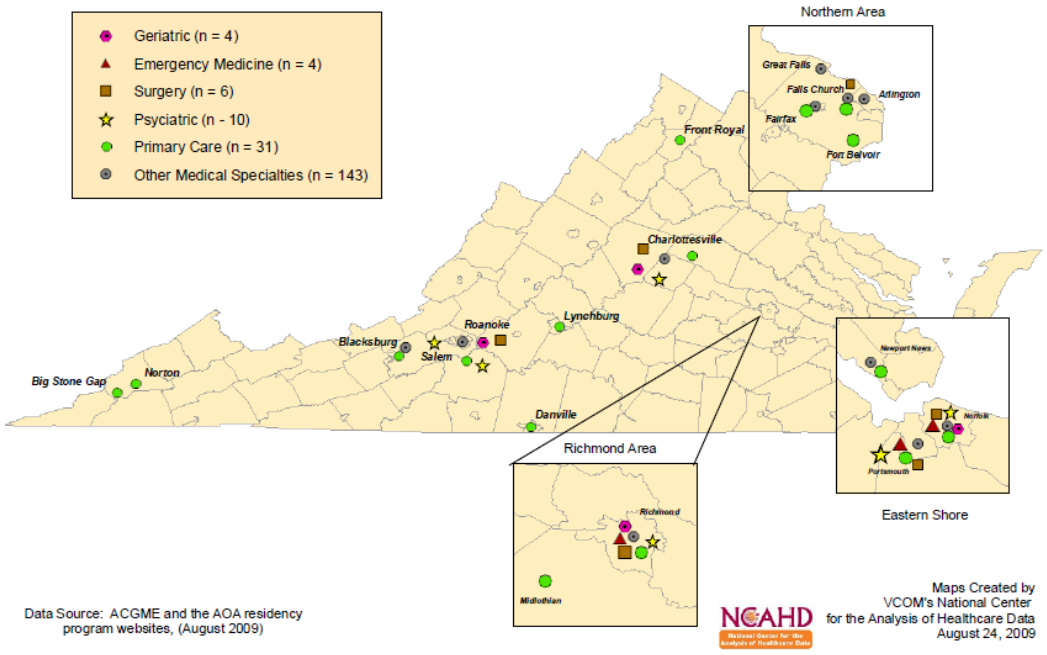


[6] JCHC email correspondence with each institution and the State Council of Higher Education for Virginia; Tammie Smith and Michael Hardy, *Va. Medical School Takes Shape*, Richmond Times Dispatch, January 3, 2007; Karen McNew, WSLS video report, May 22, 2008.
[7] *Id.*

Residency Programs Located in Virginia. After medical school, attending a residency program is the next stage of a physician's education. Most residency programs last from three to seven years, during which residents care for patients under the supervision of physician faculty and participate in educational and research activities.[8] Teaching hospitals, academic medical centers, health care systems and other institutions sponsor residency programs.[9]

In 2009, Virginia had 198 residency programs in 19 locations. These programs were primarily located in the following six areas that have relatively high population densities: Northern Virginia, Hampton Roads, and the areas in and surrounding Richmond, Charlottesville, Roanoke, and Blacksburg. Five primary care residencies locate in the following lower population areas Big Stone Gap, Norton, Lynchburg, Danville, and Front Royal. Figure 4 displays Virginia's medical residency locations. In 2008, 93% of Virginia's incoming residency class openings were filled (428 of 460); only generalist and general surgery residencies had vacancies.[10]

Figure 4: Virginia's Medical Residency Locations



[8] American Academy of Graduate Medical Education, ACGME Fact Sheet at http://www.acgme.org/acWebsite/newsRoom/newsRm_factSheet.asp

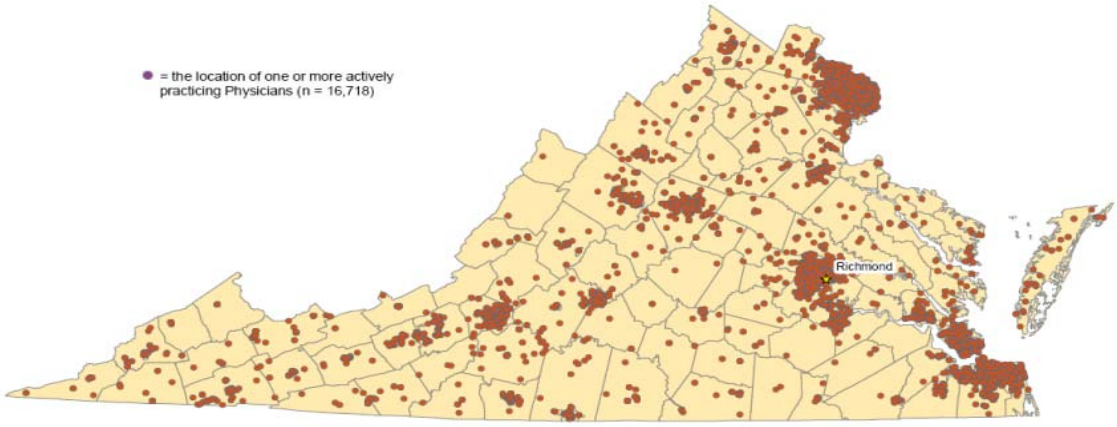
[9] *Id.*

[10] National Resident Matching Program, *Results and Data, 2008 Main Residency Match*, April 2008. Slides 13 and 14 of Appendix A detail 2008 residency opening by specialty in Virginia.

Physician Maldistribution in Virginia

There are varying estimates for the number of physicians in Virginia. The Kaiser Family Foundation reported that in 2009, Virginia had 3.3 physicians per 1,000 people, 20th in the U.S.[11] The national average was 3.1 per 1,000.[12] Figure 5 displays the locations of actively practicing physicians or physician-groups.

Figure 5: Physician Practice Locations in Virginia[13]



Using physician licensure data from the Virginia Department of Health Professions (DHP), JCHC staff conducted an analysis of physician supply and found that Virginia has an average of 2.2 actively practicing physicians per 1,000 persons.[14] However, physicians do not locate proportionally across Virginia's localities and the number of physicians per 1,000 individuals ranges from 0.6 to 2.9.[15] Figure 6 displays active physician to population ratios for Virginia's five regions; the southwest region has the lowest ratio of 1.9 while the central region has the highest ratio of 2.4. More pronounced disparities for physician to population ratios were found among medical specialties. In the southwest region, specialist-to-population ratios were lower than 75% of the State ratios for 26 of the 35 reviewed specialties.

Figure 6: Physician to Population and Specialist to Population Ratios by Region

Region	Physicians per 1,000 persons	# of specialty areas at less than 75% of State average
Central	2.4	3
Eastern	2.2	4
Northern	2.2	4
Northwest	2.3	2
Southwest	1.9	26

[11] Various estimates of the number of Virginia physicians are included in this report. In this instance, KFF data are used to allow for comparisons to national data using the same methodology.
[12] *Supra* note 3.
[13] Created by the National Center for the Analysis of Healthcare Data with 2007 physician location data from DHP. DHP physician location data collected are for license administration purposes only and cannot be relied upon solely to inform about actual work site location.
[14] Licensure data is refined by Virginia's Department of Health to eliminate physicians not actively practicing in Virginia.
[15] Mick, Nayar, and Caretta, *Physician Supply and Requirements in Virginia, 2010 and 2015* (July, 2007).

Need for Additional Physicians

Virginia's population increased from 7.1 million in 2000 to 7.6 million in 2007 and is expected to increase to 9.8 million in 2030.[16] For Virginia to match the Kaiser Family Foundation's current estimate of 3.1 physicians per 1000 population,[17] an additional 281 practicing physicians will need to be added each year (in excess of any physicians that merely replace those retiring or moving out of State).[18]

Compounding the need for more physicians is Virginia's aging population. By 2030, 18% of the State's population (1.8 million individuals) are expected to be over 65 years of age, an increase from 12% in 2000.[19] This is an important change since individuals that are over 65 require significantly more care from physicians.

Physician and Specialist Shortages

Workforce shortages are measured through different methods. Additionally, the term "shortage" can have various meanings ranging from a population's healthcare needs not met to the lack of timely access to providers when a patient can pay for services. In this analysis, three different methods were used to measure physician and specialty shortages: the number of job openings, comparisons between Virginia's physician to population ratios with ratios in other states, and the number of health professional shortage areas as designated by the federal Health Resources and Services Administration (HRSA).

Two job search engine websites were reviewed for physician openings in August 2009: MDSearch and 3RNET. The MDSearch website is more oriented to physician openings throughout Virginia while 3RNet emphasizes openings in rural and underserved areas.[20] The top six statewide physician openings from MDSeach.com were: primary care (126), cardiology (45), orthopedic surgery (37), hospitalist (29), general surgery (25), and emergency medicine (23). For 3RNET, the website emphasizing underserved and rural areas, 63% (33 of 52) of physician openings were for primary care.[21]

The second assessment compared Virginia's State and regional ratios for specialty physicians per person to a composite average of the southern region of the U.S.[22] This assessment found that in Virginia, 14 specialties were below average and 19 were above average (Figure 7). As shown in Figure 7, ratios for emergency medicine, gastroenterology, pathology, orthopedic surgery, otolaryngology, rheumatology, and general surgery were found lower than the southern region's average in every region of Virginia and for the State as a whole.[23] It is important to note that the presence of a higher or lower physician to population ratio does not in itself

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[16] JCHC staff analysis of data from Virginia Workforce Connection at https://www.vawc.virginia.gov/.
[17] *Supra* note 3.
[18] JCHC staff analysis.
[19] *Supra* note 15.
[20] JCHC staff reviewed different physician job opening websites and of numerous websites reviewed, MDSearch has the most Virginia physician openings for Virginia as a whole, and 3RNET the most Virginia physician openings in rural and underserved areas.
[21] The National Rural Recruitment and Retention Network (3RNet) is made up of organizations such as State Offices of Rural Health, AHECs, Cooperative Agreement Agencies and State Primary Care Associations. These not-for-profit organizations help health professionals locate practice sites in rural and underserved areas throughout the country.
[22] Solucient physician to population ratios estimates from 2003 are used in conjunction with physician to population ratios created by JCHC staff. Solucient ratios are based on public and private claims data and several surveys. JCHC analyses of physician to population ratios have some unreliability regarding: the number of physicians actively practicing in Virginia, physician hours worked, physician practice specialties. Assumptions were made to account for the data's insufficiency.
[23] Solucient physician to population ratios estimates from 2003.

Figure 7: Average Number of Specialists Comparing Virginia to Southern Region

Less than Southern Region's Average Ranked from highest (worst) to lowest disparity		Greater than Southern Region's Average Ranked from highest (best) to lowest disparity	
1	Otolaryngology	1	Other Medical Specialties
2	Emergency	2	Other Pediatric Subspecialties
3	Orthopedic Surgery	3	Pediatric Cardiology
4	Gastroenterology	4	Psychiatry
5	Rheumatology	5	Pediatric Neurology
6	Pathology	6	Physical Medicine and Rehab
7	Pulmonology	7	Endocrinology
8	Allergy/Immunology	8	Cardiology
9	OB/GYN	9	Nephrology
10	Plastic Surgery	10	Hematology/Oncology
11	General Surgery	11	Radiology
12	Pediatric Psychiatry	12	Infectious Disease*
13	Dermatology	13	Internal Medicine
14	Anesthesiology	14	Neurosurgery
		15	Ophthalmology
		16	Neurology
		17	Family Practice
		18	Urology
		19	Pediatrics

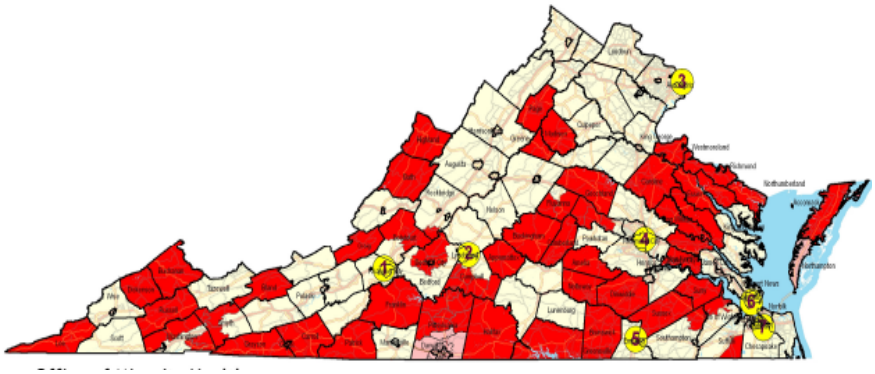
indicate a shortage. For example, if the southern region has a shortage of psychiatrists, Virginia can be above the region's average and still have a shortage of psychiatrists. Another factor to consider when comparing ratios is that patient population demographics may account for some variability; an area that has more than the average number of pediatricians may not indicate a surplus but rather that a higher percentage of children live in that area.

Primary Care Physicians. Shortages were assessed through reviewing Virginia's Primary Care health professional shortage areas (HPSAs). A HPSA designation is based on an inadequate physician-to-population ratio in a distinct service area.[24] In 2009, 149 primary care physicians were needed to eliminate Virginia's designated HPSAs.[25] These HPSAs are displayed in Figure 8 in the darkened areas.

[24] HPSA designations are based on three criteria, established by federal regulation: 1) The area must be rational for delivery of health services. 2) A specified population-to-provider ratio representing shortage must be exceeded within the area as evidenced by more than 3,500 persons per physician (or 3,000 persons per physician if the area has "high needs"). 3) Health care resources in surrounding areas must be unavailable because of distance, over utilization or access barriers. http://www.vdh.state.va.us/healthpolicy/primarycare/shortagedesignations/index.htm

[25] Virginia Department of Health (VDH), VDH Primary Care Health Professional Shortage Areas (HPSA) at http://www.vdh.state.va.us/healthpolicy/primarycare/shortagedesignations/index.htm.

Figure 8: Virginia's Primary Care Health Professional Shortage Areas[26]



Physician Specialization Choice. To address specific physician specialty shortages, factors that influence what type of specialty a medical graduate chooses must be understood. Medical students desire a specialty for a number of reasons and then attempt to gain admission into a residency that trains in that specialty. While many factors influence this decision, one of the most prominent factors is anticipated income. Income differences between primary care and subspecialists deter medical graduates from choosing primary care specialties and practicing in rural or underserved settings. "At the high end of the range, radiologist and orthopedic surgeon incomes are nearly three times that of a primary care physician. Over a 35-40 year career, this payment disparity produces a $3.5 million gap in return on investment between primary care physicians and the midpoint of income for subspecialist physicians."[27] Studies have found that students who choose primary care, rural and underserved careers are more likely to have had a:

- Rural birth
- Interest in serving underserved or minority populations
- Exposure to Title VII in medical school
- Rural or inner-city training experiences.[28]

Geriatricians. Geriatricians are physicians who have expertise in age-related issues or gerontology, the study of the aging process. Gerontology emphasizes the diagnosis and treatment of problems that are more common in older adults, particularly:

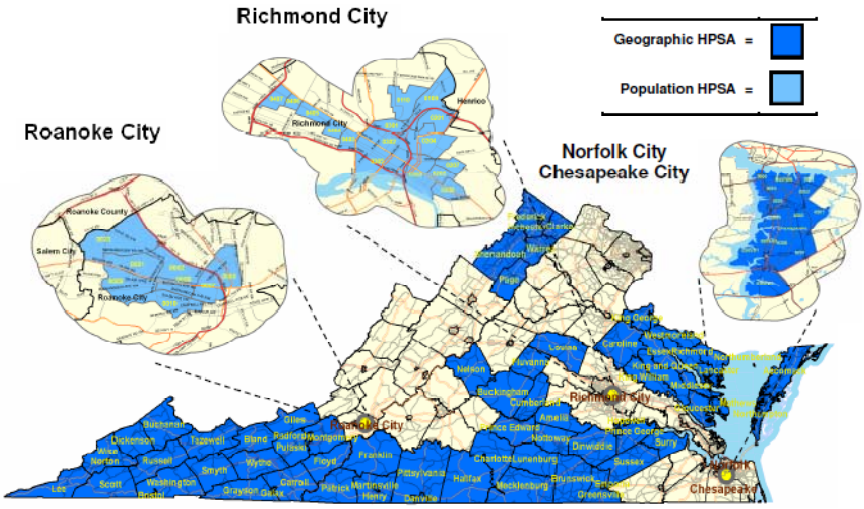
- confusion and dementia
- depression
- instability and falls
- incontinence
- chronic pain management
- sensory impairment
- the need for end-of-life care.

[26] *Id.*
[27] The Robert Graham Center, Specialty and Geographic Distribution of the Physician Workforce: What Influences Medical Student & Resident Choices? at http://www.graham-center.org/online/etc/medialib/graham/documents/publications/mongraphs-books/2009/rgcmo-specialty-geographic.Par.0001.File.tmp/Specialty-geography-compressed.pdf
[28] *Id.*

Geriatricians complete a one-year fellowship and are trained to care for patients who suffer from some of the most complex health issues, including being near the end of life.[29] In 2006, 14,000 geriatricians were needed nationally to meet the needs of the elderly population and estimates suggest 36,000 geriatricians will be needed within 25 years. As the need for additional geriatricians will not be met, other physicians will provide an increasing amount of care to this older age cohort with complex conditions.

Mental Health Provider Shortages. Mental health shortages are assessed through reviewing Virginia's mental health professional shortage areas (MPSA) as shown in Figure 9. MPSAs are based on HRSA shortage definitions and indicate a shortage of core mental health professionals, which include psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists.[30] Twenty-three psychiatrists are needed to meet minimum requirements for psychiatrists in Virginia's currently designated MPSAs.

Figure 9: Virginia Mental Health Professional Shortage Areas[31]



Avenues to Address Physician Shortages and Maldistribution

To address shortages and maldistribution, states encourage training in certain specialties and recruit physicians to locate in their underserved areas. However, convincing a physician to locate in a particular state or area of the state is challenging because physicians are courted by practices, hospitals, and clinics located within and outside the state. Several State and State-supported programs are involved in addressing some specialty shortages and physician maldistribution. The following sections review actions currently undertaken as well as additional opportunities to further the delivery of healthcare services in needed locations and specialties.

J-1 Visa Waiver Program. The J-1 Visa Waiver Program permits the Immigration and Naturalization Service (INS) to waive the foreign residency requirement in exchange for an agreement that an international medical school graduate (IMG) who completes medical training

[29] Medicare Payment Advisory Commission, *Report to the Congress: Impact of the Resident Caps on the Supply of Geriatricians,* (November, 2003).
[30] Health Resources Services Administration, Guidelines for Mental Health HPSA Designation at http://bhpr.hrsa.gov/shortage/hpsaguidement.htm.
[31] VDH, VDH Mental Health Professional Shortage Areas at http://www.vdh.state.va.us/healthpolicy/primarycare/shortagedesignations/documents/MHPSA.pdf.

in the United States will practice primary care for at least three years in a federally designated health professional shortage area or a medically underserved area.[32] The Virginia Department Health recommends interested foreign physicians to the INS for the waiver. A 2007 study of Virginia's programs to place physicians in underserved areas analyzed the J-1 program:

> Between 1991 and 2006, there were 133 J-1 Waiver Program international medical school graduates (IMG) participants who completed their service obligation out of a total of 196. Forty four (44) of the 133 no longer have a Virginia license and an additional 31 with Virginia licenses were no longer practicing in Virginia…Virginia retained 39.9%, (53) J-1 Waiver physicians. Of the 53 J-1 Waiver participants completing the program: 36% were in the same underserved areas in which they served their obligations, another 47% were probably in or in close proximity to an underserved area, and only 17% were definitely not in a HPSA area. [33]

The program appears to be successful in improving both the short-term and long-term supply of physicians in underserved areas. Virginia typically has 30 slots available and 18 slots are filled.[34] The only costs to Virginia associated with this program is VDH's administrative cost.

State Loan Repayment Programs. Virginia has two State loan repayment programs: the State Loan Repayment Program (SLRP) established in 1993 is funded through a State-federal match program while the Virginia Loan Repayment Program (VLRP) established in 1996 is funded solely with State funding. Both programs are administered through VDH and require a minimum of two years or a maximum of four years of full-time practice in a primary care specialty at an eligible practice site within a medically underserved area of Virginia.[35] SLRP covers physicians, nurse practitioners, and physician assistants; for physicians, funding ranges from $50,000 to a maximum of $120,000 over four years.[36]

A review found that the two loan repayment programs have been very successful in improving both the short-term and long-term supply of primary care physicians in underserved areas of Virginia.[37] A total of 95 physicians participated in the programs with 38 (40%) completing the program.[38] It appears that 29 or 76% of those 38 physicians completed their obligations and stayed in Virginia with 22 (58%) physicians practicing in a HPSA or adjacent to a HPSA.[39] The 2010 State budget included no funding for these programs.

State-Supported Family Practice Residency Programs. Virginia has addressed primary care shortages by supporting family practice residency programs at EVMS, UVA and VCU. In 2009, these programs received over $8.8 million of dedicated funding in the State budget.

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[32] VDH, J-1 Visa Waiver Program Overview at http://www.vdh.state.va.us/healthpolicy/primarycare/incentives/j1visa/index.htm.

[33] *Supra* note 15.

[34] JCHC staff interview with VDH program staff.

[35] *Supra* note 15.

[36] *Id.*

[37] *Id.*

[38] *Id.*

[39] *Id.*

Sixty-one percent of the graduates from these three programs chose to practice in Virginia,[40] which is much higher than the retention rate of 38%, the overall residency average in Virginia.[41]

Investment Needed for One Primary Care Physician to Practice in Virginia. A State-support analysis was conducted to compare the different methods funded by the Commonwealth to recruit or train primary care physicians. The methods analyzed included State-supported medical schools, State-supported family practice programs, the J-1 Visa Waiver program, and the State loan repayment programs. The analysis found that the State funding required to *train one primary care physician that practices in Virginia* to be:

- $858,958 for State-supported medical schools
- $185,968 for State-supported family practice programs
- $255,401 for State Loan Repayment Programs
- Minimal costs for the J-1 Visa Waiver program.

The analysis indicated that the J-1Visa and State loan repayment programs were the most effective in targeting underserved areas and addressing maldistribution. (See Attachment: Greater detail regarding the analysis is shown on slide 28 of the September 1, 2009 presentation.)

Telemedicine. Telemedicine typically refers to medical services, provided using tele-communications technology, which directly relate to patient care. Telemedicine allows a provider in one location to provide care through audio and video connection to another location. Common telemedicine services may include patient diagnosis, consultation, or monitoring. A 2009 review of telemedicine services by the Joint Legislative Audit and Review Commission (JLARC) found: "Telemedicine has the potential to improve health care by bridging time and distance barriers, giving patients in rural and other underserved areas greater access to a broad range of clinical expertise, and reducing delivery costs."[42] Simply put, telemedicine can help to address Virginia's physician maldistribution. In Virginia, the major telemedicine hubs are UVA and VCU.

While telemedicine has been possible since the 1970s, adoption has been slow. Major obstacles include physician acceptance, technological hardware, and physician payment for services. The 2009 JLARC report indicated that the majority of the top health insurance providers in Virginia did not report providing any coverage of telemedicine services. If insurers compensate physicians to provide telemedicine services, it is likely that more physicians would be willing to provide such services and increase the health care services which could be delivered to underserved areas. To address this issue, House Bill 2191 and Senate Bill 1458 were introduced in 2009 to mandate health insurance coverage for telemedicine services. Both bills were referred to the Special Advisory Commission on Mandated Health Insurance Benefits for consideration.[43]

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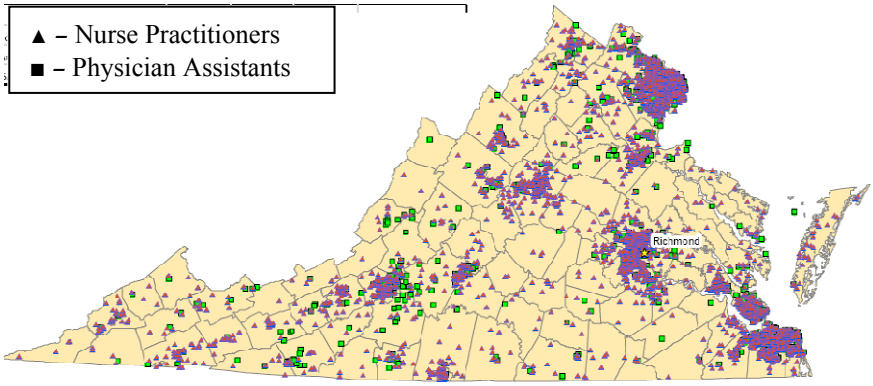
[40] JCHC staff correspondence with State-supported family practice residency programs.
[41] *Supra* note 15.
[42] Joint Legislative Audit and Review Commission, *Evaluation of House Bill 2191 and Senate Bill 1458: Mandated Coverage of Telehealth Services* (June, 2009).
[43] In the 2010 General Assembly Session, Senate Bill 675 was enacted to mandate health insurance coverage for telemedicine services.

Review Expanding Scope of Practice for Nurse Practitioners and Physician Assistants. Physician maldistribution is an issue in many states and not easily addressed even with a significant physician increase as physicians are more likely to locate to more urban and suburban settings. One possible way to allow for greater delivery of primary care services in shortage areas would be to increase the scope of practice for nurse practitioners (NPs) and physician assistants (PAs). NP and PA practice locations, displayed in Figure 10, show that 12% (523) of nurse practitioners and 11% (146) of physician assistants practice in Virginia's HPSAs. Scope of practice changes have not been reviewed recently, so any proposed changes would need considerable study of the issues involved.

Figure 10: Nurse Practitioner and Physician Assistant Practice Locations[44]



Geriatric Training and Education. In 2008, the State budget included $356,250 in grant funds to develop the skills and capacities of the gerontological and geriatric workforce. The funds were distributed by the Virginia Center on Aging for health care professionals such as medical residents, nurses, nursing home staff, physicians and pharmacists.

Professional Provider Organizations Could Emphasize Training in Shortage Areas. Another avenue to address health care provider shortages in Virginia would be to engage further the private sector. This could be accomplished by requesting that professional provider societies emphasize training and dissemination of information regarding certain specialty areas. Adequately addressing Virginia's shortages cannot realistically be accomplished by only increasing the number of needed physicians. In order to have a significant impact, efforts would need to include Virginia's currently trained professionals. For example, JCHC could request that professional organizations representing primary care physicians include geriatric care issues in their conference topics and educational materials.

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[44] Created by the National Center for the Analysis of Healthcare Data with 2007 physician location data from DHP. DHP physician location data collected are for license administration purposes only and cannot be relied upon solely to inform about actual work site location.

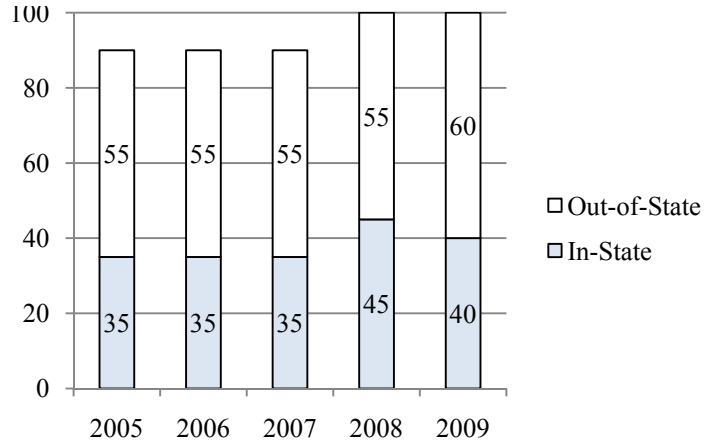
Chapter III. Dentists

Dental care and oral health are important to an individual's overall health and well-being. Dental care is unique as it is a need for almost all individuals. Unlike most medical problems, which affect only certain persons or segments of the population, there is near-universal incidence of dental disease. Advances in dental care have resulted in improved oral hygiene, nonetheless, tooth decay and other types of dental disease continue to pose serious health problems. The "inextricable link" between oral health and a person's overall health was illuminated in 2000 in *Oral Health in America: A Report of the Surgeon General*.[45] Recent research has shown a relationship between dental disease and such serious health conditions as cardiovascular disease, diabetes, pneumonia, and low-birth weight deliveries.[46]

VCU's School of Dentistry Is the Only Dental School in Virginia

During the 2008-09 school year, 384 students were enrolled in VCU's Doctor of Dental Surgery (D.D.S.) program. The number of students and the percentage of in-state students entering dental school increased by approximately 10% in 2009 as shown in Figure 11.

Figure 11: VCU School of Dentistry Entering Class Size



Tuition for Virginia residents is less than half the cost of tuition for out-of state students. Although dental school tuition increased by 12% for in-state students and 15% for out-of-state students from 2007 to 2009, VCU's tuition is still lower than that of peer dental schools in surrounding states (Figure 12).

In FY 2009, the VCU School of Dentistry received $7.2 million in State general funds, which amounted to $18,775 per enrolled student. After graduation, historically two-thirds of VCU's dentistry graduates practice in-state[47] (as compared to an in-state retention rate of 40% for Virginia's medical schools).

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[45] Caswell A. Evans and Dushanka V. Kleinman, *The Surgeon General's Report on America's Oral Health: Opportunities for the Dental Profession,* Journal of the American Dental Association, Vol. 131, Dec. 2000, 1721.
[46] June Thomas, *The American Way of Dentistry*, Slate, October, 1, 2009.
[47] Lin, Rowland, and Field, *In-State Graduate Retention for U.S. Dental Schools*, Journal of Dental Education, Vol. 70:12, 1320-1327.

Figure 12: Comparison of 2009 Tuition Rates for VCU and Peer Schools of Dentistry[48]

State	Dental School	Resident	Non-resident
Virginia	VCU	$19,617	$42,158
Maryland	University of Maryland	$21,352	$47,108
North Carolina	University of North Carolina	$22,328	$44,827
South Carolina	University of South Carolina	$36,345	$63,831
Kentucky	University of Kentucky	$23,365	$48,244
Louisville	University of Louisville	$21,564	$49,100
Tennessee	University of Tennessee	$20,200	$47,750

Licensure Requirements

Section 54.1-2709 of the *Code of Virginia* states that applicants for licensure as a dentist must: (i) be of good moral character; (ii) be a graduate of an accredited dental school or college, or dental department of a university or college, and; (iii) perform satisfactorily on the required national and clinical examinations. To practice in Virginia, a dentist must hold a current, valid, "active" license. The Board of Dentistry provides "inactive" licenses to fully licensed dentists do not wish to practice in Virginia. The Board of Dentistry also issues limited or "restricted" licenses for: (i) dental school faculty, (ii) volunteer service at public health or free clinics, (iii) practice in a residency program, (iv) teaching dentistry; or (v) foreign trained dentists to teach.

Virginia Licenses Approximately 6,000 Dentists and 4,700 Locate in the Commonwealth. In 2009, according to the American Dental Association, 6,175 dentists were licensed in Virginia.[49] Consistent with the national average, Virginia has 0.8 dentists per 100,000 persons. A 2006 study noted that 57% of licensed Virginia dentists trained at VCU.[50] Seventy-nine percent of licensed dentists in Virginia practice general dentistry with the remaining 21% practicing in more specialized fields (Figure 13).

Figure 13: Virginia Licensed Dentists by Specialty[51]

Practice Type	Number	Percentage
General Practice	4,878	79%
Orthodontics	331	5%
Oral Surgeon	244	4%
Periodontics	192	3%
Pedodontics	175	3%
Prosthodontics	134	2%
Endodontics	148	2%
Other	73	1%
Total	**6,175**	**100%**

Dentist Maldistribution in Virginia. Dentist practice locations are not equally disbursed by region or population. An independent state and regional analysis by the National Center for the Analysis of Healthcare Data found that of the 5,847 Virginia-licensed dentists, 4,711 had addresses of record located in Virginia. The significant variation in the number of dentists per

[48] VCU School of Dentistry, 2009 Annual report.
[49] Kaiser Family Foundation, Number of Dentists, 2009 at http://www.statehealthfacts.org/profileind.jsp?ind=444&cat=8&rgn=48.
[50] *Supra* note 47.
[51] *Supra* note 49.

capita between Virginia's health regions illustrates the maldistribution (Figure 14). The southwest region has the fewest dentists per capita with 42 per 100,000 while Northern Virginia has 81 per 100,000.

Figure 14: Licensed Dentists Located in Virginia by Region[52]

	Dentists	Dentists per 100,000
Central	859	65
Eastern	972	54
Northern	1,716	81
Northwest	601	50
Southwest	563	42
Virginia	4,711	61

Interviews with educational and provider representatives revealed that financial and lifestyle preferences were the primary reasons for the maldistribution. A sustainable dental practice requires an adequate paying patient population in order to cover the dentist's school loans and overhead costs. In 2007, the average dental school loan debt was more than $130,000[53] and the average overhead cost per patient visit was $224 as compared to a physician's patient visit at $101 per visit.[54] These expenses encourage dentists to locate in areas where average family incomes are higher and where there is a higher population density; areas more likely to have such attributes are urban and suburban settings. Many dentists' lifestyle expectations include such factors as school choice, cultural arts, larger city amenities, entertainment options, and enhanced health care choices drawing many dentists and their families to more urban settings. Difficulty in addressing the financial and lifestyle factors lead to the conclusion that dental provider maldistribution is likely to be a continual issue in Virginia for many years.

Dental Shortages

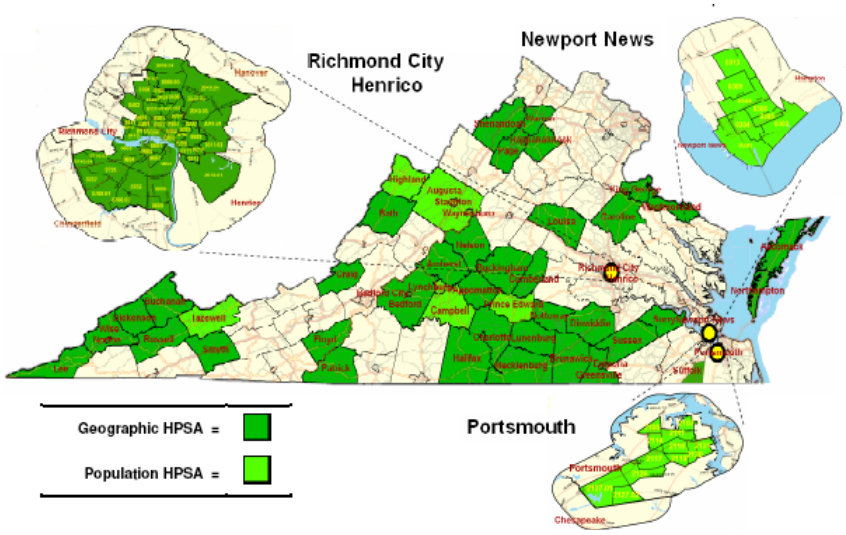
In 2008, VDH reported that Virginia has 76 separate designations for dental health professional shortage areas (HPSAs) in 61 jurisdictions (Figure 15).[55] Dental HPSAs highlight shortages for general dental care based on the number of full time equivalent (FTE) dentists in a particular area. Geographic dental HPSAs, the most common shortage designation, must meet the following criteria:

- Have a population to general dental provider weighted ratio greater than 5,000 to 1 dentist or greater than 4,000 to 1 dentist with high needs. A high needs area is determined by high poverty rates (more than 20 percent below poverty) or by low fluoridation rates (more than 50 percent of the population has no fluoridated water).[56]

[52] NCHCD analysis.
[53] American Dental Association website at http://www.ada.org/public/careers/beadentist/financial.asp.
[54] Agency for Healthcare Research and Quality, Medical Expenditure Survey Panel: Chartbook #17: Dental Use, Expenses, Dental Coverage, and Changes, 1996 and 2004 at http://www.meps.ahrq.gov/mepsweb/data_files/publications/cb17/cb17.shtml#ExecutiveSummary, Expenses for Office-Based Physician Visits by Specialty, 2004, http://www.meps.ahrq.gov/mepsweb/data_files/publications/st166/stat166.pdf.
[55] No incentive payments are associated with dental HPSAs and any dental shortage analyses using these HPSAs will understate dental shortages as some areas which may qualify have not applied to become HPSA designated as there is no incentive to do so. Virginia Department of Health Program Narrative for Virginia Health Workforce Development Initiative, 2010.
[56] Health Resources Services Administration, Guidelines for Dental HPSA Designation at http://bhpr.hrsa.gov/shortage/dental.htm.

- Demonstrate that the dental care professionals in contiguous areas are over-utilized with a population to dentist ratio greater that 3,000 to 1 dentist or that these areas must be currently designated as dental HPSAs.[57]

Figure 15: Virginia Dental Health Professional Shortage Areas[58]



In 2008, 57 dentists practiced within the designated HPSAs. Approximately 123 additional dentists would be needed to eliminate the currently identified needs in Virginia's dental HPSAs.[59]

Dental Service Payments

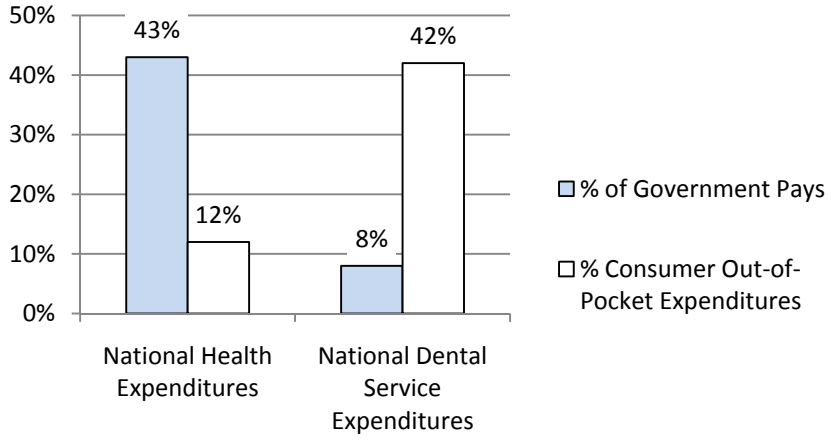
National health expenditure data indicates that an estimated $102.2 billion was spent in 2009 on dental care in the U.S.[60] Private dental practices provide the vast majority of dental care and dental services have different payer and payment compositions than medical services. In both Virginia and the nation, dental care is paid for almost entirely with private funds (private insurance and out-of-pocket payments).

As seen in Figure 16, unlike overall health expenditures in which government programs paid for approximately 42% of the total, government programs paid for only 6% of total dental expenditures in 2009. While out-of-pocket payments account for 42% of dental service expenditures, they only account for 12% of national health expenditures and 9% of physician

[57] *Supra* note 56.
[58] VDH, Dental Health Professional Shortage Areas (DHPSA) at http://www.vdh.state.va.us/healthpolicy/primarycare/shortagedesignations/index.htm.
[59] VDH, Dental Health Professional Shortage Areas (DHPSA) at http://www.vdh.state.va.us/healthpolicy/primarycare/shortagedesignations/documents/DHPSA_List.pdf.
[60] Centers for Medicare and Medicaid Services, National Health Expenditure Data at https://www.cms.gov/nationalhealthexpenddata/02_nationalhealthaccountshistorical.asp.

and clinical expenditures.[61] The National Expenditure Survey estimated that in 2004, 35% of Americans did not have dental insurance, as compared to 12% who lacked medical insurance.[62]

Figure 16: National Health Expenditure and Dental Service Financing (2009)[63]



Virginia's Medicaid Program Provides Dental Services for Children Under Age 21; Only Limited Services Are Provided for Adults. In Virginia, Medicaid dental services are provided through the *Smiles For Children* program which was created in 2005 to improve access to "quality dental services for Medicaid and SCHIP children across the Commonwealth."[64] The program offers comprehensive dental services for children under age 21. In 2008, the *Smiles For Children* program served more than 450,000 Medicaid and FAMIS children offering diagnostic, preventive, restorative/surgical procedures, and orthodontics benefits. The *Smiles For Children* "program also provides coverage for limited medically necessary oral surgery services for adults (age 21 and older)" and associated diagnostic services, such as X-rays and surgical extractions.[65] For adults, the provider must document that dental conditions compromise general health to allow for reimbursement.[66]

Sources of Dental Care in Virginia

Many Virginians are unable to access dental care as they cannot afford to pay private providers or they live in areas lacking access to private dental care. Safety net providers provide access to dental services in 73 Virginia localities although many of these providers are open only on a part-time basis.[67] In 62 localities there are no safety net providers.[68] For the reasons detailed earlier, safety net dental providers will be needed for the foreseeable future. To support dentists locating in underserved areas, the Virginia Health

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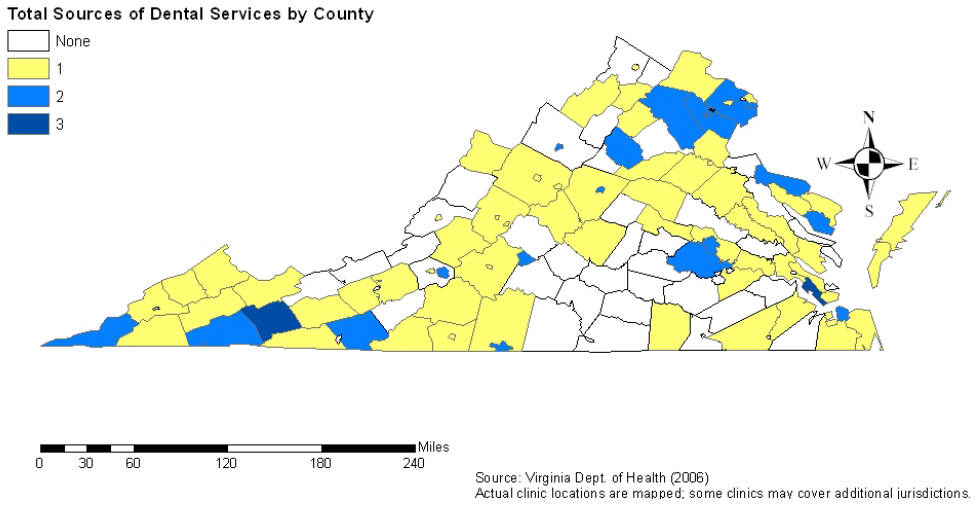
[61] JCHC staff analysis, data source Centers for Medicare and Medicaid Services, National Health Expenditures by type of service and source of funds, CY 1960-2009.
[62] Centers for Medicare and Medicaid Services, National Health Expenditures by type of service and source of funds (2004) and http://www.meps.ahrq.gov/mepsweb/data_files/publications/cb17/cb17.pdf.
[63] *Supra* note 61.
[64] Virginia Department of Medical Assistance Services (DMAS), Annual Report on the Dental Program(December 2008), Research Document 411 at http://www.dmas.virginia.gov/downloads/studies_reports/RD-411_2008.pdf.
[65] DMAS website at http://www.dmas.virginia.gov/downloads/pdfs/dnt-adlt_bstm.pdf.
[66] *Supra* note 64.
[67] Virginia Health Care Foundation, 2009 Annual Report at http://www.vhcf.org/wp-content/uploads/2010/09/VHCF-FY09-Annual-Report-FINAL.pdf.
[68] *Id.*

Care Foundation (VHCF) has provided nearly $6 million in grants since 1994 to establish or expand 36 dental safety net sites.[69] Figure 17 highlights counties that have either a free clinic, community health center or a health department that offers dental services.

Figure 17: Counties with Dental Services Provided by a Health Department, Free Clinic or Community Health Center (2006)



A brief description follows some of Virginia's safety net dental providers.

Mission of Mercy (MOM).[70] Mission of Mercy has been in operation in Virginia for 10 years and involves projects staffed by volunteers. MOM projects are conducted in underserved areas where there are not enough dental practitioners to adequately address the oral health needs of the community. Any individual who is able to show up on site is considered eligible. Since 2000, 32,913 patients have been provided with over $16.3 million worth of free dental care. Virginia's MOM projects have broken records for the largest two- and three-day dental outreach clinics ever conducted in the United States.

Federally Qualified Health Center (FQHC).[71] FQHCs are authorized in Medicare and Medicaid statutes to receive federal grant funding to provide care to underserved populations. Types of organizations that may receive such grants include community health centers, migrant health centers, health care for the homeless programs, and public housing primary care programs.

Community health centers are non-profit medical practices located in medically underserved areas to provide comprehensive primary healthcare to anyone seeking care; some also provide mental health services and dental care. In Virginia, community health centers and affiliated programs provided medical services to more than 217,000 individuals annually. Thirty-eight locations offer dental services and two have mobile dental programs.

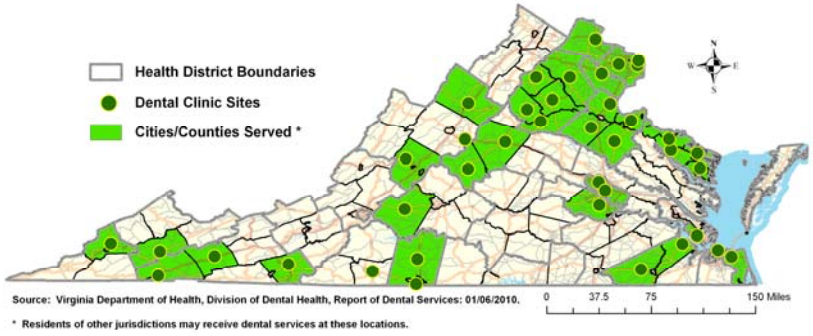
Remote Area Medical (RAM).[72] RAM is a non-profit, volunteer, airborne relief corps dedicated to providing free health care, dental care, eye care, veterinary services, and technical and

[69] Virginia Health Care Foundation website at http://www.vhcf.org/dental.
[70] Mission of Mercy website at http://www.dentistry.vcu.edu/gp/mom/ and email correspondence.
[71] Community Health Care Association website at http://www.vacommunityhealth.org/ and email correspondence.
[72] Remote Area Medical website at http://www.ramusa.org.

educational assistance to people in remote areas of the United States and the world. For ten years, RAM has set up a weekend clinic in Wise County, Virginia.

Virginia Department of Health Clinics.[73] VDH clinics provide dental services for income-eligible children in approximately one-half of Virginia's localities. Limited dental care for adults may be available in certain localities. Figure 18 shows the local health clinics that offer dental programs.

Figure 18: Virginia Department of Health Dental Clinics



As of 2009, VDH's dental program had 48 full and part time dentists, 52 dental assistants and four dental hygienists providing services to 76 localities. The dental program provided 247,928 patient visits valued at more than $9.5 million, including:

- 27,906 children received dental services in a total of 55,651 patient visits,
- 22,022 children participated in dental health education programs, and
- 17,935 school children were screened for oral disease.

Virginia's Free Clinics. Free clinics are private, nonprofit, community-based or faith-based organizations that provide health care at little or no charge to low-income, uninsured people. Free clinics rely heavily on volunteer health professionals and partnerships with other health-related organizations. Thirty-three free clinics currently provide dental care and 23,351 dental visits estimated to be worth $4.9 million were provided in 2005.

VCU Clinics.[74] The VCU School of Dentistry provides a reduced-rate dental clinic in Richmond. In FY 2007, graduate dental and pre-doctoral students had 10,726 and 44,544 patient visits respectively.[75] VCU plans to open a dental clinic in Wise County in 2011, which is expected initially to accommodate five dental students, two dental hygiene students, and two full-time faculty members.[76]

Addressing the Shortage of Dentists

A number of actions, which could be undertaken to address the shortage of dentists in Virginia, were identified and are described in the next few pages.

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[73] JCHC staff email correspondence with Virginia Department of Health.
[74] Virginia Association of Free Clinics website at http://www.vafreeclinics.org/and email correspondence.
[75] VCU School of Dentistry, 2007 Annual Report at http://www.dentistry.vcu.edu/about/news/attachments/annualreport07.pdf.
[76] State Council of Higher Education, Feasibility Report: VCU Dental Clinic in Wise County at http://www.schev.edu/Reportstats/FeasibilityReportVCUDental.pdf?from=.

Information Collected on Licensed Dentists. The Board of Dentistry primarily collects and retains data related to its licensing mission. The annual renewal form includes the data elements: name: address of record; emergency contact; email address; Social Security Number or Virginia driver's license number; and the number, status, and expiration date of the dentist's license. While the information collected is sufficient for the Board to regulate dental practices, collecting additional information such as practice location, hours worked and expected retirement would provide useful data for setting State dental recruitment and retention policies. For example, knowing practice location and the number of hours worked would allow VDH to designate dental shortage areas more quickly and reliably.

Dental Programs Administered by VDH. The VDH Division of Dental Health administers two similar programs to encourage dentists to practice in underserved areas or with underserved populations. The first is a scholarship program that provides financial assistance to dental students at VCU's School of Dentistry in exchange for practice in an underserved area in Virginia (following the student's graduation). The last scholarship was awarded in 2008, to a student with a two-year service obligation. (The length of service obligation partially determines the amount of the scholarship.) There has been no State or federal funding appropriated for this program since FY 2008, and the future status of this program is uncertain.[77] Nationally more payment programs focus on providing loan repayments to support dentists who have completed their studies than for scholarships for students beginning dental school.

The second VDH-administered program, which provides loan repayment awards, received initial funding in FY 2006. The program assists dentists who have graduated from any accredited dental school in the nation by repaying educational loans in exchange for agreeing to accept government-sponsored insurance payments (e.g., Medicaid, FAMIS) and serve in an underserved area in Virginia. This program has received no State funding since FY 2008. In 2009, VDH made ten loan repayment awards from one-time federal funding. In FY 2010, VDH provided $20,000 for three years to four dentists who work in federal or state shortage areas with federal funding from HRSA Oral Health Workforce Grants.[78]

Loan Repayment Program Provided by the National Health Services Corps (NHSC). The NHSC loan repayment program, sponsored by the U.S. Department of Health and Human Services, provides significant loan repayment amounts to physicians, dentists, mental health workers, and other health professionals in return for agreeing to practice in a health professional shortage area. Health providers who agree to locate in a HPSA are eligible for up to $50,000 for a two-year commitment. Upon completion of the service commitment, clinicians may be eligible to apply for additional support for extended service.[79]

Dental Benefits for Adult Medicaid-Eligibles. As the number of Virginians with dental insurance increases, dentists will have more incentive to practice in Virginia including in underserved areas. One way to increase the number of Virginians with dental coverage is for Virginia's Medicaid program to extend full dental benefits to adults. Virginia's Medicaid program currently limits adult dental benefits to medically necessary oral surgery and associated

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[77] *Supra* note 73.
[78] *Id.*
[79] U.S. Department of Health and Human Services, National Health Service Corps website at http://nhsc.hrsa.gov/loanrepayment.

diagnostic services.[80] According to a Centers for Medicare and Medicaid Services presentation, in 2007 adult Medicaid beneficiaries were offered full dental benefits in 23 states and limited dental benefits in 13 states.[81] The remaining 14 states provided either very limited adult dental benefits or no benefits.[82]

Including dental care coverage for adults covered by Medicaid would increase significantly the cost of the State Medicaid program. The amount of the additional cost would depend on services covered, utilization, level of reimbursement, number of covered adults, and delivery system for providing the benefits.[83]

Enhancing Scope of Practice for Dental Hygienists. Under current Virginia law and regulation, dental hygienists are required to perform all services under the direct supervision of a dentist. However, in 2009, House Bill 2180 and Senate Bill 1202 were enacted to allow dental hygienists, working in selected underserved health districts, to provide educational and preventive dental care under different protocols developed by VDH. A report, to the Secretary of Health and Human Resources, regarding the services provided, "including the impact upon the oral health of the citizens" treated was required by November 2010.[84] If the initiative is successful, it could become a model for expanding dental services into other underserved areas of the Commonwealth.

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[80] Kaiser Family Foundation, Benefits by Service: Dental Services (October 2008) at http://medicaidbenefits.kff.org/service.jsp?yr=4&so=0&cat=6&sv=6&gr=off&x=88&y=9.
[81] A. Conan Davis, Medicaid Overview presentation at http://www.hdwg.org/files/resources/Medicaid%20Overview%20Conan%20Davis.pdf
[82] *Id.*
[83] DMAS staff indicated a comprehensive actuarial analysis would be necessary to develop an accurate estimate of the additional costs. Such an analysis could not be completed in time for this report.
[84] 2009 Va. Acts Chapter 99.

Chapter IV. Clinical Psychologists

Mental health is intricately linked to an individual's "overall health and productivity" and is the "basis for successful contributions to family, community, and society."[85] The value of mental health becomes more apparent when problems appear. One in five Americans experience mental health problems and illnesses.[86] These can result in "disability and despair" for the individual and significantly affect those around him.[87] Clinical psychologists serve a significant role by treating mentally ill individuals. The clinical psychologist aims "to improve behavior adjustment, adaptation, personal effectiveness and satisfaction" and can address a broad range of problems within the populations it serves.[88]

Licensure Requirements

The Virginia Administrative Code defines four requirements for licensure in clinical psychology.[89] An applicant must:

- Have a doctorate from an accredited professional psychology program.
- Complete an accredited internship during the psychology program.
- Subsequent to receiving a clinical psychology doctorate, complete 1,500 hours supervised clinical psychology residency.
- Pass the Examination for Professional Practice in Psychology.[90]

Doctorate-level Clinical Psychology Programs in Virginia

In Virginia, 11 programs confer doctorate-level clinical psychology degrees and in 2008 these programs enrolled 853 students and graduated 113. Thirty-two percent of the enrolled students had in-state status in the eight State-supported programs. Additional descriptive information about the 11 programs is shown in Figure 19.

Doctorate-level clinical psychology programs can offer one of two degrees, the Doctor of Psychology (Psy. D.) or the Doctor of Philosophy (Ph.D.). While the program types have much in common, Ph.D. programs emphasize research and Psy.D. programs tend to have larger enrollments and emphasize practitioner training.

Tuition costs can range significantly. The average first-year tuition for in-state students at a State-supported institution was $9,738 whereas out-of-state tuition was $17,508. For private institutions, the tuition average is $17,804 for all students regardless of Virginia residency. Information was not available regarding clinical psychology graduates trained in Virginia that locate in Virginia to practice.

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[85] Department of Health and Human Services U.S. Public Health Service, *Mental Health: Culture, Race and Ethnicity, A Supplement to Mental Health: A Report of the Surgeon General* (1999) at http://www.surgeongeneral.gov/library/mentalhealth/cre/execsummary-1.html.
[86] *Id.*
[87] *Id.*
[88] *Id.*
[89] Va. Regs. Reg. 18 -125-20-54.
[90] *Id.* and JCHC staff discussion with DHP Board of Psychology staff.

Figure 19: 2008 Virginia Doctorate-level Clinical Psychology Programs[91]

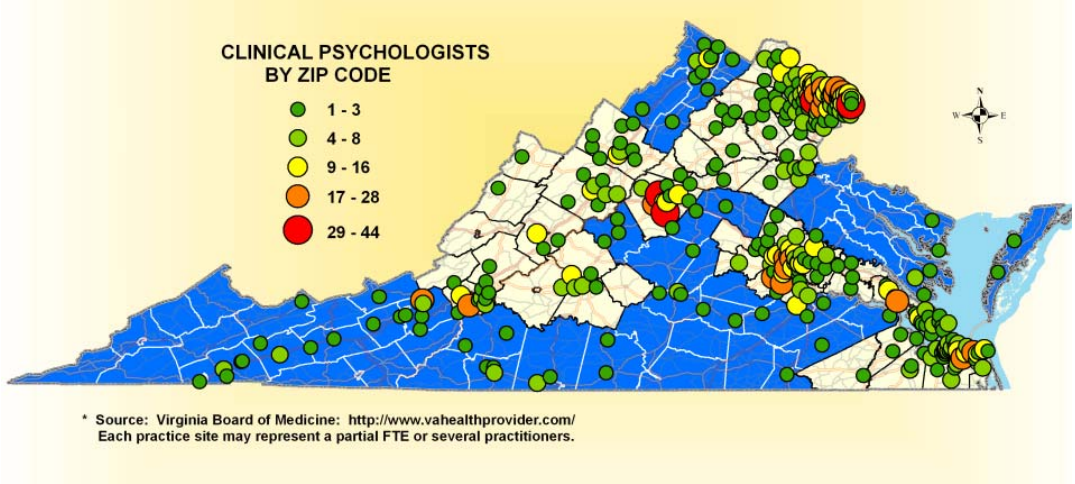
	Program Type	2008 Enrollment	2008 Entering Class Size	% In-state in Entering Class
State-Supported Institutions				
George Mason University	Ph.D.	46	6	33%
Radford University	Psy D.	5	5	20%
University of Virginia *School of Education*	Ph.D.	34	6	50%
University of Virginia *Department of Psychology*	Ph.D.	31	5	20%
Virginia Commonwealth University *Clinical Psychology Program*	Ph.D.	54	10	40%
Virginia Commonwealth University *Counseling Program*	Ph.D.	46	8	25%
Virginia Consortium[92]	Psy. D.	53	10	50%
Virginia Tech	PhD	48	9	11%
Private Institutions				
Argosy University	Psy D.	439	88	-
Institute for Psychological Services[93]	-	-	-	-
Regent University	Psy D.	97	22	27%
Total for All Institutions		**853**	**169**	**N/A**

Virginia Licenses Approximately 2,400 Clinical Psychologists

According to the Department of Health Professions, 2,448 licensed clinical psychologists were licensed in Virginia in FY 2008,[94] which equates to 31 clinical psychologists per 100,000 persons. Figure 20 indicates the practice location of in-state clinical psychologists while the darkened areas highlight Virginia's Mental Health Professional Shortage Areas (MHSA). MHPAs are designated by HRSA when there are not a sufficient number of core health professionals in an area.[95]

[91] JCHC staff email correspondence with each institution.
[92] The Consortium was a clinical psychology program that functioned as an inter-institutional department with the College of William and Mary, Eastern Virginia Medical School, Norfolk State University, and Old Dominion University.
[93] Institute for Psychological Services did not respond to information requests.
[94] Not all licensed clinical psychologists practice in Virginia
[95] The MHSA designation qualifies federal and state programs for grants, funding, and other allowances aimed at increasing services to underserved areas and populations.

Figure 20: In-State Clinical Psychologist Locations and Mental Health Professional Shortage Areas[96] (shortage areas darkened)



Mental Health Shortages

Clinical psychologists serve as one type of professional that provides mental health services. For MHSA calculations five mental health professionals are counted: psychiatrists, clinical psychologists, clinical social workers, psychiatric nurse specialists, and marriage and family therapists.[97] The HRSA analysis indicates shortage areas in Virginia for psychiatrists and other core providers that fill counseling roles including but not specific to clinical psychologists. In discussions with health professionals and their representatives, clinical psychologist shortages were not emphasized. Instead, discussions focused on provider maldistribution, improving licensure residency regulations, and significant wait times experienced by mental health clients to see a psychiatrist in order to receive psychiatric drugs. Figure 20 highlighted the maldistribution of clinical psychologists, who like other professional health care providers, tend to locate in less rural settings.

Changes in Licensing Regulation. As previously noted, to be licensed as a clinical psychologist, an applicant must complete 1,500 hours of a supervised clinical psychology residency after graduation. Unfortunately, some graduates have significant difficulty finding a practitioner to supervise their residency. Currently, health insurers do not reimburse for services rendered by unlicensed clinical psychologists or for licensed clinical psychologists to supervise and train residents. This lack of reimbursement contributes to the shortage of clinical psychologists who are willing to train residents. Some supervising clinical psychologists choose to supervise residents at no charge while others require payment by the resident for their supervision. The fact that there are few financial incentives to provide residency supervision has created a backlog of clinical psychology graduates fulfilling their residency requirements.[98] To address the problem of limited residency opportunities, the Board of Psychology is

[96] VDH, *Addressing Virginia's Mental Health Workforce Shortages* presented at Mental Health Roundtable May 20, 2009.
[97] Health Resources Services Administration, *Guidelines for Mental Health HPSA Designation* at http://bhpr.hrsa.gov/shortage/hpsaguidement.htm. In MHSA determinations, calculations are made in two groupings: psychiatrist to population ratios and other core provider to population ratios.
[98] When Virginia's initial clinical psychology residency and internship regulations were adopted, a prospective clinical psychologist's educational training process was different than the current educational and training process. Today, many doctoral clinical psychology programs have expanded the internship-hour requirements compared to when Virginia first created clinical psychology regulations.

reviewing licensure changes that would permit the residency-hour requirements to be completed prior to graduation.

Allowing Prescription Authority for Appropriately Trained Clinical Psychologists. As highlighted in Chapter II, Virginia has a significant shortage of psychiatrists that is projected to worsen. One of the significant effects of this shortage is long wait times for an appointment with a mental health professional in order to receive prescriptions for needed psychiatric medications. Two states, New Mexico (beginning in 2002) and Louisiana (beginning in 2004) and to a limited extent the U.S. military have chosen to allow appropriately trained clinical psychologists to prescribe from a restricted list of medications.

In New Mexico, the clinical psychologist is required to complete a Master of Psychopharmacology with a 400-hour practicum treating a minimum of 100 patients with mental disorders, pass an examination, and practice in a supervised capacity to be able to prescribe a select group of psychotropic drugs under a conditional prescribing license.[99]

In Louisiana, "medical psychologists" must complete "specialized training in clinical psychopharmacology" and pass "a national proficiency examination in psychopharmacology" in order to qualify for a certificate of prescriptive authority.[100] Even with a valid certificate of prescriptive authority, the medical psychologist is required to "prescribe only in consultation and collaboration with the patient's primary or attending physician, and with the concurrence of that physician."[101]

For all medical professionals, patient safety is an essential focus and even more so for professionals who prescribe drugs. Two ways to illuminate potential patient safety issues for clinical psychologist prescribers are educational comparisons to psychiatrists and safety experience of clinical psychologists who prescribe. The educational training of a clinical psychologist with a master of psychopharmacology and a psychiatrist are distinct. Psychiatric education includes normal and pathological functioning of the human body in medical school and a four-year residency with in the field training in medicine, neurology, and psychiatry. In contrast, clinical psychologists with the Master of Psychopharmacology do not have the depth or breadth of training regarding the body and how it functions. However, in the states that have allowed expanded prescriptive authority, as of 2009 no complaints had been filed to the regulatory boards that license prescribing clinical psychologists.[102] Allowing restricted prescriptive authority for appropriately trained clinical psychologists could increase access to medications and decrease wait times to receive treatment. Psychiatrist shortages are projected to become more severe in underserved areas and the need for prescribing mental health professionals will increase as Virginia's population increases.[103]

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[99] N.M. STAT. ANN. §16.22.20 - §16.22.25.
[100] LA. REV. STAT. ANN. § 37:2371.
[101] LA. REV. STAT. ANN. § 37:2375**.**
[102] JCHC staff discussions with Louisiana and New Mexico officials regulating each state's prescribing clinical psychologists.
[103] Clinical psychologists and psychiatrists have similar geographic distributions across Virginia. This option does not target specific areas but rather increases the overall number of prescribers and would decrease wait times. As most providers are in less rural locations, this change would not address the maldistribution but allow more licensed providers to prescribe wherever they are located. However, prescribing clinical psychologists could be limited to certain localities or areas in which psychiatrists shortages are most severe.

Chapter V. Pharmacists

Pharmacists provide an essential and unique role in the health care system. Their duties include not only distributing prescription drugs but also advising patients, physicians, and other health practitioners on medication selection, dosages, interactions, and side effects. They may monitor patient health and progress to ensure that medications used are safe and effective. Most pharmacists work in a community setting such as a retail drugstore or in a healthcare facility such as a hospital.

Licensure Requirements

The statutory requirements for licensure by the Board of Pharmacy are defined in *Code of Virginia* § 54.1-3312. All applicants for licensure as a pharmacist must (i) be 18 years or older, (ii) have good moral character, (iii) graduate from a Board-approved or foreign pharmacy college, (iv) have Board-approved practical experience in the U.S., and (v) pass a Board-prescribed examination. Graduates from approved foreign pharmacy schools must fulfill additional requirements to become licensed pharmacists including passing a Board-approved "college of pharmacy equivalency examination program…and written and oral communication ability tests of the English language…."[104]

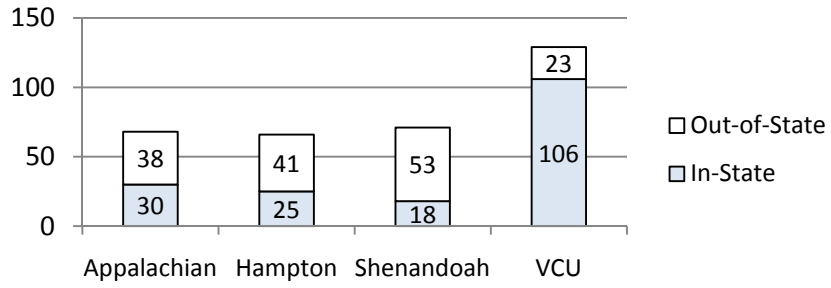
Four Schools of Pharmacy Schools In Virginia; VCU Is the Only Public Pharmacy School

Virginia's four schools of pharmacy had a combined enrollment of 1,257 students for the 2008-09 school year:[105]

- Appalachian School of Pharmacy – 191 students
- Hampton University School of Pharmacy – 243 students
- Shenandoah University School of Pharmacy – 311 students
- VCU School of Pharmacy – 512 students

There were 333 students in the combined incoming classes for the four schools of pharmacy (Figure 21). VCU had the highest percentage of incoming students from Virginia (82%), while the percentage of in-state students for each of the other schools was less than 50%.

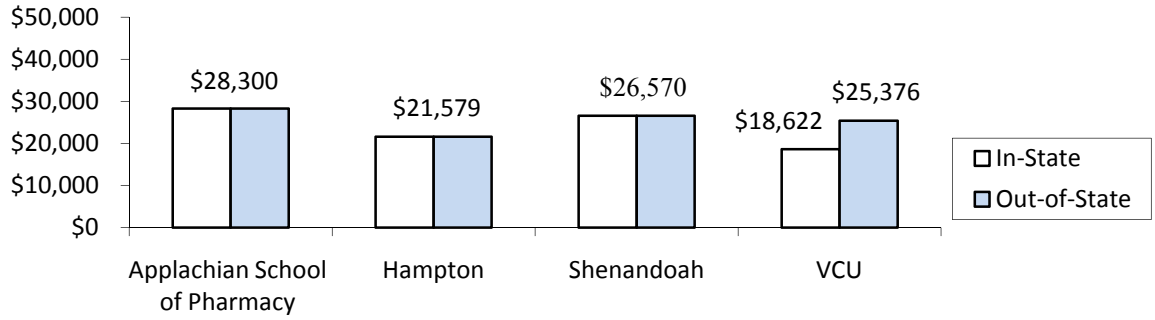
Figure 21: 2008-09 Incoming Class by In-State and Out-of-State Students[106]



[104] *Code of Virginia* § 54.1-3312.3.
[105] Email correspondence with each institution.
[106] *Id.*

Tuition and Fees. As VCU is Virginia's only State-supported pharmacy school, the cost of tuition for in-state students is substantially less than at the other pharmacy schools (Figure 22). In 2007-08, the VCU School of Pharmacy received $4,095,028 in State general funds for an average of $7,998 per pharmacy student.[107]

Figure 22: 2008-09 Tuition Rates for Virginia Pharmacy Schools[108]

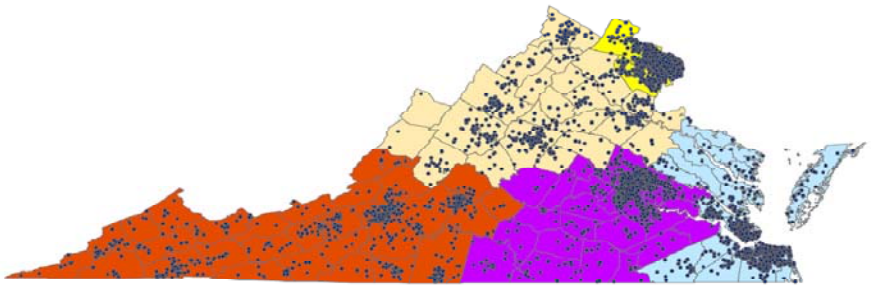


No Data Is Available Regarding Pharmacy School Graduates Remaining In Virginia. Only limited analysis of Virginia's pharmacist supply trends could be undertaken due to data limitations; Virginia's pharmacy schools do not maintain information on the practice sites of their graduates and the Board of Pharmacy does not collect information on the state in which currently-licensed pharmacists trained.

Virginia Licenses Approximately 9,600 Pharmacists; 6,700 Locate in the Commonwealth

At the end of FY 2008, 9,636 pharmacists were licensed in Virginia, according to the Department of Health Professions. An independent analysis by the National Center for the Analysis of Healthcare Data (NCAHD) found that 6,681 pharmacists had addresses of record located in Virginia as shown in Figure 23.

Figure 23: Virginia In-State Pharmacist Locations[109]



[107] *Id.*
[108] *Id.* and tuition and fees do not include room and board charges. Tuition and fees for Hampton students in the first two years of professional training are lower than final two years; the $21,579 amount shown here is an average for the four years for students not living on campus.
[109] NCAHD analysis of DHP data. These data were collected for license administration purposes only and cannot be relied upon solely to inform about actual work site location.

As shown in Figure 24, Virginia's had 86 licensed pharmacists located in Virginia per 100,000 persons.[110] The northwest region had the fewest pharmacists per population with 71 per 100,000 persons. Central Virginia had the highest ratio with 118 per 100,000.

Figure 24: Licensed Pharmacists Located in Virginia by Region[111]

	Pharmacists	Pharmacists per 100,000
Central	1561	118
Eastern	1394	77
Northern	862	80
Northwest	1688	71
Southwest	1176	89
Virginia	**6681**	**86**

Pharmacists' Changing Roles Have Fueled an Increased Demand

Pharmacists' roles have changed over time and that has increased the demand for pharmacists. Some of the changes include the expansion of: (i) job opportunities beyond the traditional community and hospital pharmacists, (ii) the number of prescriptions that are being filled; and (iii) the number of chain drug stores being opened.

Increased Job Opportunities. The traditional view of a pharmacist working in a community or hospital pharmacy has changed dramatically. Now, pharmacists are employed in a wide range of pharmacy-related roles, including positions with managed care organizations/insurance companies, consulting firms, mail order pharmacies, computer technology firms, and as pharmacy benefit managers. These expanded career paths increase the competition among community and hospital pharmacies for a limited number of pharmacists.

Increasing Number of Prescriptions. The number of filled prescriptions has increased substantially in recent years. The National Association of Chain Drug Stores estimates that the volume of prescription drugs increased from 2.9 billion in 2000 to 3.4 billion in 2005, a 17% increase in five years. Health experts note that as the percentage of those 65 and older grows demand for medication will increase.[112]

Increasing Number of Pharmacies. There has been a recent increase in the number of chain drug stores, many of which are open 24 hours per day. The Chain Pharmacy Industry Profile reported that the number of chain pharmacies increased from 18,165 in 1995 to 21,349 in 2005 an 18% increase. This growth along with increases in other community retail pharmacy outlets has caused some to question whether there is a shortage of pharmacists or a surplus of drug stores.

National Pharmacist Studies

In 2000, HRSA reported that there would be a pharmacist shortage. By 2006, pharmacist supply projections had significantly increased by 50,000 pharmacists through changing pharmacist retirement patterns, the opening of new pharmacy schools and increasing class size

[110] JCHC analysis determined Virginia's average licensed pharmacist located in-state.
[111] *Id.*
[112] HRSA, Adequacy of Pharmacist Supply: 2004-2030 (December 2008)

of existing schools.[113] HRSA's study indicated a moderate shortfall of pharmacists and that "the future supply is projected to grow at a rate similar to the projected growth in demand from the changing demographics."[114] No specific findings were made concerning Virginia.

Evidence Does Not Suggest a Pharmacist Shortage in Virginia. There is no strong evidence of a pharmacist shortage in Virginia. While some Virginia businesses have difficulty recruiting pharmacists at a particular salary, that in itself does not indicate a shortage. Increased demand for pharmacy services is currently addressed through additional pharmacists entering the workforce as well as an increased use of pharmacy technicians and using technology to increased pharmacist productivity.[115] Also maldistribution is a less significant issue for pharmacists' services since many individuals now receive their prescriptions through the mail.

Furthermore, Virginia has a better pharmacist pipeline than most states. Nationally, there are 112 pharmacy schools within the United States. The four schools of pharmacy place Virginia in a tie for the 7th largest number of such schools in one state.[116] There are 112 pharmacy schools in the U.S. for an average of 2.2 schools per state.[117]

The Medication Therapy Management (MTM) Program is Under-Utilized

Since 2006, Medicare reimbursement has been available to encourage pharmacists to consult with certain Part D beneficiaries through the MTM program. MTM involves consultative services provided to help patients optimize their therapeutic outcomes through improved medication use. MTM reimbursement is available for consulting with Medicare beneficiaries who have multiple chronic diseases and are taking medications that are expected to result in the beneficiary incurring more than $4,000 in Part D prescription costs in a year.[118] The three most common conditions suffered by those who receive MTM are diabetes, heart failure, and hypertension.[119] Examples of MTM pharmacist services include:[120]

- Performing or obtaining necessary assessments of the patient's health status;
- Formulating a medication treatment plan;
- Selecting, initiating, modifying, or administering medication therapy;
- Monitoring and evaluating the patient's response to therapy, including safety and effectiveness;
- Performing a comprehensive medication review to identify, resolve, and prevent medication-related problems, including adverse drug events;
- Documenting the care delivered and communicating essential information to the patient's other primary care providers;
- Providing verbal education and training designed to enhance patient understanding and appropriate use of his/her medications;

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[113] *Id.*
[114] Also noted is that projections are uncertain and only under optimistic supply projections with conservative demand projections is future national supply adequate to meet demand.
[115] *Supra* note 112.
[116] American Association of the Colleges of Pharmacy, Academic Pharmacy's Vital Statistics at http://www.aacp.org/about/Pages/Vitalstats.aspx.
[117] JCHC analysis.
[118] CMS, Medicare Part D Medication Therapy Management (MTM) Programs 2009 Fact Sheet Updated: July 21, 2009 at http://www.cms.hhs.gov/PrescriptionDrugCovContra/Downloads/MTMFactSheet.pdf.
[119] *Id.*
[120] Approved definition by Academy of Managed Care Pharmacy, the American Association of Colleges of Pharmacy, the American College of Apothecaries, the American College of Clinical Pharmacy, the American Society of Consultant Pharmacists, the American Pharmacists Association, the American Society of Health-System Pharmacists, the National Association of Boards of Pharmacy, the National Association of Chain Drug Stores, the National Community Pharmacists Association and the National Council of State Pharmacy Association Executives at *www.accp.com/docs/positions/misc/MTMDefn.pdf*.

- Providing information, support services and resources designed to enhance patient adherence with his/her therapeutic regimens; and
- Coordinating and integrating medication therapy management services within the broader health care-management services being provided to the patient.

While MTM services would be useful for many Medicare beneficiaries, this study found that a number of pharmacists and organizations who routinely work on prescription issues with Medicare beneficiaries were not aware of the program. An option suggesting ways to disseminate information about MTM was developed for consideration.

Chapter VI. Policy Options and Public Comments

In September 2009, JCHC staff presented 19 options to address Virginia's health workforce issues to the JCHC for consideration. The options are categorized into three types of general approaches: increasing funding, reviewing scope of practice, and working with other organizations and agencies as noted below.

Policy Options Address Three Types of Approaches			
	Consider Increasing Appropriations	Review Scope of Practice	Work with Existing Organizations and Agencies
Physicians	2, 3, 4, 5, 7	11	6, 8, 9, 10, 12, 13
Dentists	18	-	17
Mental Health Professionals	-	15	12, 13, 14, 16
Pharmacists	-	-	19

Public Comments on Policy Options

Public comment on the proposed options was requested and 29 comments from the following individuals (and any organizations they represent) were received:

- Anita L. Auerbach, Ph.D., Chair of the RxP (Prescription Privileges) Task Force for the Virginia Academy of Clinical Psychologists
- Ellen Austin-Prillaman RDH, President of the American Dental Hygienists' Association
- Dr. John Ball, Ph.D., Clinical Psychologist
- Mary Ann Bergeron, Executive Director of the Virginia Association of Community Service Boards
- Catherine Bodkin, Licensed Clinical Social Worker
- Tegwyn H. Brickhouse D.D.S., Ph.D., and Chair of the Virginians for Improving Access to Dental Care
- Kay Crane, CEO of the Piedmont Access to Health Services
- James F. Dee, M.D. , President of the Northern Virginia Chapter of the Washington Psychiatric Society
- Steven T. DeKosky, M.D., Vice President and Dean of the University of Virginia School of Medicine
- Terry Dickenson, D.D.S., Executive Director of the Virginia Dental Association
- Thomas W. Eppes, Jr., M.D, President of the Medical Society of Virginia
- Baltij Gill, M.D., President of the Virginia Association of Community Psychiatrists
- Roger Hofford, M.D., Program Director of the Carilion Clinic Family Medicine Residency
- Anton Kuzel, M.D, Chair of Department of Family Medicine, Virginia Commonwealth University
- Janet McDaniel, Ph.D., M.P.H., Chair of the Workforce Council for Virginia's State Rural Health Plan

- Asha S. Mishra, MD, DFAPA, Medical Director of Chesterfield CSB and Professor of Psychiatry, VCU Health System
- J. Edwin Nieves, M.D., President of the Psychiatric Society of Virginia
- Peter J. Pagnussi, M.D., President of the Virginia College of Emergency Physicians
- Cathleen A. Rea, Ph.D., Chair of the Licensure Task Force for the Virginia Academy of Clinical Psychologists
- Karen S. Rheuban, M.D., and President of the Virginia Telehealth Network
- Debra A. Riggs, Executive Director of the Virginia Chapter of the National Association of Social Workers
- Sandra Whitley Ryals, Director of the Department of Health Professions
- Rick Shinn, Director of Public Affairs, Virginia Community Healthcare Association
- Mira Singer, Executive Director of the National Alliance on Mental Illness
- Bela Sood, M.D., President of the Virginia Chapter of the American Academy of Child and Adolescent Psychiatry
- Robert Strange, M.D., Psychiatrist
- Marcia A. Tetterton, M.S., Executive Director of the Virginia Association of Home Care and Hospice
- Dixie Tooke-Rawlins D.O., Dean and Executive. Vice President of the Via Virginia College of Osteopathic Medicine
- James L. Werth, Jr. Ph.D., Professor of Psychology and Director of the Doctor of Psychology Program in Counseling Psychology, Radford University

The distribution of the public comments that were submitted is shown below:

Distribution of Public Comments Received

Policy Option	Support	Conditional Support	Oppose
1	0	0	0
2	**9**	0	0
3	**8**	0	0
4	**7**	0	0
5	**7**	0	0
6	**4**	**2**	0
7	**5**	0	0
8	**4**	**1**	0
9	**2**	**1**	0
10	**4**	0	0
11	**2**	0	**2**
12	**7**	0	0
13	**5**	0	0
14	**4**	0	0
15	**2**	0	**9**
16	**3**	**1**	0
17	**3**	**1**	0
18	**6**	0	0
19	**2**	0	0

As shown, Policy Option 2 received the largest number of comments in support (9) with none opposing. Options 2-19 received at least 2 comments of unconditional support; the Options proposing an increase in appropriations (Options 2-5, 7, 18) generally received the largest number of supportive comments and no comments in opposition. Conditional support (for Options 6, 8, 9, 16, 17) entailed three types of changes in the options: additional entities that should be included, requests to entities to promote education using the "most appropriate venue," and clarifying the data to be collected. Option 15 (to study whether to allow prescriptive authority for clinical psychologists under stipulated conditions) received the largest number of comments in opposition (9) and 2 comments in support.

JCHC Actions Taken on Policy Options

JCHC members voted to approve 16 of the proposed options, while voting to oppose Options 1, 11, and 15.

X **Option 1:** Take no action.

Option 2: When state revenue allows, ~~restore~~ consider a budget amendment to restore funding for the State Loan Repayment Program (SLRP) & Virginia Loan Repayment Program (VLRP).

9 commented in support:

Roger Hofford, Family Medicine Residency Director
VA Chapter: National Association of Social Workers
UVA Health System
VA Community Healthcare Association
VA State Rural Health Plan's Workforce Council
Medical Society of Virginia
Piedmont Access to Health Services
VA College of Emergency Physicians
VCU Dept. of Family Medicine

Option 3: When state revenue allows, increase dedicated funding for the EVMS, UVA and VCU Family Practice Residency Programs.

8 commented in support:

Roger Hofford, Family Medicine Residency Director
Piedmont Access to Health Services
Via College of Osteopathic Medicine
VCU Dept. of Family Medicine
Medical Society of Virginia
UVA Health System
VA Community Healthcare Association
VA State Rural Health Plan's Workforce Council

Option 4: Request by letter of the JCHC Chairman that the Department of Medical Assistance Services (DMAS) develop and report on a methodology and cost estimate for providing enhanced Direct Medical Education (DME) and Indirect Medical Education (IME) payments to graduate medical programs in Virginia that train primary care, general surgery, psychiatrists, and emergency medicine physicians. The letter would include a request that DMAS present its report to JCHC by August 30, 2011. *(Enhanced payments are expected to increase state Medicaid costs to some degree.)*

7 commented in support:

Roger Hofford, Family Medicine Residency Director
UVA Health System
VA College of Emergency Physicians
VA State Rural Health Plan's Workforce Council
Medical Society of Virginia
Via College of Osteopathic Medicine
VCU Dept. of Family Medicine

Option 5: When state revenue allows ~~introduce~~ consider a budget amendment (language and funding) to increase Medicaid reimbursement rates to match the level of Medicare reimbursement rates for primary care physicians.

7 commented in support:

Medical Society of Virginia
Piedmont Access to Health Services

Via College of Osteopathic Medicine
VCU Dept. of Family Medicine
VA State Rural Health Plan's Workforce Council
VA College of Emergency Physicians
VA Association of Community Service Boards

☑ **Option 6:** Request by letter of the JCHC Chairman that the medical schools at Eastern Virginia Medical School, University of Virginia, ~~and~~ Virginia Commonwealth University, Edward Via Virginia College of Osteopathic Medicine, and Virginia Tech Carilion School of Medicine and Research Institute make efforts to increase their enrollment of medical students from rural communities in Virginia and individuals with an interest in serving underserved and minority populations.

4 commented in support:
Roger Hofford, Family Medicine Residency Director
VCU Dept. of Family Medicine
VA Community Health Association
VA State Rural Health Plan's Workforce Council

2 commented in conditional support:
Medical Society of Virginia
Via College of Osteopathic Medicine

☑ **Option 7:** When state revenue allows, ~~introduce~~ consider a budget amendment (language and funding) to allow the Department of Health Professions to develop a continuing medical education course focusing on medication issues of geriatric patients targeted for primary care physicians. The objective would be for the course to be offered online and at no cost to Virginia licensed physicians.

5 commented in support:
Roger Hofford, Family Medicine Residency Director
UVA Health System
VA State Rural Health Plan's Workforce Council
Medical Society of Virginia
VA Assn of Community Service Boards

☑ **Option 8:** Request by letter of the JCHC Chairman that the Board of Medicine include and promote geriatric care issues among its online educational resources and/or most appropriate venue.

4 commented in support:
Roger Hofford, Family Medicine Residency Director
VA Assn of Community Service Boards
UVA Health System
VA State Rural Health Plan's Workforce Council

1 commented in conditional support:
Medical Society of Virginia

☑ **Option 9:** Request by letter of the JCHC Chairman that the Virginia Chapter of the American College of Physicians include and promote geriatric care issues among its online educational resources and/or most appropriate venue.

2 commented in support:
UVA Health System
VA State Rural Health Plan's Workforce Council

1 commented in conditional support:
Medical Society of Virginia

☑ **Option 10:** Request by letter of the JCHC Chairman that the Virginia Academy of Family Physicians continue to promote geriatric training among its membership.

4 commented in support:
Roger Hofford, Family Medicine Residency Director
UVA Health System
Medical Society of Virginia
VA State Rural Health Plan's Workforce Council

☒ **Option 11:** Include in the 2010 JCHC work plan, a study of the prevalence, distribution and scope of practice for nurse practitioners and physician assistants in Virginia.

2 commented in support:

UVA Health System
VA State Rural Health Plan's Workforce Council

2 commented in opposition:
Medical Society of Virginia
Via College of Osteopathic Medicine

☑ **Option 12:** Send a letter from JCHC Chairman to the Special Advisory Commission on Mandated Health Insurance Benefits to support SB 1458 (Wampler) and HB 2191 (Philips) which require health insurers, health care subscription plans, and health maintenance organizations provide coverage for the cost of telemedicine services.

7 commented in support:
UVA Health System
Via College of Osteopathic Medicine
VA Chapter: National Association of Social Workers
VA Assn of Community Service Boards
VA Community Health Association
VA Telehealth Network
VA State Rural Health Plan's Workforce Council

☑ **Option 13:** Request by letter of the JCHC Chairman that the Department of Human Resource Management consider and if appropriate conduct pilot programs for selected telemedicine-covered services within the state employee health insurance program. Consideration should be given to obstetric care for high-risk pregnancies, telestroke services, and telepsychiatry.

5 commented in support:
Via College of Osteopathic Medicine
VA Assn of Community Service Boards
VA Chapter: National Association of Social Workers
VA Telehealth Network
VA State Rural Health Plan's Workforce Council

☑ **Option 14:** Request by letter of the JCHC Chairman that the Department of Behavioral Health and Developmental Services (DBHDS) report regarding the Department's current and historical utilization of telemedicine and telepsychiatry services, effectiveness of such services, locations offering such services, use of telemedicine by CSB providers, and impediments to greater adoption and usage by the Department and CSBs. This letter would include a request that DBHDS present a report to JCHC by August 30, 2010.

4 commented in support:
Via College of Osteopathic Medicine
VA Assn of Community Service Boards
VA State Rural Health Plan's Workforce Council
VA Telehealth Network

☒ **Option 15:** Introduce a joint-resolution requesting that JCHC convene a task force to review allowing qualified clinical psychologists to prescribe psychopharmacological medications and report to JCHC. The report will detail licensure and educational requirements, oversight structure, changes to licensure and regulatory oversight processes, medications that may be prescribed, requirements for physician review and/or oversight for prescribing medications. The resolution would require an interim report to JCHC in 2010 with a final report by September 1, 2011. Task force participants include:

-- Board of Medicine
- Board of Pharmacy
- Board of Psychology
- Medical Society of Virginia
- Psychiatric Society of Virginia
- Virginia Psychological Association
- Virginia Pharmacists Association

2 commented in support:
RxP (Prescription Privileges) Task Force for the VA Academy of Clinical Psychologists
VA State Rural Health Plan's Workforce Council

9 commented in opposition:
Medical Society of Virginia
Asha Mishra, CSB Medical Director
National Alliance on Mental Illness
NOVA Chapter: Washington Psychiatric Society
Psychiatric Society of Virginia
Robert Strange, Psychiatrist
Via College of Osteopathic Medicine
VA Association of Community Psychiatrists
VA Chapter: American Academy of Child and Adolescent Psychiatry

Option 16: Request by letter of the JCHC Chairman that the Department of Health Professions improve the information collected and compiled about clinical psychologists which is retained in the Healthcare Workforce Data Center.

3 commented in support:
Department of Health Professions
Medical Society of Virginia
Via College of Osteopathic Medicine

1 commented in conditional support:
VA State Rural Health Plan's Workforce Council

Option 17: Request by letter of the JCHC Chairman that the Department of Health Professions improve the information collected and compiled about dentists which is retained in the Healthcare Workforce Data Center.

3 commented in support:
Department of Health Professions
Via College of Osteopathic Medicine
VA Dental Association

1 commented in conditional support:
VA State Rural Health Plan's Workforce Council

Option 18: When state revenue allows consider a budget amendment (language and funding) to extend basic dental benefits to adults eligible for Medicaid.

6 commented in support:
Roger Hofford, Family Medicine Residency Director
Via College of Osteopathic Medicine
VA Community Health Association
VA Dental Association
VA State Rural Health Plan's Workforce Council
Virginians for Improving Access to Dental Care

Option 19: Request by letter of the JCHC Chairman that the Virginia Pharmacists Association, the Virginia Department for the Aging, and local area agencies on Aging collaborate to provide and disseminate information about Medicare's Medication Therapy Management (MTM) program to pharmacists, prescription counselors, and Medicare beneficiaries that qualify for MTM services.

2 commented in support:
Via College of Osteopathic Medicine
VA State Rural Health Plan's Workforce Council

Virginia's Health Care Workforce: Present and Future Need

Physicians, Psychiatrists, Dentists, Clinical Psychologists and Pharmacists

Joint Commission on Health Care
September 1, 2009

Stephen W. Bowman
Senior Staff Attorney/Methodologist

Agenda

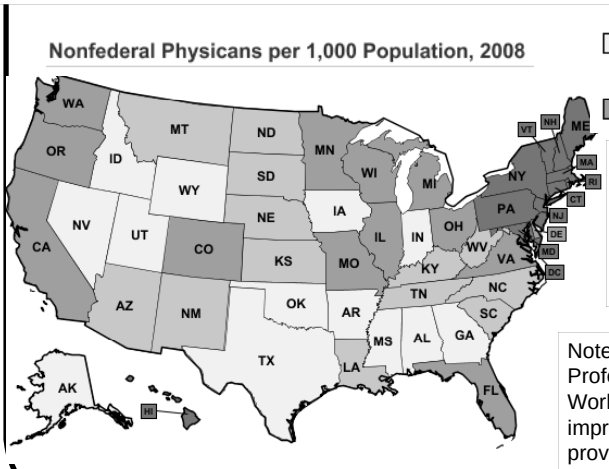
- Purpose
- Demand and Supply
- Shortages
- Avenues to Address Shortages and Maldistribution
- Policy Options

Purpose

- Health professional workforce planning should be forward looking
  - Free-market outcomes do not always meet state needs
    - Rural and underserved areas are less attractive to many providers
    - Lucrative specialty fields are not necessarily the most needed
  - State government is involved in the education and placement of health professionals
- State government efforts should focus on the most essential health professional areas

Demand and Supply

Health Care Professionals Are Part of the National Market



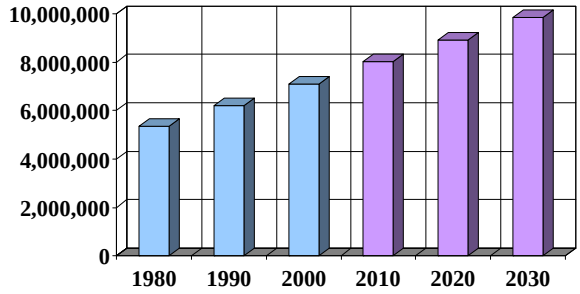
Virginia has 3.1 physicians per 1,000 people - 20th in U.S. (U.S. Avg. 3.3) *(Kaiser Family Foundation citing American Medical Association (AMA 2008))*

Note: Department of Health Professions Health Care Workforce Data Center is improving the quality of provider information

Source: Kaiser Family Foundation State Health Facts 2008 http://www.statehealthfacts.org/comparemaptable.jsp?ind=689&cat=8

Virginia's Increasing Population Will Increase the Need for Health Care Services

Virginia Population 1980-2030



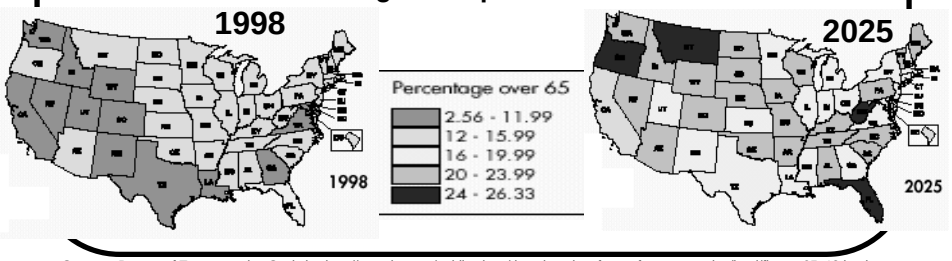
Every year, 281 additional physicians are needed to meet Virginia's current level of 3.1 per 1,000 *(AMA estimate).* This does not include physicians needed to replace those retiring or moving.

Sources: Virginia Workforce Connection Demographic Information accessed 8-15-09 and JCHC Analysis

Aging Demographic: Virginia Is Graying and Older Persons Use More Healthcare Services

- As compared to the national average of physicians to population:
  - Individuals 65-74 require over 2x
  - Individuals 75+ require over 3x

Percentage of Population over 65



Sources: Bureau of Transportation Statistics http://www.bts.gov/publications/the_changing_face_of_transportation/html/figure_05_18.html
U.S. Department of Health and Human Services, http://bhpr.hrsa.gov/healthworkforce/reports/physiciansupplydemand/growthandaging.htm

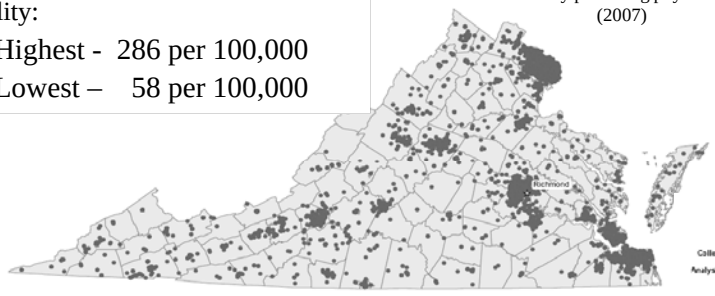
Shortages

Virginia Has Physician, Dentist and Mental Health Shortages

	Shortage	Policy Options
Physician		
Primary Care	**Yes**	**2,3,4,5, 6,11,12**
Geriatric Care	**Yes**	**7, 8, 9, 10,12**
Psychiatry	**Yes**	**2,4,12,13,14**
Emergency Medicine	**Yes**	**4**
General Surgery	**Yes**	**4**
Dentists	**Yes**	**17,18**
Mental Health Professionals (Clinical Psychologist a part of addressing the shortage)	**Yes**	**2,4,13,14,15,16**
Pharmacists	**No**	**19**

Majority of Physicians Are Located in the More Urban Localities

- Shortage analyses need to focus on state regions and localities not just state averages
- Physician to population ratios by locality:
  - Highest - 286 per 100,000
  - Lowest – 58 per 100,000



Sources: Physician Supply and Requirements in Virginia, 2010 and 2015, Mick, Nayar, and Caretta, July 2007 and Virginia Department of Health Professions (2007)*
* These data were collected for license administration purposes only and cannot be relied upon solely to inform about actual work site location.

Southwestern Virginia has 26 Specialties that are less than 75% of Their Respective State Averages

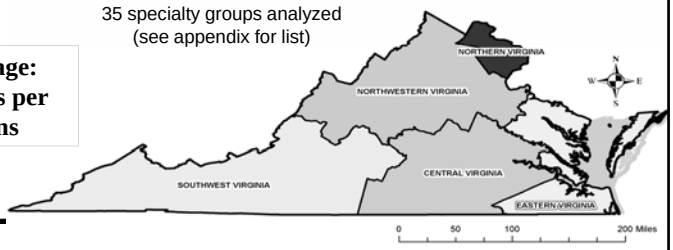
PHYSICIAN

Regions	Physician per 100,000 persons	# of Specialty areas less than state average	# of Specialty areas less than 75% of state average
Central	235	12	3
Eastern	217	17	4
Northern	219	14	4
Northwestern	226	11	2
Southwestern	185	30	26

All analyses refer to physician to population ratios

35 specialty groups analyzed (see appendix for list)

Virginia Average: 221 Physicians per 100,000 persons

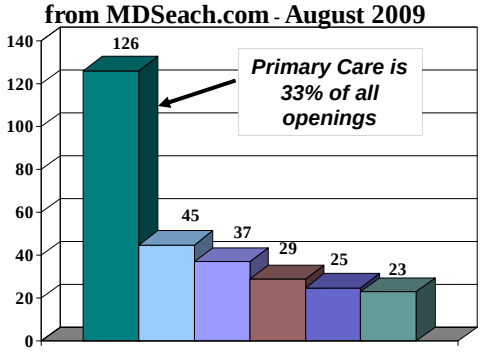


Source: JCHC analysis. Data source: Virginia Department of Health Professions (Q1, 2008 with data refinement assistance from VDH)*
* These data were collected for license administration purposes only and cannot be relied upon solely to inform about actual work site location.

Job Openings Analysis - Primary Care Physicians are Most in Demand in Virginia

PHYSICIAN

Top 6 Statewide Physician Openings from MDSeach.com - August 2009



Primary Care is 33% of all openings

1. Primary Care	126
2. Cardiology	45
3. Orthopedic Surgery	37
4. Hospitalist	29
5. General Surgery	*25*
6. Emergency Medicine	*23*

Rural and Underserved Areas

Primary Care Opportunities accounted for 63% (33) Openings on 3RNet

Emergency Medicine and General Surgery Physicians are needed in every region

Source: Additional JCHC analysis

Source: JCHC Analysis of Physician openings from referenced websites (August 2009)

Needs Analysis - Virginia has Primary Care Shortage Areas in 80 Localities

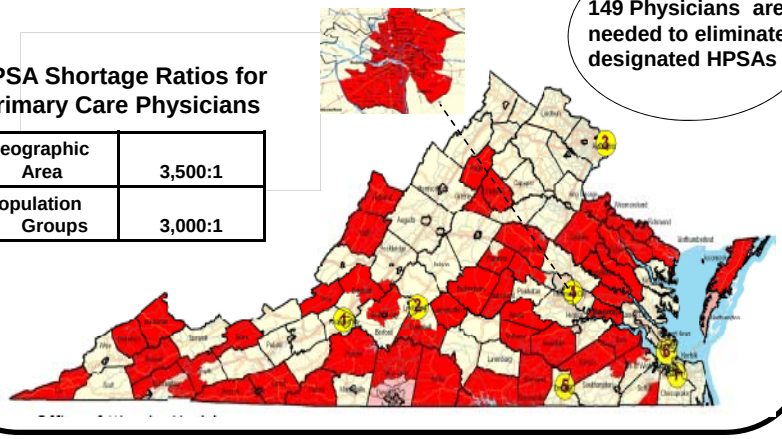
PHYSICIAN

Primary Care Health Professional Shortage Areas

149 Physicians are needed to eliminate designated HPSAs

HPSA Shortage Ratios for Primary Care Physicians

Geographic Area	3,500:1
Population Groups	3,000:1

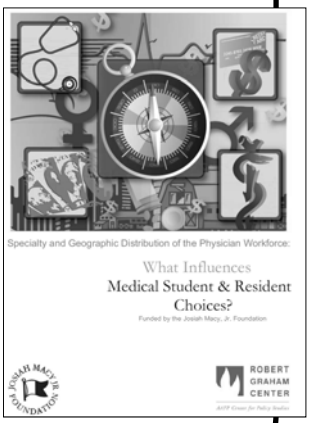


Sources: VDH Primary Care Health Professional Shortage Areas (HPSA), http://www.vdh.state.va.us/healthpolicy/primarycare/shortagedesignations/index.htm,

What Influences Medical Student & Resident Choices?

PHYSICIAN

- Income gap between primary care and specialists
- Likelihood of students choosing primary care, rural and underserved careers significantly increased by:
  - Rural birth
  - Interest in serving underserved or minority populations
  - Exposure to Title VII in medical school
  - Rural or inner-city training experiences



Current and Future Geriatrician Shortages Mean Other Physicians Will Fill the Gap

PHYSICIAN

- Geriatricians
  - Needed nationwide: 20,000
  - Supplied: 7,100

Retirements are coming - Geriatricians are older than the average physician

- Primary Care physicians will provide increasing amounts of geriatric care

Additional Education and Training for Primary Care Physicians that Provide Care to Geriatric Patients Is Important

- Geriatricians training: 1 year fellowship
  - Topics include:
    - Physiology of aging
    - Illnesses common among older persons
    - Treatment and management of older adults in acute care, long-term care, community-based, and home-care settings
    - Assessment of cognitive status and mood in the elderly.

A Shortage of Geriatricians in Virginia: Report to the Joint Commission on Health Care, Dr. Jonathan Evans, October 17, 2007 and the American Geriatric Society website - http://www.americangeriatrics.org/news/geria_faqs.shtml#3

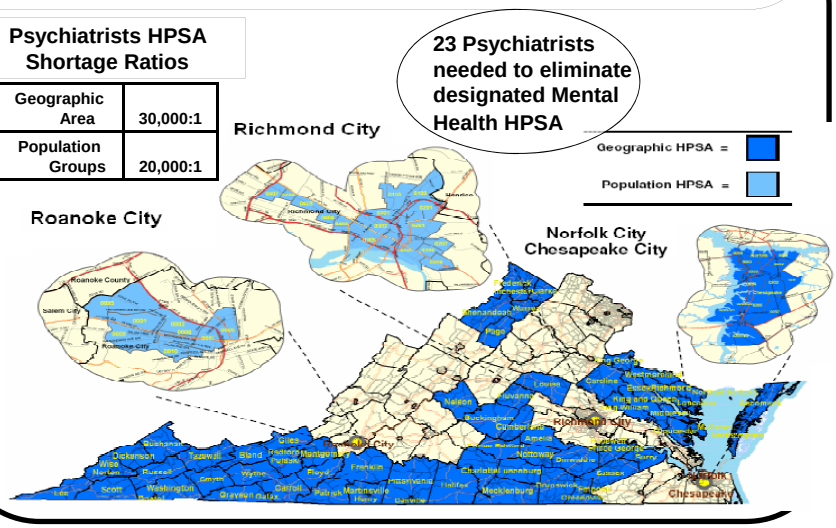
Needs Analysis: Virginia has Mental Health Shortage Areas in 86 Localities

MENTAL HEALTH

Psychiatrists HPSA Shortage Ratios

Geographic Area	30,000:1
Population Groups	20,000:1

23 Psychiatrists needed to eliminate designated Mental Health HPSA



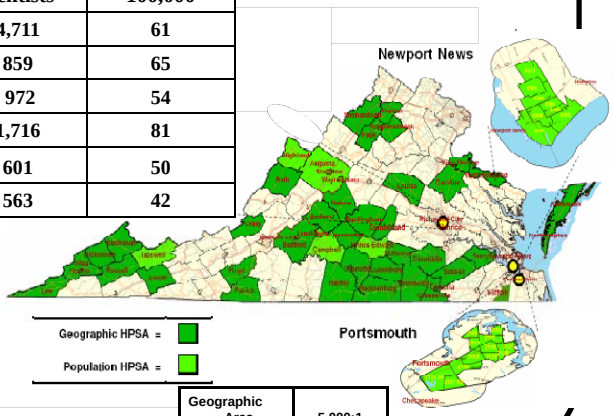
Sources: Addressing Virginia's Mental Health Workforce Shortages, VDH, Mental Health Roundtable May 20, 2009 and http://bhpr.hrsa.gov/shortage/hpsaguidement.htm

Needs Analysis: Virginia has Dental Shortage Areas in 61 Localities

DENTIST

	# of Dentists	Dentists per 100,000
Virginia	4,711	61
Central	859	65
Eastern	972	54
Northern	1,716	81
Northwestern	601	50
Southwestern	563	42

162 Dentists needed to eliminate designated Dental HPSA



HPSA Shortage Ratios for Dentists	
Geographic Area	5,000:1
Population Groups	4,000:1

Sources: VDH Dental Health Professional Shortage Areas (DHPSA), http://www.vdh.state.va.us/healthpolicy/primarycare/shortagedesignations/index.htm, and http://bhpr.hrsa.gov/shortage/hpsaguidement.htm. Virginia Department of Health Professions (2008)* and analyzed by the National Center for the Analysis of Healthcare Data
* These data were collected for license administration purposes only and cannot be relied upon solely to inform about actual work site location.

Estimates of Pharmacist Shortages Have Changed Recently

PHARMACIST

2008 HRSA Study National Findings

- Supply is growing faster than was previously estimated in 2002 study
- Demand is continuing to rise
- Moderate shortfall of pharmacists
- "If per capita consumption …remains unchanged, then projected future supply will be adequate to meet the demands of a growing and aging population"

Source: HRSA: The Adequacy of Pharmacist Supply: 2004 to 2030 (2008)

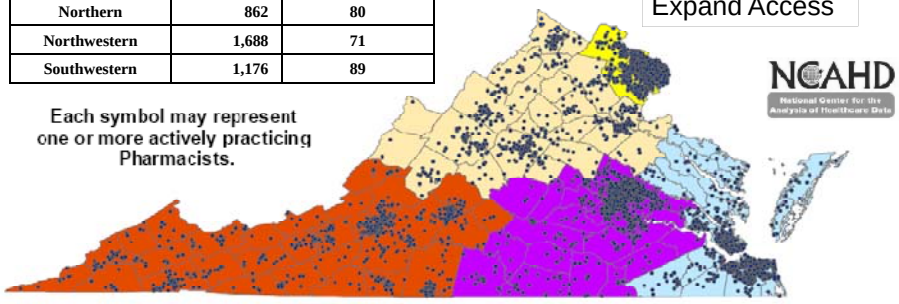
Virginia In-State Pharmacists' Locations

PHARMACIST

6,681 In-State Licensed Pharmacists
(86 per 100,000)

	Pharmacists	Pharmacists per 100,000
Central	1,561	118
Eastern	1,394	77
Northern	862	80
Northwestern	1,688	71
Southwestern	1,176	89

Note: Mail-order Pharmacies Expand Access



Data source: Virginia Department of Health Professions (2008)* and National Center for the Analysis of Healthcare Data

* These data were collected for license administration purposes only and cannot be relied upon solely to inform about actual work site location.

Avenues to Address Shortages and Maldistribution

J-1 Visa Waiver Program

PHYSICIAN

International Medical Graduates

- 3 year requirement for primary care practice in a federally designated health professional shortage area or a medically underserved area
- 30 slots annually
  - 18 slots typically
- Virginia costs – administrative only

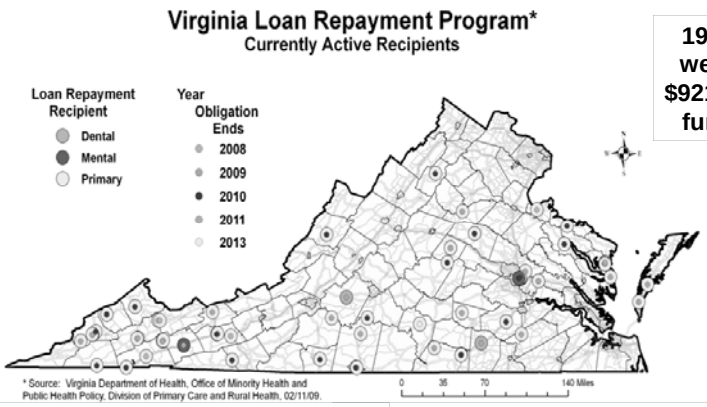
State Loan Repayment Programs

PHYSICIAN

- Total funding amount $50K to $120K
- State funding eliminated in FY10

Individual works in an underserved area

19 individuals were provided $921,998 in State funds in FY08



MENTAL HEALTH DENTIST

2,425 Students Were Enrolled in Virginia Medical Schools in 2008

	Total Enrollment *(2008)*	2008 entering class-size	% in-state 2008 entering class	2012 entering class-size *(Estimated)*	2008 Graduates
Eastern Virginia Medical School (Norfolk)	**445**	**115**	**64%**	**135**	**107**
University of Virginia School of Medicine (Charlottesville)	**559**	**145**	**54%**	**160**	**130**
Virginia Commonwealth University School of Medicine (Richmond)	**741**	**192**	**58%**	**192**	**181**
Edward Via Virginia College of Osteopathic Medicine - VCOM (Blacksburg)	**680**	**191**	**30%**	**191**	**139**
Virginia Tech Carilion School of Medicine (Roanoke) [Opens August 2010]	***200 (Expected)***	***40 (Expected)***			
Total (2008)	***2,425***	***643***	***50%***	***678***	***557***

PHYSICIAN

Sources: JCHC email correspondence with each institution and SCHEV. Va. Medical School Takes Shape, Smith and Hardy, Richmond Times Dispatch, January 3, 2007 & WSLS video report, McNew, May 22, 2008 http://www.wsls.com/sls/news/local/article/roanoke_medical_school_has_a_name/11444/

$50.6 Million General Funds Were Spent Toward Medical School Education in 2007-08

	Tuition in-state (2008-2009)	Tuition out-of-state (2008-2009)	2007-08 General funds* (in millions)	2007-08 Non-General funds* millions)	2007-08 General (in funds/per student*
Eastern Virginia Medical School (Norfolk)	**$ 23,980**	**$ 44,328**	**$ 15.1**	**$ 0**	**$ 33,786**
University of Virginia School of Medicine (Charlottesville)	**$ 32,650**	**$ 42,650**	**$ 16.6**	**$ 31.8**	**$ 29,733**
Virginia Commonwealth University School of Medicine (Richmond)	**$ 25,390**	**$ 38,892**	**$ 16.9**	**$ 20.8**	**$ 22,833**
Edward Via Virginia College of Osteopathic Medicine - VCOM (Blacksburg)	**$ 32,900**	**$ 32,900**	**$ 0**	**$ 0**	**$ 0**
Virginia Tech Carilion School of Medicine (Roanoke) [Opens August 2010]					
Total (2008)	***$ 28,794 (average)***	***$ 39,740 (average)***	***$ 50.6***	***$ 52.8***	

PHYSICIAN

* Totals do not include Family Practice Program (residencies) and Area Health Center funding

Sources: JCHC email correspondence with each institution and SCHEV. Va. Medical School Takes Shape, Smith and Hardy, Richmond Times Dispatch, January 3, 2007 & WSLS video report, McNew, May 22, 2008 http://www.wsls.com/sls/news/local/article/roanoke_medical_school_has_a_name/11444/

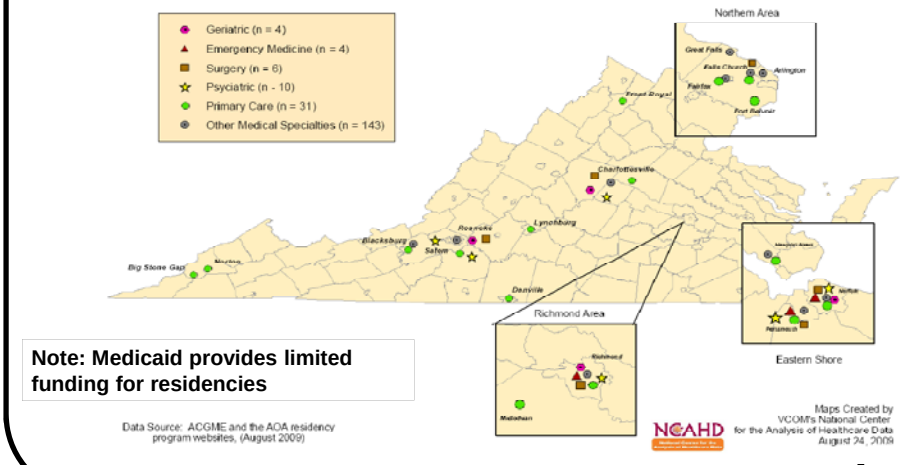
EVMS, UVA and VCU Medical Schools Had Over $1.2 Billion in Expenditures

	EVMS	UVA	VCU
Medical Students	440	551	734
Enrolled Masters Students	30	16	154
Enrolled PhD Students	26	404	263
Postdoctoral Fellows	6	406	147
Residents	290	516	629
Fellows	16	145	119
	(In Millions)		
Revenues	$203	$560	$429
Expenditures	$202	$544	$412
State Funding and Parent Contributions	$ 17	$ 42	$ 52
Practice Plan Revenues	$ 89	$181	$139
Direct Federal Grants and Contracts	$ 22	$108	$ 50

Sources: AAMC Longitudinal Statistical Summary Reports for 2008 for EVMS, UVA and VCU

PHYSICIAN

Virginia Has 198 Medical Residency Programs in 19 Locations



Note: Medicaid provides limited funding for residencies

Source: 2007 State Physician Workforce Data Book

UVA and VCU Have Dedicated Funding for Family Practice Residency Programs

- Dedicated funding: Chapter 291 (2009)
  - UVA - $1,983,202
  - VCU - $5,932,772
- 61% of physicians that complete Virginia family practice residencies will practice in Virginia

Investment Needed for 1 Primary Care Physician Practicing in Virginia

	Medical Schools: EVMS, UVA, & VCU (2008)	Family Practice Residency Programs: UVA & VCU	J-1 Visa Waiver	State Loan Repayment Programs (FY08)
State Funding (2008)	$50,600,000	$7,915,974	admin*	$921,988
Program Participants	1,745	183	18	19
Average State Funding per Year per Participant	$28,997	$43,257	admin*	$48,526
Average Years to Program Completion	4	3	3	4
State Funds Per Participant Per Program Completion	$115,989	$129,770	admin*	$194,104
% Likely to practice Virginia	35%	61%	40%	76%
State Investment to Develop 1 Physician that Practices In-state	$331,396	$212,738	minimal*	$255,401
% Physicians Initially Specializing in Primary Care	38.6%	100%	100%	100%
State Investment to Develop 1 Primary Care Physician that Practices In-state	$858,938	$212,738	minimal*	$255,401

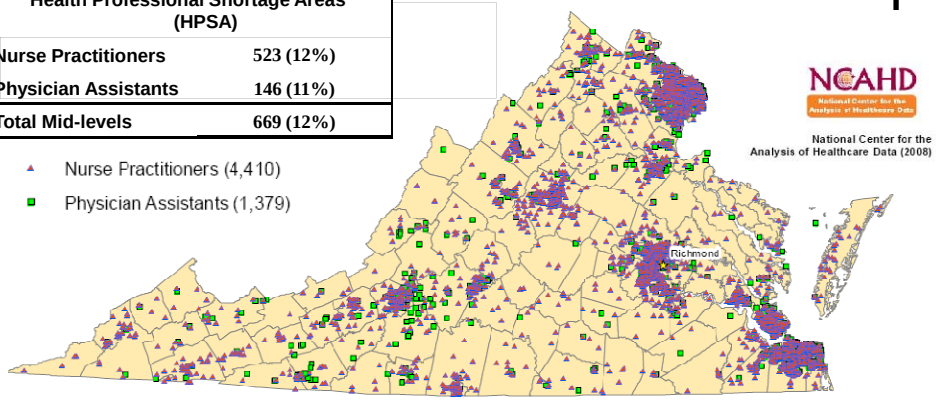
Pink Denotes Addressing Maldistribution Best

JCHC Analysis - sources: JCHC files

Expanding Scope of Practice for Nurse-Practitioners and Physician Assistants Can Address Shortage Issues

Licensed Nurse Practitioners and Physician Assistants

Health Professional Shortage Areas (HPSA)	
Nurse Practitioners	523 (12%)
Physician Assistants	146 (11%)
Total Mid-levels	669 (12%)



Data sources: Virginia Department of Health Professions (2008)* and National Center for the Analysis of Healthcare Data
These data were collected for license administration purposes only and cannot be relied upon solely to inform about actual work site location.
Health Professional Shortage Areas (Primary Care) from 2006 HRSA Shortage Designation Branch

Virginia Supports Geriatric Training for Physician and Non-Physician Populations

PHYSICIAN

Geriatric Training and Education

- $356,250 appropriated (FY08)
  - Redistributed by the Virginia Center on Aging
- Funds are to develop the skills and capacities of the gerontological and geriatric workforce

Examples of 2008-09 Grants Targeted:

- Health care professionals
- Medical Residents
- Nurses
- Nursing home staff
- Physicians
- Pharmacists

Proposed Legislation: Authority to take over Duties of Statewide Area Health Education Centers Program

HOUSE BILL NO. 2142
Offered January 14, 2009
Prefiled January 13, 2009

(Nutter)

Currently under study with revised language forthcoming in time for 2010 Session

Statewide Healthcare Workforce Authority mission

I. develop health careers recruitment programs for Virginia's students,
II. support the community-based training of primary care health professions students, residents, and other health professions students in Virginia's underserved communities;
III. provide educational and practice support systems for the Commonwealth's primary care providers;
IV. support recruitment and retention efforts of primary care, mental health, and dental professionals for underserved areas of the Commonwealth; and
V. collaborate with health, education, public health, and human services organizations to facilitate and promote improved health education and disease prevention among the citizens of the Commonwealth.

PHYSICIAN | MENTAL HEALTH | DENTIST

Telemedicine Can Expand Care to Underserved Regions

PHYSICIAN

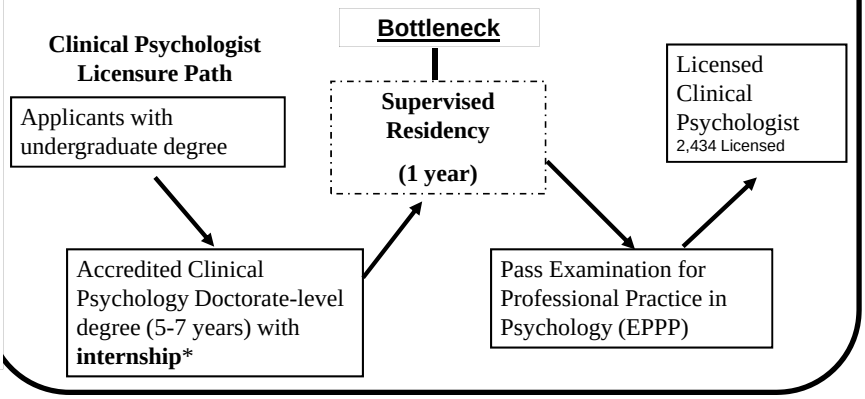
- Mandated Insurance Coverage
  - SB 1458(Wampler) and HB 2191(Philips) are before the Special Advisory Commission on Mandated Health Insurance Benefits
- Telemedicine obstacles
  - Physician acceptance
  - Technological hardware
  - Physician payment for services

MENTAL HEALTH

Board of Psychology Likely to Review Eliminating the Residency Requirement and Increasing the Internship Requirement

MENTAL HEALTH

Typically insurance does not reimburse for services until Clinical Psychology graduate is licensed



*International applicants must meet the same requirements but previous coursework may be allowed if coursework and internship meets standards of an accredited clinical psychology doctoral degree.

Sources: Discussions with Virginia Board of Psychology and information on Virginia Department of Health Professions website, *End of Quarter Licenses in Effect* (Q4, 2008).

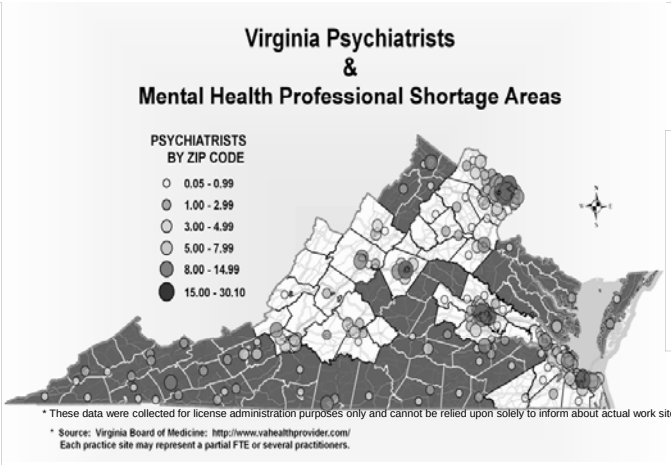
Allowing Clinical Psychologist to Prescribe Would Allow Greater Mental Health Access

MENTAL HEALTH

- Additional training for Licensed Clinical Psychologists:
  - Masters degree in clinical psychopharmacology
  - Year practicum under the supervision of a licensed physician
  - Pass exam
- Medical psychologist would only prescribe after consultation with and agreement of the patients primary care physician.
- New Mexico (2002) and Louisiana (2004) have allowed medical psychologists to prescribe and manage psychotropic drugs.
  - No complaints filed regarding any medical psychologist in either state
- In 2009, Oregon directed psychiatrist and psychologist representative organizations to develop an appropriate framework for medical psychologists licensure and report back to the legislature.

Distribution of Psychiatrists

MENTAL HEALTH



* These data were collected for license administration purposes only and cannot be relied upon solely to inform about actual work site location.

* Source: Virginia Board of Medicine: http://www.vahealthprovider.com/
Each practice site may represent a partial FTE or several practitioners.

Denotes Mental Health Professional Shortage Area

1,261 Psychiatrists in Virginia (AMA, 2005)

Shortages result in long wait times to see CSB psychiatrist. Wait averages:

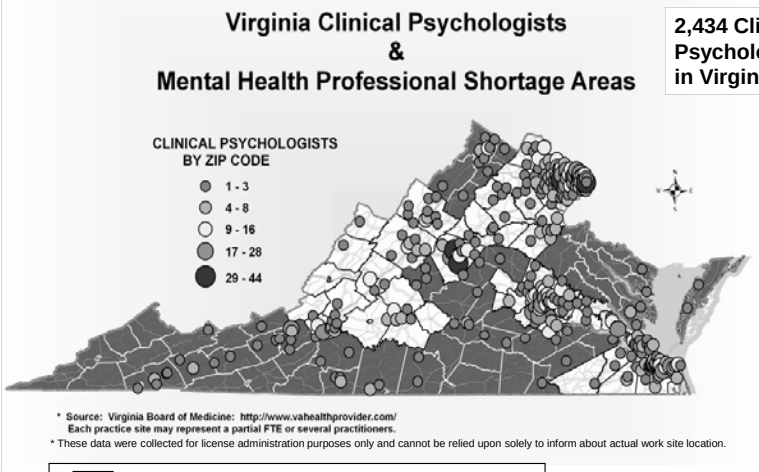
- **Adult 24 days**
- **Child 30 days**

-Availability and cost of Licensed Psychiatric Services in Virginia, JLARC (2007)

Source: Addressing Virginia's Mental Health Workforce Shortages, VDH, Mental Health Roundtable May 20, 2009

Distribution of Clinical Psychologists

MENTAL HEALTH



* Source: Virginia Board of Medicine: http://www.vahealthprovider.com/
Each practice site may represent a partial FTE or several practitioners.

* These data were collected for license administration purposes only and cannot be relied upon solely to inform about actual work site location.

Denotes Mental Health Professional Shortage Area

2,434 Clinical Psychologists in Virginia

Source: Addressing Virginia's Mental Health Workforce Shortages, VDH, Mental Health Roundtable May 20, 2009

Dental Services Are More Difficult to Incentivize in Underserved Regions

D E N T I S T

- Average Cost of Patient Visit (2004)
  - Dentist – $224
  - Primary Care Physician – $101
- Prevalence of Insurance
  - Dental – 65%
  - Medical – 85%
- % of Out of Pocket Costs
  - Dental – 49%
  - Overall Medical – 19%

"Inflammation is a major risk factor for heart disease, and periodontal disease may increase the inflammation level throughout the body"

- Kenneth Kornman, DDS, PhD
Journal of Periodontology, Editor

Sources: Dr K Michael Hood states that the oral-systemic connection is validated once again. - http://www.sbwire.com/news/view/30342
AHRQ Medical Expenditure Survey Panel: Chartbook #17: Dental Use, Expenses, Dental Coverage, and Changes, 1996 and 2004 http://www.meps.ahrq.gov/mepsweb/data_files/publications/cb17/cb17.shtml#ExecutiveSummary. Expenses for Office-Based Physician Visits by Specialty, 2004, http://www.meps.ahrq.gov/mepsweb/data_files/publications/st166/stat166.pdf , Dental Expenditures in the 10 Largest States, 2005, http://www.meps.ahrq.gov/mepsweb/data_files/publications/st195/stat195.pdf and Health Insurance Coverage in the U.S. 2007, http://facts.kff.org/chart.aspx?ch=477.

Dental Hygienists Legislation Addresses Maldistribution

VIRGINIA ACTS OF ASSEMBLY – 2009 SESSION

CHAPTERS 99 & 561

An Act to amend and reenact § 54.1-2722 of the Code of Virginia, relating to practice of dental hygienists.

- Dental hygienists working in Dental Health Shortage Areas in Lenowisco, Cumberland Plateau, and Southside Health Districts can provide educational and preventive dental care
  - protocol developed by the Department of Health

Need Exceeds the Amount of Discount or Free Dental Services

- Free or Discount Dental Services in Virginia
  - Mission of Mercy (MOM)
  - Federally Qualified Health Centers
  - Remote Area Medical (RAM)
  - Virginia Community Health Centers
  - Virginia Departments of Health
  - Virginia Free Health Clinics
  - VCU Clinics (Richmond and Wise in 2011)

Needed Pharmacist Services: Medication Therapy Management (MTM)

PHARMACIST

- Medication Therapy Management
  - Ensures that targeted Medicare beneficiaries appropriately use Part D drugs to optimize therapeutic outcomes through improved medication use;
  - Reduces the risk of adverse events, including adverse drug interactions, for targeted beneficiaries.
- Pharmacists can be reimbursed for providing MTM to Virginians enrolled in Part D plan that:
  - Have multiple chronic diseases;
  - Are taking multiple Part D drugs; and
  - Are likely to incur over $4,000 in annual costs for covered Part D drugs
- Program not communicated well to beneficiaries and pharmacists

Most Targeted Conditions

1. Diabetes
2. Heart Failure
3. Hypertension
4. Dyslipidemia
5. COPD
6. Asthma
7. Rheumatoid Arthritis
8. Depression
9. Osteoporosis
10. Osteoarthritis

http://www.cms.hhs.gov/PrescriptionDrugCovContra/Downloads/MTMFactSheet.pdf

Policy Options

Policy Options – Primary Care

Option 1: Take no action.

Option 2: When state revenue allows, restore funding for the State Loan Repayment Program (SLRP) & Virginia Loan Repayment Program (VLRP).

Option 3: When state revenue allows, increase funding for the UVA and VCU Family Practice Residency Programs.

Policy Options – Primary Care

Option 4: Request by letter of the JCHC Chairman that the Department of Medical Assistance Services (DMAS) develop and report on a methodology and cost estimate for providing enhanced Direct Medical Education (DME) and Indirect Medical Education (IME) payments to graduate medical programs in Virginia that train primary care, general surgery, psychiatrists, and emergency medicine physicians. The letter would include a request that DMAS present its report to JCHC by August 30, 2011. *(Enhanced payments are expected to increase state Medicaid costs to some degree.)*

Policy Options – Primary Care

Option 5: When state revenue allows, introduce a budget amendment (language and funding) to increase Medicaid reimbursement rates to match the level of Medicare reimbursement rates for primary care physicians.

Option 6: By letter of the JCHC Chairman request that the medical schools at Eastern Virginia Medical School, the University of Virginia, and Virginia Commonwealth University make efforts to increase their enrollment of medical students from rural communities in Virginia and individuals with an interest in serving underserved and minority populations.

Policy Options – Physicians Treating an Aging Population

Option 7: When state revenue allows, introduce a budget amendment (language and funding) to allow the Department of Health Professions (DHP) to develop a Continuing Medical Education course focusing on medication issues of geriatric patients and targeted for primary care physicians. The objective would be for the course to be offered online and at no cost to Virginia licensed physicians.

Option 8: Request by letter of the JCHC Chairman that the Board of Medicine include and promote geriatric care issues among its online educational resources.

Policy Options – Physicians Treating an Aging Population

Option 9: Request by letter of the JCHC Chairman that the Virginia Chapter of the American College of Physicians include and promote geriatric care issues among its online educational resources.

Option 10: Request by letter of the JCHC Chairman that the Virginia Academy of Family Physicians continue to promote geriatric training among its membership.

Policy Options – Physician Extenders and Telemedicine

Option 11: Include in the 2010 JCHC work plan, a study of the prevalence, distribution and scope of practice for nurse practitioners and physician assistants in Virginia.

Option 12: Send a letter from JCHC Chairman to the Special Advisory Commission on Mandated Health Insurance Benefits to support SB1458 (Wampler) and HB2191 (Philips) which require health insurers, health care subscription plans, and health maintenance organizations provide coverage for the cost of telemedicine services.

Policy Options – Telemedicine and Mental Health

Option 13: Request by letter of the JCHC Chairman that the Department of Human Resource Management consider and if appropriate conduct pilot programs for selected telemedicine-covered services within the state employee health insurance program, consideration should be given to obstetric care for high-risk pregnancies, telestroke services, and telepsychiatry.

Option 14: Request by letter of the JCHC Chairman that the Department of Behavioral Health and Developmental Services (DBHDS) report regarding the Department's current and historical utilization of telemedicine and telepsychiatry services, effectiveness of such services, locations offering such services, use of telemedicine by CSB providers, and impediments to greater adoption and usage by the Department and CSBs. This letter would include a request that DBHDS present a report to JCHC by August 30, 2010.

Policy Options – Clinical Psychology

Option 15: Introduce a joint-resolution requesting that JCHC convene a task force to review allowing qualified clinical psychologists to prescribe psychopharmacological medications and report to JCHC. The report will detail licensure and educational requirements, oversight structure, changes to licensure and regulatory oversight processes, medications that may be prescribed, requirements for physician review and/or oversight for prescribing medications. The resolution would require an interim report to JCHC in 2010 with a final report by September 1, 2011. Task force participants include:

- Board of Medicine
- Board of Pharmacy
- Board of Psychology
- Medical Society of Virginia
- Psychiatric Society of Virginia
- Virginia Psychological Association
- Virginia Pharmacists Association

Policy Options – Clinical Psychology and Dentistry

Option 16: Request by letter of the JCHC Chairman that the Department of Health Professions improve the information collected and compiled about clinical psychologists which is retained in the Healthcare Workforce Data Center.

Option 17: Request by letter of the JCHC Chairman that the Department of Health Professions improve the information collected and compiled about dentists which is retained in the Healthcare Workforce Data Center.

Option 18: When state revenue allows introduce a budget amendment (language and funding) to extend basic dental benefits to adults eligible for Medicaid.

Policy Options – Pharmacy

Option 19: Request by letter of the JCHC Chairman that the Virginia Pharmacists Association, the Virginia Department for the Aging, and local area agencies on Aging collaborate to provide and disseminate information about Medicare's Medication Therapy Management (MTM) program to pharmacists, prescription counselors, and Medicare beneficiaries that qualify for MTM services.

Public Comment

- Written public comments on the proposed options may be submitted to JCHC by close of business on September 29, 2009.
- Comments may be submitted via:
  - E-mail: sreid@jchc.virginia.gov
  - Fax: 804-786-5538
  - Mail: Joint Commission on Health Care
    P.O. Box 1322
    Richmond, Virginia 23218
- Comments will be summarized and presented to JCHC during its October 7th meeting.

APPENDIX

Supply Data: Virginia Department of Health Professions Licensure Data

Physicians	Dentists	Clinical Psychologists	Pharmacists
31,254	5,975	2,434	9,636

16,191 active physicians (estimate 2005)

- Virginia licensure data can be very limited
- Virginia data does not consistently include:
  - Whether professional works in VA
  - Whether professional is in active practice
  - Location of practice(s)
  - Time dedicated to practice location
  - Time dedicated to specialty
  - Age of professional (relevant for retirement estimation)

Virginia Department of Health Professions is improving data collected for physicians and nurses and hopes to extend to other healthcare professions

Source: Virginia Department of Health Professions Licensees as of June 30, 2008,
Physician Supply and Requirements in Virginia, 2010 and 2015, Mick, Nayar, and Caretta, July 2007 and Virginia Department of Health Professions (2007)*

Demand Varies Depending on the Question Asked

Demand Analysis Limitations

NEEDS ANALYSIS	UTILIZATION ANALYSIS	JOB OPENINGS ANALYSIS
Such analyses typically do not incorporate ability to pay into shortage determinations.	If a professional shortage is present in the system then the analysis will not register the existing shortage.	A job opening does not necessarily mean there is an overall system need for that service.

Assumptions and data used can significantly alter demand models

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35 Physician Specialties Analyzed

Primary Care	**Surgical Specialties**
Family Practice	**General Surgery**
Internal Medicine	**Neurosurgery**
Pediatrics	**OB/GYN**
Medical Specialties	**Ophthalmology**
Allergy/Immunology	**Orthopedic Surgery**
Cardiology	**Otolaryngology**
Dermatology	**Plastic Surgery**
Endocrinology*	**Urology**
Gastroenterology	**Other Surgical Specialties**
Geriatrician	**Hospital-Based**
Hematology/Oncology	**Emergency**
Infectious Disease	**Anesthesiology**
Nephrology	**Radiology**
Neurology	**Pathology**
Physical Medicine and Rehab	**Pediatric Subspecialties**
Psychiatry	**Pediatric Cardiology**
Pulmonology	**Pediatric Neurology**
Rheumatology	**Pediatric Psychiatry**
Other Medical Specialties	**Other Pediatric Subspecialties**

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