#### GRADUATE MEDICAL EDUCATION IN THE COMMONWEALTH JOINT COMMISSION ON HEALTH CARE OCTOBER 7, 2015 MEETING

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## Study Mandate

- JCHC members requested during the 2013 decision matrix meeting that JCHC staff continue to study graduate medical education in Virginia
- Senate Budget Amendment 301 #19s (2015) requested DMAS to undertake a study of federal and State funding streams for graduate medical education, and explore:
  - Ways to incentivize the expansion of clinical training opportunities and retain graduates who train in Virginia
  - Payment mechanisms that encourage primary care training programs and other specialties identified as high needs (e.g. psychiatry) as well as preferences for primary care programs that extend their training programs to community settings and underserved areas
  - Removed from conference version with the understanding by Senate Finance and House Appropriations Committees that JCHC would conduct the study

#### Virginia Health Workforce Development Authority (VHWDA) GME Task Force

Approved policy option from JCHC staff study, "Update of Virginia Physician Workforce Shortage" (2013):

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- Request by letter of the JCHC Chair, that the VHWDA convene a workgroup to consider and report back to JCHC in 2015 regarding the advisability of, and if advisable, develop recommendations regarding:
  - The need for a training program for graduate medical educators. If recommended, provide program framework and funding requirements
  - A funding model for <u>new</u> State-supported family medicine residencies that could be used <u>if</u> the State increases appropriations for graduate medical education training. The model should include:
    - Consideration of whether funding would be used exclusively for resident training, where residencies would be located, and what the community or medical facility match-rates would be, and what the impact would be of giving U.S. medical school graduates priority in filling State-supported residency programs
- The first meeting of the GME task force was held on May 12, 2015 and the second meeting is scheduled for October 21, 2015

## **Presentation Outline**

- Overview of Graduate Medical Education (GME)
  - Sources of GME Funding
  - Challenges of the Current GME System in the U.S.
- Characteristics of GME in Virginia
  - Medical Schools and Residency Programs
  - Funding
  - Availability of Residency Positions
  - Retention of Residents
  - The Healthcare Needs of Rural and Underserved Areas
- Considerations for Improving GME in Virginia
  Policy Options

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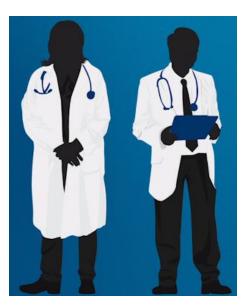
#### Overview of Graduate Medical Education

## **Graduate Medical Education**

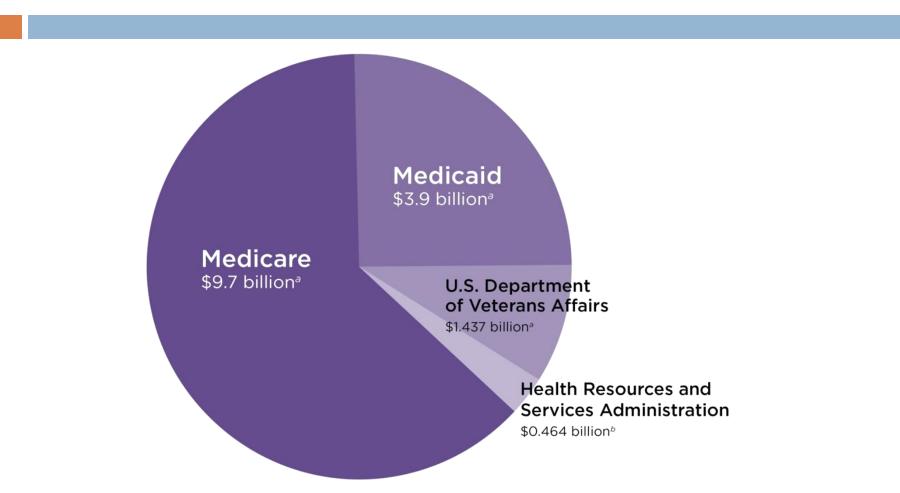
- Graduate medical education (GME) refers to the period of education in a medical specialty/subspecialty, following the completion of a recognized undergraduate medical education, which prepares physicians for the independent practice of medicine in that specialty/subspecialty
  - Also referred to as residency education
- The two residency program accreditation bodies, the Accreditation Council for Graduate Medical Education (ACGME) and the American Osteopathic Association (AOA), will be merging to a single accreditation system for graduate medical education programs in the U.S.
  - AOA-accredited training programs will transition to ACGME accreditation by June 30, 2020

### Primary Sources of GME Funding

- Medicare
- Medicaid
- Veterans Administration
- Health Resources and Services Administration (HRSA)
  - Children's Hospitals GME
  - Teaching Health Centers GME
  - National Health Service Corp (NHSC) Loan Repayments
  - Title VII Primary Care Programs
- Department of Defense
- Self-Funding by Resident Training Institutions

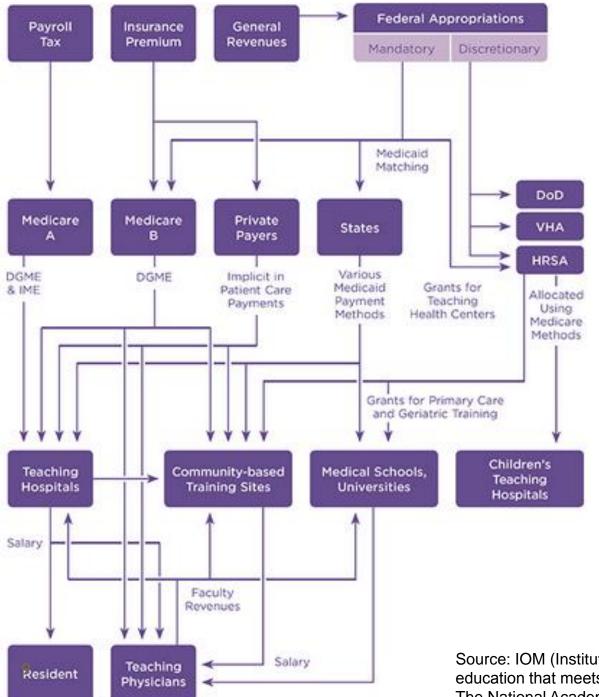


## **GME** Financing



Additional unreported funding comes from the Department of Defense, state sources, private insurers, and other private sources.

NOTE: All amounts are estimated. *a* = data from 2012; *b* = data from 2011 and 2013. SOURCE: IOM (Institute of Medicine). 2014. *Graduate Medical Education That Meets the Nation's Health Needs*. Washington, DC: The National Academies Press. Table 3-1.



#### Current Flow of GME Funds

Source: IOM (Institute of Medicine). 2014. Graduate medical education that meets the nation's health needs. Washington, DC: The National Academies Press. Pg. 3-9; and AAMC podcast on GME

#### Medicare

- Federal funding for GME began in 1965 as part of the Social Security Act
- When Congress established Medicare in 1965, it recognized that:
  - "Educational activities enhance the quality of care in an institution, and it is intended, until the community undertakes to bear such education costs in some other way, that a part of the net cost of such activities (including stipends of trainees, as well as compensation of teachers and other costs) should be borne to an appropriate extent by the hospital insurance program."

Source: 1965 Social Security Act (Senate Report No. 404, Pt. 1 89<sup>th</sup> Congress, 1<sup>st</sup> Sess. 36 [1965]; H.R. No. 213, 89<sup>th</sup> Congress, 1<sup>st</sup> Sess. 32 [1965])

#### Medicare GME Funding Components

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Direct Graduate Medical Education Payment (DGME or DME)

- Resident stipends and benefits
- Faculty salaries and benefits
- Accreditation fees
- Institutional overhead costs (i.e. maintenance and electricity)
- Administrative costs (personnel who work exclusively in the GME office)

#### Indirect Graduate Medical Education Payment (IME)

 Subsidizes hospitals for expenses associated with training resident physicians, such as higher utilization of services and longer inpatient stays

#### Of the \$9.7 billion spent on GME in 2012

- DME = \$2.68 billion
- IME = \$7.04 billion

## Medicare DME Payment

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- DME=PRA x Resident FTEs x Proportion of Medicare Patients Seen
  - PRA = Per Resident Amount
- The PRA calculation is based on hospital costs negotiated in 1983, updated for inflation
  - The DME calculation is attached to a 30-year-old payment scale that has little relevance to today's health care delivery system or current residency training programs
  - It perpetuates significant inequities in GME payments among hospitals, localities, and geographic regions

Source: IOM (Institute of Medicine). 2014. Graduate medical education that meets the nation's health needs. Washington, DC: The National Academies Press. Pg. 3-9; and AAMC podcast on GME

## Medicare DME Payment

- The Balanced Budget Refinement Act (BBRA) of 1999 reduced the hospital to hospital variation in PRA by mandating that a hospital's PRA could not be less than 70 percent of the level of the national average PRA
- In 2000, the Benefits Improvement and Protection Act raised the minimum to 85 percent

Source: IOM (Institute of Medicine). 2014. Graduate medical education that meets the nation's health needs. Washington, DC: The National Academies Press. Pg. 3-9

## Medicare IME Payment

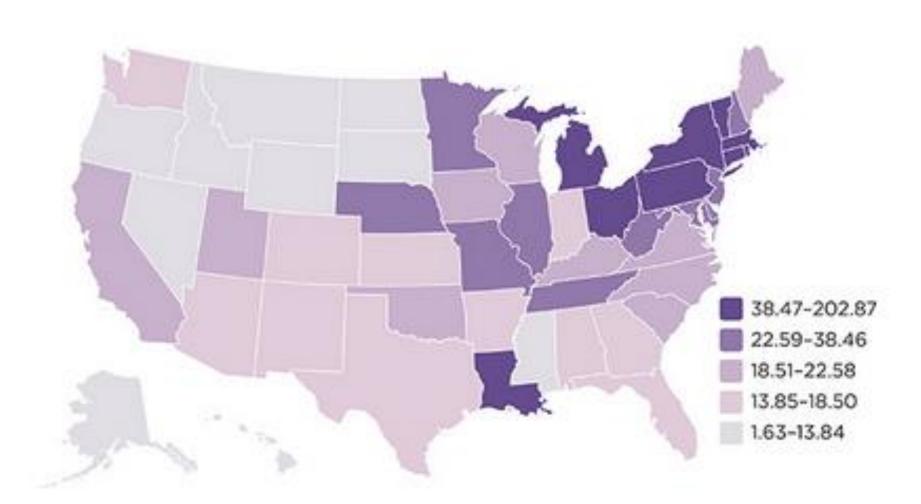
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  - IME is an additional payment a hospital receives on top of its normal traditional Medicare inpatient payment
  - DRG Payment x [Multiplier x ((1+IRB)<sup>0.405</sup> -1)]
    - DRG = Diagnosis- related group for hospital charges
    - IRB = Intern & Resident to Bed Ratio
    - For FFY 2015, multiplier is 1.35
    - Hospitals receive about a 5.5 percent increase in the DRG payments for every approximate 10 percent increase in the IRB ratio

## Medicare Resident Caps

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  - The Balanced Budget Act of 1997 implemented a cap on the number of resident FTEs for which a hospital could receive Medicare GME reimbursement
    - Based on the number of residents the hospital was training in 1996
    - "The geographic distribution of Medicare-supported residencies was essentially frozen in place without regard for future changes in local or regional health workforce priorities or the geography or demography of the U.S. population."
    - As a result, Medicare-supported slots are most highly concentrated in the Northeastern states, as is most of Medicare GME funding

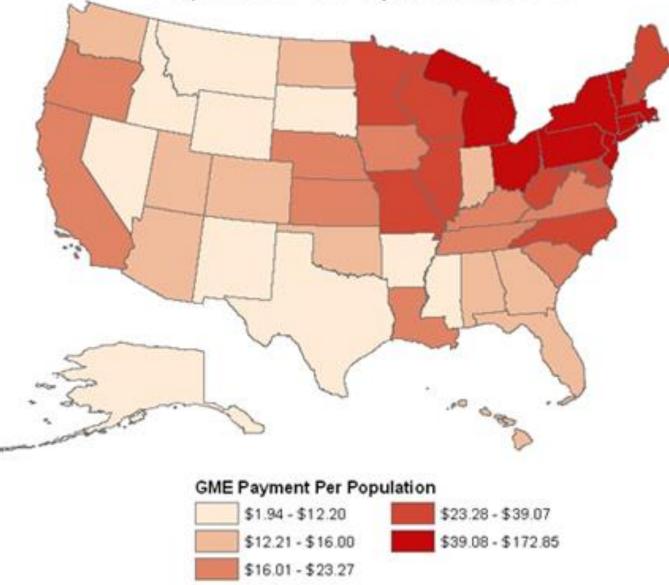
Source: IOM (Institute of Medicine). 2014. Graduate medical education that meets the nation's health needs. Washington, DC: The National Academies Press. Pg. 3-11

#### Number of Medicare-Funded Training Positions per 100,000 population (2010)



Source: IOM (Institute of Medicine). 2014. Graduate medical education that meets the nation's health needs. Washington, DC: The National Academies Press. Pg. 3-13

#### State Medicare Graduate Medical Education Payment Per Population, 2010



Source: http://khn.org/news/study-points-to-imbalance-in-spending-on-doctor-training/

## Medicare Resident Caps

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- Hospitals have two resident caps, one for DME and one for IME
  - Numbers may be slightly different from each other based on rules regarding how residents were counted in 1996
- Rural hospitals received a cap based on 130% of the number of residents the hospital was training at that time, allowing for growth
- Some facilities do not have a Medicare cap
  - Critical access hospitals are paid at 101% of cost for their residency training and are not eligible for DME or IME payment
  - Inpatient Rehabilitation Facilities (IRF) and Inpatient Psychiatric Facilities (IPF) have their own separate rules and are not eligible for IME payment

#### Obtaining Slots Over One's Medicare Cap

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- Rural hospitals can increase their number of slots by starting a new residency program
- Urban teaching hospitals can start new rural training track residency programs and receive additional slots for the time that residents spend in the urban teaching hospital, as long as residents spend at least half their time in the rural setting
- Existing teaching hospitals can share their cap slots with other teaching hospitals by meeting certain requirements and then entering into GME affiliation agreements that explain the cap sharing arrangement
- Hospitals that have never been teaching hospitals before (referred to as naïve hospitals) can start new residency programs, and have up to 5 years to establish their residency cap
- If programs or hospitals close, there are ways other hospitals can receive temporary slots (to help train the residents that were in the closed program) or permanent slots that used to belong to the closed hospital

## Medicare Resident Caps

- Nationally, two-thirds of hospitals currently train more residents than their Medicare covered cap
- In aggregate, U.S. hospitals are training 11,000 resident FTEs above the Medicare caps
- There is no cap on dentist and podiatry residency slots because there were very few hospital-based resident programs in 1997 when the cap was established

### Medicaid

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  - A state can choose to fund GME through its Medicaid program
    - Federal government provides matching funds
  - The Centers for Medicare and Medicaid Services (CMS) allow states flexibility in how they utilize Medicaid funds for GME payments
  - □ In 2012, 43 states had Medicaid GME payment programs
    - Approximately \$3.9 billion in funding
    - In 2005, 48 states providing GME funding through Medicaid
      - Four states ended their program due to budget constraints
    - Aggregate Medicaid GME spending increased by \$1.5 billion (63%) from 1998 to 2012

Source: Hendersen, T.M. 2013. Medicaid graduate medical education payments: a 50 state survey.

### Medicaid

- In 2012, Medicaid GME funding exceeded \$100 million in seven states (including Virginia)
  - Medicaid GME funding exceeded Medicare GME funding in North Carolina, South Carolina, and Washington

# Challenges of the Current GME System in the U.S.

#### Outdated GME funding system

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- The Medicare DME payment is based on a hospital's costs in the 1980's which bears little resemblance to the amount of funding needed for current residency programs (e.g. due to increased cost of health benefits, malpractice insurance, technological teaching equipment, etc.)
- Resident caps restrain growth of residency programs, including those in rural and/or underserved areas and in high need specialties
- The GME funding system was created when hospitals were, for the most part, the only institutions that trained residents. As a result, it is a system of payments that are tied to hospital reimbursement. This results in difficulties for residency programs that currently, or wish to, provide training in community-based ambulatory settings where most physicians will be practicing
- Lack of governance, transparency and accountability of GME at both the federal and state level

Challenges of the Current GME System in the U.S.

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- Misalignment of the current GME system with the needs of the U.S. health care system and local communities
  - Shortage of physicians in primary care (and other high need specialties), especially in rural and underserved areas
- Insufficient workforce data and corresponding informed goals, to guide GME policy
- Concerns that the number of medical school graduates are outpacing the number of available residency positions
- Retention of residents in the state of their GME training

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# Characteristics of GME in Virginia

#### Medical Schools and Residency Programs

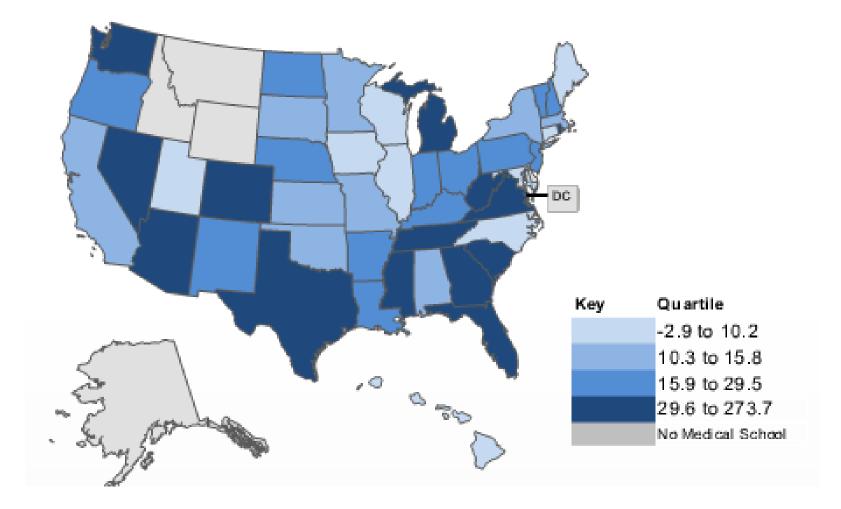
#### Virginia Undergraduate Medical Education (UME) School Enrollment

| Medical School                              | Annual Entering Class<br>Enrollment | Estimated # of Graduates<br>from Cohort |  |  |
|---|-------------------------------------|---|--|--|
| Virginia Commonwealth<br>University         | 216                                 | 190-200                                 |  |  |
| Virginia College of<br>Osteopathic Medicine | 188                                 | 180-186                                 |  |  |
| Liberty University                          | 160                                 | 150-158*                                |  |  |
| University of Virginia                      | 157                                 | 145-150                                 |  |  |
| Eastern Virginia Medical<br>School          | 150                                 | 140-145                                 |  |  |
| Virginia Tech Carillion                     | 42                                  | 42                                      |  |  |
|   | Total Graduates in 2017:            | 847-881                                 |  |  |

\*Liberty University College of Osteopathic Medicine will graduate its first cohort in 2018

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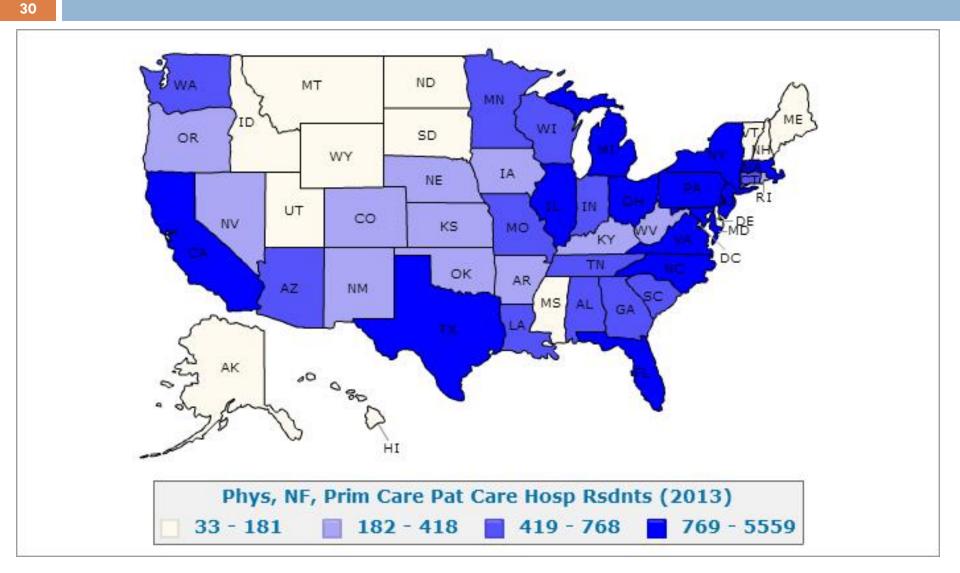
#### Percent Change in Enrolled Students in Medical or Osteopathic Schools, 2002-2012



## Virginia Residency Information

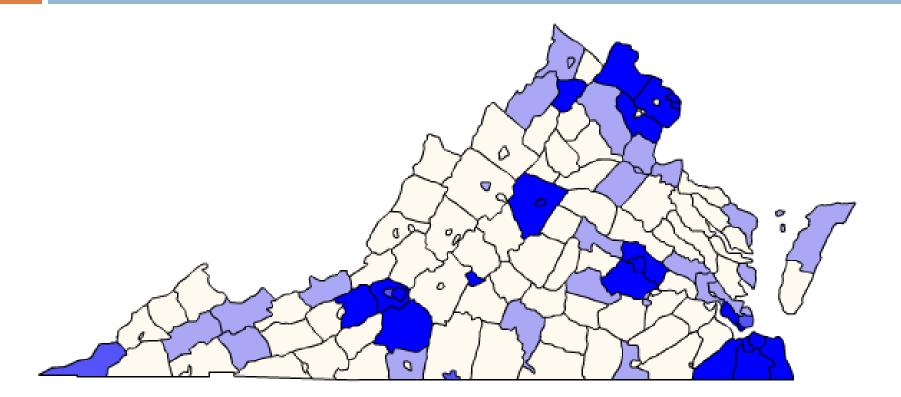
- 2,745 residents and fellows are currently training in Virginia
  - 1,950 are reported as positions funded by Medicare and Medicaid
  - Remainder includes privately funded positions and those funded by the military and the Department of Veterans Affairs
- 757 ACGME/AOA approved first-year residency positions
- 382 ACGME/AOA approved primary care (family medicine, internal medicine and pediatrics) first-year positions

# Number of Primary Care, Non-Federal Hospital Residents (MD and DO), 2013



Source: http://ahrf.hrsa.gov/arfdashboard/ArfGeo.aspx

# Number of Primary Care, Non-Federal Hospital Residents (MD and DO), 2013



| Phys, NF, | Prim | Care | Pat | Care | Hosp  | Rsdnts | (2013) |
|-----------|------|------|-----|------|-------|--------|--------|
| 0 - 0     |      | 1 -  | 1   |      | 2 - 2 | 3      | - 110  |

Source: http://ahrf.hrsa.gov/arfdashboard/ArfGeo.aspx

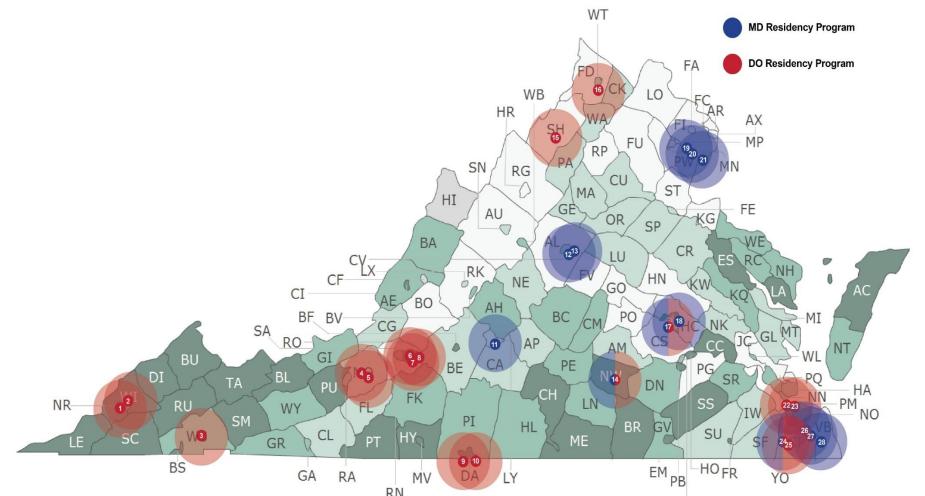
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| Virginia Teaching Hospitals Medicare Actual Positions vs. Capped Positions, 2014 |                   |                   |                                  |                                  |                                   |                                   |  |  |  |
|--|-------------------|-------------------|----------------------------------|----------------------------------|-----------------------------------|-----------------------------------|--|--|--|
| Facility   | GME<br><u>Cap</u> | IME<br><u>Cap</u> | GME Positions<br><u>Reported</u> | IME Positions<br><u>Reported</u> | GME Positions<br>Over (Under) Cap | IME Positions<br>Over (Under) Cap |  |  |  |
| Bon Secours DePaul Medical Center  | 15.01             | 15.01             | 10.73                            | 10.73                            | (4.28)                            | (4.28)                            |  |  |  |
| Carilion Medical Center  | 123.23            | 105.45            | 190.82                           | 188.45                           | 67.59                             | 83.00                             |  |  |  |
| Centra Health  | 15.56             | 18                | 15.56                            | 16.78                            | 0.00                              | (1.22)                            |  |  |  |
| CJW Medical Center   | 6.61              | 6.86              | 8                                | 7.82                             | 1.39                              | 0.96                              |  |  |  |
| Danville Regional Medical Center   | 57.43             | 57.43             | 49.82                            | 49.69                            | (7.61)                            | (7.74)                            |  |  |  |
| Inova Fairfax Hospital   | 131.71            | 112.99            | 162.05                           | 162.05                           | 30.34                             | 49.06                             |  |  |  |
| Inova Loudoun Hospital Center  | 0                 | 0                 | 0.27                             | 0.27                             | 0.27                              | 0.27                              |  |  |  |
| Lewis-Gale Hospital Montgomery   | 37.15             | 37.15             | 34.33                            | 34.33                            | (2.82)                            | (2.82)                            |  |  |  |
| Lonesome Pine Hospital   | 0                 | 0                 | 16.97                            | 16.45                            | 16.97                             | 16.45                             |  |  |  |
| Norton Community Hospital  | 19.3              | 18.95             | 18.95                            | 18.95                            | (0.35)                            | 0.00                              |  |  |  |
| Maryview Hospital  | 16.34             | 16.34             | 15.75                            | 15.75                            | (0.59)                            | (0.59)                            |  |  |  |
| Riverside Regional Medical Center  | 60.85             | 49.36             | 59.68                            | 52.97                            | (1.17)                            | 3.61                              |  |  |  |
| Sentara Leigh Hospital   | 9.04              | 8.92              | 11.73                            | 11.73                            | 2.69                              | 2.81                              |  |  |  |
| Sentara Norfolk General Hospital   | 107.16            | 94.05             | 135.41                           | 125.6                            | 28.25                             | 31.55                             |  |  |  |
| Sentara Obici Hospital   | 1.75              | 1.75              | 1.04                             | 1.04                             | (0.71)                            | (0.71)                            |  |  |  |
| Sentara Princess Anne Hospital   | 2.94              | 3                 | 4                                | 4                                | 1.06                              | 1.00                              |  |  |  |
| Sentara VA. Bch. General Hospital  | 4.6               | 2                 | 4.6                              | 4.6                              | 0.00                              | 2.60                              |  |  |  |
| St. Francis Medical Center   | 20.09             | 20.09             | 19.61                            | 19.61                            | (0.48)                            | (0.48)                            |  |  |  |
| St. Mary's Hospital  | 4.35              | 4.35              | 3.33                             | 3.33                             | (1.02)                            | (1.02)                            |  |  |  |
| University of Virginia Medical Center  | 535.19            | 503.52            | 646.12                           | 646.12                           | 110.93                            | 142.60                            |  |  |  |
| VCU Health System MCV Hospital   | 453.58            | 406.74            | 523.44                           | 500.06                           | 69.86                             | 93.32                             |  |  |  |
| Virginia Hospital Center   | 31.14             | 29.3              | 30.86                            | 30.86                            | (0.28)                            | 1.56                              |  |  |  |
| Warren Memorial Hospital   | 8.53              | 8.53              | 8.41                             | 8.41                             | (0.12)                            | (0.12)                            |  |  |  |
| Winchester Medical Center  | 8.1               | 8.18              | 8.1                              | 8.1                              | 0.00                              | (0.08)                            |  |  |  |
| Total  | 1669.66           | 1527.97           | 1979.58                          | 1937.7                           | 309.92                            | 409.73                            |  |  |  |

Source: acome.org and osteiopathic.org. via VCOM



Location of Family Medicine and Internal Medicine Residency Programs, 2015



#### Primary Care Residencies-Family Medicine

|              | 34                    |  |                 |           |        |          |
|--------------|-----------------------|--|-----------------|-----------|--------|----------|
|              |                       |  |                 | ACGME/AOA |        |          |
|              | <mark>ACG</mark>      | ME   |                 | Approved  | Filled | Per Year |
|              | <mark>Unive</mark>    | ersity of Virginia Program   | Charlottesville | 24        | 24     | 8        |
|              | Chipp                 | penham and Johnston-Willis Hospitals Program                               | Richmond        | 24        | 24     | 8        |
|              | VCU                   | (Falls Church) Program   | Fairfax         | 24        | 24     | 8        |
|              | Carili<br>AOA)        | on Clinic-Virginia Tech Carilion School of Medicine Program (ACGME and     | Roanoke         | 30        | 31     | 10       |
|              | Natio                 | onal Capital Consortium (Fort Belvoir Community Hospital) Program-Military | Fort Belvoir    | 45        | 42     | 15       |
|              | Centr                 | ra Health Program  | Lynchburg       | 27        | 17     | 9        |
|              | Easte                 | ern Virginia Medical School (Ghent) Program                                | Norfolk         | 24        | 18     | 8        |
|              | Easte                 | ern Virginia Medical School (Portsmouth) Program                           | Portsmouth      | 18        | 16     | 6        |
|              | <mark>Shen</mark>     | andoah Valley Health System/VCU Program (ACGME and AOA)                    | Front Royal     | 15        | 15     | 5        |
|              | VCU/                  | Riverside Regional Medical Center Program (ACGME and AOA)                  | Newport News    | 36        | 36     | 12       |
|              | VCU-                  | Bon Secours (St Francis) Program   | Midlothian      | 18        | 18     | 6        |
|              | VCU-                  | Bon Secours Blackstone (rural)   | Blackstone      | 6         | 4      | 6        |
|              | AOA                   |  |                 |           |        |          |
| $\mathbf{k}$ | . <mark>John</mark> s | ston Memorial Hospital Program   | Abingdon        | 18        | 6      | 6        |
|              | Lewis                 | s Gale Hospital-Montgomery Program   | Blacksburg      | 19        | 17     | 6        |
|              | <mark>Danv</mark>     | ille Regional Med Center Program   | Danville        | 24        | 16     | 8        |
|              | Wellr                 | mont Lonesome Pine Hospital Program  | Norton          | 24        | 19     | 8        |
|              | Total                 |  |                 | 376       | 327    | 129      |
|              |                       |  |                 |           |        |          |

#### ★ New Program

Source: acgme.org and osteopathic.org, via VCOM, and VCU Family Medicine Residency Program

#### Primary Care Residencies-Internal Medicine

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| ACGME   |                 | ACGME/AO<br>A Approved | Filled | Per<br>Year |
|---|-----------------|------------------------|--------|-------------|
| Naval Medical Center (Portsmouth) Program-Military                          | Portsmouth      | 41                     | 40     | 13          |
| University of Virginia Program  | Charlottesville | 101                    | 98     | 30          |
| Eastern Virginia Medical School Program                                     | Norfolk         | 56                     | 46     | 18          |
| Virginia Commonwealth University Health System Program                      | Richmond        | 114                    | 115    | 38          |
| Carilion Clinic-Virginia Tech Carilion School of Medicine<br>Program<br>AOA | Roanoke         | 66                     | 54     | 22          |
| ★ Johnston Memorial Hospital Program  | Abington        | 12                     | 1      | 4           |
| Lewis Gale Hospital-Montgomery Program                                      | Blacksburg      | 18                     | 2      | 6           |
| Danville Regional Med Center Program  | Danville        | 45                     | 32     | 15          |
| Norton Community Hospital Program   | Norton          | 30                     | 24     | 10          |
| Total   |                 | 483                    | 412    | 156         |

★ New Program

Source: acgme.org and osteopathic.org, via VCOM

#### **Primary Care Residencies-Pediatrics**

| 36  |                 |                   |        |          |
|---|-----------------|-------------------|--------|----------|
| ACGME<br>Pediatrics   |                 | ACGME<br>Approved | Filled | Per Year |
| University of Virginia Program                                    | Charlottesville | 35                | 35     | 11       |
| Naval Medical Center (Portsmouth) Program-Military                | Portsmouth      | 36                | 31     | 12       |
| Eastern Virginia Medical School Program                           | Norfolk         | 66                | 65     | 22       |
| Virginia Commonwealth University Health System Program            | Richmond        | 48                | 48     | 16       |
| Inova Fairfax Medical Campus/Inova Children's Hospital Program    | Falls Church    | 39                | 41     | 13       |
| Carilion Clinic-Virginia Tech Carilion School of Medicine Program | Roanoke         | 18                | 18     | 6        |
| Internal Medicine/Pediatrics                                      |                 |                   |        |          |
| Virginia Commonwealth University Health System Program            | Richmond        | 24                | 21     | 7        |
| Total   |                 | 266               | 253    | 87       |
| TOTAL PRIMARY CARE RESIDENTS                                      |                 | 1125              | 992    | 372      |

Source: acgme.org and osteopathic.org, via VCOM

## **GME** Funding

#### Medicare GME Reimbursement and Number of Residents by State, 2012

| <b>.</b>    |                 | % of U.S. | # of      | % of Total U.S. |       |                  | % of U.S. |           | % of Total U.S. |
|-------------|-----------------|-----------|-----------|-----------------|-------|------------------|-----------|-----------|-----------------|
| State       | Total GME       | Total GME | Residents | Residents       | State | Total GME        | Total GME | Residents | Residents       |
| <b>N</b> D/ |                 | 10.050(   | 4.6.455   | 15 240          | KY    | \$79,026,952     | 0.73%     | 1106      | 1.03%           |
| NY          | \$2,068,237,438 |           | 16455     | 15.31%          | WV    | \$74,466,982     | 0.69%     | 708       | 0.66%           |
| PA          | \$941,097,699   | 8.67%     | 8171      | 7.60%           | AL    | \$72,641,462     | 0.67%     | 1094      | 1.02%           |
| MI          | \$792,328,317   |           | 6065      | 5.64%           | IA    | \$65,732,010     | 0.61%     | 802       | 0.75%           |
| CA          | \$675,698,625   | 6.22%     | 8560      | 7.96%           | ОК    | \$58,858,182     | 0.54%     | 856       | 0.80%           |
| MA          | \$600,795,632   |           | 4565      | 4.25%           | KS    | \$54,185,520     |           | 578       | 0.54%           |
| OH          | \$582,378,875   |           | 5934      | 5.52%           | NE    | \$46,259,700     | 0.43%     | 661       | 0.62%           |
| IL          | \$511,052,206   |           | 5571      | 5.18%           | UT    | \$43,809,019     |           | 617       | 0.57%           |
| NC          | \$285,858,999   | 2.63%     | 2725      | 2.53%           | AR    | \$36,746,034     |           | 556       |                 |
| MD          | \$235,110,539   | 2.17%     | 2342      | 2.18%           | ME    | \$36,323,530     |           | 270       | 0.25%           |
| VA          | \$197,697,966   | 1.82%     | 2007      | 1.87%           | DE    | \$33,489,149     |           | 387       | 0.36%           |
| MN          | \$177,182,735   | 1.63%     | 1510      | 1.40%           | VT    | \$31,634,889     |           | 265       | 0.25%           |
| TN          | \$159,776,108   | 1.47%     | 1665      | 1.55%           | NV    | \$28,341,345     |           | 311       |                 |
| WI          | \$155,155,912   | 1.43%     | 1480      | 1.38%           | MS    | \$26,218,823     |           | 494       |                 |
| GA          | \$146,980,463   | 1.35%     | 1664      | 1.55%           | HI    | \$23,178,087     | 0.21%     | 200       | 0.19%           |
| WA          | \$114,688,204   | 1.06%     | 1283      | 1.19%           | NM    | \$20,248,460     |           | 413       | 0.38%           |
| DC          | \$110,042,947   | 1.01%     | 1386      | 1.29%           | PR    | \$15,548,469     |           | 463       | 0.43%           |
| AZ          | \$107,762,530   | 0.99%     | 1349      | 1.25%           | ND    | \$11,218,912     |           | 102       | 0.09%           |
| IN          | \$106,380,321   | 0.98%     | 1101      | 1.02%           | SD    | \$9,442,093      |           | 102       | 0.10%           |
| LA          | \$105,072,775   | 0.97%     | 1689      | 1.57%           | ID    | \$5,670,102      |           | 56        |                 |
| SC          | \$92,707,816    | 0.85%     | 995       | 0.93%           | AK    | \$2,241,598      |           | 30        |                 |
| NH          | \$89,544,297    | 0.82%     | 638       | 0.59%           | MT    | . , ,            |           |           | 0.03%           |
| RI          | \$88,223,325    |           | 713       | 0.66%           | WY    | \$2,222,833      |           | 18        | 0.02%           |
| СО          | \$79,705,696    |           | 1025      | 0.95%           | VVY   | \$1,639,971      | 0.02%     | 9         | 0.01%           |
| OR          | \$79,073,147    | 0.73%     | 762       | 0.71%           | U.S.  | \$10,856,102,657 | 100.00%   | 107511    | 100.00%         |
| 20          | - / / /         |           |           |                 | 0.5.  | 910,000,102,007  | 100.0070  | 10/011    | 100.0070        |

38

Source: CMS Hospital Cost Reports/HCRIS Files 2012

#### Medicaid GME Payment Amounts by the Top 15 States, 2012

|                      | Total GME Payments Under                                | GME Payments Under Managed Care<br>(Millions of Dollars) |                                |  |  |
|----------------------|---|--|--------------------------------|--|--|
| STATE                | Fee-for-Service & Managed Care<br>(Millions of Dollars) | Implicit Payments <sup>2</sup>                           | Explicit Payments <sup>3</sup> |  |  |
| New York             | \$1,815.0   | \$0  | \$920.2                        |  |  |
| Michigan             | \$163.1   | \$100.0  | \$0                            |  |  |
| Virginia             | \$142.0   | \$0  | \$58.8                         |  |  |
| Pennsylvania         | \$124.2   | \$0  | \$0                            |  |  |
| North Carolina       | \$115.7   | \$0  | \$0                            |  |  |
| Arizona              | \$113.0   | \$0  | Unreported                     |  |  |
| Washington           | \$111.0   | \$47.0   | \$0                            |  |  |
| South Carolina       | \$110.7   | \$0  | \$42.7                         |  |  |
| Missouri             | \$110.1   | \$0  | \$0                            |  |  |
| Georgia              | \$100.9   | \$0  | \$13.0                         |  |  |
| New Jersey           | \$90.0  | \$0  | \$0                            |  |  |
| Florida*             | \$81.3  | \$0  | \$0                            |  |  |
| District of Columbia | \$79.1  | \$0  | \$7.3                          |  |  |
| Oklahoma             | \$73.4  | \$0  | \$57.2                         |  |  |
| Ohio                 | <u>\$70.4</u>   | Unreported   | \$0                            |  |  |

SOURCE: A 2012 survey of state Medicaid agencies by Tim M. Henderson, M.S.P.H., consultant to the Association of American Medical Colleges. **NOTE: Virginia provided FY 2010 data.** 

Inpatient Hospital GME Payments, According to Medicaid Financial Management Reports, for FY 2010-2013

40

| Fiscal Year | Federal Share | State Share   | Total         |
|-------------|---------------|---------------|---------------|
| 2010        | \$75,965,959* | \$47,375,428  | \$123,341,387 |
| 2011        | \$92,864,584* | \$68,670,398  | \$161,534,982 |
| 2012        | \$116,916,401 | \$116,916,398 | \$233,832,799 |
| 2013        | \$135,315,780 | \$135,315,778 | \$270,631,558 |

\*The FMAP was temporarily enhanced under ARRA for FY2009-FY2011

Sources: Medicaid Financial Management Reports, FY2010, FY2011, FY2012, FY2013

#### Medicare GME Reimbursement Amounts per Hospital, 2012 (Source: CMS Cost Reports)

| Hospital Name                          | City            | Hospital<br>Beds | Medicare<br>I & Rs FTE | Medicare<br>DME | Medicare<br>IME    | Total<br>Medicare |
|--|-----------------|------------------|------------------------|-----------------|--------------------|-------------------|
| UNIVERSITY OF VIRGINIA MEDICAL CENTER  | CHARLOTTESVILLE | 543              | 673.14                 | \$19,966,902    | \$50,885,134       | \$70,852,036      |
| VCU HEALTH SYSTEM MCV HOSPITAL         | RICHMOND        | 651              | 496.85                 | \$12,935,281    | \$27,346,768       | \$40,282,049      |
| CARILION MEDICAL CENTER                | ROANOKE         | 655              | 159.07                 | \$5,685,574     | \$10,414,074       | \$16,099,648      |
| INOVA FAIRFAX HOSPITAL                 | FALLS CHURCH    | 836              | 161.79                 | \$5,390,926     | \$10,076,766       | \$15,467,692      |
| SENTARA NORFOLK GENERAL HOSPITAL       | NORFOLK         | 471              | 121.38                 | \$4,174,334     | \$9,906,541        | \$14,080,875      |
| RIVERSIDE REGIONAL MEDICAL CENTER      | NEWPORT NEWS    | 305              | 52.62                  | \$3,002,541     | \$5,131,533        | \$8,134,074       |
| DANVILLE REGIONAL MEDICAL CENTER       | DANVILLE        | 215              | 44.03                  | \$2,517,236     | \$3,723,532        | \$6,240,768       |
| VIRGINIA HOSPITAL CENTER ARLINGTON     | ARLINGTON       | 282              | 30.06                  | \$1,729,508     | \$3,114,678        | \$4,844,186       |
| ST. FRANCIS MEDICAL CENTER             | MIDLOTHIAN      | 130              | 16.97                  | \$905,360       | \$2,369,140        | \$3,274,500       |
| LEWISGALE HOSPITAL - MONTGOMERY        | BLACKSBURG      | 88               | 31.56                  | \$1,248,059     | \$1,892,976        | \$3,141,035       |
| CENTRA HEALTH                          | LYNCHBURG       | 439              | 17.07                  | \$802,754       | \$1,731,518        | \$2,534,272       |
| MARYVIEW HOSPITAL                      | PORTSMOUTH      | 219              | 16.13                  | \$621,681       | \$1,517,928        | \$2,139,609       |
| BON SECOURS DEPAUL MEDICAL CENTER      | NORFOLK         | 118              | 11.2                   | \$524,648       | \$1,097,701        | \$1,622,349       |
| LONESOME PINE HOSPITAL                 | BIG STONE GAP   | 86               | 20.46                  | \$729,837       | \$753,212          | \$1,483,049       |
| SENTARA LEIGH HOSPITAL                 | NORFOLK         | 250              | 11.61                  | \$436,158       | \$948,324          | \$1,384,482       |
| NORTON COMMUNITY HOSPITAL INC.         | NORTON          | 118              | 17.14                  | \$721,857       | \$566,947          | \$1,288,804       |
| WINCHESTER MEDICAL CENTER              | WINCHESTER      | 389              | 8.03                   | \$340,627       | \$788,173          | \$1,128,800       |
| WARREN MEMORIAL HOSPITAL               | FRONT ROYAL     | 46               | 7.54                   | \$522,199       | \$599,969          | \$1,122,168       |
| ST. MARYS HOSPITAL                     | RICHMOND        | 378              | 2.9                    | \$276,683       | \$586,375          | \$863,058         |
| CJW MEDICAL CENTER                     | RICHMOND        | 635              | 0                      | \$256,965       | \$595 <i>,</i> 668 | \$852,633         |
| SENTARA PRINCESSS ANNE HOSPITAL        | VIRGINIA BEACH  | 160              | 3.88                   | \$112,438       | \$233,404          | \$345,842         |
| SENTARA VA. BEACH GENERAL HOSPITAL     | VIRGINIA BEACH  | 257              | 5.01                   | \$92,282        | \$209,337          | \$301,619         |
| SENTARA OBICI HOSPITAL                 | SUFFOLK         | 158              | 1.02                   | \$63,106        | \$96,731           | \$159,837         |
| RIVERSIDE REHABILITATION INSTITUTE     | NEWPORT NEWS    | 50               | 1                      | \$36,254        |                    | \$36,254          |
| INOVA LOUDOUN HOSPITAL CENTER          | LEESBURG        | 157              | 0.17                   | \$4,508         | \$10,115           | \$14,623          |
| CHILDRENS HOSPITAL OF KING'S DAUGHTERS | NORFOLK         | 206              | 93.36                  | \$3,704         |                    | \$3,704           |
| TOTAL                                  |                 |                  | 2003.99                | \$63,101,422    | \$134,596,544      | \$197,697,966     |

#### Medicaid GME Reimbursement Amounts per Hospital, In-State, 2012

| Hospital Name                          | City            | Hospital<br>Beds | Medicaid<br>Utilization | Medicaid<br>I & Rs FTE | Medicaid<br>DME   | Medicaid IME      | Total<br>Medicaid<br>GME / IME |
|--|-----------------|------------------|-------------------------|------------------------|-------------------|-------------------|--------------------------------|
| UNIVERSITY OF VIRGINIA MEDICAL CENTER  | CHARLOTTESVILLE | 543              | 31%                     | 686.12                 | \$14,673,765      | \$77,354,460      | \$92,028,225                   |
| VCU HEALTH SYSTEM MCV HOSPITAL         | RICHMOND        | 651              | 31%                     | 491.27                 | \$8,140,464       | \$58,141,498      | \$66,281,962                   |
| CARILION MEDICAL CENTER                | ROANOKE         | 655              | 26%                     | 141.44                 | \$1,748,310       | \$3,696,264       | \$5,444,574                    |
| INOVA FAIRFAX HOSPITAL                 | FALLS CHURCH    | 836              | 29%                     | 165.32                 | \$937,174         | \$3,876,338       | \$4,813,512                    |
| SENTARA NORFOLK GENERAL HOSPITAL       | NORFOLK         | 471              | 26%                     | 129.28                 | \$944,458         | \$3,659,841       | \$4,604,299                    |
| RIVERSIDE REGIONAL MEDICAL CENTER      | NEWPORT NEWS    | 305              | 25%                     | 53.06                  | \$832,206         | \$1,811,407       | \$2,643,613                    |
| CHILDRENS HOSPITAL OF KING'S DAUGHTERS | NORFOLK         | 206              | 70%                     | 85.48                  | \$4,174,058       | \$4,844,213       | \$9,018,271                    |
| DANVILLE REGIONAL MEDICAL CENTER       | DANVILLE        | 215              | 17%                     | 10.6                   | \$157,123         | \$0               | \$157,123                      |
| VIRGINIA HOSPITAL CENTER ARLINGTON     | ARLINGTON       | 282              | 10%                     | 29.25                  | \$794,381         | \$520,228         | \$1,314,609                    |
| ST. FRANCIS MEDICAL CENTER             | MIDLOTHIAN      | 130              | 13%                     | 16.56                  | \$43,384          | \$442,676         | \$486,060                      |
| LEWISGALE HOSPITAL - MONTGOMERY        | BLACKSBURG      | 88               | 9%                      | 25.52                  | \$217,509         | \$32,423          | \$249,932                      |
| CENTRA HEALTH                          | LYNCHBURG       | 439              | 18%                     | 16.78                  | \$245,998         | \$456,656         | \$702,654                      |
| MARYVIEW HOSPITAL                      | PORTSMOUTH      | 219              | 20%                     | 14.56                  | \$105,487         | \$399,913         | \$505 <i>,</i> 400             |
| BON SECOURS DEPAUL MEDICAL CENTER      | NORFOLK         | 118              | 11%                     | 9.17                   | \$88,563          | \$275,371         | \$363,934                      |
| NORTON COMMUNITY HOSPITAL INC.         | NORTON          | 118              | 26%                     | 15.97                  | \$305,137         | \$183,332         | \$488,469                      |
| SENTARA LEIGH HOSPITAL                 | NORFOLK         | 250              | 14%                     | 9.98                   | \$55 <i>,</i> 096 | \$240,142         | \$295,238                      |
| WARREN MEMORIAL HOSPITAL               | FRONT ROYAL     | 46               | 21%                     | 8.06                   | \$68,627          | \$171,079         | \$239,706                      |
| WINCHESTER MEDICAL CENTER              | WINCHESTER      | 389              | 16%                     | 7.56                   | \$92,351          | \$80 <i>,</i> 080 | \$172,431                      |
| ST. MARYS HOSPITAL                     | RICHMOND        | 378              | 16%                     | 7.33                   | \$26,903          | \$169,002         | \$195,905                      |
| CJW MEDICAL CENTER                     | RICHMOND        | 635              | 18%                     | 7.12                   | \$17,467          | \$75,413          | \$92 <i>,</i> 880              |
| SENTARA PRINCESSS ANNE HOSPITAL        | VIRGINIA BEACH  | 160              | 12%                     | 3.3                    | \$32,784          | \$32 <i>,</i> 958 | \$65,742                       |
| SENTARA VA. BEACH GENERAL HOSPITAL     | VIRGINIA BEACH  | 257              | 11%                     | 4.88                   | \$24,357          | \$67 <i>,</i> 846 | \$92,203                       |
| SENTARA OBICI HOSPITAL                 | SUFFOLK         | 158              | 17%                     | 1                      | \$27,811          | \$57,771          | \$85,582                       |
| RIVERSIDE REHABILITATION INSTITUTE     | NEWPORT NEWS    | 50               | 13%                     | 1                      | \$4,531           | \$0               | \$4,531                        |
| INOVA LOUDOUN HOSPITAL CENTER          | LEESBURG        | 157              | 14%                     | 0.11                   | \$210             | \$2,062           | \$2,272                        |
| SENTARA CAREPLEX HOSPITAL              | HAMPTON         | 218              |                         | 0                      | \$0               | \$940             | \$940                          |
| TOTAL                                  |                 |                  |                         | 1940.72                | \$33,758,154      | \$156,591,913     | \$190,350,067                  |

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NOTE: Medicaid also provides \$2,516,132 of GME reimbursement for the training of residents in Allied Health. Source: DMAS

#### Medicaid GME Reimbursement Amounts per Hospital, Out-of-State, 2012

| Hospital Name                    | City              | State | Hospita | Medicaid<br>Utili-<br>zation | Resi-<br>dent<br>FTEs | Medicaid<br>DME | Medicaid<br>GME (Allied<br>Health) | Medicaid<br>IME | Total<br>Medicaid |
|----------------------------------|-------------------|-------|---------|------------------------------|-----------------------|-----------------|------------------------------------|-----------------|-------------------|
| JOHNSON CITY MEDICAL CENTER      | JOHNSON CITY      | TN    | 511     | 20%                          | 128.7                 | \$106,451       | \$11,391                           | \$565,683       |                   |
| ΙΝΟΡΤΗ CAROLINA ΒΑΡΤΙΣΤ ΗΟΣΡΙΤΑΙ | WINSTON-<br>SALEM | NC    | 776     | 21%                          | 614                   | \$420,145       | \$26,690                           | \$0             | \$446,835         |
| BRISTOL REGIONAL MEDICAL CENTER  | BRISTOL           | TN    | 255     | 11%                          | 36.73                 | \$105,546       | \$4,567                            | \$237,400       | \$347,513         |
| HOLSTON VALLEY HOSP & MED CTR    | KINGSPORT         | TN    | 435     | 17%                          | 45.5                  | \$57,452        | \$3,420                            | \$285,600       | \$346,472         |
| DUKE UNIVERSITY HOSPITAL         | DURHAM            | NC    | 801     | 27%                          | 601.17                | \$341,109       | \$2,343                            | \$0             | \$343,452         |
| GEORGETOWN UNIVERSITY HOSPITAL   | WASHINGTON        | DC    | 381     | 15%                          | 280.9                 | \$154,352       | \$4,460                            | \$0             | \$158,812         |
| CHILDRENS HOSPITAL NMC           | WASHINGTON        | DC    |         |                              |                       | \$126,569       | \$0                                | \$0             | \$126,569         |
| GEORGE WASHINGTON UNIV HOSPITAL  | WASHINGTON        | DC    | 315     | 25%                          | 250.91                | \$68,571        | . \$0                              | \$30,652        | \$99,223          |
| INDIAN PATH MEDICAL CENTER       | KINGSPORT         | TN    | 147     | 17%                          | 2.03                  | \$66,396        | \$0                                | \$7,934         | \$74,330          |
| WASHINGTON HOSPITAL CENTER       | WASHINGTON        | DC    | 715     | 12%                          | 304.95                | \$35,926        | \$2,820                            | \$0             | \$38,746          |
| NATIONAL REHABILITATION HOSPITAL | WASHINGTON        | DC    | 137     |                              |                       | \$1,749         | \$0                                | \$0             | \$1,749           |
| TOTAL                            |                   |       |         |                              | 2264.9                | \$1,484,266     | \$55,691                           | \$1,127,269     | \$2,667,226       |

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Source: DMAS

#### Total Medicare and Medicaid GME Reimbursements, Virginia, 2012

| 1 | 17. | 1 |
|---|-----|---|
| 4 | 14  |   |
|   |     |   |

| Payment Type  | Amount                       |
|---|------------------------------|
| Medicaid In-State DME + IME                         | \$190,350,067                |
| Medicaid In-State Allied Health GME                 | \$ 2,516,132                 |
| Medicaid Out-of-State DME+IME+<br>Allied Health GME | \$ 2,667,226                 |
| Total Medicaid                                      | \$195,533,425                |
|   | (\$ 97,766,712 in State GFs) |

| Total Medicare | \$197,697,966 |
|----------------|---------------|
|                |               |

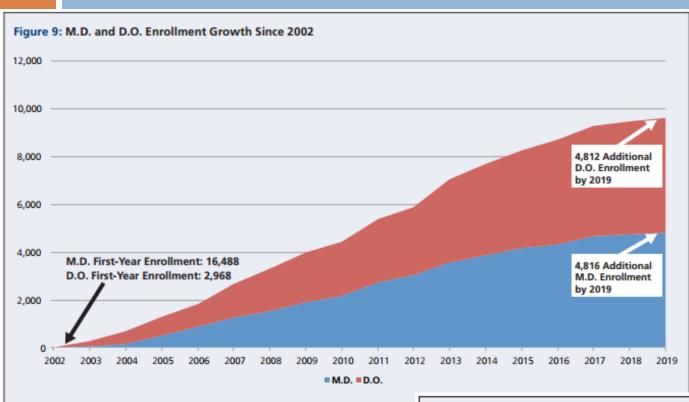
| Total GME Payments                    | \$393,231,391 |
|---------------------------------------|---------------|
| · · · · · · · · · · · · · · · · · · · | +             |

## State General Fund Appropriations for GME

- The Virginia State Budget (FY 2015-2016) includes the following GF appropriations for the support of family medicine residency programs at Virginia Commonwealth University, University of Virginia, and Eastern Virginia Medical School
  - **VCU:** \$4,336,607
  - **UVA:** \$1,393,959
  - **EVMS:** \$722,146
- Residency funding has remained the same or decreased over time
  - As a result, funding has not kept pace with the increasing costs of residency programs
  - There is concern that the number of family medicine residencies will have to be reduced in 2016
  - Currently the health systems sponsoring the residency programs are subsidizing the State funding
    - This model is considered to be unsustainable

## Availability of Residency Positions

#### **U.S. Medical School Enrollment** Growth, 2002-2019



Source: AAMC, Results of the 2014 Medical School Enrollment Survey Center for Workforce Studies April 2015

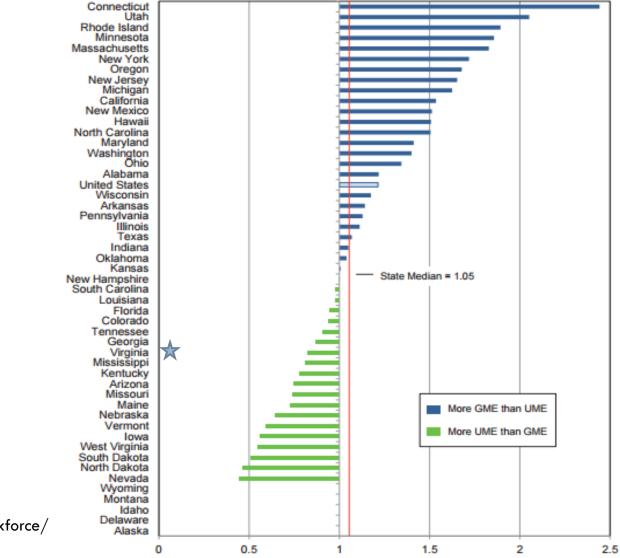
#### Table 3: M.D. and D.O. Enrollment Growth Since 2002 2002 2014 2019 Base Current Projected Enrollment Enrollment Enrollment # Increase % Increase # Increase % Increase 16,488 3,855 23% 21,304 4,816 29% M.D. 20,343 129% 7,780 4,812 162% D.O. 2,968 6,786 3,818 Total 19,456 27,129 7.673 39% 29,084 9,628 49%

## Change in the Number of Medical Schools, Medical School Enrollment, and Applicants to GME Programs, 2002 - 2012

|   | 2002   | 2012    | 10 Year | Change  |
|---|--------|---------|---------|---------|
|   |        |         | Number  | Percent |
| NUMBER OF MEDICAL COLLEGES  | 145    | 175     | 30      | 20.7%   |
| Allopathic  | 125    | 141     | 16      | 12.8%   |
| Osteopathic   | 20     | 34      | 14      | 70.0%   |
| STUDENTS ENROLLED IN U.S. MEDICAL COLLEGES  | 80,180 | 102,498 | 22,318  | 27.8%   |
| Allopathic  | 68,748 | 80,757  | 12,009  | 17.5%   |
| Osteopathic   | 11,432 | 21,741  | 10,309  | 90.2%   |
| U.S. MEDICAL SCHOOL GRADUATE APPLICANTS TO<br>GRADUATE MEDICAL EDUCATION (GME) PROGRAMS | 16,874 | 20,248  | 3,374   | 20.0%   |
| INTERNATIONAL MEDICAL GRADUATE (IMG)<br>APPLICANTS TO GME PROGRAMS                      | 6,585  | 11,107  | 4,522   | 68.7%   |
| U.S. citizen IMG's  | 2,029  | 4,279   | 2,250   | 110.9%  |
| Non-U.S. citizen IMG applicants   | 4,556  | 6,828   | 2,272   | 49.9%   |
| TOTAL POTENTIAL APPLICANT POOL FOR GME<br>POSITIONS (U.S. PLUS IMG'S)                   | 23,459 | 31,335  | 7,896   | 33.7%   |

Source: IOM (Institute of Medicine). 2014. Graduate medical education that meets the nation's health needs. Washington, DC: The National Academies Press.

Ratio of Residents and Fellows (GME) to Allopathic and Osteopathic Students (UME), Academic Year 2011-2012



Source: www.aamc.org/data/workforce/ 359282/2013physician.html

#### Retention of Residents in Virginia

## Virginia Physician Retention, 2012

| - |  |
|---|--|
| 5 |  |
|   |  |
|   |  |

|   | Virginia | Virginia<br>Rank | State<br>Median |
|---|----------|------------------|-----------------|
| % of physicians retained in Virginia from undergraduate medical education (UME) | 33.7%    | 31               | 38.7%           |
| % of physicians retained in Virginia from UME (public)                          | 33.9%    | 35               | 44.9%           |
| % of physicians retained in Virginia from GME                                   | 38.8%    | 40               | 44.9%           |
| % of physicians retained in Virginia from UME and GME                           | 64.3%    | 29               | 68.1%           |

State Rank: How a state ranks compared to the other 49. Rank 1 goes to the state with the highest value for the particular category.

State Median: The value directly in the middle of the 50 states, so 25 are above the median and 25 are below.

Source: 2013 State Physician Workforce Data Book

#### Location of Education and Training of Physicians in Virginia, 2012

| Education /<br>Training | Virginia | Border<br>State | Virginia &<br>Border<br>States | NY &<br>PA | Regional | International |
|-------------------------|----------|-----------------|--------------------------------|------------|----------|---------------|
| High School             | 20%      | 12%             | 32%                            | 15%        | 47%      | 20%           |
| Undergraduate           | 19%      | 16%             | 35%                            | 14%        | 49%      | 17%           |
| Medical School          | 20%      | 18%             | 38%                            | 13%        | 51%      | 21%           |
| Residency               | 27%      | 23%             | 50%                            | 17%        | 67%      | NA            |

**Regional:** Virginia Washington DC New York Pennsylvania Maryland North Carolina Location of Medical School and Residency for Virginia Physicians Licensed in the Past Five Years, 2014

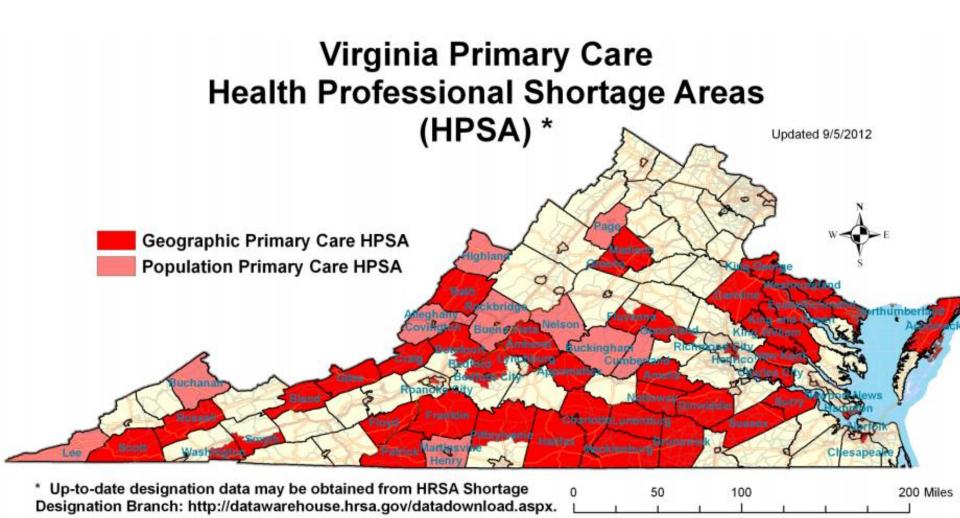
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| Rank | Licensed in the Past 5 Years |       |                   |      |  |  |  |  |
|------|------------------------------|-------|-------------------|------|--|--|--|--|
| Kank | Medical School               | #     | Initial Residency | #    |  |  |  |  |
| 1    | Outside U.S./Canada          | 1,219 | Virginia          | 1369 |  |  |  |  |
| 2    | Virginia                     | 894   | New York          | 531  |  |  |  |  |
| 3    | Pennsylvania                 | 345   | Washington, D.C.  | 397  |  |  |  |  |
| 4    | New York                     | 278   | Pennsylvania      | 344  |  |  |  |  |
| 5    | Washington, D.C.             | 251   | Maryland          | 331  |  |  |  |  |
| 6    | Maryland                     | 249   | Ohio              | 199  |  |  |  |  |
| 7    | Ohio                         | 162   | North Carolina    | 196  |  |  |  |  |
| 8    | North Carolina               | 147   | Michigan          | 183  |  |  |  |  |
| 9    | Illinois                     | 126   | California        | 140  |  |  |  |  |
| 10   | Florida                      | 125   | New Jersey        | 131  |  |  |  |  |

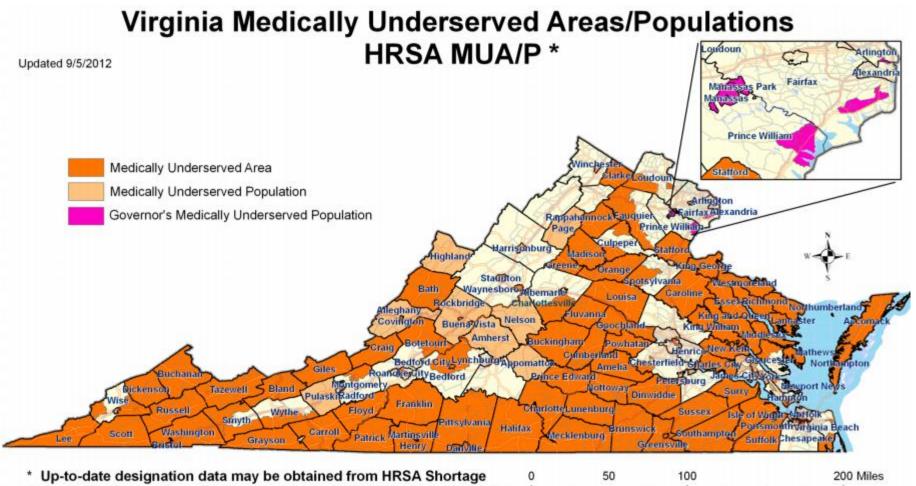
Among physicians who have been licensed in the past five years, 17% received their medical degree in Virginia, while 26% completed their initial residency in the State

Source: Vo. Healthcare Workforce Data Center

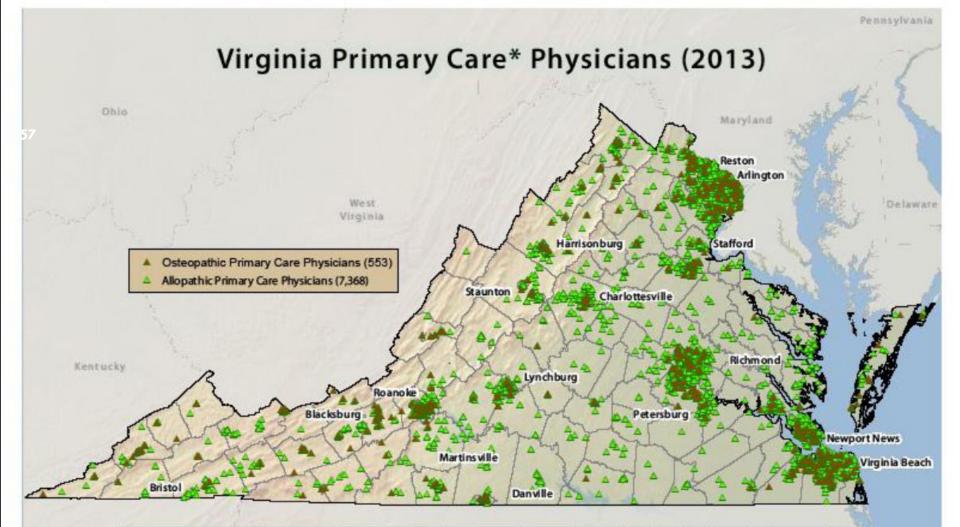
#### Physicians in Rural and/or Underserved Areas of Virginia



55 Sources: Virginia Department of Health website at <a href="http://www.vdh.virginia.gov/OMHHE/primarycare/shortagedesignations">http://www.vdh.virginia.gov/OMHHE/primarycare/shortagedesignations</a> and U.S. Department of Health and Human Services, Health Resources and Services Administration website at <a href="http://bhpr.hrsa.gov/shortage/index.html">http://bhpr.hrsa.gov/shortage/index.html</a>.



Designation Branch: http://datawarehouse.hrsa.gov/datadownload.aspx.



| ssee |                        | Total  |       |     | Internal<br>Medicine | Obstetrics and<br>Gynecology | Pediatrics | Total<br>Primary<br>Care | %   | PC in<br>Rural | %   | PC in<br>MUA | %   | PC in<br>PC-HPSA | %  |
|------|------------------------|--------|-------|-----|----------------------|------------------------------|------------|--------------------------|-----|----------------|-----|--------------|-----|------------------|----|
|      | Osteopathic Physicians | 1,201  | 296   | 38  | 123                  | 46                           | 50         | 553                      | 46% | 118            | 21% | 69           | 12% | 27               | 5% |
|      | Allopathic Physicians  | 21,176 | 2,506 | 335 | 1,051                | 2,087                        | 1,389      | 7,368                    | 35% | 904            | 12% | 644          | 9%  | 210              | 3% |
|      | Totals                 | 22,377 | 2,802 | 373 | 1,174                | 2,133                        | 1,439      | 7,921                    | 35% | 1,022          | 13% | 713          | 9%  | 237              | 3% |
|      | % Change from 2008     | 4%     | 16%   | 6%  | 41%                  | 117%                         | 14%        | 13%                      | -   | 3%             | - 8 | 56%          | 10  | 67%              |    |



Data Sources: NCAHD's Enhanced State Licensure Data (2013); Rural based on OMB Metro/Non-Metro definition (06/2010); PC-HPSA and MUA from HHS/HRSA (08/2013)

Te

"PrimaryCare Rysia ans include the following specialites: Family Medicine, General Practice, in ternal Medicine, Obstatrics & Gynecology, and Pediatrics

North Carolina

Map created by the National Center for the Analysis of Healthcare Data August, 2013

### Physicians in Rural and/or Underserved Areas of Virginia

- 18 percent of Virginia's physicians grew up in a rural area, 15 percent of these professionals currently work in non-metropolitan areas of the state
- Overall, eight percent of Virginia's physicians work in non-metropolitan areas of the state
- According to the Association of American Medical Colleges, 18.2 percent of Virginia's physicians practice in a geographical Medical Underserved Area (MUA)
  - Maryland: 32.4% West
  - Kentucky: 33.6%
  - North Carolina: 35.3%
- West Virginia: 40.7%
- Tennessee: 26.7%
- South Carolina: 34.3%

Sources: Virginia Department of Health Profession, Healthcare Workforce Data Center, "Virginia's Physician Workforce, 2014." GME Track as of August 21, 2014 and AMA Physician Masterfile as of December 31, 2013 via AAMC website.

#### Regional Distribution of Virginia's Physicians, 2014

| [ • ] |
|-------|
|       |
|       |

| Regional Distribution of Work Locations |              |      |                       |      |  |  |  |
|---|--------------|------|-----------------------|------|--|--|--|
| COVF Region                             | Prim<br>Loca |      | Secondary<br>Location |      |  |  |  |
|   | #            | %    | #                     | %    |  |  |  |
| Central                                 | 5,320        | 24%  | 1,151                 | 19%  |  |  |  |
| Eastern                                 | 306          | 1%   | 110                   | 2%   |  |  |  |
| Hampton Roads                           | 4,354        | 20%  | 1,054                 | 17%  |  |  |  |
| Northern                                | 6,659        | 30%  | 1,850                 | 31%  |  |  |  |
| Southside                               | 543          | 2%   | 163                   | 3%   |  |  |  |
| Southwest                               | 719          | 3%   | 208                   | 3%   |  |  |  |
| Valley                                  | 1,167        | 5%   | 257                   | 4%   |  |  |  |
| West Central                            | 2,422        | 11%  | 594                   | 10%  |  |  |  |
| Virginia Border<br>State/DC             | 306          | 1%   | 268                   | 4%   |  |  |  |
| Other US State                          | 315          | 1%   | 382                   | 6%   |  |  |  |
| Outside of the US                       | 6            | 0%   | 21                    | 0%   |  |  |  |
| Total                                   | 22,117       | 100% | 6,058                 | 100% |  |  |  |
| Item Missing                            | 1,898        |      | 126                   |      |  |  |  |



Sources: Virginia Department of Health Profession, Healthcare Workforce Data Center, "Virginia's Physician Workforce, 2014."

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Considerations for Improving Graduate Medical Education in Virginia

Start-Up Funding for (1) New Residency Programs in Naïve Hospitals and/or (2) Residency Programs Based on the Teaching Health Center GME Program Model

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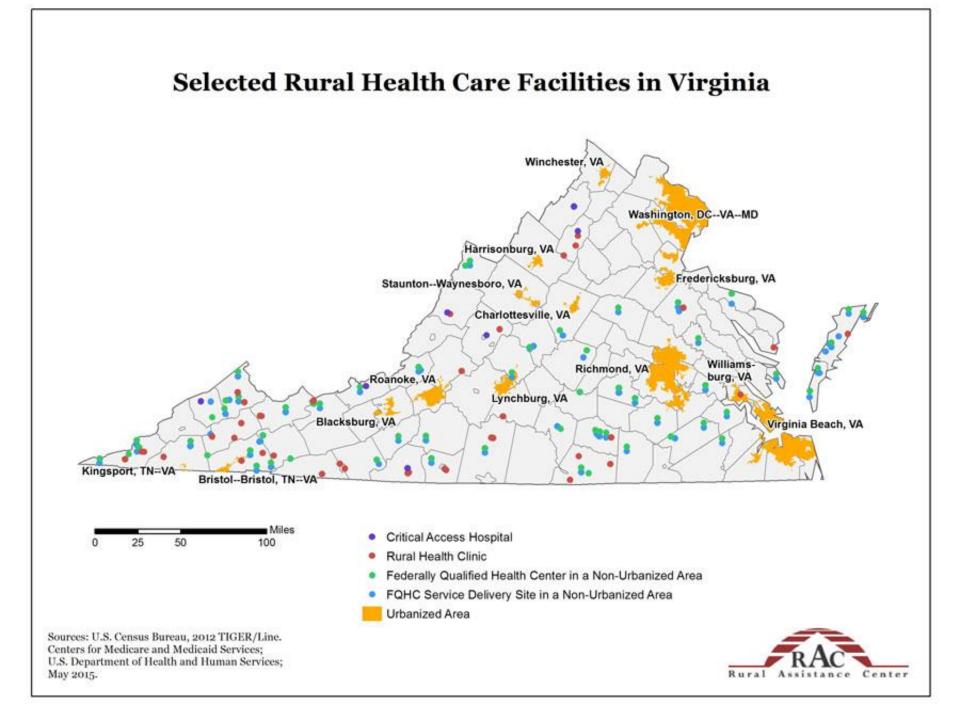
- As mentioned earlier, hospitals that have not trained residents (referred to as naïve hospitals) can start new residency programs and have up to 5 years to establish their residency cap for Medicare and Medicaid GME funding
  - While these programs are sustainable like other residency programs once they receive Medicare and Medicaid GME reimbursements, most naïve hospitals lack the initial funding required to develop a residency program
    - Initial funding is needed to purchase teaching equipment, faculty development, etc.
  - Providing seed money for naïve hospitals would increase the number of residency positions in the State and, in most cases, increase the number of residency programs in rural or underserved areas
    - Individuals who complete their residency in rural or underserved areas are more likely to practice in these areas

#### Teaching Health Center GME Program

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- \$230 million, 5-year initiative created by the Affordable Care Act to increase the number of primary care residents and dentists trained in communitybased settings
- Funding pays for direct and indirect medical education expenses for training residents in new or expanding community-based primary care residency programs.
  - Clinical training sites include federally qualified health centers (FQHCs) and FQHC look-a-likes, community mental health centers and rural health clinics
- During 2015 academic year, 60 Teaching Health Center Graduate Medical Education programs in 24 states supported more than 550 residents
- While the federal program is no longer accepting applications, states can develop similar programs to encourage primary care residencies in FQHCs and other clinics
  - Provides residency training in a community setting needed to prepare future primary care physicians
  - Training in a community clinic increases the likelihood of practicing in that setting and providing care for underserved members of the community
  - Second and third year residents enable the community clinic to provide care to more patients

Source: http://bhpr.hrsa.gov/grants/teachinghealthcenters/



Sole Community Hospital (SCH) Residency Fund

- The Centers for Medicare and Medicaid Services classify a hospital as a sole community hospital if it is located more than 35 miles from other like hospitals and its patients are unlikely to travel outside of the hospital's service area for treatment
- SCHs receive additional Medicare payments and, therefore, are not eligible to receive Medicare IME payments

- Establishing a Sole Community Hospital Residency Fund would:
- Provide additional payments to SCHs that establish new primary care medical residency programs
- Payment would be equal to the difference between an established per resident amount (PRA) and GME payments received by the SCH from Medicare and Medicaid calculated utilizing the formula for Type 2 hospitals
- Payment would be highest in the first year and decrease in years two and three to reflect decreasing costs per resident as more are added to the program

Sole Community Hospital Residency Fund

- The program would tie future payments to retention of residents in medically underserved areas in the Commonwealth
- Provide incentives, through loan repayment, for residents to practice in medically underserved areas

#### Sole Community Hospital Residency Fund

The following are Virginia's sole community hospitals (Note: Not all can support graduate medical education for financial or capacity reasons)

- Alleghany Regional
- Augusta Health Care
- Buchanan General
- Centra Lynchburg
- Community Memorial
- Halifax Regional
- Rappahannock Genera

- Rockingham Memorial
- Shore Memorial
- South Hampton
- Southside Community
- Tidewater Memorial
- Twin County Regional
- Wythe County

#### Update Virginia's Medicaid GME Payment System

The per resident amount (PRA) used to determine reimbursements to teaching hospitals/GME sponsoring institutions is based on 1998 fee-for-service costs

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Inflated annually except when inflation has been frozen

Payments have not kept up with actual costs per resident

- On average, Medicaid GME payments cover 40% of Medicaid GME costs based on FY 2012 data inflated to FY 2016
- Since payments have not been rebased since 1998, the percent of cost varies from 10 percent to over 100 percent of a hospital's cost

Source: DMAS presentation to the Provider Assessment Work Group. September 30, 2015 and communications with Bill Lessard

### Update Virginia's Medicaid GME Payment System

- Private hospitals making the largest investment in medical education have a lower percent of their costs reimbursed
- Virginia's Medicaid IME Reimbursement Formula is based on
  - Operating payments at 70% to 80% of cost times
  - An IME factor using the ratio of residents to beds
    - The current Medicare formula increases payments 5.5 percent for each 10 percent increase in the resident to bed ratio
    - The DMAS formula is about 80% of the Medicare formula
- DMAS could amend the State plan to rebase the costs used to establish the per resident amount used for DME payments
  - DMAS would rebase every four years

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Source: DMAS presentation to the Provider Assessment Work Group. September 30, 2015 and communications with Bill Lessard

### Increase Medicaid GME Funding for Needed Specialties

Enhance DME and IME payments to GME programs in Virginia for the specialties identified with shortages (primary care, general surgery, psychiatry, geriatrics, and emergency medicine)

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- A 2009 approved JCHC policy option recommended DMAS review the plan
- In 2011, DMAS completed a study to determine methodology and cost estimates
  - Since both public hospitals (UVA and VCU) were already at the upper payment limit, the analysis was limited to private hospitals
  - For private, in-state hospitals: An additional \$1.77 million (\$884,405 in GF) would be required for a 10 percent increase in funding for all specialties identified with shortages

### Increase Medicaid GME Funding for Needed Specialties

The Virginia Hospital and Healthcare Association's 2013 Healthcare Workforce Strategic Planning Task Force made the following recommendation:

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- Request that DMAS amend the State plan to establish an additional Medicaid health professional training supplemental payment. Funds would be based on an average per resident amount of \$140,000
  - Criteria developed by DMAS would set aside half of the available funds to support expansion of primary care training programs and the remainder for other needed specialties (e.g. psychiatry)
  - Preference for primary care programs would be given to programs that extend their training to community settings, especially in rural or underserved areas

## Virginia State Loan Repayment Program (SLRP) Funding

- Provides a non-taxed incentive to qualified medical, dental, behavioral health, and pharmaceutical (pharmacists) professionals in return for a minimum of two years of service at an eligible practice site in one of the federally designated Health Professional Shortage Areas (HPSAs)
- SLRP requires a dollar for dollar match from the community or practice site
- The maximum award for a four-year commitment is \$140,000 and must be used to decrease debt on a qualifying educational loan

#### State Loan Repayment Program (SLRP) Funding, 2015

| Total VDH/SLRP Funds                              | \$317,200 |
|---|-----------|
| New Funds   | \$150,000 |
| Carry-Over Funds                                  | \$167,200 |
| Total Virginia Health Care Foundation Match Funds | \$120,000 |
| Applications Received                             |           |
| Approved  | 11        |
| No Funds Available                                | 4         |
| (Requested additional \$90,000, was not approved) |           |
| No Match Funds Available                          | 3         |
| Declined/Ineligible/NHSC grant recipient          | 7         |
| SLRP Funds Remaining                              | \$2,800   |

Source: VDH 2015 State Loan Repayment Program Report

## 2015 SLRP Recipient Details

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| Specialty                   | Award Type      | <b>Facility Location</b> | Facility Type            | Total A | ward    |
|-----------------------------|-----------------|--------------------------|--------------------------|---------|---------|
| General Practice Dentist    | New, 2 year     | Roanoke, VA              | Non-profit               | \$      | 100,000 |
| Family Nurse Practitioner   | New, 2 year     | Luray, VA                | Non-profit               | \$      | 60,000  |
| General Psychiatry          | New, 2 year     | Bluefield, VA            | Public/State Institution | \$      | 50,000  |
| General Psychiatry          | Renewal, 1 year | Wytheville, VA           | Public/State Institution | \$      | 35,000  |
| General Practice Dentist    | New, 2 year     | Abingdon, VA             | Non-profit               | * \$    | 60,000  |
| Family Medicine             | New, 2 year     | Cape Charles, VA         | Non-profit               | * \$    | 60,000  |
| Pediatric Dentist           | New, 2 year     | Roanoke, VA              | Non-profit               | * \$    | 60,000  |
| Family Medicine             | New, 2 year     | Clarksville, VA          | Non-profit               | \$      | 50,000  |
| Health Service Psychologist | New, 2 year     | Roanoke, VA              | Non-profit               | * \$    | 60,000  |
| Family Medicine             | New, 2 year     | South Boston, VA         | Non-profit               | \$      | 50,000  |
| Family Nurse Practitioner   | New, 2 year     | Fredericksburg, VA       | Non-profit               | \$      | 40,000  |
| Pharmacist                  | New, 2 year     | Nathalie, VA             | Non-profit               | \$      | 9,750   |

Source: VDH 2015 State Loan Repayment Program Report

\*Match provided by Virginia Health Care Foundation

#### 2015 SLRP Unfunded Eligible Applicants

| Specialty                                   | Facility Location   | Facility Type            | Match Funding<br>Available |  |  |  |  |
|---|---------------------|--------------------------|----------------------------|--|--|--|--|
| No SLRP Funds Available                     |                     |                          |                            |  |  |  |  |
| Family Nurse Practitioner                   | Fredericksburg VA   | Non-profit               | \$20,000                   |  |  |  |  |
| Primary Care, DO                            | Midlothian, VA      | Non-profit               | \$32,500                   |  |  |  |  |
| General Psychiatry                          | Abingdon, VA        | Public/State Institution | \$17,500                   |  |  |  |  |
| Family Nurse Practitioner                   | Charlottesville, VA | Non-profit               | <u>\$20,000</u>            |  |  |  |  |
|   |                     |                          | \$90,000                   |  |  |  |  |
| No Community/Facility Match Funds Available |                     |                          |                            |  |  |  |  |
| General Practice Dentist                    | Asheville, NC       | Non-profit               |                            |  |  |  |  |
| Family Nurse Practitioner                   | Ewing, VA           | Non-profit               |                            |  |  |  |  |
| Family Nurse Practitioner                   | Grundy, VA          | Non-profit               |                            |  |  |  |  |

Source: VDH 2015 State Loan Repayment Program Report

#### Establish Workforce and GME Data Collection Program

 Data is needed to determine whether the State's GME system is meeting the needs of the Commonwealth at the State, regional and individual level

- The collection of financial, programmatic and outcomes data for residency programs in the State will enable targeted and informed policy recommendations
- The program also could evaluate State best practices for maximizing retention of health professional school program graduates in post-graduate clinical training programs and practice settings, and establish and track improvement targets

## Establish a Governance Structure for Virginia's GME System

- The federal government and most states do not have an organizational structure to provide oversight of the GME system or GME funding
- □ A GME governing body could:

- Guide workforce and GME data collection
- Provide policy recommendations and oversee policy implementation
- Assure that the GME system is meeting the needs of the State and each of its regions
- Equal regional representation could be achieved through the creation of regional organizations that would oversee initiatives in their region
  - Southwest Graduate Medical Education Consortium (GMEC)

#### Option 1: Take no action

- Option 2: Request by letter of the JCHC Chair that DMAS determine a plan, including budget estimates, to rebase the costs used to establish the per resident amount for DME payments and report to JCHC by September 2016.
  - Include estimates for rebasing up to 100% of Medicaid's portion of a hospital's GME cost.

- Option 3: Introduce budget amendment (language and funding) for DMAS to amend the State plan to establish an additional Medicaid health professional training supplemental payment. Funds would be based on an average per resident amount of \$140,000
  - Criteria developed by DMAS would set aside half of the available funds to support expansion of primary care training programs and the remainder for other needed specialties (e.g. psychiatry).
  - Preference for primary care programs would be given to programs that extend their training to community settings, especially in rural or underserved areas.

Option 4: Request by letter of the JCHC Chair that the Virginia Health Workforce Development Authority, working with the stakeholder Graduate Medical Education Advisory Group, contact hospitals that have never had residency programs to determine which ones may be interested in developing such programs and what support, including seed money, might be needed to develop successful programs.

- Option 5: Request by letter of the JCHC Chair that the Virginia Health Workforce Development Authority, working with the Virginia Community Healthcare Association and the stakeholder Graduate Medical Education Advisory Group, assess whether it is prudent to develop residency programs based on the Teaching Health Center GME Program Model in Virginia and, if so, what would be needed to develop successful programs, with a report to the Commission by September 2016.
- Option 6: Request by letter of the JCHC Chair that the Virginia Health Workforce Development Authority, working with the stakeholder Graduate Medical Education Advisory Group, assess whether it is prudent to develop a Virginia Sole Community Hospital Residency Fund and, if so, what would be needed to develop successful programs, with a report to the Commission by September 2016.

- Option 7: Request by letter of the JCHC Chair that the Virginia Health Workforce Development Authority, working with the stakeholder Graduate Medical Education Advisory Group, assess the effectiveness of the State Loan Repayment Program and the potential benefits of expansion of the program, with a report to the Commission by September 2016.
- Option 8: Request by letter of the JCHC Chair that the Virginia Health Workforce Development Authority, working with the stakeholder Graduate Medical Education Advisory Group, develop a plan for a GME governing body in Virginia, whose responsibilities would include:
  - Guide workforce and GME data collection
  - Provide policy recommendations and oversee policy implementation
  - Assure that the GME system is meeting the needs of the State and each of its regions

## **Public Comments**

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- Written public comments on the proposed options may be submitted to JCHC by close of business on October 28, 2015. Comments may be submitted via:
  - E-mail: sreid@jchc.virginia.gov
  - **Facsimile:** 804-786-5538
  - Mail: Joint Commission on Health Care
    P.O. Box 1322
    Richmond, Virginia 23218
- Comments will be summarized and included in the Decision Matrix which will be discussed during the JCHC meeting on November 4, 2015.

#### Joint Commission on Health Care 900 East Main Street, 1<sup>st</sup> Floor West P. O. Box 1322 Richmond, VA 23218 (804) 786-5445

Website: http://jchc.virginia.gov