Restructuring Graduate Medical Education Payments

Session Law 2015-241, Section 12H.23.(d)

Report to the

Joint Legislative Oversight Committee on Health and Human Services

and

The Fiscal Research Division

by

North Carolina Department of Health and Human Services

March 1, 2016
Authorizing Legislation

Session Law 2015 – 264

SECTION 88. Section 12H.23(a) of S.L. 2015-241 reads as rewritten:
"SECTION 12H.23.(a) The Department of Health and Human Services shall submit a State Plan amendment to modify Section 4.19-A of the Medicaid State Plan, such that, effective January 1, 2016, no Medicaid provider may receive reimbursement for Graduate Medical Education (GME) in addition as an add-on to their DRG Unit Value (Base) rate under the DRG payment methodology as defined in the current Medicaid State Plan. GME costs will continue to be allowable Medicaid cost to be recorded on the hospital's Medicaid cost report in accordance with Medicare cost reporting requirements. GME costs will continue to be allowable in the calculation of supplemental payments made as part of cost settlements, Medicaid Reimbursement Initiative (MRI) and Upper Payment Limit (UPL) models as defined in the State Plan and allowed by the Centers for Medicare and Medicaid Services (CMS). This section shall not be construed to require the Department to submit any State Plan amendment to CMS that increases State funding requirements or that would impair achievement of the savings required by the "Hospital Inpatient Base Rates – GME" item in the Joint Conference Committee Report on the Base, Expansion, and Capital Budgets in the amount of twelve million seven hundred forty-eight thousand seven hundred ninety-five dollars ($12,748,795) in fiscal year 2015-2016 and the amount thirty-one million one hundred twenty-seven thousand two hundred four dollars ($31,127,204) in fiscal year 2016-2017."

Session Law 2015 – 241

RESTRICTING GRADUATE MEDICAL PAYMENTS

SECTION 12H.23.(a) The Department of Health and Human Services shall submit a State Plan amendment to modify Section 4.19-A of the Medicaid State Plan, such that, effective January 1, 2016, no Medicaid provider may receive reimbursement for Graduate Medical Education (GME) in addition to their DRG Unit Value (Base) rate under the methodology as defined in the current Medicaid State Plan.

SECTION 12H.23.(b) The modification to the Medicaid State Plan required by subsection (a) of this section shall be implemented upon approval by the Centers for Medicare & Medicaid Services (CMS).

SECTION 12H.23.(c) The Department of Health and Human Services, Division of Medical Assistance, shall be exempt from the 90-day prior submission requirement in G.S. 108A-54.1A(e) in order to submit to CMS the State Plan amendment required to implement this section but shall submit the State Plan amendment by January 1, 2016.

SECTION 12H.23.(d) The Department of Health and Human Services, Division of Medical Assistance, shall submit a report to the Joint Legislative Oversight Committee on Health and Human Services and the Fiscal Research Division by March 1, 2016, identifying options for alternative funding streams to replace the GME reimbursement eliminated by this section.
INTRODUCTION

In Session Law 2015-241, Section 12H.23.(d), the General Assembly directed the Department of Health and Human Services, Division of Medical Assistance (DMA), to submit a report to the Joint Legislative Oversight Committee on Health and Human Services and the Fiscal Research Division by March 1, 2016, identifying options for alternative funding streams to replace the Graduate Medical Education (GME) reimbursement eliminated by Section 12H.23.(a).

This report includes the following sections
I. Background and Problem Statement
II. Literature Review
III. Legislative Options and Recommendations for Consideration
IV. Oversight and Recommended Guiding Principles
V. Conclusion

I. BACKGROUND and PROBLEM STATEMENT

Reimbursement of Direct and Indirect Graduate Medical Education Costs

Under the North Carolina State Plan, a teaching hospital is a facility that is operating a Medicare approved graduate medical education program in accordance with 42 CFR Part 413 Subpart F. Since 1994, the North Carolina Medicaid program has been reimbursing teaching hospitals for Graduate Medical Education (GME) cost by an add-on payment to the hospital’s specific Diagnoses Related Group (DRG) Unit Value (Base) rate. The GME add-on payment was adjusted annually based upon the teaching hospital’s last filed cost report. The methodology for the calculations and the authority to receive federal participation in the payments is found in the CMS approved State Plan Amendment.

Session Law 2015 – 241, Section 12H.23.(a) authorized DMA to submit a State Plan Amendment such that the GME add-on payment would no longer be added to the Base rate. Session Law 2015 – 264 amended this section to authorize DMA to recognize direct and indirect medical education cost as an allowable Medicaid cost to be included on the teaching hospital’s cost report in accordance with Medicare cost principles. The impact of this legislation during State fiscal year 2016 – 2017 reduces the payments to the hospitals by approximately $30 million while preserving the hospital’s ability to re-capture the federal share of approximately $60 million through the MRI/GAP supplemental payments. The following table details the estimated reductions by hospital for State fiscal year 2016 – 2017.
### Estimated Reduction in Medicaid IME & GME Expenditures for State Fiscal Year 2016 - 2017

<table>
<thead>
<tr>
<th>Hospital Facility</th>
<th>Total Expenditure IME &amp; GME</th>
<th>Federal Share of the Expenditure</th>
<th>State Share of the Expenditure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Blue Ridge Healthcare Hospitals</td>
<td>$(466,049)</td>
<td>$(310,948)</td>
<td>$(155,101)</td>
</tr>
<tr>
<td>Cape Fear Valley Medical Center</td>
<td>$(831,568)</td>
<td>$(554,822)</td>
<td>$(276,746)</td>
</tr>
<tr>
<td>Carolinas Medical Center</td>
<td>$(8,669,018)</td>
<td>$(5,783,969)</td>
<td>$(2,885,049)</td>
</tr>
<tr>
<td>Carolinas Medical Center - Mercy</td>
<td>$(66,415)</td>
<td>$(44,312)</td>
<td>$(22,103)</td>
</tr>
<tr>
<td>Carolinas Medical Center - Northeast</td>
<td>$(518,021)</td>
<td>$(345,624)</td>
<td>$(172,397)</td>
</tr>
<tr>
<td>Carolinas Rehabilitation</td>
<td>$(189,937)</td>
<td>$(126,726)</td>
<td>$(63,211)</td>
</tr>
<tr>
<td>Duke University Hospital</td>
<td>$(14,861,863)</td>
<td>$(9,915,835)</td>
<td>$(4,946,028)</td>
</tr>
<tr>
<td>Durham Regional Hospital</td>
<td>$(581,703)</td>
<td>$(388,112)</td>
<td>$(193,591)</td>
</tr>
<tr>
<td>Forsyth Memorial Hospital</td>
<td>$(529,834)</td>
<td>$(353,505)</td>
<td>$(176,329)</td>
</tr>
<tr>
<td>Margaret R. Pardee Memorial Hospital</td>
<td>$(73,277)</td>
<td>$(48,891)</td>
<td>$(24,387)</td>
</tr>
<tr>
<td>Mission Hospital</td>
<td>$(1,394,649)</td>
<td>$(930,510)</td>
<td>$(464,139)</td>
</tr>
<tr>
<td>Moses H. Cone Memorial Hospital</td>
<td>$(1,250,752)</td>
<td>$(834,501)</td>
<td>$(416,250)</td>
</tr>
<tr>
<td>New Hanover Regional Medical Center</td>
<td>$(1,502,623)</td>
<td>$(1,002,550)</td>
<td>$(500,073)</td>
</tr>
<tr>
<td>North Carolina Baptist Hospital</td>
<td>$(17,256,344)</td>
<td>$(11,513,433)</td>
<td>$(5,742,911)</td>
</tr>
<tr>
<td>Union Regional Medical Center</td>
<td>$(116,798)</td>
<td>$(77,928)</td>
<td>$(38,870)</td>
</tr>
<tr>
<td>University of North Carolina Hospital</td>
<td>$(26,692,938)</td>
<td>$(17,809,528)</td>
<td>$(8,883,410)</td>
</tr>
<tr>
<td>Vidant Medical Center</td>
<td>$(13,540,793)</td>
<td>$(9,034,417)</td>
<td>$(4,506,376)</td>
</tr>
<tr>
<td>Wake Medical Center</td>
<td>$(1,866,744)</td>
<td>$(1,245,492)</td>
<td>$(621,252)</td>
</tr>
<tr>
<td><strong>Total of Estimated Reduction</strong></td>
<td><strong>$(90,409,327)</strong></td>
<td><strong>$(60,321,103)</strong></td>
<td><strong>$(30,088,224)</strong></td>
</tr>
</tbody>
</table>

Table 1 – Source: DMA SPA Impact

While the teaching hospitals do have the ability to receive approximately $60 million removed from the claims payment via the supplemental payments, they will realize an approximate $30 million reduction in cash to cover the GME cost. Both Vidant Medical Center and UNC – Chapel Hill have the ability to capture their share of the $30 million through cost settlement or supplemental payments. The other hospitals, however, will need to find other funding sources, reduce expenditures, or both to cover this cash shortfall.

Currently, Medicaid beneficiaries do not experience access to care issues, however, the predominantly rural state of North Carolina has a shortage of health professionals in many counties. That shortage puts the general population - not just Medicaid beneficiaries – at risk for access to care issues.
The short- and long-term effects of the $30 million shortfall in teaching facilities could lead to an immediate reduction in the number of residency slots (and therefore potentially higher health professional shortages). And any short-term erosion of the infrastructure to train and support providers in-state will have long-term effects. It takes nearly a decade to prepare a physician to practice, so if North Carolina reaches a critical state of health professional shortages, it will take a number of years to expand the training base and resulting workforce back to its original level or better. That recalibration could be far more expensive than reinstating the recurring funding that was recently repealed.

Alternatives

To better understand the alternatives and a solution, DMA engaged the North Carolina Office of Rural Health (ORH) to provide the General Assembly a comprehensive strategy to improve the State’s GME reimbursement structure.

North Carolina’s rural and underserved communities continue to experience long-standing health professional service shortages. As of January 2016, 1.8 million of North Carolina’s 9.9 million population received Medicaid. Over 500,000 of these Medicaid recipients live in rural and underserved areas. As a result, a large percentage of North Carolina’s Medicaid population does not have enough health care professionals in their communities. In addition, the Cecil G. Sheps Center for Health Service Research (Sheps Center) reports:

- North Carolina is facing physician workforce shortages in the following three specialty areas: primary care, general surgery, and psychiatry.¹
- North Carolina (42%) lags behind the national average (48%) in retaining physicians in-state after they complete residency training in North Carolina.²
- Only 21% of those retained physicians go into primary care and only 5% go into rural primary care.³

The North Carolina Office of Rural Health (ORH) designates health professional shortage areas (HPSA) in primary care, mental health, and dental on behalf of the federal government.
Figure 1: Map of Primary Care Health Professional Shortage Areas

Figure 2: Map of Dental Health Professional Shortage Areas
In addition to the HPSA designation categories, data shows that North Carolina’s rural areas are experiencing a shortage in general surgeons, which has a negative effect on the viability of both small rural hospitals and local primary care providers.\textsuperscript{5}

Table 1: The Economic Impact of a Rural Primary Care Physician and the Potential Health Dollars Lost to Out-migrating Health Services\textsuperscript{15}

<table>
<thead>
<tr>
<th>Total Impact of a Physician on Revenues, Income and Employment at Physician Clinic and Hospital$\textsuperscript{1}</th>
<th>Revenue</th>
<th>Output Multiplier</th>
<th>Total Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic</td>
<td>$394,275</td>
<td>1.37</td>
<td>$540,157</td>
</tr>
<tr>
<td>Hospital</td>
<td>$751,949</td>
<td>1.32</td>
<td>$992,573</td>
</tr>
<tr>
<td>Total</td>
<td>$1,146,224</td>
<td></td>
<td>$1,532,730</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Income and Total Impact</th>
<th>Income</th>
<th>Income Multiplier</th>
<th>Total Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic</td>
<td>$286,925</td>
<td>1.16</td>
<td>$332,833</td>
</tr>
<tr>
<td>Hospital</td>
<td>$434,627</td>
<td>1.28</td>
<td>$556,323</td>
</tr>
<tr>
<td>Total</td>
<td>$721,552</td>
<td></td>
<td>$889,156</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Employment and Total Impact</th>
<th>Employment</th>
<th>Employment Multiplier</th>
<th>Total Impact</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clinic</td>
<td>4.0</td>
<td>1.38</td>
<td>5.5</td>
</tr>
<tr>
<td>Hospital</td>
<td>12.6</td>
<td>1.38</td>
<td>17.4</td>
</tr>
<tr>
<td>Total</td>
<td>16.6</td>
<td></td>
<td>22.9</td>
</tr>
</tbody>
</table>

\textsuperscript{1}Income includes wages, salaries and benefits
To successfully place and retain critical health care professionals in rural and underserved areas, research indicates that a multi-faceted approach will be needed to align the educational system with North Carolina’s health care workforce needs.

- The American Medical Association Physician Masterfile shows that 56% of family medicine residency program graduates practice within 100 miles of their residency program. Of note, 19% locate within five miles, and 39% locate within 25 miles.
- Family physicians trained in Federally Qualified Health Centers (also known as Community Health Centers) are 2.7 times more likely to work in underserved settings.

Table 2: Association between Community Health Center Training and Working in an Underserved Area

<table>
<thead>
<tr>
<th>Underserved Types</th>
<th>CHC-trained Physicians* (%)</th>
<th>Non CHC-trained Physicians (%)</th>
<th>Bivariate Association P Value**</th>
<th>Multivariate Association OR (95% CI)***</th>
</tr>
</thead>
<tbody>
<tr>
<td>Working underserved</td>
<td>63.9</td>
<td>37.3</td>
<td>&lt;.001</td>
<td>2.7 (1.6, 4.7)</td>
</tr>
<tr>
<td>Community Health Centers (CHCs)</td>
<td>28.3</td>
<td>7</td>
<td>.001</td>
<td>3.4 (1.6, 6.7)</td>
</tr>
<tr>
<td>Indian Health Service</td>
<td>9.7</td>
<td>3.8</td>
<td>.018</td>
<td>2.5 (.9, 5.9)</td>
</tr>
<tr>
<td>Medically underserved area</td>
<td>20.8</td>
<td>9</td>
<td>.001</td>
<td>2.4 (1.2, 4.5)</td>
</tr>
<tr>
<td>Migrant Health Clinic</td>
<td>8.3</td>
<td>3.3</td>
<td>.029</td>
<td>2.4 (.93, 6.3)</td>
</tr>
<tr>
<td>Rural Health Clinic</td>
<td>18.1</td>
<td>6.4</td>
<td>&lt;.001</td>
<td>2.4 (1.2, 5)</td>
</tr>
<tr>
<td>Health Professional Shortage Area</td>
<td>6.9</td>
<td>7.8</td>
<td>.79</td>
<td>.9 (.36, 2.5)</td>
</tr>
<tr>
<td>National Health Services Corp commitment</td>
<td>4.2</td>
<td>3.9</td>
<td>.92</td>
<td>.81 (.23, 2.8)</td>
</tr>
</tbody>
</table>

*The data in the CHC and non-CHC-trained physicians represent the percent of physician working in each of the underserved categories.
**P value calculated using chi-square analysis
***OR = odds ratio and 95% confidence intervals (CI) from multivariate logistic regression controlling for gender, FTE, and year from graduation.
****Working underserved indicates physicians working in at least one of the seven categories of underserved clinics at least 50% time.
• Health Resources and Services Administration (HRSA) reports that physicians trained in teaching health centers are more than three times as likely to work in a health center and more than twice as likely to work in an underserved area as those not trained at health centers.

• Though not rural focused, state retention rate increases to 67% when physicians complete both an in-state medical school and residency program.

• Loan repayment programs, such as those funded by the National Health Service Corp (NHSC) and ORH, play a large role in recruitment of physicians to HPSA. With support from Governor Pat McCrory and the North Carolina General Assembly in 2015, ORH expanded state loan repayment to include general surgeons placed in Critical Access Hospitals (CAHs).

Percentage of Medical Students Remaining in North Carolina

In State Fiscal Year (SFY) 15, North Carolina Area Health Education Centers (AHEC) spent a total of $9.7 million for GME in support of community and primary care residencies, including stipends which go directly to training institutions, and in other support of residency programs and their clinical services. In SFY 15, legislators appropriated an additional $8 million to the Mountain Area Health Education Center (MAHEC) to develop a new general surgery and community-based general psychiatry program, to expand existing family medicine residencies, and develop other services in support of education and training in rural areas.

New Medicare GME funds can be accessed when new residency programs are developed in hospitals that are not under the Medicare GME cap. This is commonly referred to as “virgin”
hospitals. Preliminary conversations with HRSA) suggest that residency programs developed in a CAH would have additional considerations and potential opportunity to leverage federal resources.

Grant Funded Efforts

The UNC Department of Family Medicine, through a partnership with Piedmont Health Services, Inc. - Prospect Hill has developed the first community-based residency in a Federally Qualified Health Center (FQHC). The Duke Endowment, Kate B. Reynolds Charitable Trust, Blue Cross and Blue Shield Foundation, and the Golden Leaf Foundation have provided support for planning, an initial cohort of residents, and expansion in the final year of the initiative. However, philanthropic foundation funding will end in Federal Fiscal Year (FFY) 2017.

HRSA, through federal authorization, grant funded the Teaching Health Center GME (THC GME) with a focus on increasing the number of primary care residents and dentists trained in community-based settings. THC GME grants paid for direct and indirect medical educational expenses for training residents in new or expanding community-based clinical training sites, including FQHCs, FQHC Look-Alikes, community mental health centers, rural health clinics, Indian Health Service or Tribal clinics, and Title X family planning clinics. HRSA provided $150,000 per residency slot per year.

In FFY14, HRSA granted over $1 million to Mountain Area Health Education Center (MAHEC) for three teaching health center programs that focused on general dentistry and family medicine in Asheville and family medicine at the FQHC in Hendersonville. In addition, a pediatric residency at Moses Cone and a family medicine residency at New Hanover were grant funded by HRSA. The federal THC GME funds currently do not have recurring appropriations and no THC GME grants competition is planned for FFY16 or FFY17.

North Carolina is a predominately rural state with a significant shortage of primary care, mental health, and surgical providers for the general and Medicaid populations. Persistent health professional shortages in rural and underserved areas will be further exacerbated by permanent loss of state and federally-funded GME. Although there are current philanthropic foundation and federal grants available to support academic and teaching health centers, those funding sources will become obsolete in the coming year. The reauthorization of State-funded GME reimbursement is an essential priority as the aforementioned alternative funding streams phase out.

NC GME Provider Outcomes

Currently, GME recipients have not been required to report on how GME funds are used. Therefore, North Carolina’s data is limited and DHHS cannot provide comprehensive data on:

- The number of medical students receiving in-state tuition, by county and statewide
- The number of students receiving state-supported GME, by county and statewide
- The types of specialties trained with state-supported GME
- The specialties in which health professionals practice after receiving state-supported GME
• The geographic distribution of health professionals who practice after receiving state-supported GME

The Sheps Center does have access to licensure data for physicians who currently practice in North Carolina. This data includes the place of residency and gives some indication of outcomes. Table 3 below shows current outcomes for North Carolina’s residencies.  

<table>
<thead>
<tr>
<th>Residency Location</th>
<th>Location Characteristics</th>
<th>AHEC Funded</th>
<th>Total MDs</th>
<th>MDs practicing in Rural</th>
<th>Percent in Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hendersonville</td>
<td>Community Based</td>
<td>X</td>
<td>13</td>
<td>5</td>
<td>38%</td>
</tr>
<tr>
<td>MAHEC</td>
<td>Lower Metro Region</td>
<td>X</td>
<td>166</td>
<td>41</td>
<td>25%</td>
</tr>
<tr>
<td>ECU/Vidant</td>
<td>Lower Metro Region</td>
<td></td>
<td>714</td>
<td>153</td>
<td>21%</td>
</tr>
<tr>
<td>SEAHEC</td>
<td>Lower Metro Region</td>
<td>X</td>
<td>158</td>
<td>33</td>
<td>21%</td>
</tr>
<tr>
<td>SR-AHEC</td>
<td>Lower Metro Region</td>
<td>X</td>
<td>68</td>
<td>13</td>
<td>19%</td>
</tr>
<tr>
<td>Cabarrus</td>
<td>Community Based</td>
<td>X</td>
<td>64</td>
<td>9</td>
<td>14%</td>
</tr>
<tr>
<td>Cone</td>
<td></td>
<td>X</td>
<td>283</td>
<td>38</td>
<td>13%</td>
</tr>
<tr>
<td>Wake</td>
<td></td>
<td></td>
<td>1491</td>
<td>131</td>
<td>9%</td>
</tr>
<tr>
<td>UNC</td>
<td></td>
<td></td>
<td>1756</td>
<td>137</td>
<td>8%</td>
</tr>
<tr>
<td>CMC</td>
<td></td>
<td>X</td>
<td>664</td>
<td>46</td>
<td>7%</td>
</tr>
<tr>
<td>Duke</td>
<td></td>
<td></td>
<td>1753</td>
<td>119</td>
<td>7%</td>
</tr>
<tr>
<td>Womack</td>
<td></td>
<td></td>
<td>18</td>
<td>1</td>
<td>6%</td>
</tr>
<tr>
<td>Monroe</td>
<td>Community Based</td>
<td>X</td>
<td>4</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Lejeune</td>
<td></td>
<td></td>
<td>4</td>
<td>0</td>
<td>0%</td>
</tr>
<tr>
<td>Community Based</td>
<td></td>
<td></td>
<td>81</td>
<td>14</td>
<td>17%</td>
</tr>
<tr>
<td>Not Community Based</td>
<td></td>
<td></td>
<td>707</td>
<td>711</td>
<td>10%</td>
</tr>
<tr>
<td>AHEC</td>
<td></td>
<td></td>
<td>1163</td>
<td>170</td>
<td>15%</td>
</tr>
<tr>
<td>Not AHEC</td>
<td></td>
<td></td>
<td>5994</td>
<td>556</td>
<td>9%</td>
</tr>
</tbody>
</table>

II. LITERATURE REVIEW

Promising Practices from Other States

There is a growing trend in which states are increasing their efforts to develop and keep their graduates close to home. Several states are reviewing their use of GME funds to increase accountability and align with an objective to increase retention and placement in underserved areas. 12, 13, 14 South Carolina formed a GME Advisory Group which published a report that calls for reform. A process is needed to significantly improve the placement and retention of providers in underserved areas. This process may recruit a student from the community, have him/her stay
in-state to receive his/her education and community-based residency training, and place the individual in the underserved area. The report calls for reform to state-funded GME. As other states increase their success in retaining their providers, it could become increasingly difficult to recruit their graduates to relocate in North Carolina’s underserved areas.

The following states have provided new appropriations:

- **Georgia:** $10 million (FY 13-15) in start-up funds for “virgin” hospitals to create GME programs in needed geographies and specialties
- **Florida:** $20.6 million added to Medicaid funds to create a statewide residency program. Funds are available to any hospital that agrees to establish a residency program.
- **Texas:** $2 million for “virgin” hospital planning grants and $7.5 million to support accredited and unfilled or newly accredited positions.

A New Mexico study demonstrated that 70% of family medicine residents who trained in rural areas of the state continued to practice in rural areas. The New Mexico legislature redirected state Medicaid funds to help open new primary residency slots in underserved areas of the state and built on legislation that established financing for the New Mexico Primary Care Training Consortium. If approved, Medicaid will issue enhanced payments to the FQHCs to cover the incremental costs of the residency program. The estimated cost per resident per year discussed in the initial legislation—approximately $150,000—was based upon the federal grant funding level initially established by HRSA in funding THCs in FQHCs.

### III. LEGISLATIVE OPTIONS AND RECOMMENDATIONS

**I.** DMA acts as the control by which North Carolina’s academic teaching centers leverage current federal GME for Medicaid. Enact legislation that requires annual outcome reporting related to the use of these funds.

- To further the goal of building comprehensive integrated data sets, allow ORH to use a portion of its loan repayment appropriation to contract with the Sheps Center
- The Sheps Center shall provide workforce modeling to identify professional and geographic shortage areas, conduct data collection and analysis to evaluate GME program effectiveness, and shape future GME funding decisions
- The data shall be transparent and available to the general public
- DMA shall continue to work with ORH to determine, and if appropriate, leverage current federal match to reduce the amount of state appropriations utilized.

**II.** Over a four-year time period, redirect $30 million in state appropriations removed by Session Law 2015-241 Section 12-23H.(a) to invest in a significant, purposeful expansion of GME, focusing on underserved areas and specialties needed to meet the health care needs of the state’s population. Historically, these funds provided the state share to traditional teaching hospitals. This option would develop residencies in rural areas and bring a triple benefit: the residencies deliver needed care to communities with limited access to care; new high-quality jobs are created which support overall economic development; and graduates of community-based residency programs have a much higher likelihood of staying in the state, working in needed specialties, and practicing in underserved areas.
Organizing Principles:

- The focus will be on specialties needed for improving the health of the population, family medicine (and other primary care providers such as general pediatrics and general medicine); general OB/GYN; general surgery; and community psychiatry. In addition, when reviewing the academic health center data, specialty areas that warrant attention, such as urology, will be identified. There will be a regular review of priorities, based on workforce data and changes in the health care systems, with guidance from the GME Governing Board, which shall be appointed by the DHHS Secretary.

- Residency placement will be in rural and underserved communities, with strong ties to local and regional hospitals as well as affiliation and support of academic center faculty. These community-based residencies (CBR) will receive state or CMS designation necessary to access additional federal match.

- The emphasis will be on the curricula necessary for rural communities—broad scope of practice, team-based care, behaviorally integrated care, population health, and quality improvement, with close linkage to community resources. All programs will be recognized by the Accreditation Council for Graduate Medical Education (ACGME).

- The Sheps Center shall collect, analyze, and present data to the GME Governing Board to guide decisions about how to prioritize the specialties and geographic areas that should be targeted in the application process.

- Communities and their health care providers will be engaged in the process. This will be addressed through a formal application process, and supported by regular site visits to engage and support communities in the process.

- Over the long term, success will depend on comprehensive support of the new residencies, including health career development, student rotations, practice support and financial technical assistance, loan repayment, and continuing professional development.

- AHEC will support the development of the new residencies with technical assistance, site development, faculty recruitment and development, housing and coordination for student rotations, resident recruitment, and support of the residency to assure quality of care. Leadership development at many levels will be critical and AHEC will partner with other organizations to implement programs. Special consideration will be given to FQHCs, CMS-certified Rural Health Clinics and/or CAH as well as “virgin” hospitals that currently can leverage additional Medicare GME payments.

- ORH will support the residencies and their core practices through technical assistance to leverage additional federal GME resources. ORH and AHEC will work with the Rural Training Track Technical Assistance Program as issues regarding Medicare GME slots and payment to CAHs are quite complex.

- Special consideration may be granted to collaborations with a Rural Track and/or Integrated Rural Track (as defined in 42 CFR 413.75), which means an approved residency training program established by an urban hospital in which residents train for a portion of the program at the urban hospital and then rotate for a portion of the program to a rural hospital(s) or a rural non-hospital site(s).
- The Sheps Center will serve as the central point for uniform data collection, analysis, and reporting on all existing and new GME sites. The Sheps Center will link these data to other sources of information to track the outcomes of residency program graduates funded through this initiative, including where graduates practice and in what specialty they are practicing five and ten years after completing residency training.
- A key element of success will be the amount of student demand to join these practices and communities. This will depend crucially on the leadership of the residencies, the quality of the programs, the engagement of the communities, as well as important and related support for student rotations, continuing education, and support for new practices for graduates. There are several schools with recent expansions that will provide additional medical students. The proposed expansion will provide an opportunity to keep more North Carolina medical student graduates in the state for residency and practice.
- Another key element of success is engagement with other residencies. AHEC will integrate these residencies with its other residencies providing a collaborative learning network for practice and educational redesign, as well as faculty development. Travel to other residencies and an annual meeting will be supported.
- Other professional educational opportunities will be aligned with GME. Surveys have shown 97% of the 20,000 medical students graduating in the US every year indicate they do not plan to practice in a rural area. There is evidence that any program designed to bring providers to underserved areas must identify students from these rural areas, and once admitted, cultivate and incentivize their desire to serve in an underserved rural area. The core residency teaching practices will be inter-professional educational sites, with faculty and learners from a variety of disciplines. AHEC and its local educational partners will align as much as possible with other health professional educational programs. Linkages will be developed with specific nurse practitioner/doctor of nursing practice (NP/DNP) and physician’s assistant (PA) programs focusing on developing providers for rural and underserved areas, with special emphasis on fellowship programs for advanced practice practitioners who want to work in challenging rural settings.

**Finances**

- This will be a public/private partnership with the federal government, the State, the local community and other private sources contributing to the initiative.
- ORH will serve as the fiscal agent. The fiscal agent will oversee the administration of contracts necessary for implementation, data collection and resources for the community-based residencies.
- ORH will provide financial technical assistance and subcontract to AHEC and the Sheps Center for specific services. ORH will also explore direct support of the educational and workforce data functions through the UNC System’s support of AHEC and the Sheps Center.
- An objective will be to obtain as much federal support as possible, through Medicaid service match and Medicare GME. However, there will likely be settings in which GME match will not be possible, but a community will still need a community-based residency.
• The Governing Board shall engage other funders who have previously expressed interest in efforts that address health care workforce in underserved areas

• There is a range for residency costs. Estimates range from $100,000/resident/year to $150,000/resident/year. For the two FQHC-based residencies in North Carolina, which serve as models, there are significant variations in cost. Piedmont Health Services, Inc. - Prospect Hill costs about $80,000/resident/year, while Blue Ridge Community Health Center costs $175,000+/resident/year. This variation is due to the use of base residency infrastructure, pro bono work at UNC Chapel Hill, and the accounting of revenue earned by residents. An estimated average cost for North Carolina is proposed at $125,000/resident/year. Therefore, a 4/4/4 Family Medicine residency would cost about $1.5 million per year when fully engaged. Psychiatry residencies are four years in length and bring in less income. General surgery residencies are five years in length and require substantial investment and surgical volume, but can also bring in substantial income to hospitals.

• DHHS envisions an “auto-catalytic” long-term process. North Carolina will invest in new residencies and training programs. As these new programs acquire federal GME funding, the State support will be reinvested into new training programs—explicitly to include training of other professionals necessary for the Medicaid population. Thus, a mechanism will be put in place that will evolve and increase over time.

Estimated Timeline
This represents a long-term strategic investment in the regions. All cohorts will be required to report transparent outcome data annually to Sheps Center. Long-term funding will be aligned to support and expand community based residency programs that successfully address critical health care workforce needs for the state.

• Year 1 – $7 million
  o Secure the necessary state staff and infrastructure as outlined below
  o Cohort 1 -
    ▪ Stabilize existing community based residencies that include HRSA’s teaching health center grants. These include: Wilmington (2/2/2 family medicine), Prospect Hill (3/3/3), Greensboro Pediatrics (4/4/4), Blue Ridge Community Health Center (w/MAHEC) (3/3/3 Family Medicine (FM)) Total cost=38 residents @ $125,000 = $4.75 million per year
      • Secure financial data with regards to Medicare/Medicaid GME currently leveraged and provide additional funding necessary for sites to have a total receipt of $125,000 per residency
      • For the two FQHC-based residency programs, explore if options are available for Medicare enhanced GME payment (42 CFR 413.75 & 42 CRF 405.2469)
      • Provide technical assistance to assure national accreditation
  o Cohort 2 -
    ▪ Support start-up of new community-based primary care residencies, including the family medicine residencies at Lumberton, Huntersville, and Sampson, including initial support of residencies at $125k/resident/year up to $1.25 million. With administrative resources, provide technical
assistance with ACGME certification, faculty development and other support for health careers and housing through the AHEC system. ORH will also explore further support through cost based reimbursement.

- Secure financial data with regards to Medicare/Medicaid GME currently leveraged and provide additional funding necessary for sites to have a total receipt of $125,000 per residency
  - Cohort 3 –
    - Develop potential new sites through RFA and application process
    - Select the third cohort of community based residencies

- Year 2 - $15 million
  - Cohort 1 and 2
    - Continue to provide financial and quality technical assistance
    - Reduce the site’s grant award by the amount of Medicare or Medicaid GME funding leveraged
  - Cohort 3
    - Hire residency directors and faculty, interact with local governance, and establish clinical protocols and potential building infrastructure.
    - The design will seek to maximize future Medicare GME
  - Cohort 4
    - Develop potential sites through RFA and application process
    - Select the fourth cohort of community based residencies

- Year 3 $20 million
  - Cohort 1 and 2
    - Continue to provide financial and quality technical assistance
    - Reduce the site’s grant award by the amount of Medicare or Medicaid GME funding leveraged
  - Cohort 3
    - Finalize curriculum, recruit residents, and develop practice and student rotations
  - Cohort 4
    - Hire residency directors and faculty, interact with local governance, and establish clinical protocols and potential building infrastructure.
    - The design will seek to maximize future Medicare GME
  - Cohort 5
    - Develop potential sites through RFA and application process
    - Select the fifth cohort of community based residency

- Year 4 – $30 million (recurring)
  - Cohort 1 and 2
    - Continue to provide financial and quality technical assistance
    - Reduce the site’s grant award by the amount of Medicare or Medicaid GME funding leveraged
  - Cohort 3
    - New residents begin (Assume between $125,000 and $150,000 per resident per year. A 4/4/4 residency would likely be between $1.5 million and $ 1.8 million once fully built out.)
  - Cohort 4
- Finalize curriculum, recruit residents, and develop practice and student rotations
  - Cohort 5
    - Hire residency directors and faculty, interact with local governance, and establish clinical protocols and potential building infrastructure
    - The design will seek to maximize future Medicare GME
  - Cohort 6
    - Develop potential sites through RFA and application process
    - Select the fifth cohort of community based residency

- Year 5 – $30 million (recurring)
  - Cohort 1, 2 and 3
    - Continue to provide financial and quality technical assistance
    - Reduce the site’s grant award by the amount of Medicare or Medicaid GME funding leveraged
  - Cohort 4
    - New residents begin (Assume between $125,000 and $150,000 per resident per year. A 4/4/4 residency would likely be between $1.5 million and $1.8 million once fully built out.)
  - Cohort 5
    - Finalize curriculum, recruit residents, and develop practice and student rotations Cohort 6
    - Hire residency directors and faculty, interact with local governance, and establish clinical protocols and potential building infrastructure
    - The design will seek to maximize future Medicare GME

**State Staffing and Budget**
- Request authorization of up to $1 million for administration, oversight, data collection, and on-site, in-depth technical assistance provided by ORH, AHEC, the Sheps Center, or as directed by the Governing Board
- Operational needs include:
  - Program Administrator that would oversee: development of RFA process, contracts, budget, and staff for the GME Governing Board
  - AHEC will provide the professional staff necessary to develop and oversee the new community-based residencies. This includes an Associate Director for GME (0.50 FTE Family Medicine MD, GME Activities Coordinator, and Practice Support Coach. (ORH will subcontract services.)
  - Faculty development/recruitment/support and specific faculty development programs/travel will also be provided by AHEC (ORH will subcontract services)
  - Regional AHEC FTEs (depending on number of residencies) will include a coordinator for continuing professional support, regional community preceptor support, and health careers (ORH will subcontract for services.)
  - Housing for students doing rotations, as every residency should ensure a place for visiting students to stay. This will be administered through AHEC student housing services, and would represent only an incremental addition. The Sheps Center will require a data analyst, a portion of a data programmer, and a senior
researcher. Additional data may need to be purchased through the Association of American Medical Colleges (AAMC)

ORH will secure a financial consultant to assist the community-based residencies in leveraging additional federal GME. ORH will provide an additional recruitment staff member to assist these residents with placement services in North Carolina’s rural communities.

III. DMA will work to secure CMS authorization for options that will assist designated community-based residency programs to, when appropriate, access additional federal Medicaid resources. This would assist DMA in maintaining compliance with new CMS Medicaid Access Requirements as mandated in the Social Security Act that became effective January 4, 2016.

- Access additional federal service match for existing (or future qualified community-based) residency programs
- Expand Medicaid’s authority to fund FQHCs, RHCs and/or CAHs following the same payment methodology that is currently allowable under Medicare enhanced GME payment (42 CFR 413.75 & 42 CFR 405.2469)
- Through a State Plan amendment or the 1115 waiver, request state authority to designate community-based residencies for the purpose of receiving enhanced Medicaid GME payments
- Utilize the same data reporting requirement captured in Option I to increase expectations that the academic centers currently leveraging federal Medicaid match begin to develop necessary providers that practice in underserved areas. It is anticipated that under Delivery System Reform Incentive Payment Program (DSRIP), additional federal match is unlinked from claims and moves to outcome-based payments.

IV. OVERSIGHT AND RECOMMENDED GUIDING PRINCIPLES

If appropriations are allocated, DHHS shall convene a GME Governing Board to oversee a transformation of State-funded GME. Activities shall include but are not limited to:

- Staff and provide project management necessary to transform GME
  - Convene regular meetings
  - Cover per diem as allowable
  - Contractually distribute funds to supporting state institutions
- Define targeted professionals based on workforce data
  - Currently this would include: family practice, OB/GYN, psychiatrists, dentists, general surgeons, and urologists
- Conduct research and development for the geographic and medical care setting distribution of GME with a primary focus on maintaining and developing residency programs that are community-based in areas that are primarily rural. This shall take into account regions defined as part of Medicaid reform.
  - Consider economic benefit to the region
  - Encourage development of Rural Tracks and Integrated Rural Tracks
- Encourage residencies toward primary care including but not limited to family practice, OB/GYN, psychiatry, dental, general surgery and urology
- Encourage a commitment for excellent residency education.

- Increase accountability for meeting the population health needs of North Carolina and DHHS/Medicaid workforce needs that address CMS’s new Medicaid access mandates.
- Develop a strategic plan for GME financing and issue Requests For Proposals (RFPs) that seek to maximize federal resources
  - Explore federal Medicaid service match(s)
  - Leverage new sites that can currently access Medicare GME resources
  - Respond to new federal funding options
- Develop GME policies
  - Require programs to meet quality standards and be evidenced based
  - Further team-based learning opportunities
- Require reporting so that decisions are driven by outcomes and evaluation
  - Determine the reporting requirements for all entities receiving state GME funds
  - Increase transparency by determining the amount of funding transferred to each supporting institution
    - Number of residents supported by GME funds at each institution
    - Geographic and specialty areas of practice of each resident at initial placement
    - Services provided to underserved populations
    - Retention and distribution of residents five and ten years after training completion
- Determine the average cost per resident slot supported by GME funding and explore whether payment should be made per residency slot

Representation on the Governing Board may include:
- DHHS Deputy Secretary of Health Services Co-Chair
- DHHS Deputy Secretary of Medicaid Co-Chair
- DHHS Deputy Secretary of Behavioral Health
- DHHS Director of Health Benefits
- DHHS Office of Rural Health
- Statewide AHEC
- The Sheps Center
- Representative from an academic residency setting
- Representative from a medical school
- Representative from a AHEC residency
- Representative from a teaching health center
- Representative from a private commercial plan
- Representative from a philanthropic organization
- Representation from a Prepaid Health Plan
V. CONCLUSION

There is significant discussion at the federal and state levels that call for the reform of GME. HRSA has invested in teaching health centers that are community-based and have shown positive outcomes. Several states have taken steps to redesign Medicaid and other state-funded GME activities. There is significant attention and focus on addressing critical workforce shortages with regards to geography and specialty. This has resulted in increased attention to rural and underserved communities across the nation.

DMA has identified three options for consideration that would be operationalized under a GME Governing Board appointed by the DHHS Secretary. The recommendations can be considered individually or collectively.

I. The first option requires legislation directing current academic centers to report data with regards to the approximately $57 million in federal Medicaid match that is leveraged through DMA.

II. The second option represents an important investment in building and certifying new community-based residency programs that would be located in rural and underserved areas. These new sites would purposefully consider current opportunities to leverage Medicare GME and Medicaid matching funds.

III. The third option is to amend the State Plan or use the 1115 waiver process to work with CMS to secure a federal match for current or new state appropriations in support of all state designated community-based residency programs.

A common tenet of all three recommendations is the need for enhanced data collection and transparent reporting to ensure that the objective of meeting the state’s healthcare workforce needs are achieved.
Endnotes


8) U.S. Department of Health and Human Services, Health Resources and Service Administration, Grant funding of Teaching Health Centers. Web site: http://bhpr.hrsa.gov/grants/teachinghealthcenters/


11) Graduate Medical Education: What’s going on in NC and other states? Erin Fraher, PhD, MPP and Julie Spero MSPH Program on Health Workforce Research & Policy Cecil G. Sheps Center for Health Services Research, UNC Chapel Hill North Carolina AHEC/NCHA Meeting February 18, 2015 Cary, NC

12) National AHEC Organization Leveraging Graduate Medical Education to Increase Primary Care and Rural Physician Capacity in South Carolina: A report by the South

website: http://www.jgme.org/doi/full/10.4300/JGME-D-14-00502.1

14) Kaufman A, Alfero C. A State-Based Strategy For Expanding Primary Care Residency
Health Affairs Blog, July 31, 2015
website http://healthaffairs.org/blog/2015/07/31/a-state-based-strategy-for-expanding-primary-care-residency/print/

15) Eilrich FC, Doeksen GA, St.Clair CF The Economic Impact of a Rural Primary Care Physician and the Potential Health Dollars Lost to Out-migrating Health Services
January 2007