A New Health Reform Framework For North Carolina

MEDICAID REFORM IN OUR STATE

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DUKE-UNC STUDENT MEDICAID REFORM TEAM

DISCLAIMER

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BACKGROUND

Nearly one in five non-elderly North Carolina residents lack health insurance to cover their health care needs. North Carolina has the 14th highest rate of uninsured residents of any state in the country. More than 70 percent of the uninsured come from households with at least one full-time worker.

Lack of insurance leaves individuals and families less able to access health care and more vulnerable to financial ruin. The uninsured are more likely than the insured to report problems getting needed care and to experience poor health. Uninsured individuals are also less likely to receive timely preventive care and more likely to be hospitalized for avoidable health problems. Those without insurance must pay the full cost of medical care out of their own pockets. Consequently, the inability to pay medical bills is one of the leading causes of bankruptcy in the United States.

North Carolina’s current Medicaid eligibility rules exclude childless adults from enrolling in the program. Only a limited number of low-income working and nonworking parents receive health insurance coverage through Medicaid. The Affordable Care Act (ACA) was designed to expand coverage to this uninsured population – both through Medicaid expansion and private insurance market reforms. After the Supreme Court ruled the ACA Medicaid expansion optional for states in 2012, North Carolina decided not to expand the state’s Medicaid program. As a result, approximately 377,000 uninsured North Carolinians with incomes less than 138 percent of the federal poverty level (FPL) still lack insurance. Expanding Medicaid would benefit these North Carolinians, as well as the state’s health care providers.

However, concerns about the reliability of future federal funding levels, budget overruns in North Carolina’s Medicaid program, and provider shortages could make ACA expansion a contentious choice. States such as Arkansas have responded to these concerns by forging innovative ways to expand health care coverage with ACA funding, while not enacting the reforms specifically prescribed by the ACA. These states have used Section 1115 waivers, a vehicle that enables states to deviate from some of the federally prescribed approaches to Medicaid, to craft their own health reform plans. North Carolina currently has a similar opportunity to reform the state’s Medicaid program in a way that benefits both patients and providers. The state should use this unique opportunity to improve health care for its citizens.

The health reform framework presented in this paper offers North Carolina an alternative to the ACA’s Medicaid expansion that would provide health coverage for nearly half a million North Carolinians at a cost the state can afford. The key difference between this reform plan and the ACA is this plan’s use of North Carolina’s private
health insurance market to expand coverage. This plan provides the state’s private insurers with more business, which, in turn, provides the state’s health care providers with more insured patients and less uncompensated care. To maximize the state’s economic and physical health, we strongly recommend that the North Carolina General Assembly implement the recommendations presented in this paper.

RECOMMENDATIONS

We recommend that North Carolina reform Medicaid and expand access to health care through the following two-tiered approach, the mechanics of which are detailed in Part II of this report:

1. Enroll individuals earning less than 100 percent of FPL in the state’s Medicaid program, which partners with Community Care of North Carolina (CCNC) – widely recognized as a national leader in primary care case management. Individuals who receive this Medicaid coverage will have the same cost sharing and coverage benefits as those already in North Carolina’s Medicaid pool. This proposed change simply removes categorical qualifications for eligibility, allowing all North Carolina citizens who earn less than 100 percent of FPL to access health coverage through Medicaid.

2. Enroll individuals earning between 100 percent and 138 percent of the FPL in private insurance plans offered through North Carolina’s health insurance marketplace. ACA expansion funds would cover insurance premiums for this population, allowing them to afford private insurance. These funds are available when states expand coverage up to 138 percent of FPL. This proposed change uses North Carolina’s existing health insurance market, combined with federal funding, to provide North Carolinians with affordable health care coverage.

We recognize that the decision to expand coverage comes with both practical and financial considerations for the state, as well as implications for providers. Part III of this report discusses operations of expansion that policymakers will need to address when implementing this plan. Part IV provides estimates of expansion costs. Finally, Part V addresses how an expansion may impact the state’s current supply of providers and offers recommendations for how the state may improve health care access for new Medicaid recipients and strengthen its relationship with providers.

ANALYSIS

We estimate that our health reform plan will cost the state $426 million over the next six years (2015-2020). The federal government would contribute an additional $8.6 billion, covering more than 95 percent of total costs of the expansion. Based on estimates, we expect an additional 617,152 North Carolinians would gain health coverage under this plan by 2020.
We compared our cost projections with independent sources to verify their accuracy. Though comparisons between our estimates and other projections are not a guaranteed indication of validity, given the uncertainty involved in this scenario, they do suggest our estimates are reasonable. The differences between our estimates and those of independent sources are comparable to percent differences between the state’s forecast and actual tax revenues.\(^\text{10}\)

Our health reform plan will impact primary care and behavioral health providers, hospitals, and CCNC. By increasing the number of individuals with coverage, this plan will increase the demand for health care providers, specifically primary care, safety net and mental health providers. With more patients insured, patients may receive more regular preventive care, mental health assessments, psychiatric medication management, and assistance paying for psychiatric medication. Thus, demand for crisis services may decrease significantly. Costly emergency rooms and crisis services will then be utilized when truly needed, instead of inappropriately used as the health system point of entry for uninsured individuals.

We anticipate that our proposal will lead to more appropriate use of outpatient services and decreased reliance on ineffective and costly emergency room visits. These options will differ in rural versus urban areas. Our plan’s Medicaid expansion would also allow hospitals to receive higher reimbursements for individuals with private insurance, compared with Medicaid reimbursements, and more total revenue from insured patients. These reimbursements should reduce hospitals’ costs associated with uncompensated care.

With 5,500 physicians covering 1.4 million North Carolinians, CCNC will need additional physicians and care managers to handle the increase in demand for services. Since the actual number of physicians required will vary depending on the demand across the state, CCNC should reallocate resources based on demand.

Health reform presents many challenges, which this plan addresses. Our plan offers North Carolina a predictable and sustainable Medicaid program with increased administrative ease, improved efficiency for medical providers, and a unified physical and behavioral health care delivery system.
I. Introduction

CURRENT STATE OF NORTH CAROLINA

More than 1.5 million North Carolinians have no health insurance coverage.\(^{11}\) That means that almost one in five non-elderly residents of the state lack coverage for their health care needs.\(^{12}\) North Carolina has the 14\(^{th}\) highest rate of uninsured residents in the country.\(^{13}\) The uninsured population includes individuals and families of all races and ethnicities, ages, and income levels. Approximately 900,000 of North Carolina’s uninsured are between age 30 to 64, and 233,000 of them are children ages 18 and under.\(^{14}\) More than 1.1 million – over 70 percent – of the uninsured come from households with at least one full-time worker.\(^ {15}\)

Lack of insurance leaves individuals and families less able to access health care and more vulnerable to financial ruin.\(^ {16}\) The uninsured are more likely to report problems getting needed care, less likely to receive timely preventive care, more likely to be hospitalized for avoidable health problems, and more likely to experience declines in overall health.\(^ {17}\) Going without health insurance also leaves individuals and families at risk of accruing medical expenses that they cannot afford to pay, and medical expenses are a leading cause of bankruptcy in the U.S.\(^ {18,19,20}\)

The Affordable Care Act (ACA) was designed to expand coverage to this uninsured population.\(^ {21}\) By offering premium subsides for individuals and families with incomes between 100 percent and 400 percent of the Federal Poverty Level (FPL), and by mandating an expansion of Medicaid for individuals and families with incomes up to 138 percent FPL, the ACA sought to make health insurance coverage affordable for the uninsured.\(^ {22}\) Following the U.S. Supreme Court’s 2012 ruling in National Federation of Independent Business v. Sebelius, states can choose whether to expand Medicaid under the ACA. North Carolina’s decision not expand the state’s Medicaid program means that approximately 478,000 uninsured North Carolinians are not able to enroll in the program.\(^ {23}\)

Contrary to some claims (see Appendix I: Medicaid Myths), studies show that the uninsured who enroll in Medicaid experience increased access to care and use of preventive services, increased probability of good health and well-being, and decreased probability of having unpaid medical bills.\(^ {24,25}\) In addition, expanding Medicaid would benefit health care providers in North Carolina (see Section VII).

The benefits of reforming and expanding Medicaid are clear. More and more states are electing to expand their Medicaid programs, often through innovative, state-specific plans.\(^ {26,27}\) This paper presents a plan for North Carolina to enroll almost half a million people in health coverage, both through private market plans and traditional Medicaid.
ACA IMPACT

North Carolina’s current Medicaid eligibility rules exclude childless adults from enrolling, and provide health insurance coverage for only a limited number of low-income parents. If the state were to implement the Medicaid expansion offered by the ACA, approximately half a million North Carolinians, with incomes less than 138 percent of the FPL, would be able to enroll in the program (see Figure 1 for a breakdown of current Medicaid eligibility and how the ACA expansion would impact coverage).28

For states that choose to expand coverage, the federal government will fund 100 percent of the costs through 2016 for those individuals who are newly eligible under the expansion. The Federal Medical Assistance Percentage (FMAP) for individuals newly covered by the expansion gradually decreases to 90 percent by 2020 and remains at 90 thereafter.29 For new enrollees who were eligible under pre-expansion eligibility requirements, the FMAP is set according to the pre-ACA formula, which in fiscal year 2013 was 65.51 percent for North Carolina.30

We estimate that expanding Medicaid would bring an additional $8.6 billion in federal funding into North Carolina from 2015 to 2020, while requiring the state to spend an additional $426 million over six years. At an average extra cost of $71 million per year, the state would spend less than half of what it does on interest for debts while bringing health coverage to more than 600,000 North Carolinians by 2020.31

Figure 1. Federal Poverty Level of Medicaid Eligibility Categories in North Carolina, Current and With Expansion.33
NOT EXPANDING MEDICAID LEAVES COVERAGE AND FINANCING GAPS

Under the ACA, all individuals – except undocumented immigrants – earning less than 138 percent of the FPL are eligible for health insurance through Medicaid. Newly eligible individuals are not treated uniformly under the ACA, which has important implications for North Carolina’s poorest residents. Individuals earning between 100 percent and 400 percent of FPL qualify for federal premium assistance or subsidies to purchase private insurance through the health insurance marketplaces established under the ACA. However, individuals earning less than 100 percent of FPL cannot access federally subsidized insurance coverage offered in the marketplaces. As a result, North Carolina’s decision to forgo the Medicaid expansion means the poorest adults in North Carolina have limited access to affordable insurance coverage options, and many of them will remain uninsured. The Kaiser Family Foundation, a non-partisan health policy research organization, estimates that 318,710 poor, uninsured non-elderly adults fall within the ACA coverage gap in North Carolina.

Not expanding the state’s Medicaid program will also strain many of the state’s health providers, particularly hospitals and community health centers, who provide uncompensated care to the uninsured. Federal funding changes implemented under the ACA were predicated on the assumption that states would expand their Medicaid programs and providers would start receiving reimbursements for care provided to patients in the expansion population.

The implications for hospitals of not expanding Medicaid are especially severe since the federal Medicaid Disproportionate Share Hospital (DSH) payments will decrease starting in 2014. DSH payments benefit hospitals that care for large numbers of low-income patients who are either uninsured or Medicaid beneficiaries. Hospitals benefitting from DSH payments and located in states that do not expand coverage face the possibility of added financial strain as DSH payments are reduced while the number of uninsured seeking care remains near current levels. Medicaid DSH payments to North Carolina hospitals will be cut by more than $14 million for 2014 and will continue to decrease.

Debunking Medicaid Myths

Myth 1: People enrolled in Medicaid have worse health outcomes than if they had remained uninsured. Contrary to some claims, studies show that the uninsured who enroll in Medicaid experience increased access to care and use of preventive services, increased probability of good health and well-being, and decreased probability of having unpaid medical bills.

Myth 2: Medicaid is a broken, inefficient program. In North Carolina, annual growth in Medicaid expenditures has continued to decline since 1990, and from FY2007 – 2010, NC had the lowest annual growth in Medicaid expenditures of all states. Administrative expenses for the state’s Medicaid program are among the lowest of comparable states, and nearly half as much as some states which rely heavily on private, for-profit Managed Care Organizations. Finally, national studies have shown that per-beneficiary costs are lower for Medicaid than for private insurers after adjusting for the health of the beneficiaries.

For a more detailed discussion, refer to Appendix I.
Introduction

rapidly through 2020, though hospitals will still be expected to provide care for the uninsured.40,41

Many state policymakers have been reluctant to take the ACA Medicaid expansion because of concerns over the reliability of future federal funding levels, past budget overruns in the state’s Medicaid program, and provider shortages.42 However, other states such as Arkansas have forged innovative ways to expand Medicaid with ACA funding, under plans designed to be politically feasible and to mitigate those concerns.

Despite the General Assembly and Governor’s decision not to expand Medicaid, a debate has ensued in Raleigh about how to improve the state’s Medicaid program. The criteria set forth to analyze the program’s problems are similar to the ones we use in this plan. In the 2013 Appropriations Act (S.B. 402), the North Carolina General Assembly directed the Department of Health & Human Services – Division of Medical Assistance (DMA) to draft a proposal for reforming the state’s Medicaid program. The legislature required the proposal to address the following goals:

- Create a predictable and sustainable Medicaid program,
- Increase administrative ease and efficiency for medical providers, and
- Unite physical and behavioral health care.

Under S.B. 402, the DMA is allowed to draft waiver applications, legislative amendments, and any other document necessary to solicit feedback from the federal government for their initial proposal. However, the legislature explicitly prohibits the DMA from submitting its final reform plan without legislative approval. The DMA is expected to submit its final Medicaid Reform Proposal to the General Assembly no later than March 17, 2014.43

S.B. 402 also created the North Carolina Medicaid Reform Advisory Group in order to assist the development of the DMA’s reform plan by soliciting stakeholder input and providing transparency throughout the drafting of the plan. For more information on the advisory group, see Appendix A. Once the plan is finalized, the General Assembly will begin considering the DMA & Advisory Group’s reform proposal when the legislature reconvenes for its short session on May 14, 2014. Refer to Appendix B for more details on the next steps for passing the reform in the state’s legislature.

Improving the Medicaid program to meet the objectives set forth in the Appropriations Bill and taking the Medicaid expansion are not mutually exclusive goals. This paper presents a plan that will enable North Carolina to expand eligibility for Medicaid while improving the efficiency of the program and setting it on a fiscally sustainable path.
II. Mechanics of Expansion

In preparing this plan, we examined innovative approaches other states have taken in response to concerns over the fiscal, practicable, and political implications of expansion under the ACA. For example, Arkansas proposed using federal funds to enroll individuals newly eligible for Medicaid under the ACA in private insurance plans offered as part of the state’s insurance marketplace. Other states, such as Iowa and Pennsylvania, have since followed suit with similar proposals that, to varying degrees, seek to take advantage of the private marketplaces newly established under the ACA. Some plans have proposed a hybrid model for Medicaid expansion that uses federal funds to enroll some newly eligible beneficiaries in Medicaid and others in private plans offered on the marketplace. States proposing to deviate from the model of expansion outlined in the ACA have used Section 1115 waivers to request permission from the Centers for Medicare and Medicaid Services (CMS).

North Carolina currently has a similar opportunity to reform the state’s Medicaid program in a way that benefits both patients and providers and appeals to a broader base of political support – a worthwhile goal for the long-term sustainability of any reform proposal. We identified three basic frameworks for expanding insurance coverage in North Carolina under the ACA:

1. Traditional Medicaid expansion envisioned by the ACA: Enroll all newly eligible individuals in the state’s current Medicaid program.
2. An Arkansas style “private option”: Enroll all newly eligible individuals in plans offered in the marketplace.
3. A hybrid option: Based on a person’s income level, enroll some newly eligible individuals in Medicaid and the remaining newly eligible individuals in plans offered in the marketplace.

Our plan, explained in detail below, proposes to expand insurance coverage to the uninsured through a hybrid model. Specifically, we recommend that North Carolina implement Medicaid expansion through the following two-tiered approach:

1. Enroll individuals earning from 100 percent to 138 percent of the FPL in private insurance plans offered through North Carolina’s insurance marketplace.
2. Enroll individuals earning less than 100 percent of FPL in the traditional Medicaid program

We recommend this approach over the other two for several reasons. First, third party assessments suggest the Arkansas model is the least cost-effective, as it is estimated that the plans offered in the marketplace will be more expensive than the per-beneficiary
costs of insuring newly eligible individuals in Medicaid. Second, expanding coverage through Medicaid alone is likely the least politically palatable option given the concerns of many of the state’s current elected officials. One of the benefits of a hybrid model for expansion is that it represents a middle-of-the-road, bi-partisan approach that utilizes both the public safety net and the free-market to meet the health care needs of North Carolina citizens.

Finally, the hybrid approach, compared to an approach that expands solely through Medicaid, may create less “churn” for consumers, a term used by health policy experts to describe the involuntary movement of people from one form of coverage to another, including lack of coverage. Individuals earning between 100 percent and 138 percent FPL may be more likely than individuals living below the federal poverty level to experience the kind of upward economic mobility that often leads to changes in program eligibility. By enrolling these individuals in private option plans, which they can keep if their income increases beyond 138 percent FPL, our plan reduces churning and the harm it can cause. These harms include more administrative burden and costs for the state, and poorer health outcomes for individuals as a result of coverage interruptions.

Our plan offers North Carolina a unique, cost-effective way to reform its Medicaid program and provide health care coverage to more state residents. This section describes mechanics of these changes in detail and provides policymakers with a working policy framework for legislative action.

TRADITIONAL MEDICAID

Under the proposed two-tiered approach, individuals earning below 100 percent of FPL will be enrolled in North Carolina’s traditional Medicaid program. While traditional Medicaid beneficiaries will pay no premiums, in keeping with the current system, they will be responsible for out of pocket expenses in the form of co-payments. Community Care of North Carolina (CCNC), a public-private partnership that manages the primary care of most of the state’s current Medicaid population, will continue to coordinate care for the newly eligible. To accommodate the increased expenses that will come from coordinating care for a large influx of newly eligible beneficiaries, CCNC will receive an increase in its per member, per month (PMPM) allocation for this group. While our proposal does not recommend a suggested amount for the increased PMPM allocation, our cost estimates (detailed in Part IV) account for an increase in Medicaid administration costs.

PRIVATE OPTION

Individuals earning between 100 percent and 138 percent of FPL will participate in a “private option,” which will allow them to purchase a qualified health insurance plan (QHP) through the federal health insurance marketplace, also called an exchange.
Drawing largely from the federal funds it receives, the state will pay the full cost of QHP premiums and most out-of-pocket expenses. The Division of Medical Assistance (DMA), which administers the state’s Medicaid program, will provide these payments directly to the QHP. In this way, Medicaid funds will be used to provide private insurance for persons who would otherwise be eligible for Medicaid.

Eligible individuals receiving insurance through the marketplace will not have the option to choose among the full menu of QHPs, as do other individuals purchasing insurance through the marketplace. Instead, all Medicaid-eligible individuals will be enrolled in a silver plan, chosen in advance by DMA. In counties where insurers offer two or more silver plans on the marketplace, DMA will offer beneficiaries the option to choose between two silver-level plans, preferably offered by different insurers. Information on the two silver-level plans will be provided to beneficiaries on the DMA website. Mailings will also be distributed in order to accommodate individuals without internet access. After a 60-day enrollment period, private option beneficiaries who do not select a QHP will be automatically assigned a silver-level QHP. The DMA will notify the new enrollee of his or her QHP enrollment. For individuals automatically enrolled in silver plans, DMA will, where possible, randomly assign silver-level QHPs in order to distribute enrollees evenly among plans and encourage greater competition in the marketplace.

**FEDERAL REQUIREMENTS FOR ENROLLING MEDICAID-ELIGIBLE INDIVIDUALS IN MARKETPLACE PLANS**

According to current guidance from the Centers for Medicare and Medicaid Services (CMS), states can enroll Medicaid-eligible individuals in marketplace insurance plans if they provide the following assurances:

1. Out-of-pocket expenses (OOP) will not exceed 5 percent of FPL.

2. Marketplace plans will provide Medicaid-eligible individuals with the wraparound services covered under traditional Medicaid plans, but not covered as part of the Essential Health Benefits (see Appendix C for description of these benefits) that all qualified health plans must offer on the marketplace. Wraparound services include non-emergency transportation; early periodic screening, diagnosis, and treatment (EPSDT) services for children under 21; and long-term services and supports (LTSS) for individuals with chronic disabling conditions.

3. Coverage for individuals in marketplaces compared to in traditional Medicaid will be cost-effective and budget neutral.

Under our plan, Medicaid-eligible individuals enrolled in the marketplace would pay no premiums but would be required to bear some of the costs of medical care in the form of co-payments. Medicaid co-pays in the state currently amount to $3.00 per professional service visit.\(^{47}\) In keeping with the above rules, the state could increase co-payments as long as OOP expenses for these individuals were capped at 5 percent of FPL ($604 in
By setting the cap relative to 100 percent of FPL, the state will ensure that no Medicaid-eligible individual in the marketplace pays more than 5 percent of his or her income in OOP expenses. This cap also eases administrative burdens and costs because DMA will not have to determine the cap for each individual earning between 100 percent and 138 percent of FPL. The insurer will be responsible for monitoring and enforcing the cost-sharing cap for its beneficiaries. Insurers are best suited for this since the agencies will already have access to patient records, thereby reducing bureaucratic burdens. Plans for enrollees with incomes between 100 percent and 138 percent of FPL will have zero deductibles.

We suggest that a 1115 waiver be submitted to CMS requesting that the state cover no wraparound services other than non-emergency transportation expenses for individuals enrolled in the marketplace. To justify this change in coverage benefits, we propose that all individuals who earn less than 138 percent FPL and are determined to be medically frail be enrolled in traditional Medicaid. Since medically frail individuals are more likely than others to utilize wraparound services, they will receive these services through traditional Medicaid. This is similar to Arkansas’ proposal, detailed in its recently approved 1115 waiver. Since medically frail individuals will be enrolled in traditional Medicaid, they will also be responsible for co-payments.

To determine whether individuals are medically frail, all individuals who apply for coverage through the federal marketplace will complete a screening tool. The self-reported screening tool will address the following areas: health self-assessment; living situation; assistance with activities of daily living (ADLs) or instrumental activities of daily living (IADLs); overnight hospital stays (both acute and psychiatric); and number of physician, physician extended or mental health professional visits. Individuals will receive immediate notification about whether they qualify as medically frail. Medically frail individuals will be directed to the DMA for Medicaid enrollment. In situations where an individual’s medical condition changes or his/her self-reporting about medical frailty is inaccurate, the insurer, using provider claims, will be able to alert the DMA and direct the individual to the marketplace. Those who do not qualify as medically frail, but earn between 100 percent and 138 percent of FPL, will be sent to the marketplace.

To address the third requirement for cost-effectiveness, our plan relies on the comparability principle, which establishes that the cost for covering private option beneficiaries will be comparable to what the costs would have been under the traditional Medicaid program. This principle was also highlighted in Arkansas’ approved 1115 waiver. Actuarial estimates from Arkansas demonstrate that the private option can be fully funded with existing resources at the state level and would add less than 15 percent to federal costs in the state. Two plausible arguments proffered by Arkansas and relevant to our plan for why we may reasonably expect that the costs of enrolling individuals in the marketplace will be comparable to enrolling them in traditional Medicaid are: (1) enrolling some individuals in the marketplace may help North Carolina minimize the need to increase provider reimbursement rates in order to ensure an
adequate number of providers are available to meet the needs for an expanded patient population of Medicaid beneficiaries; and (2) increasing the number of individuals enrolled in the marketplace may decrease the amount of premium subsidies that federal government pays as a result of increased competition.\textsuperscript{50}

\textbf{SUMMARY}

Our proposed plan for reforming and expanding Medicaid in North Carolina uses both the private health insurance market and public health coverage to provide more North Carolinians with access to affordable health care. Publicly provided coverage through Medicaid is important for the lowest income population (below 100 percent FPL) because this group’s extreme price sensitivity makes OOP health expenses particularly burdensome on them. As the Oregon Medicaid experiment and other studies have shown, increasing OOP costs for low-income individuals may lead to less effective use of health care and, ultimately, no health outcome improvements.\textsuperscript{51} Traditional Medicaid limits cost-sharing for this population, making it easier and more likely for them to access necessary care.

Providing subsidized private health insurance for individuals who earn between 100 and 138 percent of FPL makes insurance affordable for this population and also eases administrative burden by accounting for population churn. For example, if an individual earning 120 percent of FPL experiences an income change and then earns 200 percent of FPL (or any amount over 138 percent), then she could remain in her same private insurance plan even after her income change. That plan would still be affordable to her because of premium assistance available on the state insurance marketplace through the ACA.

Providing health coverage to more North Carolinians – whether through Medicaid or private insurance – will benefit the state’s health care providers by decreasing uncompensated care in the state. This issue is particularly important now that the federal government has significantly decreased DSH payments that helped hospitals cover the costs of uninsured individuals. If the state implements our proposed reforms, we anticipate more appropriate use of hospital outpatient services and decreased non-emergency use of emergency room facilities. When patients have some form of health insurance coverage, preventive care becomes more affordable and feasible for them. This change in consumer behavior means that low-income patients will use North Carolina’s health care system in more appropriate and cost-effective ways, benefiting both providers and payers.
III. Operations of Expansion

In addition to the program mechanics detailed above, the state will need to develop systems to verify eligibility and to enroll recipients.

ELIGIBILITY DETERMINATION

Income eligibility for Medicaid beneficiaries, including newly eligible adults, will be determined using a uniform methodology — Modified Adjusted Gross Income (MAGI), which is a tax-based definition of income. Eligibility categories will be consolidated into four groups — adults, children, parents, and pregnant women. Eligibility for both Medicaid and Private Option plans will be determined using the MAGI, which is verified by the Internal Revenue Service (IRS).

ENROLLMENT SYSTEM

Federal guidelines require North Carolina to provide a web-based system for individuals to apply for and renew their eligibility for Medicaid annually and/or participate in a coordinated eligibility and enrollment process for private insurance. In 2008, the state created the North Carolina Families Accessing Services Through Technology (NC FAST), which provides electronic Medicaid/Children’s Health Insurance Program (CHIP) applications and eligibility and enrollment functionality. Under the proposed Medicaid expansion, the NC Fast system will be upgraded in order to comply with federal guidelines, outlined below. For example, the upgraded NC FAST system will use a “no wrong door” model, meaning that individuals may apply for coverage either through the federally facilitated marketplace or through DMA and be directed to the appropriate system thereafter. The North Carolina system will interface with the Federal Data Services Hub to confirm identity and eligibility (see Appendix D for a list of the major components that must be included as part of this integrated system).

If a North Carolina resident who earns between 100 percent and 138 percent FPL applies for insurance through the federally facilitated marketplace, he or she will only be able to choose between the silver plans chosen by the state. North Carolina DMA will work with CMS to ensure system compatibility and to streamline this process. Those who earn more than 138 percent of FPL and apply for insurance through the federally facilitated marketplace will follow the traditional private insurance enrollment process used in the marketplace. Those who earn below 100 percent of FPL will be directed to the DMA to enroll in Medicaid. Refer to Figure 2 for a visualization of the proposed mechanism for enrollment and eligibility.
Figure 2. Proposed plan to expand coverage in North Carolina.

- **Federal Databases**
  - Verify Citizenship and Income

- **Individual**
  - Apply to marketplace

- **NORTH CAROLINA HEALTH INSURANCE MARKETPLACE**

  - If income eligible, medically frail, or expansion beneficiary with 0 to <100% FPL
    - NC DMA for Medicaid and CHIP

  - If expansion eligible, at 100 to 138% FPL
    - Marketplace Medicaid Plan

  - Not eligible for Medicaid or CHIP
    - Marketplace Plan

- **Apply to marketplace**

- **NORTH CAROLINA HEALTH INSURANCE MARKETPLACE**

- **Federal Databases**
  - Verify Citizenship and Income

- **Individual**
  - Apply to marketplace

- **NORTH CAROLINA HEALTH INSURANCE MARKETPLACE**

  - If income eligible, medically frail, or expansion beneficiary with 0 to <100% FPL
    - NC DMA for Medicaid and CHIP

  - If expansion eligible, at 100 to 138% FPL
    - Marketplace Medicaid Plan

  - Not eligible for Medicaid or CHIP
    - Marketplace Plan

- **Apply to marketplace**
IV. Overview of Costs

ESTIMATES OF COSTS

We estimate that our plan will cost the state an additional $426 million over the next six years (2015-2020).* The federal government would contribute an additional $8.6 billion, covering more than 95 percent of total costs of the expansions. Based on estimates, we expect an additional 617,152 North Carolinians would gain health coverage under this plan by 2020. These estimates are presented in Table 1 below.

Table 1. Cost and Medicaid beneficiary estimates.

<table>
<thead>
<tr>
<th>Year</th>
<th>TOTAL COSTS TO NC</th>
<th>NUMBER OF BENEFICIARIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With Reform Plan ($ in millions)</td>
<td>Without Reform Plan ($ in millions)</td>
</tr>
<tr>
<td>2015</td>
<td>$3,823</td>
<td>$3,823</td>
</tr>
<tr>
<td>2016</td>
<td>$3,821</td>
<td>$3,821</td>
</tr>
<tr>
<td>2017</td>
<td>$3,892</td>
<td>$3,817</td>
</tr>
<tr>
<td>2018</td>
<td>$3,904</td>
<td>$3,813</td>
</tr>
<tr>
<td>2019</td>
<td>$3,916</td>
<td>$3,809</td>
</tr>
<tr>
<td>2020</td>
<td>$3,956</td>
<td>$3,803</td>
</tr>
<tr>
<td>Total (2015-2020)</td>
<td><strong>$23,311</strong></td>
<td><strong>$22,885</strong></td>
</tr>
</tbody>
</table>

Note: These figures may only be used according to the accompanying caveats and methodological details provided in this paper.

INSTRUCTIONS/CAVEATS FOR USE OF ESTIMATES

To develop these estimates, we utilized multiple datasets and several estimates and rates developed by independent research organizations. We attempted to control for variations in estimates and account for growths in health care costs and program

* The estimates are in real 2012 dollars. For discounted values of the estimates, please see Appendix E.
Overview of Costs

enrollment, which is detailed below. However, readers should utilize these estimates understanding the assumptions we made, as described below, and should recognize that these numbers are rough cost estimates. If North Carolina decides to further pursue this plan, we highly recommend that the state commission conduct an independent actuarial assessment of the plan.

DISCUSSION OF CAVEATS AND ASSUMPTIONS

Health Status of Newly Eligible

Studies suggest that the newly insured population will be healthier than the current non-disabled adult Medicaid population. Even if adverse selection were to occur and the least healthy of the newly insured were to enroll in larger numbers, researchers predict that this population’s health status would not be significantly different from the health of the current non-disabled Medicaid population. As a result, our plan estimates the health service costs of the newly eligible population based on historical per capita costs of the state’s current non-disabled adult Medicaid population. These are likely conservative cost estimates.

Total Enrollment of Newly Eligible Individuals

The DMA predicts that in 2014, 494,010 individuals in North Carolina would enroll in Medicaid under the full expansion, while The Urban Institute estimates 478,000 individuals in North Carolina would enroll in Medicaid under the full expansion. Unlike The Urban Institute’s figure, the DMA’s figures are those often cited during discourse on Medicaid in the state. Additionally, the DMA projected its enrollment estimates through our timeframe of interest (2020). As such, our analysis bases cost estimates on the DMA’s figures. Our plan assumes the same number of people will enroll in our plan as under the full ACA expansion because our plan does not impose premiums or other cost-sharing requirements, which have historically deterred individuals from signing up for coverage.

Woodwork Effect

The “woodwork effect” (also called the “welcome mat effect”) refers to the take-up of Medicaid coverage by individuals who are currently eligible but not enrolled. Distinguishing this population from the newly eligible population that enrolls in Medicaid is important, due to the differences in federal match rates. The woodwork effect is resulting from the increased attention on health insurance coverage in the media and elsewhere, driving people who are currently eligible for Medicaid but not enrolled, to enroll. For currently eligible individuals, North Carolina will receive its current rates (FMAP of about 65 percent and enhanced FMAP of about 75 percent). For newly eligible individuals, North Carolina will receive the ACA FMAP of 100 percent scaled down to 90 percent in 2020. Because the increase in currently eligible individuals enrolling due to the woodwork effect is not as heavily subsidized as the increase due to
the expansion through 138 percent, the size of the woodwork effect can have enormous implications for North Carolina’s cost burden.

Among reports estimating the economic implications of Medicaid expansion under the ACA, there is no clear consensus as to whether the woodwork effect with expansion will be significantly larger than the woodwork effect without expansion. Reports generally agree that there will be a substantial woodwork effect without expansion, due to the presence of health insurance marketplaces and provider efforts to increase enrollment in light of decreased DSH payments (as discussed above). A 2013 ASPE report on health insurance marketplace enrollment nationwide reports that approximately 25 percent of completed applications in the federally-run marketplace in North Carolina were found to be eligible for Medicaid, even without expansion.\(^{57}\)

As there is no clear consensus about a differential woodwork effect between expansion and non-expansion scenarios, we utilize the woodwork effect estimates provided by DMA for both scenarios.\(^{58}\) We justify this by noting that DMA utilizes the same woodwork effect for both scenarios and the high rate of Medicaid-eligible completed applications in the NC health insurance marketplace, as noted above, indicates a significant woodwork rate without expansion. However, this assumption may underestimate the incremental effect, as expansion may have a greater woodwork effect than non-expansion. Conversely, the relatively conservative nature of the DMA woodwork rate assumptions may overestimate the total cost of each scenario. DMA assumes constant woodwork rates for all projected years from the base year, though we believe there will be a steep increase within the first few years that quickly reaches a plateau. Due to limitations in the availability of state-level data, we are unable to calculate any woodwork trend changes over time or rate increases under the expansion scenario.

**Crowd-Out Effect**

The “crowd-out” effect refers to the substitution from existing private coverage to Medicaid upon becoming newly eligible for Medicaid via the expansion. This analysis assumes that North Carolina and the federal government will bear the full burden of expenditures for newly eligible beneficiaries; therefore, the cost of these individuals who were previously covered by private insurance is already factored into our expenditure estimates for North Carolina. We will therefore exclude crowd-out estimates from our methodology.

**Administrative Costs**

For administrative costs under traditional Medicaid in North Carolina, we drew from a performance audit report of DMA, which found that administrative costs comprised 6.3 percent of total state Medicaid costs.\(^{59}\) Because prior data on administrative costs for the DMA are not available, we held constant its proportion with respect to total NC Medicaid costs for our entire time frame. For administrative costs of our expansion plan, we drew from DMA estimates of administrative costs of the full ACA Medicaid expansion plan.
in North Carolina. For our analysis, we first converted DMA’s projected administrative costs from 2015 to 2020 to real dollars (2012).

Since funding for the expansion population that will buy-into North Carolina’s federally facilitated marketplace will flow through DMA, we assume that administrative costs for this part of the expansion plan will not vary dramatically from the administrative cost estimates for a full Medicaid expansion. Thus, we incorporated the DMA estimated administrative costs of the full Medicaid expansion into our model. Additional administrative costs are included in per individual premium costs.
Overview of Costs

COST GROWTH METHODOLOGY

An overview of our cost estimate calculation is provided in Figure 3 below.

Figure 3. Summary of calculations.

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* Our projections (methodology discussed below).
** Proxy for marketplace plan cost.
To predict cost growths for the current Medicaid population, we utilized historical cost data from the state’s Medicaid program from fiscal years 2000 to 2010. We accessed data from the Medicaid Statistical Information System (MSIS) State Summary, which is a dataset of claims data that states submit quarterly to CMS. MSIS data include federal and state expenditures for health care services but not administrative costs or other non-service spending, such as disproportionate hospital share payments. Historical costs were converted from nominal to real figures, in 2012 dollars, using the U.S. implicit Gross Domestic Product (GDP) price deflator. Future costs were deflated to 2012 dollars using the Bureau of Economic Analysis’ projected GDP price growth of 1.9 percent annually from 2014 to 2020.

We used historical values for real growth in single-person employer-sponsored insurance premiums as proxies for individual coverage on the health insurance marketplace. We utilized North Carolina-specific data from the Medical Expenditure Panel Survey Insurance Component (MEPS-IC) for 1996 through 2012 to develop estimates of employer-sponsored insurance premiums, which we took to be the most logical approximation of single-person premiums in the North Carolina health insurance marketplace. No data were available for the 2007 MEPS-IC in North Carolina. Table 2 summarizes the specific historical costs used to develop projection population estimates. For a more detailed summary of our methodology, see Appendix E.

Table 2. Data used in developing growth estimates.

<table>
<thead>
<tr>
<th>Item</th>
<th>Details</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Projection population</td>
<td>Medicaid enrollment projection, excluding woodwork and newly eligible</td>
<td>Our estimate based on N.C. OSBM state population estimates and U.S. Bureau of Economic Analysis data</td>
</tr>
<tr>
<td>Currently eligible, currently enrolled</td>
<td>Total current Medicaid expenditures, not including “other receipts” such as DSH payments</td>
<td>MSIS State Summary data</td>
</tr>
<tr>
<td>Currently eligible, not enrolled (woodwork)</td>
<td>Per-capita spending on currently enrolled</td>
<td>MSIS State Summary data</td>
</tr>
<tr>
<td>Newly eligible 0 to &lt;100% FPL</td>
<td>Per capita spending on currently enrolled adults</td>
<td>MSIS State Summary data</td>
</tr>
<tr>
<td>Newly eligible 100 to 138% FPL</td>
<td>NC average premiums for single coverage in employer-sponsored insurance</td>
<td>Medical Expenditure Panel Survey, Insurance Component</td>
</tr>
</tbody>
</table>
V. Impact on the Health Care System

OVERVIEW

Expanding coverage of childless adults up to 100 percent of FPL in Medicaid and offering subsidized private health insurance through North Carolina’s federally facilitated marketplace for adults between 100 percent and 138 percent of FPL will impact existing health systems in North Carolina. In particular, our plan will impact primary care and behavioral health providers, hospitals and CCNC.

First, by increasing the number of individuals with coverage, this plan will increase the demand for health care providers - specifically primary care providers - safety net providers, and mental health providers. On the other hand, if more patients are insured and receiving preventive care, mental health assessments, psychiatric medication management, and assistance paying for psychiatric medication, then demand for crisis services may decrease significantly. Costly emergency rooms and crisis services will then be utilized as a last resort as opposed to point of entry to the health care system.

Second, we anticipate more appropriate use of outpatient services and decreased reliance on ineffective and costly emergency room visits. These options will differ in rural versus urban areas. This Medicaid expansion would also significantly reduce uncompensated care, and would allow hospitals to receive more total revenue from the increase in insured patients.

Third, the increase in demand for providers will specifically impact CCNC, as its 5,500 physicians cover 1.4 million North Carolinians. CCNC will also need additional care managers to manage the increase in demand for services. Our plan offers recommendations for CCNC to reallocate resources based on demand.

This section provides an overview of the current state of North Carolina’s primary care, mental health and hospital services and provides recommendations on how the state could better support these services and mitigate supply shortages. Additionally, we analyze how [our plan] would impact CCNC and provide recommendations on how the state could better support CCNC and increase physician buy-in.

The following considerations guided the recommendations in this section:

1. Recommendations should be within the legislative authority of the NC General Assembly.
2. Recommendations should improve the efficiency, quality, and/or access to health care services for North Carolinians.
3. Recommendations should create a predictable and sustainable Medicaid program for North Carolina taxpayers.

4. Recommendations should increase administrative ease and efficiency for North Carolina Medicaid providers.

5. Recommendations should provide care for the whole person by uniting physical and behavioral health care.

IMPACT ON HOSPITALS

Current State of North Carolina’s Hospitals
With 192,000 employees across the state, North Carolina hospitals serve as a steady source of employment in both rural and urban counties. While hospitals are a vital contributor to the state’s economic stability and to the population’s health and wellbeing, increasing costs and decreasing revenues threaten hospitals’ ability to continue to operate at their current state. Currently, a third of the state’s hospitals struggle to break even. In 2012 alone, hospitals provided $1 billion in charity care.

High emergency department use, high rates of uncompensated care, and increased bad debt account for rising costs across the 124 state-licensed hospitals. While hospitals are struggling on average, the severity of hospital revenue loss varies by hospital type (see in Appendix G for demographics of hospitals in NC by location and size). Hospitals depend on patient revenue to stay afloat, and a hospital’s payer mix (percentage of revenues from each source: Medicaid, Medicare, and Uninsured, and Commercial payments) directly affects its net patient revenue generation (see Figure 6 in Appendix G for net patient revenue trends by payer, 2006-2010). There is a particularly stark contrast between rural and urban hospitals; revenues from commercial payments, Medicaid and Medicare are increasing in urban hospitals and decreasing in rural hospitals, due to the high number of uninsured. Payments to rural hospitals are not nearly enough to offset the lost revenue from uninsured payments. Emergency Department (ED) utilization accounts for a large portion of hospital costs; for the average NC hospital, uninsured patients account for a quarter of ED visits.

The federal government provides funding to states each fiscal year, known as DSH allotments (see Table 10 in Appendix G for DSH allotments to states from FY2010 - FY2012), to assist hospitals with tempering the cost of uncompensated care.

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* “Bad debt” refers to copayments and/or deductibles that are left unpaid by patients.

† “Relative to total patients, there are almost twice as many Medicaid and four times as many uninsured patients in the ED as there are discharges, days, or either surgery volumes.”

‡ Medicaid DSH payments were established in 1981 under the Omnibus Budget Reconciliation Act.

§ States are required to allocate payments to “qualifying disproportionate share” hospitals under sections 1902(a)(13)(iv) and 1923 of the Social Security Act.
fourths of the counties in North Carolina are home to hospitals that benefit from these DSH payments. North Carolina’s hospitals will experience a reduction in this important subsidy starting next year, due to aggregate reductions in funding to states for DSH payments. The ACA was projected to offset the cost of uncompensated care through Medicaid expansion. Because North Carolina opted out of the expansion, its hospitals will lose $284.5 million in Medicaid DSH payments while continuing to experience high costs of uncompensated care relative to states that did not opt out. This is an untenable situation. Expanding the number of insured through our plan will reduce hospital uncompensated care costs.

**Impact of the Plan on North Carolina’s Hospitals**

Expanding Medicaid to all individuals earning below 100 percent FPL and having the 100 percent to 138 percent FPL population purchase private insurance through the marketplace would benefit North Carolina’s hospitals in several ways. First, a greater number of insured patients will offset the costs associated with reduced DSH allotments. Medicaid expansion would dramatically reduce uncompensated care costs incurred by hospitals, a majority of which stems from caring for the uninsured. Second, Medicaid expansion would increase the amount of federal and state Medicaid payments to hospitals by 25.4 percent, an incremental increase of $13.4 million. Increased revenues from a greater number of Medicaid and privately insured patients will further assist hospitals’ bottom line. Third, hospitals bad debt would decrease due to out of pocket expenses being covered for by private insurance for the 100 to 138 percent of FPL population.

Medicaid expansion will help rural hospitals and Critical Access Hospitals (CAHs) stay afloat, and will have positive spillover effects to local communities. CAHs, hospitals in rural areas that see a disproportionate share of uninsured and Medicaid patients, are reimbursed at-cost for Medicaid. Similar to many rural hospitals, Medicaid and Medicare payments serve as their primary revenue source. Increased revenue from seeing more Medicaid patients will ensure that CAHs can continue to provide a critical safety net for many of North Carolina’s counties. Sixty-three percent of rural hospitals’ revenue comes from Medicare and Medicaid. The increase in privately insured payments from the 100 to 138 percent of FPL population would provide hospitals with more balanced payer mix. Reduced fiscal stress will also positively affect rural counties, of which 75 percent report hospitals as a top five leading employer.

**Recommendations for the State and for Hospitals**

The following recommendations will provide additional benefits to North Carolina’s hospitals:

1. **For the state: Direct DSH payments to hospitals that see the highest volume of Medicaid patients.** North Carolina has authority to exercise flexibility with how DSH allotments are distributed to hospitals in the state. Focusing on hospitals that see the highest volume of Medicaid patients will avoid further DSH
reductions. The state should consider making their DSH payment model more transparent, to ensure efficient allocation of resources to the hospitals that will benefit most.

2. For tax-exempt hospitals: Fulfill new community benefit requirements by focusing community health improvement investments on indicators related to the uninsured population, and utilize Community Needs Health Assessments (CNHAs) as an opportunity to partner with local public health agencies and communities. These partnerships could help reduce ER utilization for the uninsured population, reduce charity care, and could assist with navigating the uninsured population toward applicable insurance options. An example partnership could include connecting with CCNC to utilize the North Carolina Community Health Information Portal. This partnership could assist with directing navigator resources to the uninsured population.

IMPACT ON PRIMARY CARE AND RURAL HEALTH PROVIDERS

Current State of the Primary Care Workforce and Rural Health Needs
The greatest concern – and subsequent opportunity for improved efficiency – for the primary care provider workforce in North Carolina is the uneven distribution of providers in the state. The number of primary care providers per capita in North Carolina (9.2 practitioners per 10,000 population) is slightly higher than the national average of 8.4 practitioners. However, this distribution is not even across the state, and select counties have a surplus of providers, while most counties experience a deficit. See for Figure 4 the distribution of primary care providers across the state. From 1997 to 2010, the percentage of practicing physicians in North Carolina who specialize in primary care increased by two percentage points to 43 percent. However, the number of nurse practitioners and physician assistants specializing in

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* ACA requirements for Community Health Needs Assessment: Section 501( r)(3) requires hospitals to conduct community health needs assessments (CHNAs) every three years. These assessments must take various community stakeholder opinions into account, and are required to be made widely available to the public. Section 4959 levies a $50,000 excise tax on a hospital that does not meet the CHNA requirements. Partnering with local health departments and collaborating with community partners can achieve the requirements.
primary care decreased.\textsuperscript{83}

Currently, 85 out of the 100 counties in North Carolina are designated as Medically Underserved Areas/Populations or Health Professional Shortage Areas (HPSAs).\textsuperscript{84} HPSAs and Medically Underserved Areas/Populations are areas that have shortages of primary care, dental, or mental health providers\textsuperscript{85} or high rates of infant mortality or poverty or large elderly populations.\textsuperscript{86} For example, Camden, Gates and Hyde counties had only one primary care provider in 2011. Tyrrell County had no primary care provider practicing in 2011 and three of the state’s rural counties lost nine to 12 of their primary-care physicians between 2010 and 2011.\textsuperscript{87}

The adverse impact of the provider shortage is worst in rural areas with low-socioeconomic status populations, where lack of resources creates additional barriers to access. In North Carolina, almost 20 percent of individuals age 19-64 in rural areas are uninsured.\textsuperscript{88,89} Compared to urban areas, a higher proportion of individuals in rural areas have Medicaid and/or Medicare coverage, with 18.7 percent of rural North Carolinians living below the federal poverty line.\textsuperscript{90} In 2010, more than 25 percent of rural children in North Carolina lived in households below the federal poverty line.\textsuperscript{91} Rural communities lack a sufficient number of primary care providers. The combination of the supply of primary care physicians in rural areas and the high rates of poverty, highlights the need for better access to affordable health services.

In response to the needs of rural areas, there are opportunities for improvements in efficiency. North Carolina has five academic health centers and five Area Health Education Centers (AHECs) with residency programs. However, North Carolina exports more primary care physicians than it retains.\textsuperscript{92} For example, North Carolina has 3.1 medical residents per 10,000 state citizens, but retains only 42 percent of physicians after their residency training.\textsuperscript{93} The national average retention rate is 48 percent. The AHEC residency programs in North Carolina are relatively on par with the national average, and retain more than 50 percent of primary care residents, located in or near rural areas. Physicians who perform their residency in rural areas are more likely to work in rural areas post-residency.\textsuperscript{94} Therefore, an emphasis on residency programs in rural areas, such as AHEC residency programs, should lead to an increase of providers in rural areas. Given the academic health centers and AHECs in North Carolina, there is an opportunity to scale up these programs to address the health care needs in rural areas.

Impact of Medicaid Expansion on Existing Primary Care and Rural Health Providers

By expanding Medicaid and placing individuals who earn between 100 percent and 138 percent of the FPL in private plans, North Carolina would remove a major barrier to health care access, particularly for individuals in rural areas. However, as coverage increases, more physicians will be needed to meet the growing demand for services in North Carolina. One study estimates primary care physicians require approximately 2
hours per patient per year* to provide preventive, chronic and acute care services. Our plan estimates that 498,230 additional individuals would be enrolled in the state’s Medicaid program.

Providers accepting Medicaid payment and/or new patients also impact access to services. 76.4 percent of the state’s providers accept Medicaid, while the national average is 69.4 percent. All but one of North Carolina’s hundred counties have at least one Medicaid provider. Medicaid reimbursement rates are lower than private insurance reimbursement. Given the current provider supply, barriers to becoming a Medicaid provider in North Carolina and the lower reimbursement rates, new Medicaid enrollees may have difficulty finding a provider who will accept additional Medicaid patients. However, to mitigate that impact, the ACA implements higher Medicaid reimbursement rates.

Additionally, placing individuals who earn between 100 percent and 138 percent of FPL in private insurance may be financially beneficial for existing providers and mitigate the impact of increased demand for services. Private insurance plans provide higher reimbursement rates than Medicaid, thus enticing more providers to serve the population with incomes between 100 percent and 138 percent of FPL. Therefore, placing more individuals in private insurance incentivizes providers to accept more patients. Moreover, providing more individuals access to insurance, whether through Medicaid or private coverage, may also encourage providers to offer services, as prior to expansion the services may have constituted uncompensated care. Expanding health insurance coverage through Medicaid or private insurance ultimately entices providers to offer services to this population as they may now see a reduction in uncompensated care due to insurance coverage.

Impact of Medicaid Expansion on Provider Supply

Regional Economic Modeling Inc., which utilizes economic forecasting software, projected that expanding the Medicaid program would create a total of approximately 23,000 more job-years in North Carolina by 2021 compared to a base case of not expanding Medicaid. Job-years reflect labor demanded, not how many people have a job. For example, in 2014, health technologists and technician are 491 jobs (available and occupied) greater than at baseline. The base case was simulated assuming the influx of the “woodwork” individuals, those currently eligible and not enrolled, enroll in Medicaid. Refer to Figure 6 below for occupational-level employment in job years under traditional Medicaid Expansion. The impact analysis of Medicaid expansion on the supply of providers, presented in Table 3, assumes Medicaid expansion up to 138 percent of FPL. As our plan would provide insurance to individuals up to 138 percent of the FPL through Medicaid and private insurance, the analysis should not be interpreted

* The study made several assumptions in estimating preventive, chronic, and acute care listed in Appendix F. The assumptions the authors made are relevant and appropriate for the Medicaid reform proposal’s target population.
as a prediction, but indicative of a trend of the impact of Medicaid expansion on the supply of health care providers.

Table 3. Occupational-Level Employment, Traditional Medicaid Expansion, in job-years. 104

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<thead>
<tr>
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<th></th>
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<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Health technologists and technicians</td>
<td>491</td>
<td>2,021</td>
<td>2,056</td>
<td>2,033</td>
<td>2,037</td>
<td>2,046</td>
<td>2,033</td>
<td>2,049</td>
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<tr>
<td>Other health care practitioners and technical occupations</td>
<td>14</td>
<td>57</td>
<td>58</td>
<td>54</td>
<td>53</td>
<td>52</td>
<td>50</td>
<td>50</td>
</tr>
<tr>
<td>Nursing, psychiatric, and home health aides</td>
<td>278</td>
<td>1,167</td>
<td>1,207</td>
<td>1,206</td>
<td>1,226</td>
<td>1,250</td>
<td>1,260</td>
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<tr>
<td>Occupational therapy and physical therapist assistants and aides</td>
<td>38</td>
<td>160</td>
<td>165</td>
<td>167</td>
<td>172</td>
<td>176</td>
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<tr>
<td>Other health care support occupations</td>
<td>338</td>
<td>1,380</td>
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<td>1,392</td>
<td>1,399</td>
<td>1,404</td>
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</tr>
<tr>
<td>Total occupations in health sector</td>
<td>2,033</td>
<td>8,376</td>
<td>8,545</td>
<td>8,514</td>
<td>8,589</td>
<td>8,669</td>
<td>8,677</td>
<td>8,773</td>
</tr>
</tbody>
</table>

Impact on Federally Qualified Health Centers

Federally Qualified Health Centers (FQHCs) provide an array of preventive, primary health, behavioral health, and dental services to underserved, high-need communities. FQHCs provide care on a sliding fee scale, regardless of insurance status and ability to pay. FQHCs in North Carolina differ from national averages as a disproportionately high percentage of their patients are uninsured (52 percent), and a relatively low percentage receives Medicaid (22 percent). 105 Nationally, in 2011, 36 percent of health centers patients were uninsured and 39 percent were enrolled in Medicaid or CHIP. 106 This is due to the high enrollment rates of Medicaid beneficiaries in CCNC’s networks. Thus, individuals with Medicaid in North Carolina are able to see private practice providers instead of relying on community health centers.

In North Carolina, 74 percent of FQHC patients have incomes at or below 100 percent of FPL. 107 Therefore, many uninsured FQHC patients will be eligible for health insurance under our plan. Based on Massachusetts’ 2006 experience with health insurance expansion, we anticipate that most patients in FQHCs will continue to receive care from their current FQHC provider. 108 Our plan will profoundly reduce the number of uninsured patients who seek care at FQHCs and removes access barriers in high need areas of the state.
Recommendations for Providers, FQHCs

We propose several recommendations to best support North Carolina primary care providers and FQHCs:

1. **Offer competitive capital funding for rural health clinics to meet increased demand.** State-funded rural health centers are a major point of access for individuals in rural and underserved communities. Many rural health centers face financial problems that decrease the quality of care they provide. The centers offer basic health care to all residents, regardless of their ability to pay. All rural health centers accept Medicaid, Medicare, and private insurance. Rural health centers also accept the Medical Access Plan (MAP) issued by the Office of Rural Health and Community Care (OHRCC) under which an eligible individual makes co-payments and OHRCC pays the difference.\(^{109}\) We recommend DMA offer competitive capital funding for rural health clinics to enable them to scale up services in response to the increased demand for care.

2. **Strengthen the Role of Rural Training Tracks.** Rural Training Tracks are residency programs where the resident spends the first year of residency in an urban setting and the second and third years in a rural area. In 2012, 72 percent of graduates of the program opened clinical medical practices in rural areas.\(^{110}\)

3. **Encourage providers to expand usage of telemedicine technologies in their practices.** For example, leveraging CCNC’s vast strengths in informatics can augment telehealth initiatives, as providers will have access to patients’ medical information remotely. Additionally, the federally funded FQHCs currently employing telemedicine at multiple sites should continue to apply for federal grants to invest in and expand their telemedicine practices.\(^{111}\)

4. **Improve recruitment of medical students for rural areas** and increase utilization of AHEC residency programs to minimize exportation of primary care providers. Additionally, loan forgiveness programs demonstrate an effective strategy to retain physicians and should be considered by stakeholders in North Carolina and medical schools and hospitals associated with the UNC system.\(^{112}\)

**IMPACT ON BEHAVIORAL HEALTH**

**Current State of the Behavioral Health Workforce and Behavioral Health Needs**

As the policy currently stands in North Carolina, adults who are covered by Medicaid have very limited access to mental health services (eight sessions per calendar year) under mental health parity laws.\(^{113}\) Adults with serious and persistent mental illness or significant substance abuse who need enhanced services must receive prior authorization for more intensive outpatient treatments. Despite many adults having coverage through Medicaid or private insurance, national surveys show that fewer than half of all Americans with mental health issues receive any treatment.\(^{114}\)
According to estimates from the Substance Abuse and Mental Health Services Administration (SAMHSA)\textsuperscript{115} 12.8 percent of the state’s uninsured adult population who would have received coverage through the ACA expansion, or 87,624 adults, have a mental illness. SAMHSA estimates that 3.8 percent of uninsured adults, or 26,013 individuals, in North Carolina have a serious mental illness that substantially interferes with their daily life functioning.\textsuperscript{116} This group’s significant mental health or substance abuse issues may have been untreated due to their inability to pay for and access professional services. Some adults may try to access treatment but are forced to pay out of pocket, to rely on sliding fee scales, or to limit the number of sessions they receive. When mental health issues go untreated for prolonged periods many adults may end up in the emergency room for psychiatric conditions. In 2007 7.6 million emergency department visits nationally were for mental illness and one in eight were uninsured adults.\textsuperscript{117} 

The untreated mental health or substance abuse issues may be one reason that this population is low-income and unable to work for an employer that provides health insurance or buy into a private insurance themselves. Prior to the Affordable Care Act, these childless adults may have had a mental health or substance abuse disorder that was considered a pre-existing condition and barred them from obtaining insurance. Providing this group with access to these vital services may help ameliorate the effects of long-term untreated mental health or substance abuse issues and provide them with an opportunity to move back into the labor force.

**Impact on the Behavioral Health Workforce and Need in Community**

If this population became insured through Medicaid or private insurance, the demand for outpatient mental health and substance abuse services will increase. Many providers will benefit from increased revenue from reimbursable services. Sliding scale programs can be reserved for undocumented patients or those with lapses in health insurance coverage. Currently enrolled Medicaid beneficiaries may experience longer wait times to receive services as this new group starts to access benefits previously unavailable. However, over time, the increased revenue to providers previously working off grants, donations or sliding fees will reach equilibrium and the supply side will accommodate the increased demand.

Many communities rely on mobile crisis services, drop-in psychiatric clinics at hospitals, 24-hour hotlines through their Local Management-Entity/Managed Care Organization (LME-MCO) or national call centers, and emergency rooms to manage acute psychiatric crises. If more patients are insured and receive preventive care, mental health assessments, psychiatric medication management, assistance paying for psychiatric medication, and are being seen regularly by a provider, these crisis services will be in less demand. Emergency rooms and crisis services can be utilized as a last resort for severe mental health issues and imminent safety risks. Patients who visit the ER or a crisis center can be more effectively treated and moved more quickly into a stable
hospital placement rather than languish in waiting rooms or be turned back into the community.

**Recommendations for Behavioral Health**

We have several recommendations to ensure that access and delivery of behavioral health services continues to run efficiently:

1. **Enforce the Informatics Center System Access Agreement (Attachment IV)** of the final 1915bc Waiver* between NC DHHS and individual LME/MCOs. Identify and address any barriers to routine and comprehensive data marketplace between LME/MCO data collection systems and the CCNC Informatics Center, particularly those identified by the NC Council of Community Programs.¹¹⁹

2. **Encourage the evidence-based Collaborative Care Model within CCNC and LME/MCOs that has been shown to be more cost-effective and effective at reducing mental health disorders than usual primary care.** Long-term studies have found that $1 invested in collaborative care saves $6.50 in health care costs.¹²⁰

**IMPACT ON COMMUNITY CARE OF NORTH CAROLINA**

**Current State of Community Care of North Carolina**

With 5,500 physicians serving 1.4 million North Carolinians, CCNC currently operates as a public-private partnership that manages most of the state’s Medicaid population.¹²¹ Praised for its unique bottom up approach, CCNC employs a comprehensive approach to primary care, including working with 800 care managers, 30 medical directors, 20 pharmacists, and 10 local psychiatrists.¹²² This type of primary care case management (PCCM) enables CCNC to leverage case management at the local level, reaching all 100 counties in the state¹²³ (see Figure 8 in Appendix H for additional information regarding statewide distribution of CCNC networks). With a mission to improve patient-centered care and health outcomes as well as to reduce costs, this physician led organization has been recognized for its savings to the Medicaid program and reduction in hospital remittance rates¹²⁴ (see in Appendix H for additional information regarding CCNC management and workflow).

Expanding Medicaid eligibility to childless adults will no doubt increase the demand for CCNC services. CCNC will have to garner support and buy-in from additional physicians and care managers to manage this expected increase. Recommendations to encourage this type of additional support are listed below.

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* This waiver allowed LME-MCOs to provide carve-out behavioral health services with the understanding that they would share information on Medicaid recipients with CCNC to coordinate care.
Recommendations for CCNC
The following recommendations will provide additional benefits to Community Care of North Carolina:

1. **Employ a mechanism that equally distributes high utilizers of medical care to case managers.** The workload of each case manager is not evenly distributed, as case managers spend most of their time on patients who are chronically ill and may rarely contact lower utilizers. Creating a mechanism that weights indicators, such as chronic disease diagnosis, rural location and age, for each patient will equally distribute the needs of the newly eligible population to case managers. To implement this system, CCNC should create an additional needs assessment that supplements the hospitals’ current community assessments. In completing this new needs assessment, CCNC should leverage its current use of NC Tracks and general strengths in the field of informatics to incorporate patient medical data to determine the expected amount of care for each patient. This mechanism will also enhance the work of the rural tracks program by strategically placing physicians in rural areas based on expected need.

2. **Employ a higher per member per month payment to networks to incorporate newly eligible Medicaid populations.** In addition to the additional money that CCNC will receive for new members due to the increase in coverage, we recommend that a higher PMPM payment to networks for newly eligible clients in order to cover additional administrative costs and provide the additional demanded services. CCNC already receives different PMPM rates for different populations, depending on their projected expense. For most patients networks receive $3.72, but for elderly or disabled patients, networks receive $13.72. We recommend a two-stage process for the implementation of a tiered system.
   a. Phase I: Using federal expansion funding, increase the PMPM rate that CCNC receives for the newly insured Medicaid adult population for the first year. This will allow CCNC to provide additional care management services and connect adults with mental health or substance abuse issues to community providers.
   b. Phase II: CCNC should use the same weighting mechanism for patient needs and risk of high utilization to create a long-term, multi-tiered pricing system.

3. **Employ a tiered pricing PMPM payment to physicians to incorporate newly eligible Medicaid populations.** Despite the fact that most physicians in the state participate in CCNC, the distribution of CCNC patients is not equal across each network. Employing a tiered PMPM payment for physicians who take on greater amounts of CCNC patients may provide the necessary incentives for doctors to provide care to the newly eligible population. Physicians already view CCNC’s model as a positive alternative to capitated managed care due to their
ability to better protect their reimbursement rates, and their current fees are already structured into two tiers: $2.50 for most patients and $5 for elderly or disabled patients.\textsuperscript{127} Creating more tiers within this fee system will enable CCNC to leverage current levels of physician buy-in into a mechanism to encourage even more provider support.
VI. Conclusion

With a rate of uninsurance that exceeds the national average, North Carolina needs to bridge this health care coverage gap to bring greater stability to its residents and its health care system. Lack of coverage presents a critical barrier to families that are trying to access health care when they need it the most, and has left countless families in financial ruin following health care crises. Uncompensated care costs from uninsured patients are a tremendous burden on hospitals, community health centers, and other health care providers, presenting a major strain on North Carolina’s health care system.

The health reform plan presented here provides a path to reduce the number of North Carolina residents without coverage by more than a half a million by 2020, providing a tremendous boost to the state’s health care system. What’s more, our plan comes at a cost the state can afford, while allaying the concerns of those wary of the ACA’s Medicaid expansion. All told, the plan will bring an additional 8.6 billion federal dollars to North Carolina, while the state will contribute $426 million over six years, to provide coverage to more than 617,000 North Carolinians by 2020.

Undertaking this health reform plan will be no easy task, requiring stakeholders across the health care system to come together and make difficult decisions. Recognizing that health reform remains a highly contentious issue, this plan represents a compromise that alters the approach of the ACA’s Medicaid expansion to better meet the needs of North Carolina. In short, our plan will help ensure a sustainable, more predictable Medicaid program in North Carolina that makes the goals of improving the efficiency and quality of our health care system more attainable.
APPENDICES

APPENDIX A. NORTH CAROLINA MEDICAID REFORM ADVISORY GROUP

This North Carolina Medicaid Reform Advisory Group, which was created under the 2013 Appropriations Act, consists of five members appointed by the Governor (three members), the Speaker of the House of Representatives (one member), and the Senate President Pro Tempore (one member) and was finalized on November 1, 2013.¹²⁹ The appointed members of the board are:

- Dennis Barry – CHAIR (CEO emeritus of Cone Health – Governor Appointee)
- Peggy Terhune (CEO of Monarch NC – Governor Appointee)
- Richard Gilbert, MD (Chief of Staff, Carolinas Medical Center – Governor Appointee)
- Representative Nelson Dollar (Wake County – Speaker Appointee)
- Senator Louis Pate (Lenoir, Pitt, & Wayne Counties – President Pro Tempore Appointee)

Medicaid Director Carol Steckel resigned on October 11, 2013, and the governor and legislature appointed members to the Medicaid Reform Advisory Group only recently, on November 1, 2013.¹²⁹ Advisory Group Chairman, Dennis Barry said the Department of Health and Human Services has, however, begun to work on the plan with Medicaid consultant Bob Atlas.¹³⁰
APPENDIX B. NORTH CAROLINA’S NEXT STEPS

After being introduced in either chamber of the NC General Assembly (NCGA) the reform plan will likely pass through the House Committee on Health and Human Services, the Senate Committee on Insurance, and the House Committee on Appropriations. Following favorable passage through committee and each chamber, the reform plan would then need to be agreed upon in conference committee between both chambers by mid- to late July, 2014, when the General Assembly is expected to adjourn, before being signed into law by Governor McCrory.

After North Carolina formally approves its Medicaid Reform plan, lawmakers will begin the process of reviewing necessary federal waiver requests. Prior to any final waiver application submission, the state must provide a minimum of 30 days to solicit public input at the state-level and outline its plans to respond to public comments in the application. Next, the CMS, along with other federal stakeholders, to receive and consider further public comments for an additional 45 days, minimum. Finally, once CMS approves a waiver application, the state must then convene a 6-month forum (minimum) to solicit further public comments on the implementation of the waiver. A summary of these deadlines is provided in Figure 5 below.

Figure 5. Expansion timeline.

<table>
<thead>
<tr>
<th>Date</th>
<th>Event Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 17, 2014</td>
<td>DMA final reform proposal to NCGA</td>
</tr>
<tr>
<td>July 2014</td>
<td>NCGA expected adjournment</td>
</tr>
<tr>
<td>October to November 2014</td>
<td>Federal public review of proposal</td>
</tr>
<tr>
<td></td>
<td><em>(45 days minimum)</em></td>
</tr>
<tr>
<td>May 14, 2014</td>
<td>NCGA reconvenes for short session</td>
</tr>
<tr>
<td>August to September 2014</td>
<td>State public review of proposal</td>
</tr>
<tr>
<td></td>
<td><em>(30 days minimum)</em></td>
</tr>
<tr>
<td>December 2014 to May 2015</td>
<td>Post-award implementation review</td>
</tr>
<tr>
<td></td>
<td><em>(6 months minimum)</em></td>
</tr>
</tbody>
</table>
APPENDIX C. 10 ESSENTIAL HEALTH BENEFITS

All marketplace plans must offer the following essential health benefits:133

1. Ambulatory patient services
2. Emergency services
3. Hospitalization
4. Maternity and newborn care
5. Mental health and substance use disorder services, including behavioral health treatment
6. Prescription drugs
7. Rehabilitative and habilitative services and devices
8. Laboratory services
9. Preventive and wellness and chronic disease management
10. Pediatric services, including oral and vision care
APPENDIX D. REQUIRED COMPONENTS OF ENROLLMENT SYSTEM

According to CMS guidance, NC must include the following components in its integrated enrollment system in order to enroll newly eligible Medicaid beneficiaries into private plans offered on the marketplace:\(^{134}\)

- Health Care Coverage Portal
- Business Rules Management and Operations System
- Interfaces to federal data services hub
- Interfaces to other verification sources
- Account creation and case notes (all the information supplied by the applicant)
- Notices (communications to applicants concerning results of determination)
- Customer Service technology support
- Interfaces to community assisters or other outreach organizations

In addition, we require the following:

- Ensure compatibility with NC Tracks
- Mechanism for determining eligibility
- Mechanism for enrollment
APPENDIX E. ADDITIONAL INFORMATION ON COST ESTIMATES

General Methodology

Health cost growth, which plays a major role in health premium growth, has slowed significantly in recent years. Some health experts believe the trend in slow growth will continue, though it is unclear to what extent health cost growth will rebound once the economy begins to grow more quickly. Many provisions in the ACA are intended to tamp down health cost growth, but their effects are still largely unknown, adding another level of uncertainty to projected growth in health costs and insurance premiums. Additionally, there is a lot of uncertainty around who will actually enroll in the program and how much the newly eligible population will cost after changes in the ACA are implemented. As millions of new individuals receive coverage, there may be a spike in health cost growth in 2014.

Our model attempts to control for some of this uncertainty. Matching the projected coverage populations with current, comparable populations – as shown in the table above – helps control at least some of the unpredictable variation in costs. For example, we expect distributions of variables such as health status, service use, age and other demographics to be approximately the same for the newly eligible population as for the currently enrolled adult population. In developing our cost estimates for the newly eligible and woodwork populations, we used predicted per capita cost estimates multiplied by predicted population sizes from each subgroup (Woodwork and newly eligible) from the Urban Institute and the DMA for the given year. For the currently enrolled population, we utilized total predicted growth in expenditures to develop annual costs for the population.

To predict cost growths for each of the populations, we primarily used the non-seasonal Holt-Winters method of linear exponential smoothing, a form of ARIMA model, to forecast until 2020. Empirical studies comparing various forecasting methods using economic and sales data have found that linear exponential smoothing models produced forecasts of sales and economic measures that were at least as accurate as more-complex models, such as multivariate models that included explanatory variables. In addition to the Holt-Winters method, we compared growth estimates from multiple other methods, including Brown’s linear exponential smoothing and simple exponential smoothing, as well as simple mean and random walk with drift models, where appropriate.

The primary goal was to reduce root mean squared error (RMSE) measures in comparing multiple methods of modeling for a particular type of data. When two models produced root mean squared errors were less than 5 percent different – with one exception for a difference of 5.5 percent – we compared the models on other grounds, as described in the discussions of individual estimates below. We looked for and attempted to reduce significant autocorrelations among errors. Additionally, we calculated mean errors and mean absolute percentage errors (MAPE). We used Excel...
to make the cost projections. The first- and second-year “projections,” therefore, had to be set equal to the first year of actual data to start the smoothing process.

**Currently Eligible, Currently Enrolled population.** We tested the Brown’s simple exponential smoothing, Brown’s linear exponential smoothing, and Holt-Winters linear exponential smoothing. After comparing the root mean squared errors of all three methods, the Holt-Winters method clearly had the lowest squared errors and was utilized to develop growth estimates for the currently enrolled population.

**Woodwork population.** The simple mean method had the least squared errors and there was no clear trend upward or downward.

**Newly Eligible (0 to less than 100 percent FPL) population.** To develop cost estimates for the newly eligible population, we used data from 2005-2010 to account for a large increase in per-capita spending in the years leading up to 2005, which were followed by a clear gradual trend downward.

We tested the Holt-Winters method, random walk with drift, and Brown’s linear exponential smoothing methods. All three methods had essentially the same root mean squared errors. We decided to drop the random walk method because it had large confidence intervals. We decided to use the Holt-Winters method, in part, because it allowed us to state a clear judgment in terms of the trend variable, beta. The high value for beta reflects the belief that trends in the most recent future will be more relevant to the forecast than trends from near 2005.

**Newly Eligible (100 to 138 percent FPL) population.** We tested the Holt-Winters linear exponential smoothing and Brown’s linear exponential smoothing methods. Both had similar levels of error. Similar to our decision for the 0 to less than 100 percent newly eligible population, we chose the Holt-Winters method to be consistent and to allow us to make the explicit judgments about setting a beta value of 0.9, reflecting the idea that recent trends should carry more weight. Brown’s linear exponential smoothing, by comparison, does not allow the forecaster to assign an explicit weight to the trend, which also could be described as the rate of change between periods.

**Enrollment population estimates.** To predict growth in the eligible Medicaid population, we used historical enrollment data collected through the MSIS data set. We also used non-farm income and wage data from the Bureau of Economic Analysis for North Carolina; state output growth expectations from the North Carolina Fiscal Research Division;¹⁴² and population data from 2000-2012 and projections until 2019 from the state’s Office of State Budget and Management.

We used regression analysis to understand the relationship between income, population growth, and Medicaid enrollment. There was a significant negative relationship between per-capita non-farm income and Medicaid enrollment, meaning that as income rose enrollment fell. We found that total wages in millions of dollars per year, when lagged
two years, was strongly predictive of Medicaid enrollment, controlling for population. Wages in the current year and with a one-year lag were not significantly related to Medicaid enrollment, controlling for population. The relationship between Medicaid enrollment and two-year-lagged wages remains significant even when looking at the years before 2008, a test of the possibility that the relationship between lagged wages and Medicaid enrollment was overstated because of the financial crisis.

We used the Holt-Winters linear exponential smoothing method to project wages until 2020. Using these estimates of Medicaid enrollment, we then projected Medicaid enrollment to 2020 using the following regression model:

\[
\text{Enrollment} = \beta_0 + \beta_1 (\text{Projected wages, lagged 2 years}) + \beta_2 (\text{NC population, lagged 2 years}) + \epsilon
\]

Table 4. Occupational-Level Employment, Traditional Medicaid Expansion, in job-years.

<table>
<thead>
<tr>
<th>Projected Measure</th>
<th>Method</th>
<th>RMSE</th>
<th>MAPE (%)</th>
<th>Alpha</th>
<th>Beta</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Medicaid spending for current enrollees</td>
<td>Holt-Winters</td>
<td>574,629,299.255</td>
<td>1.641</td>
<td>0.550</td>
<td>0.865</td>
</tr>
<tr>
<td>Per-capita spending, all current enrollees</td>
<td>Simple Mean</td>
<td>98.940 *</td>
<td>0.467</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per-capita, adult current enrollees</td>
<td>Holt-Winters</td>
<td>118.980</td>
<td>-1.184</td>
<td>0.275</td>
<td>0.850</td>
</tr>
<tr>
<td>Average single ESI premiums</td>
<td>Holt-Winters</td>
<td>181.306</td>
<td>1.926</td>
<td>0.500</td>
<td>0.900</td>
</tr>
<tr>
<td>Total NC wages, $M</td>
<td>Holt-Winters</td>
<td>4,441.912</td>
<td>0.850</td>
<td>0.050</td>
<td></td>
</tr>
</tbody>
</table>

* For the simple-mean method, we calculated the standard error for the mean of errors.
Table 5. Statistics for regressions used in enrollment projection.

<table>
<thead>
<tr>
<th>Dependent Variable</th>
<th>First Independent Variable</th>
<th>Coefficient, $\beta_1$</th>
<th>p-value, First Independent Variable</th>
<th>Adjusted R-squared</th>
<th>Control Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td>Medicaid enrollment</td>
<td>N.C. total wages, $M</td>
<td>1.259</td>
<td>0.645</td>
<td>0.955</td>
<td>Contemporary population</td>
</tr>
<tr>
<td>Medicaid enrollment</td>
<td>Wages, lag one year</td>
<td>-1.592</td>
<td>0.388</td>
<td>0.982</td>
<td>Contemporary population</td>
</tr>
<tr>
<td>Medicaid enrollment</td>
<td>Wages, lag two years</td>
<td>-6.560</td>
<td>0.011</td>
<td>0.992</td>
<td>Contemporary population</td>
</tr>
<tr>
<td>Medicaid enrollment</td>
<td>Wages, lag two years</td>
<td>-12.035</td>
<td>0.040</td>
<td>0.987</td>
<td>If year &lt; 2008, contemporary population</td>
</tr>
<tr>
<td>Medicaid enrollment</td>
<td>Projected wages, lag two years</td>
<td>-10.138</td>
<td>0.017</td>
<td>0.986</td>
<td>Population lag one year and two years</td>
</tr>
<tr>
<td>Medicaid enrollment</td>
<td>Projected wages, lag two years</td>
<td>-9.347</td>
<td>0.007</td>
<td>0.987</td>
<td>Population lag two years</td>
</tr>
</tbody>
</table>

**Results Compared**

We were able to compare two of our cost projections with independent sources, which gave at least some insight into whether our methods were valid. Our estimates were less than 5 percent different from comparison figures (see Table 6). Though comparisons between our estimates and other projections are not necessarily validation, given the great deal of uncertainty involved in this scenario, they do suggest our estimates are within reason. To make another comparison, the differences between our estimates and the comparisons are comparable to the percent differences between the state’s forecast and actual tax revenues.145
### Table 6. Comparison of results.

<table>
<thead>
<tr>
<th>Measure</th>
<th>Our Estimate (2012 dollars)</th>
<th>Comparison Estimate (2012 dollars)</th>
<th>% Difference with Comparison</th>
<th>Comparison Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Medicaid spending, current population*</td>
<td>$10,076,005,415</td>
<td>$10,567,257,594</td>
<td>4.88%</td>
<td>Total State Budget, 2013-14, OSBM Budget Book(^{146})</td>
</tr>
<tr>
<td>Per-person annual cost for marketplace-based coverage**</td>
<td>$6,016.55</td>
<td>$5,810.69</td>
<td>3.94%</td>
<td>Milliman N.C. Health Benefit Marketplace Study(^{147})</td>
</tr>
</tbody>
</table>

* Excluding CHIP, additional funds and revenues, such as disproportionate share hospital payments. Because the state legislature has decided against a Medicaid expansion to this point, we assume the 2013-14 appropriation reflects only cost growth for the current population.

** Milliman’s figure is assumed to be in 2014 dollars and was deflated. We took the gross cost estimate for individuals in the 30 to 39 years age band, which includes the average projected age for health insurance marketplace enrollees, and applied Milliman’s health status cost factor for the individual health insurance marketplace market. Milliman’s gross cost estimate reflects all costs of insurance, before premiums or cost sharing. Our plan calls for a limited amount of cost sharing, which if accounted for, would increase the difference between our estimate and the comparison figure slightly. Milliman’s analysis assumed the state would expand Medicaid under the ACA in 2014.
**Upper and Lower Bound Estimates**

We generate upper and lower bound estimates by using the lower and upper bounds of the 95 percent confidence intervals for projected variables inputs.

Using lower bound inputs, we estimate that our plan will cost the state an additional $574 million ($513 million in real 2012 dollars, discounted at 3 percent) over the next six years (2015-2020). The federal government would contribute an additional $11.5 billion, covering more than 95 percent of total costs of the expansions. Based on estimates, we expect an additional 498,230 North Carolinians would gain health coverage under this plan. These estimates are presented in Table 7 below.

**Table 7.** Cost and Medicaid beneficiary estimates using lower bound inputs (cost estimates in millions of 2012 dollars).

<table>
<thead>
<tr>
<th>Year</th>
<th>TOTAL COSTS TO NC</th>
<th>NUMBER OF BENEFICIARIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With Reform Plan ($ in millions)</td>
<td>Without Reform Plan ($ in millions)</td>
</tr>
<tr>
<td>2015</td>
<td>$2,905</td>
<td>$2,905</td>
</tr>
<tr>
<td>2016</td>
<td>$2,785</td>
<td>$2,785</td>
</tr>
<tr>
<td>2017</td>
<td>$2,763</td>
<td>$2,663</td>
</tr>
<tr>
<td>2018</td>
<td>$2,662</td>
<td>$2,540</td>
</tr>
<tr>
<td>2019</td>
<td>$2,561</td>
<td>$2,417</td>
</tr>
<tr>
<td>2020</td>
<td>$2,500</td>
<td>$2,292</td>
</tr>
<tr>
<td>Total (2015-2020)</td>
<td>$16,175</td>
<td>$15,602</td>
</tr>
</tbody>
</table>

*Note: These figures may only be used according to the accompanying caveats and methodological details provided in this paper.*

Using upper bound inputs, we estimate that our plan will cost the state an additional $773 million ($691 million in real 2012 dollars, discounted at 3 percent) over the next six years (2015-2020). The federal government would contribute an additional $15.2 billion, covering more than 95 percent of total costs of the expansions. Based on estimates, we expect an additional 617,152 North Carolinians would gain health coverage under this plan. These estimates are presented in Table 8 below.
### Table 8. Cost and Medicaid beneficiary estimates using upper bound inputs (cost estimates in millions of 2012 dollars).

<table>
<thead>
<tr>
<th>Year</th>
<th>TOTAL COSTS TO NC</th>
<th>NUMBER OF BENEFICIARIES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>With Reform Plan ($ in millions)</td>
<td>Without Reform Plan ($ in millions)</td>
</tr>
<tr>
<td>2015</td>
<td>$3,823</td>
<td>$3,823</td>
</tr>
<tr>
<td>2016</td>
<td>$3,821</td>
<td>$3,821</td>
</tr>
<tr>
<td>2017</td>
<td>$3,892</td>
<td>$3,817</td>
</tr>
<tr>
<td>2018</td>
<td>$3,904</td>
<td>$3,813</td>
</tr>
<tr>
<td>2019</td>
<td>$3,916</td>
<td>$3,809</td>
</tr>
<tr>
<td>2020</td>
<td>$3,956</td>
<td>$3,803</td>
</tr>
<tr>
<td>Total (2015-2020)</td>
<td><strong>$30,942</strong></td>
<td><strong>$30,169</strong></td>
</tr>
</tbody>
</table>

*Note: These figures may only be used according to the accompanying caveats and methodological details provided in this paper.*
APPENDIX F. A CONTRAST – MODELING THE MACROECONOMIC IMPACT OF “MEDICAID EXPANSION” IN NORTH CAROLINA

In January 2013, Regional Economic Models, Inc. performed an economic impact of Medicaid expansion in North Carolina for the North Carolina Department of Health and Human Services. This analysis has been used in policy recommendations for the state of North Carolina by the North Carolina Institute of Medicine. The analysis relies on several assumptions discussed below. Given the multi-faceted health care industry, interpretation of the economic analyses results must be made carefully. While our proposed Medicaid plan does not expand coverage in the traditional manner as analyzed by REMI, the analysis has been included as it provides insight as to projected trends of the impact of Medicaid expansion in North Carolina under our proposed plan.

The assumptions of the model are as follows.

- The input data are confidential and were provided by the NC Department of Health and Human Services.
- The model was conducted assuming the current law at the time and did not attempt to incorporate the impact of changes to the law.
- The model makes assumptions regarding intra-state migratory patterns of individuals and health care firms. The model is run with both a strong and “regular” migratory effect. Table 1 data was calculated by averaging the model results of both the migratory effects.
- The model makes assumptions about the impact of ACA on North Carolina’s economy, for example the needs of the “woodwork” population and the increase of federal taxes. The study did not incorporate the increase in federal taxes due to the ACA in the analysis as it was outside the control of the state of North Carolina and would be implemented regardless of the state’s decision to expand. However, the analysis did acknowledge this factor as relevant for interpretations as the federal funding is supported through taxes. Additionally, the “woodwork” population was assumed to enroll in Medicaid under the base case scenario.
### APPENDIX G. ADDITIONAL INFORMATION ON HOSPITALS

**Table 9. Demographics of Hospitals by Location and Size.**

<table>
<thead>
<tr>
<th>Description</th>
<th>All</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Count</td>
<td>125</td>
<td>69</td>
<td>56</td>
</tr>
<tr>
<td>Urban</td>
<td>55%</td>
<td>100%</td>
<td>0%</td>
</tr>
<tr>
<td>Rural</td>
<td>45%</td>
<td>0%</td>
<td>100%</td>
</tr>
<tr>
<td>120+ Staffed Hosp. Beds</td>
<td>41%</td>
<td>57%</td>
<td>19%</td>
</tr>
<tr>
<td>&lt; 120 Staffed Hosp. Beds (no CAHs)</td>
<td>41%</td>
<td>33%</td>
<td>50%</td>
</tr>
<tr>
<td>Critical Access Hospitals</td>
<td>18%</td>
<td>8%</td>
<td>30%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>All</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg Staffed Total Beds</td>
<td>195</td>
<td>264</td>
<td>110</td>
</tr>
<tr>
<td>Avg Licensed Total Beds</td>
<td>220</td>
<td>292</td>
<td>131</td>
</tr>
<tr>
<td>Avg Licensed General Acute Beds</td>
<td>170</td>
<td>228</td>
<td>97</td>
</tr>
<tr>
<td>Avg Licensed Psychiatry Beds</td>
<td>23</td>
<td>31</td>
<td>13</td>
</tr>
<tr>
<td>Avg Licensed Rehabilitation Beds</td>
<td>8</td>
<td>13</td>
<td>2</td>
</tr>
<tr>
<td>Avg Licensed Skilled Nursing Beds</td>
<td>15</td>
<td>13</td>
<td>16</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Description</th>
<th>All</th>
<th>Urban</th>
<th>Rural</th>
</tr>
</thead>
<tbody>
<tr>
<td>Has Licensed Psych Beds</td>
<td>36%</td>
<td>43%</td>
<td>26%</td>
</tr>
<tr>
<td>Has Lic. Detox or Sub. Abuse Beds</td>
<td>5%</td>
<td>10%</td>
<td>0%</td>
</tr>
<tr>
<td>Has Lic. Hospice, SNF or Adult Beds</td>
<td>29%</td>
<td>20%</td>
<td>41%</td>
</tr>
<tr>
<td>Has Licensed Rehab Beds</td>
<td>20%</td>
<td>26%</td>
<td>12%</td>
</tr>
<tr>
<td>General Acute Care Hospitals</td>
<td>88%</td>
<td>81%</td>
<td>95%</td>
</tr>
<tr>
<td>Psychiatric (Behavioral) Hospitals</td>
<td>4%</td>
<td>5%</td>
<td>1%</td>
</tr>
<tr>
<td>Rehabilitation Hospitals</td>
<td>1%</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Specialty and Federal Hospitals</td>
<td>6%</td>
<td>10%</td>
<td>1%</td>
</tr>
<tr>
<td>West (District 1)</td>
<td>19%</td>
<td>15%</td>
<td>23%</td>
</tr>
<tr>
<td>Northern Piedmont (District 2)</td>
<td>16%</td>
<td>20%</td>
<td>12%</td>
</tr>
<tr>
<td>Southern Piedmont (District 3)</td>
<td>16%</td>
<td>20%</td>
<td>10%</td>
</tr>
<tr>
<td>North Central (District 4)</td>
<td>14%</td>
<td>21%</td>
<td>5%</td>
</tr>
<tr>
<td>South Central (District 5)</td>
<td>13%</td>
<td>8%</td>
<td>19%</td>
</tr>
<tr>
<td>East (District 6)</td>
<td>19%</td>
<td>11%</td>
<td>28%</td>
</tr>
<tr>
<td>Independent Hospitals</td>
<td>24%</td>
<td>20%</td>
<td>28%</td>
</tr>
<tr>
<td>Hospitals in Multi-Hospital Systems</td>
<td>76%</td>
<td>79%</td>
<td>71%</td>
</tr>
</tbody>
</table>

Note: CAHs = Critical Access Hospitals
**Figure 6.** Net patient revenue payer mix trends for the average hospital (indexed to $1,000 FY2006*).\(^{149}\)
Table 10. DSH Allotments for FY2010, FY2011, and FY2012 ($ in millions).\textsuperscript{150}

<table>
<thead>
<tr>
<th>State</th>
<th>FY2010\textsuperscript{a}</th>
<th>ARRA Temporary DSH Allotment</th>
<th>Final DSH Allotment</th>
<th>Preliminary DSH Allotment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Regular DSH Allotment</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Alabama</td>
<td>$302.4</td>
<td>$15.3</td>
<td>$317.7</td>
<td>$307.5</td>
</tr>
<tr>
<td>Alaska\textsuperscript{b}</td>
<td>200</td>
<td>1.0</td>
<td>21.0</td>
<td>20.4</td>
</tr>
<tr>
<td>Arizona</td>
<td>996</td>
<td>5.0</td>
<td>104.6</td>
<td>101.3</td>
</tr>
<tr>
<td>Arkansas\textsuperscript{b}</td>
<td>42.4</td>
<td>2.1</td>
<td>44.6</td>
<td>43.1</td>
</tr>
<tr>
<td>California</td>
<td>1,078.0</td>
<td>54.6</td>
<td>1,132.6</td>
<td>1,046.3</td>
</tr>
<tr>
<td>Colorado</td>
<td>910</td>
<td>4.6</td>
<td>95.6</td>
<td>92.5</td>
</tr>
<tr>
<td>Connecticut</td>
<td>1,967</td>
<td>10.0</td>
<td>206.6</td>
<td>200.0</td>
</tr>
<tr>
<td>Delaware\textsuperscript{b}</td>
<td>89</td>
<td>0.5</td>
<td>9.4</td>
<td>9.1</td>
</tr>
<tr>
<td>District of Columbia</td>
<td>602</td>
<td>3.0</td>
<td>63.3</td>
<td>61.3</td>
</tr>
<tr>
<td>Florida</td>
<td>1,967</td>
<td>10.0</td>
<td>206.6</td>
<td>200.0</td>
</tr>
<tr>
<td>Georgia</td>
<td>2,643</td>
<td>13.4</td>
<td>277.7</td>
<td>268.8</td>
</tr>
<tr>
<td>Hawaii\textsuperscript{c}</td>
<td>100</td>
<td>0.0</td>
<td>10.0</td>
<td>10.0</td>
</tr>
<tr>
<td>Idaho\textsuperscript{b}</td>
<td>162</td>
<td>0.8</td>
<td>17.0</td>
<td>16.4</td>
</tr>
<tr>
<td>Illinois</td>
<td>2,114</td>
<td>10.7</td>
<td>222.1</td>
<td>215.0</td>
</tr>
<tr>
<td>Indiana</td>
<td>2,102</td>
<td>10.6</td>
<td>220.8</td>
<td>213.8</td>
</tr>
<tr>
<td>Iowa\textsuperscript{b}</td>
<td>38.7</td>
<td>2.0</td>
<td>40.7</td>
<td>39.4</td>
</tr>
<tr>
<td>Kansas</td>
<td>406</td>
<td>2.1</td>
<td>42.6</td>
<td>41.3</td>
</tr>
<tr>
<td>Kentucky</td>
<td>1,426</td>
<td>7.2</td>
<td>149.8</td>
<td>145.0</td>
</tr>
<tr>
<td>Louisiana</td>
<td>7,320</td>
<td>37.1</td>
<td>769.0</td>
<td>732.0</td>
</tr>
<tr>
<td>Maine</td>
<td>1,033</td>
<td>5.2</td>
<td>108.5</td>
<td>105.0</td>
</tr>
<tr>
<td>Maryland</td>
<td>750</td>
<td>3.8</td>
<td>78.8</td>
<td>76.3</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>2999</td>
<td>15.2</td>
<td>315.1</td>
<td>305.0</td>
</tr>
<tr>
<td>Michigan</td>
<td>2,606</td>
<td>13.2</td>
<td>273.8</td>
<td>265.0</td>
</tr>
<tr>
<td>Minnesota\textsuperscript{b}</td>
<td>73.4</td>
<td>3.7</td>
<td>77.2</td>
<td>74.7</td>
</tr>
<tr>
<td>Mississippi</td>
<td>1,500</td>
<td>7.6</td>
<td>157.6</td>
<td>152.5</td>
</tr>
<tr>
<td>Missouri</td>
<td>4,659</td>
<td>23.6</td>
<td>489.5</td>
<td>473.8</td>
</tr>
<tr>
<td>Montana\textsuperscript{b}</td>
<td>112</td>
<td>0.6</td>
<td>11.7</td>
<td>11.4</td>
</tr>
<tr>
<td>Nebraska\textsuperscript{b}</td>
<td>278</td>
<td>1.4</td>
<td>29.2</td>
<td>28.3</td>
</tr>
<tr>
<td>Nevada</td>
<td>455</td>
<td>2.3</td>
<td>47.8</td>
<td>46.3</td>
</tr>
<tr>
<td>New Hampshire</td>
<td>1,574</td>
<td>8.0</td>
<td>165.4</td>
<td>160.1</td>
</tr>
<tr>
<td>New Jersey</td>
<td>6,330</td>
<td>32.0</td>
<td>665.1</td>
<td>643.8</td>
</tr>
<tr>
<td>New Mexico\textsuperscript{b}</td>
<td>200</td>
<td>1.0</td>
<td>21.0</td>
<td>20.4</td>
</tr>
</tbody>
</table>
### Appendices

#### Table 1: DSH Allotments and Increases

<table>
<thead>
<tr>
<th>State</th>
<th>FY2010</th>
<th>ARRA Temporary DSH Increase</th>
<th>FY2011</th>
<th>FY2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>New York</td>
<td>1,579.5</td>
<td>80.0</td>
<td>1,659.5</td>
<td>1,606.4</td>
</tr>
<tr>
<td>North Carolina</td>
<td>290.1</td>
<td>14.7</td>
<td>304.8</td>
<td>295.0</td>
</tr>
<tr>
<td>North Dakotab</td>
<td>9.4</td>
<td>0.5</td>
<td>9.9</td>
<td>9.6</td>
</tr>
<tr>
<td>Ohio</td>
<td>399.5</td>
<td>20.2</td>
<td>419.7</td>
<td>406.3</td>
</tr>
<tr>
<td>Oklahomab</td>
<td>35.6</td>
<td>1.8</td>
<td>37.4</td>
<td>36.2</td>
</tr>
<tr>
<td>Oregon</td>
<td>44.5</td>
<td>2.3</td>
<td>46.8</td>
<td>45.3</td>
</tr>
<tr>
<td>Pennsylvania</td>
<td>551.9</td>
<td>27.9</td>
<td>579.9</td>
<td>561.3</td>
</tr>
<tr>
<td>Rhode Island</td>
<td>63.9</td>
<td>3.2</td>
<td>67.2</td>
<td>65.0</td>
</tr>
<tr>
<td>South Carolina</td>
<td>322.1</td>
<td>16.3</td>
<td>338.4</td>
<td>327.5</td>
</tr>
<tr>
<td>South Dakotab</td>
<td>10.9</td>
<td>0.5</td>
<td>11.4</td>
<td>11.0</td>
</tr>
<tr>
<td>Tennesseec</td>
<td>305.5</td>
<td>0.0</td>
<td>305.5</td>
<td>305.5</td>
</tr>
<tr>
<td>Texas</td>
<td>940.3</td>
<td>47.6</td>
<td>987.9</td>
<td>956.3</td>
</tr>
<tr>
<td>Utahb</td>
<td>19.3</td>
<td>1.0</td>
<td>20.3</td>
<td>19.6</td>
</tr>
<tr>
<td>Vermont</td>
<td>22.1</td>
<td>1.1</td>
<td>23.2</td>
<td>22.5</td>
</tr>
<tr>
<td>Virginia</td>
<td>86.2</td>
<td>4.4</td>
<td>90.5</td>
<td>87.6</td>
</tr>
<tr>
<td>Washington</td>
<td>181.9</td>
<td>9.2</td>
<td>191.1</td>
<td>185.0</td>
</tr>
<tr>
<td>West Virginia</td>
<td>66.4</td>
<td>3.4</td>
<td>69.7</td>
<td>67.5</td>
</tr>
<tr>
<td>Wisconsinb</td>
<td>93.0</td>
<td>4.7</td>
<td>97.7</td>
<td>94.5</td>
</tr>
<tr>
<td>Wyomingc</td>
<td>0.2</td>
<td>0.0</td>
<td>0.2</td>
<td>0.2</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>$11,107.0</td>
<td>$546.3</td>
<td>$11,653.3</td>
<td>$11,278.0</td>
</tr>
</tbody>
</table>


**Notes:** DSH allotments are different from DSH payments. Allotments reflect the maximum amount of federal DSH funding available to states, and DSH payments are the amounts paid to hospitals.

FY2010 was the last year the ARRA temporary DSH increase was available to states.


a. States’ “Final DSH Allotment” for FY2010 is the combination of the “Regular DSH Allotment” column and the “ARRA Temporary DSH Increase” column.

b. These states are low DSH states. In the past, low DSH states received higher annual percentage increases to their DSH allotments than the non-low DSH states. Currently, low DSH and other states receive the same annual percentage increases to their DSH allotments.

c. Hawaii and Tennessee have special statutory arrangements that specify the DSH allotments for each state.
APPENDIX H. ADDITIONAL INFORMATION ON CCNC

Figure 7. CCNC Network.\textsuperscript{151}

![CCNC Network Map]

Source: CCNC March 2013

Figure 8. CCNC Key Components.\textsuperscript{152}

![CCNC Key Components Diagram]
**APPENDIX I. MEDICAID MYTHS**

**Myth 1: Medicaid is an inefficient program**
While many debates over the merits of public investment in Medicaid invoke concerns over “cost overruns” and out of control spending as a result of program inefficiencies, national and state-level examinations of Medicaid expenditures do not support these concerns. For example, A 2005 national comparison of Medicaid and private insurance expenditures found that Medicaid per-beneficiary costs, after adjusting for differences in health, were 27 percent less for children and 20 percent less for adults (see Figure 9).\(^{153}\)

**Figure 9. Cost comparison of Medicaid and private insurance.**

![Cost comparison of Medicaid and private insurance](image)

*Source: Center for Budget and Policy Priorities Analysis, 2013.*

Some critics of North Carolina’s Medicaid program have gone so far as to call it “broken,” citing excessive administrative costs and soaring, often unanticipated growth in annual expenditures. In January 2013, the North Carolina State Auditor reported that administrative spending was 38 percent higher compared to the average of nine states with similar sized programs.\(^{154}\) However, the NCGA’s Fiscal Research Division recently released its own comparison of the same nine states, finding that administrative costs for North Carolina’s Medicaid program were in fact among the lowest of the states.\(^{155}\) State-level comparisons of North Carolina’s Medicaid program reveal a program with
relatively low administrative costs, which are notably nearly half as much as some states who rely heavily on private, for-profit managed care organizations (see Table 11).

### Table 11. “Apples-to-apples” total administrative cost comparison.

<table>
<thead>
<tr>
<th>State</th>
<th>Adjusted Service Costs ($ in billions)</th>
<th>Adjusted Administrative Costs ($ in billions)</th>
<th>Administrative Costs as a % of Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tennessee</td>
<td>7.53</td>
<td>0.85</td>
<td>11.35%</td>
</tr>
<tr>
<td>Georgia</td>
<td>7.61</td>
<td>0.85</td>
<td>11.19%</td>
</tr>
<tr>
<td>Arizona</td>
<td>8.22</td>
<td>0.92</td>
<td>11.24%</td>
</tr>
<tr>
<td>New Jersey</td>
<td>10.2</td>
<td>0.90</td>
<td>8.88%</td>
</tr>
<tr>
<td>Michigan</td>
<td>11.6</td>
<td>0.97</td>
<td>8.31%</td>
</tr>
<tr>
<td>Massachusetts</td>
<td>12.7</td>
<td>0.84</td>
<td>6.57%</td>
</tr>
<tr>
<td><strong>North Carolina</strong></td>
<td><strong>10.3</strong></td>
<td><strong>0.66</strong></td>
<td><strong>6.40%</strong></td>
</tr>
<tr>
<td>Illinois</td>
<td>12.7</td>
<td>0.77</td>
<td>6.07%</td>
</tr>
<tr>
<td>Missouri</td>
<td>7.9</td>
<td>0.42</td>
<td>5.36%</td>
</tr>
</tbody>
</table>


While some North Carolina officials have pointed to recent budget overruns as evidence of a broken system, the fact remains that former DHHS Secretary, Lanier Cansler, warned officials in a letter on October 27, 2011 that “aggressive budget cuts” were unrealistic.\(^{156}\) Additionally, in contrast to claims that NC DMA is broken, North Carolina, due in part to the success of the state’s innovative medical home and care management system,\(^{157}\) CCNC, had the lowest annual growth in Medicaid expenditures from 2007 – 2010 among all states (see Table 12).\(^{158}\) Annual growth in Medicaid expenditures in North Carolina has been on the decline since 1990, and during FY 2007 – 2010 were nearly half the national average.
Table 12. Regional comparison of annual growth in Medicaid expenditures.

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>10.9%</td>
<td>9.4%</td>
<td>3.6%</td>
<td>6.8%</td>
</tr>
<tr>
<td>Alabama</td>
<td>12.4%</td>
<td>8.1%</td>
<td>4.0%</td>
<td>4.9%</td>
</tr>
<tr>
<td>Arkansas</td>
<td>11.2%</td>
<td>10.7%</td>
<td>4.9%</td>
<td>8.4%</td>
</tr>
<tr>
<td>Florida</td>
<td>11.8%</td>
<td>14.1%</td>
<td>1.8%</td>
<td>8.6%</td>
</tr>
<tr>
<td>Georgia</td>
<td>11.5%</td>
<td>21.2%</td>
<td>-8.7%</td>
<td>3.6%</td>
</tr>
<tr>
<td>Louisiana</td>
<td>10.8%</td>
<td>6.0%</td>
<td>1.6%</td>
<td>9.0%</td>
</tr>
<tr>
<td>Maryland</td>
<td>9.9%</td>
<td>12.3%</td>
<td>4.8%</td>
<td>9.2%</td>
</tr>
<tr>
<td>Mississippi</td>
<td>13.5%</td>
<td>11.0%</td>
<td>-1.4%</td>
<td>8.0%</td>
</tr>
<tr>
<td>North Carolina</td>
<td>14.0%</td>
<td>9.8%</td>
<td>5.5%</td>
<td>3.5%</td>
</tr>
<tr>
<td>South Carolina</td>
<td>12.4%</td>
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<tr>
<td>Tennessee</td>
<td>13.0%</td>
<td>8.6%</td>
<td>0.3%</td>
<td>6.1%</td>
</tr>
<tr>
<td>Texas</td>
<td>12.9%</td>
<td>11.6%</td>
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<td>9.7%</td>
</tr>
<tr>
<td>Virginia</td>
<td>10.5%</td>
<td>8.3%</td>
<td>8.0%</td>
<td>9.2%</td>
</tr>
</tbody>
</table>

*Source: Kaiser Family Foundation.*

**Myth 2: Patients in Medicaid have worse health outcomes than the uninsured.**

One of the more prominent myths concerning the United States’ Medicaid system is that Medicaid actually leads to worse outcomes for its beneficiaries than if they were uninsured. Critics argue that providers are less likely to accept Medicaid patients since Medicaid typically reimburses providers at lower levels than private insurance. Because of this, Medicaid beneficiaries are forced to seek care from lower quality providers, who are more willing to accept them, and have worse outcomes as a result.

The critics who support this myth often point to studies that find evidence of these worse outcomes in limited situations and in specific areas of the country. For example, a 2007 study conducted at the University of Virginia found that, for certain surgical procedures, Medicaid patients had worse in-hospital mortality rates, longer lengths of stay, and higher costs than their privately insured, Medicare, and uninsured
counterparts. Another study, conducted at Johns Hopkins University, found that Medicaid beneficiaries had greater risk of death following lung-transplantation.

Contrary to the limited evidence which finds worse health outcomes for Medicaid beneficiaries, the larger majority of experts find more mixed results and, in some circumstances, positive health outcomes for Medicaid beneficiaries. In 2012, researchers from Harvard University compared mortality between states that expanded their Medicaid coverage and states not expanding and found Medicaid expansion led to a significant reduction in mortality. Following Oregon’s decision to expand their Medicaid program, researchers recently found evidence that Medicaid coverage led to patients reporting higher levels of good to excellent health, no significant effect on blood pressure and cholesterol, and a positive effect on diabetes diagnosis and treatment.
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