Expanding Access to Health Care in North Carolina:

A Report of the NCIOM Health Access Study Group

March 2009

North Carolina Institute of Medicine

A report requested by the North Carolina General Assembly

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North Carolina Institute of Medicine

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The North Carolina Institute of Medicine (NCIOM) is a nonpolitical source of analysis and advice on important health issues facing the state. The NCIOM convenes stakeholders and other interested people from across the state to study these complex issues and develop workable solutions to improve health, health care access, and quality of health care in North Carolina.

The full text of this report is available online at **http://www.nciom.org**

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Acknowledgements

The North Carolina Institute of Medicine's (NCIOM) Health Access Study Group was convened at the request of the North Carolina General Assembly in 2008. The General Assembly directed the Study Group to study issues related to expanding access to appropriate and affordable health care for all North Carolinians. The Study Group was instructed to consider previous and current work by the NCIOM, successful efforts in other states to improve access and affordability of health care, and relevant federal initiatives and to present the final report and recommendations to the 2009 General Assembly. The Study Group was led by three co-chairs, including Representative Hugh Holliman, District 81, North Carolina House of Representatives; Senator Tony Rand, District 19, North Carolina Senate; and L. Allen Dobson Jr, MD, FAAFP, Vice President, Clinical Practice Development, Carolinas HealthCare System. There were 36 additional Study Group members including legislators, state and local agency officials, health care professionals, and other interested persons who dedicated one day a month between September 2008 and January 2009 to research this issue. Two Study Group members and an additional two people participated in the Study Group's Steering Committee. These individuals helped shape meeting agendas and recommendations as well as identify speakers. The accomplishments of the Study Group would not have been possible without the hard work of both the Study Group members and the Steering Committee members. A complete list of Study Group members and Steering Committee members can be found on pages 7-9 of this report.

The NCIOM Health Access Study Group heard presentations from state and national experts on efforts to provide access to appropriate and affordable health care. We would like to thank the following people for sharing their expertise and experiences with the Study Group: Samantha Artiga, MHSA, Senior Policy Analyst, Kaiser Commission on Medicaid and the Uninsured, Henry J. Kaiser Family Foundation; Thomas Bacon, DrPH, Associate Dean and Director, Area Health Education Centers Program School of Medicine; Joshua Goldberg, Health Policy and Legislative Analyst, National Association of Insurance Commissioners; Michael Keough, Executive Director, North Carolina Health Insurance Risk Pool; Ken Lewis, Chief Executive Officer, FirstCarolinaCare, President of the Board, North Carolina Association of Health Plans; Cindy Mann, JD, Executive Director, Center for Children and Families, Georgetown University Health Policy Institute; Edward Neuschler, MPP, Senior Program Officer, Institute for Health Policy Solutions; Melissa Pratt, Outreach Manager, Insure Oklahoma; Thomas Ricketts III, PhD, MPH, Deputy Director, Cecil G. Sheps Center for Health Services Research, Professor, Health Policy and Management and Social Medicine, the University of North Carolina at Chapel Hill; Brian Toomey, Chief Executive Officer, Piedmont Health Services, Inc.; Torlen Wade, MSPH, Executive Director, North Carolina Community Care Network, Inc.

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Executive Summary

North Carolinians are facing increasing barriers to accessing needed health care services. Access to care is likely to become even more difficult with the recent downturn in the economy, as a large number of people lose their jobs and subsequently their health insurance. While there are many barriers to accessing health care, the foremost barrier is the lack of health insurance. In North Carolina, the uninsured are four times more likely than people with insurance coverage to report that they did not seek necessary medical care because of costs (47% vs. 10% respectively) or that they had no usual source of care (59% vs. 14%).[1] The uninsured are therefore less likely to get preventive screenings or receive ongoing care for chronic conditions.[2] Ultimately, uninsured adults are 25% more likely to die prematurely than adults with health insurance.[2] Although there is a safety net system in place to treat the uninsured, the system does not have the infrastructure or the funds to treat all of the uninsured in the state.[a]

While there are many barriers to accessing health care, the foremost barrier is the lack of health insurance.

North Carolina has experienced more rapid growth in the percent of people lacking health insurance than the nation. In 2006-2007, nearly one-in-five non-elderly individuals in North Carolina, more than 1.5 million people, lacked health insurance, a 29% increase from 1999-2000.[b] Comparatively, the percent of uninsured in the nation increased only 12% during the same time period. The percent of North Carolinians with employer-sponsored insurance (ESI) declined as well. Between 1999-2000 and 2006-2007, North Carolina saw a 12.5% decrease in ESI compared to a 6.8% decrease nationally.

The uninsured are a diverse group that includes individuals from all income levels, and all racial, ethnic, and age groups. Nonetheless, certain populations are more at risk for being uninsured than others. The majority of the uninsured in North Carolina fall into at least one of three groups: 1) children in families with incomes below 200% of the federal poverty guidelines (FPG) (14%), 2) adults with incomes below 200% FPG (46%), and 3) people with a family connection to a small employer with less than 25 employees (36%). Together, these three groups comprise approximately four-fifths, or 79%, of all the uninsured in the state.

Lack of coverage has a negative effect on both the uninsured and society at large. Many uninsured forego or delay care and end up in the emergency department for their health care. The uninsured, on average, pay about one-third of their medical bills out of pocket. The remainder of the costs—known as uncompensated care—is shifted to other payers through higher taxes and insurance premiums. In North Carolina, individuals pay an average of $438 more a year and families pay an

a Information about available safety net health care resources for the uninsured at the county level is available at www.nchealthcarehelp.org.

b Unless otherwise noted, all data on the uninsured are based on North Carolina Institute of Medicine analysis of the Current Population Survey's Annual Social and Economic Supplement, published by the US Census Bureau.

additional $1,130 per year on health insurance premiums to help cover the cost of uncompensated care for the uninsured.[3] Therefore, the high and increasing number of uninsured has a direct effect on the finances of those who have health insurance coverage.

The North Carolina General Assembly directed the North Carolina Institute of Medicine (NCIOM) to convene a study group to examine and recommend options to expand access to appropriate and affordable health care in North Carolina, and to present a final report to the 2009 General Assembly.[c] The Health Access Study Group was co-chaired by Representative Hugh Holliman, District 81, North Carolina House of Representatives; Senator Tony Rand, District 19, North Carolina Senate; and L. Allen Dobson, MD, FAAFP, Vice President, Clinical Practice Development, Carolinas HealthCare System. It included 38 additional Study Group and Steering Committee members. The Study Group met a total of five times between September 2008 and January 2009 to develop the final report for the North Carolina General Assembly.

Health insurance premiums increased 119% between 1999 and 2008, compared to 34% for wages and 29% for overall inflation.

Health Care Costs, Coverage, and Quality: Most of the Study Group's work focused on expanding coverage to the three groups most likely to be uninsured. However, the Study Group recognized that it is necessary to also study costs, quality, and coverage to ensure access to affordable health care. Health insurance premiums in the United States are increasing much more rapidly than wages or general inflation. Premiums increased 119% between 1999 and 2008, compared to 34% for wages and 29% for overall inflation.[4] The rapid growth in premiums has led to decreases in the availability of ESI and an increasing number of uninsured.[5] Premium growth has been spurred by increases in underlying medical costs, including the high cost and utilization of medical technology and prescription drugs, growth in the prevalence of chronic illnesses, and uncompensated care for the uninsured.[6-10] Unless ways to reduce rising health care costs can be identified, we will be unable to afford health care for anyone in the state—much less extend affordable coverage to all of the uninsured. More work is needed to examine the issues of cost, quality, and coverage and to identify strategies for North Carolina to reign in rising health care costs, enhance health care quality, and improve population health.

In addition, the Study Group recognized that the state will not be able to fully address costs, quality, or access without also ensuring that everyone has health insurance. In a voluntary insurance system, in which individuals are not required to have health insurance, people with pre-existing health problems and/or greater health risks are more likely to purchase coverage than those in good health, even when facing identical insurance premiums. As a result, the average cost of premiums is higher than if everyone had coverage. The following is a summary of the Study Group's costs, quality, and coverage recommendations. The full recommendations are included in the report in Chapter 2.

c Section 31 of Session Law 2008-181.

Recommendation 2.1

The North Carolina General Assembly should direct the North Carolina Institute of Medicine's Health Access Study Group to continue to meet to consider costs, cost-containment, the affordability of health insurance, options for universal coverage, options to make coverage more affordable for small employers, and strategies to ensure there is an adequate supply of health professionals to meet the health care needs of the state. The Health Access Study Group should report its findings and recommendations to the North Carolina General Assembly no later than the convening of the 2010 Session.

Recommendation 2.2

The North Carolina General Assembly should require individuals to purchase health insurance coverage, as long as insurance coverage is affordable. The individual mandate may require a "phasing-in" to allow for a sliding scale subsidy to be put into place for populations up to 300% of the federal poverty guidelines.

Expanding Coverage to Low-Income Children: Children lacking health insurance are more likely to forego or delay care and have less access to health care services than insured children.[11] Expanding coverage to low-income children will increase access to care and improve the health of children in North Carolina. Children in families with incomes less than 200% FPG are the children most likely to be uninsured, even though most of these children are already eligible for either Medicaid or NC Health Choice (the State Children's Health Insurance Program (SCHIP)). Approximately 60% of uninsured children (186,000 children) are currently eligible for, but not enrolled in, one of these two programs. Expanding outreach and simplifying the enrollment and recertification process will help enroll and cover more eligible children as well as retain those children upon recertification.

Children lacking health insurance are more likely to forego or delay care and have less access to health care services than insured children.

There has been recent growth in the percent of uninsured children with family incomes between 200%-300% FPG. In the 2008 Session, the North Carolina General Assembly addressed this growth by giving the Division of Medical Assistance (DMA) the authority to implement NC Kids' Care, a publicly-subsidized health insurance program for uninsured children with family incomes between 200%-250% FPG.[d] The program would cover an additional 9% of uninsured children with an expansion to 250% FPG, growing to 14% with an expansion to 300% FPG.[12] An additional strategy for expanding coverage to children in families with higher incomes is to expand Medicaid coverage for children with disabilities in families with incomes up to 300% FPG, as granted by the Family Opportunity Act.[e]

d Section 10.12(c) of Session Law 2008-107.

e The Family Opportunity Act allows states to provide wrap-around Medicaid coverage for children who have private insurance coverage, in order to provide better coverage to meet the special health care needs of children with disabilities.

In addition, in the last seven years, the North Carolina General Assembly has established growth caps for the NC Health Choice program which would restrict the aforementioned expansion strategies. To successfully expand coverage to low-income children, this cap must be removed. A summary of the Study Group's recommendations on expanding coverage for low-income children is listed below. The full recommendations are included in Chapter 4 of the report.

Recommendation 4.1 (PRIORITY RECOMMENDATION)

The North Carolina Division of Medical Assistance should simplify the eligibility determination and recertification process to facilitate the enrollment of individuals eligible for Medicaid and NC Health Choice and should expand outreach efforts to identify and enroll individuals who are eligible for Medicaid and NC Health Choice. The Department of Public Instruction and Local Education Authorities should actively work to promote health insurance coverage to children eligible for public programs, in coordination with the outreach efforts of the Department of Health and Human Services and local Departments of Social Services.

Recommendation 4.2 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should remove the cap on coverage of eligible children in the NC Health Choice program. The North Carolina General Assembly should continue with implementation of NC Kids' Care up to 250% of the federal poverty guidelines (FPG), and if sufficient funds are available, expand coverage to 300% FPG.

Recommendation 4.3

The North Carolina General Assembly should expand Medicaid to implement the Family Opportunity Act, which allows children who meet the Supplemental Security Income disability standards with family incomes of up to 300% of the federal poverty guidelines to buy into the Medicaid program.

Expanding Coverage to Low-Income Adults: Expanding coverage to low-income adults is more difficult than expanding coverage for children. The majority of low-income adults in North Carolina are not currently eligible for public programs due to restrictions in federal laws. The federal Medicaid laws limit eligibility to certain "categories" of low-income adults, commonly referred to as categorical restrictions. In general, adults only qualify for Medicaid if they are low-income, meet certain resource limits, and fall into one of four categories: pregnant women, adults who are parents of dependent children under age 19, adults who are disabled,

f There are certain limited Medicaid programs which cover certain categories of low-income adults who are not disabled or elderly. For example, North Carolina provides family planning coverage to certain low-income adults with incomes up to 185% of the federal poverty guidelines. In addition, under certain circumstances, North Carolina also provides coverage to women who have been diagnosed with breast or cervical cancer.

or adults who are at least 65 years old.[f] Childless, non-elderly, and non-disabled adults cannot qualify for Medicaid regardless of how poor they are. Even if the uninsured person is the right "category" of person (i.e. is categorically eligible), the person may not qualify because of income or resource restrictions. These income and resource restrictions are set by the state. The lowest threshold applies to parents of dependent children; they can only qualify for Medicaid if their income is less than about 50% FPG.

There are several challenges to expanding coverage to low-income adults. Health insurance coverage is generally too expensive in the private market. An adult living in poverty would have to spend 39% of his or her income to purchase comprehensive insurance in the private market (assuming that the individual paid the average total premium cost of an employer-sponsored plan). An uninsured adult with an income equal to 200% FPG ($42,400/year for a family of four in 2008) would have to pay 19% of his or her income for a similar policy. The state could expand Medicaid to cover more uninsured adults by increasing the income thresholds for those individuals who are otherwise categorically eligible. In addition, there are some low-income adults who are eligible but not enrolled for public programs. Increased outreach and simplification of eligibility, enrollment, and recertification would aid in enrolling and retaining these individuals. To cover all low-income adults, categorical restrictions would need to be eliminated (through federal action) or North Carolina would need to obtain a waiver of federal Medicaid laws.

An adult living in poverty would have to spend 39% of his or her income to purchase comprehensive insurance in the private market.

The Health Access Study Group recognized the difficulties of seeking additional state funds to expand Medicaid in the midst of a major recession. Medicaid enrollment typically grows during a recession as more people lose their jobs, income, and health insurance coverage. Additional state funding will be needed to expand coverage to all those who will become eligible within the current eligibility limits, as a result of reduced earnings, or to those who are identified through improved outreach efforts. The federal government can assist North Carolina in maintaining current eligibility limits, as well as expanding coverage, by providing increased federal fiscal relief to the states.

While the state could expand coverage to low-income parents up to 200% FPG without a waiver, North Carolina should instead submit a Medicaid Section 1115 waiver to cover all low-income adults. In addition to covering more adults, a waiver provides other advantages to the state. Under a Medicaid Section 1115 waiver, states can offer a limited benefit package and, if necessary, limit expansion to a certain number of enrollees, both of which would limit the cost of expansion. North Carolina could further reduce the cost of expansion by enrolling new Medicaid recipients into Community Care of North Carolina, and use Medicaid funds to leverage an enrollee's existing access to employer-sponsored insurance (ESI). One of the major drawbacks of waivers is that it generally takes several years to obtain approval from the US Centers for Medicare and Medicaid Services. In the interim, North Carolina should expand coverage to women who have had a high-risk birth in the prior two years. This expansion would cover a very high-risk, high-cost subset of the uninsured.

The Health Access Study Group also examined options to make the high risk pool more affordable. Inclusive Health (also known as the North Carolina Health Insurance Risk Pool) currently provides coverage to individuals who cannot obtain affordable health insurance coverage in the non-group (individual) market because they have a pre-existing medical condition. Because premiums for this program are higher than for typical plans, some Inclusive Health beneficiaries will require help paying their premium. Subsidies may also help with penetration into the market.

A summary of the Study Group's recommendations on covering low-income adults is listed below. The full set of recommendations can be found in Chapter 5.

Recommendation 5.1 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly and the Governor's Office should work with the North Carolina Congressional delegation to support Medicaid reform that provides fiscal relief to the states and gives states the flexibility and funding to expand coverage to low-income adults without categorical restrictions, along with other efforts to provide an economic stimulus to the state.[g]

Recommendation 5.2 (PRIORITY RECOMMENDATION)

The North Carolina Division of Medical Assistance (DMA) should conduct outreach activities and simplify the eligibility determination and recertification process to facilitate the enrollment of adults eligible for Medicaid. In addition to efforts undertaken for children, DMA should explore other options applicable to adults.

Recommendation 5.3 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should direct the Division of Medical Assistance (DMA) to seek a Medicaid Section 1115 waiver to cover more low-income adults. The waiver should be implemented in two phases: 1) cover low-income adults up to 100% of the federal poverty guidelines (FPG), and 2) cover low-income adults up to 200% FPG. DMA should develop a premium assistance program to enable Medicaid-eligible recipients to use Medicaid funds to pay for employer-sponsored insurance or private non-group insurance. In order to expand the availability of coverage in the small group market, DMA should work with North Carolina Community Care Network, Inc. and private insurers to explore the potential for a lower cost insurance product for small employers that were previously uninsured, utilizing the Community Care of North Carolina network.

g The Study Group supports the recently passed American Recovery and Reinvestment Act of 2009 (Pub L No. 111-005) that provides fiscal relief to the states to help pay for increasing Medicaid enrollment.

Recommendation 5.4 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should direct the Division of Medical Assistance to seek a Medicaid Section 1115 waiver or implement other Medicaid options to provide interconceptional coverage to low-income women with incomes below 185% of the federal poverty guidelines who have had a high-risk birth.

Recommendation 5.5

The North Carolina General Assembly should revise North Carolina General Statute §58-50-180(d) to clarify that the North Carolina Health Insurance Risk Pool has the legal authority to offer premium subsidies. The North Carolina General Assembly should appropriate $18 million in recurring funds to help subsidize the Pool premium for low-income persons with incomes below 300% of the federal poverty guidelines, and the Pool should pursue other sources of funding for premium subsidies.

Small Employers: Small employers are much less likely to offer health insurance to their employees than larger firms. This is due, in part, to higher premium costs faced by small employers. In North Carolina in 2005-2006, firms with fewer than 50 employees paid, on average, $313 more for premiums than firms with 50 or more employees.[13] Higher premiums for small employers are largely due to higher administrative loads, more volatile risk, and a higher risk for adverse selection.[14] The Study Group examined several strategies for reducing the number of low-income uninsured workers in small firms, including modifying the small group rating laws to eliminate groups of one from the small group market and using public subsidies to lower the cost of health insurance for small employers. A summary of the Study Group's recommendations on small employers is listed below. The full text of the recommendations is available in Chapter 6.

Recommendation 6.1

The North Carolina Department of Insurance should obtain from insurers the necessary data to study how changing the existing small group rating laws to eliminate self-employed groups of one would impact small group rates and the number of people with insurance coverage.

Recommendation 6.2

The North Carolina General Assembly should provide tax subsidies or otherwise subsidize the cost of health insurance premiums for small employers. Funding should be targeted to firms with 15 or fewer eligible employees, at least 30% of whom are low-wage workers. The North Carolina General Assembly should provide subsidies that will reduce total premiums by 30% for low-wage workers.

The Safety Net: Non-profit safety net organizations in North Carolina are committed to providing free or reduced-cost care to the low-income uninsured. Many of these organizations provide preventive and primary care as well as chronic disease management, while others provide more specialized services. Although these organizations exist across the state, many have neither the funding nor the capacity to care for the growing number of uninsured. In 2005, the North Carolina General Assembly created the Community Health Center Grants program to expand the safety net infrastructure.[15] The majority of funding has been non-recurring. Safety net organizations need recurring funding to expand their capacity to serve the growing number of uninsured. In addition, care received at safety net organizations is often fragmented. Communities can provide more effective care and address more of the needs of the uninsured by developing systems of care that include specialty services, diagnostic services, hospitalization, medications, and disease and care management (i.e. community collaborations). Continued funding of HealthNet, a program supporting the development of community collaborations for the uninsured, is necessary to increase community collaborations and continuity of care for the uninsured.

Recommendation 7.1 (PRIORITY RECOMMEDNATION)

The North Carolina General Assembly should appropriate $8 million in recurring funds to the Office of Rural Health and Community Care to expand the safety net infrastructure (Community Health Center Grants program), and $2.2 million in new recurring funds to support community collaborations of care for the uninsured (HealthNet).

The state is likely to experience a shortage of physicians, nurse practitioners, and physician assistants in the next 10-20 years.

Provider Supply: In order to ensure access to health care, the state must also ensure there is a sufficient number of health care professionals to meet the future health care needs of North Carolinians. Due to time restraints, the Health Access Study Group could not thoroughly examine all health professional workforce issues. Instead, the Study Group focused on the supply of physicians, nurse practitioners, and physician assistants. The state is likely to experience a shortage of these providers in the next 10-20 years, measured in the provider-to-population ratio.[16] This shortage is due to the combination of an increased demand for services (due to the growth and aging of the population and increase in the number of people with chronic illnesses) and a decline in the number of practicing professionals (as a large cohort of professionals reach retirement age).[16] North Carolina may experience more severe shortages within certain types of specialties, including primary care, general surgery, psychiatry, and professionals who deliver babies. In addition, there is already a maldistribution of providers across the state, as well as a shortage of minority health professionals. The maldistribution problem is likely to be exacerbated as the overall supply declines. The Study Group made a number of recommendations to increase provider supply. The summary of the recommendations is included below. The full text is included in Chapter 8.

Recommendation 8.1

The North Carolina General Assembly should appropriate $40 million in recurring funds to support the expansion of medical schools at the University of North Carolina and East Carolina University. The North Carolina General Assembly should appropriate $1.2 million in recurring funds and/or Medicaid Graduate Medical Education, over the next five years, to the North Carolina Area Health Education Centers to fund 12 new residency positions per year targeted toward the high priority specialty areas of primary care, general surgery, psychiatry, or other specialty shortage areas. The North Carolina General Assembly should direct the University of North Carolina System to explore further expansion of physician assistant and nurse practitioner programs.

Recommendation 8.2 (PRIORITY RECOMMENDATION)

In order to maintain and expand access to health care services for low-income and underserved populations, the North Carolina General Assembly should continue to support the Community Care of North Carolina network, continue to tie Medicaid reimbursement to physicians at 95% of the Medicare rate, and direct the Division of Medical Assistance to increase the payment for primary care practitioners practicing in health professional shortage areas. The North Carolina General Assembly should appropriate $1,915,600 million in recurring funds in SFY 2010 to the North Carolina Office of Rural Health and Community Care for technical assistance for practices in underserved areas, financial incentives for professionals practicing in underserved areas, and recruitment efforts.

Recommendation 8.3

In order to expand the health professional workforce in underserved areas of the state, the North Carolina General Assembly should direct the North Carolina Office of Rural Health and Community Care to explore different forms of financial incentives or other systems to encourage providers to establish and remain in practice in underserved areas or with underserved populations, and report the findings back to the 2011 Session of the North Carolina General Assembly. The North Carolina General Assembly should also continue to support existing programs to enable them to work with practices in underserved areas to assist with systems redesign and quality improvement initiatives.

Recommendation 8.4

The North Carolina General Assembly should appropriate $250,000 in SFY 2010 in recurring funds to the North Carolina Office of Rural Health and Community Care (ORHCC) to support technical assistance provided through ORHCC and the North Carolina Medical Society Foundation PracEssentials programs. The University of North Carolina system, North Carolina community colleges, and North Carolina independent colleges and universities should offer courses that can improve the skills of existing practice managers. Additionally, the North Carolina Area Health Education Centers Program, ORHCC, Community Practitioner Program, North Carolina community colleges, and North Carolina independent colleges and universities should develop educational and continuing education courses for existing practitioners and staff to enhance business skills.

North Carolinians face many challenges in accessing high quality, affordable health care. Those without health insurance face some of the most daunting challenges, but even those with health insurance are facing increasing barriers to accessing health care services. Rising health care costs affect everyone—those with and without insurance coverage. Further, the lack of health care professionals in some areas of the state and the expected decline in the number of health professionals portends even worse health access problems in the future. Addressing these problems will require a multifaceted approach mixing public and private coverage strategies, increased support for the health care safety net, and investments in the health professional workforce. Ultimately, everyone stands to benefit from improved health care access, and everyone—individuals, families, employers, and government—have a role to play in designing and implementing the solutions. Although solutions are not always easy or inexpensive, like so many other public policy issues, a deliberate, stepwise approach—beginning immediately—will be more successful than waiting until the system collapses.

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Overview of the Uninsured in North Carolina

The lack of health insurance coverage is the foremost barrier to accessing health care services. Nearly one-fifth of the non-elderly population in North Carolina, more than 1.5 million people, lacked health insurance coverage in 2006-2007.[a] North Carolina has seen a more rapid increase in the percent uninsured than most of the rest of the country. Between 1999-2000 and 2006-2007, North Carolina experienced a 29% increase in the percent uninsured compared to a 12% increase nationally. Most of the reason for the large growth in the uninsured is the larger than average drop in employer-sponsored insurance (ESI). Between 1999-2000 and 2006-2007, North Carolina saw a 12.5% decrease in ESI, almost twice the national average decrease of 6.8%. The decline in ESI is due to both a decrease in the proportion of businesses—especially small employers—that offer coverage and the decline in the number of employees who can afford coverage for themselves or their families when offered.

Nearly one-fifth of the non-elderly population in North Carolina, more than 1.5 million people, lacked health insurance coverage in 2006-2007.

Unfortunately, working full-time no longer guarantees health insurance coverage. The vast majority of the uninsured in the state (77%) live in a family where one or more persons work full-time. Most of the uninsured have low incomes, with family incomes less than 200% of the federal poverty guidelines (FPG) ($42,400/year for a family of four in 2008), or their only connection to the workforce is through a small employer with 25 or fewer employees. Approximately four-fifths (79%) of individuals without coverage in North Carolina fall into one or more of three groups:

- Children in families with incomes below 200% FPG (14% of all non-elderly uninsured or 209,000 people),
- Adults with incomes below 200% FPG (46% of all non-elderly uninsured or 705,000 people), or
- Persons in a family with at least one full-time employee of a small employer (36% of all non-elderly uninsured or 555,000 people).

The chief reason people lack coverage is cost. In 2006, the average annual total premium cost for individual coverage through an employer in North Carolina was $4,027.[1] Cost for family coverage, on average, was $10,950. The high premium cost is also the primary reason why some employers fail to offer coverage.[2] Between 2000 and 2006, the cost to employers increased by more than 50% for individual coverage and by nearly 66% for family coverage in North Carolina.[1,3] Research has demonstrated that increases in health insurance premiums have been the primary reason for the national decline in ESI.[4]

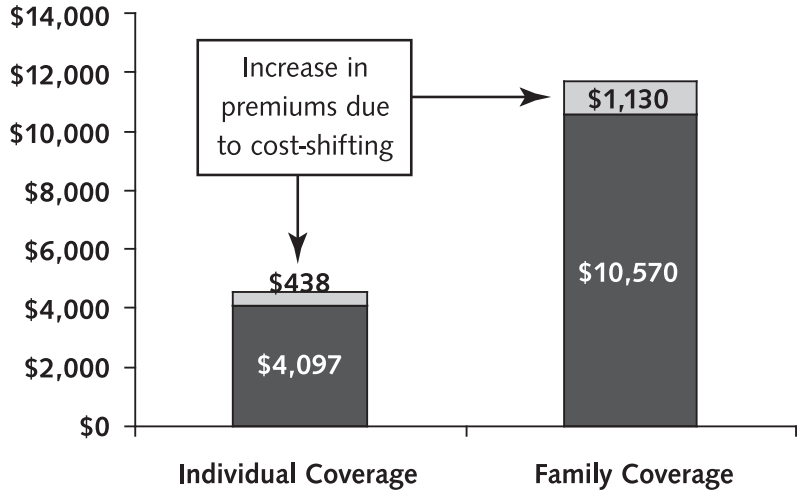
a Unless otherwise noted, all data on the uninsured are based on North Carolina Institute of Medicine analysis of the Current Population Survey's Annual Social and Economic Supplement, published by the US Census Bureau.

Lack of insurance coverage translates into access barriers. In a statewide survey of adults, nearly half of the uninsured in North Carolina reported forgoing necessary care due to cost, compared to 10% of individuals with insurance coverage.[5] Lack of coverage also adversely affects health as the uninsured are less likely to get preventive screenings or ongoing care for chronic conditions. Consequently, the uninsured have a greater likelihood than people with coverage of being diagnosed with severe health conditions (such as late stage cancer), being hospitalized for preventable health problems, or dying prematurely. In fact, adults who lack insurance coverage are 25% more likely to die prematurely than adults with insurance coverage.[6] The lack of health insurance also affects the productivity of workers and students. Workers in poor health are more likely to miss work and students in poor health have more difficulty learning in school.[7]

The rising number of uninsured also creates an economic strain on health care institutions caring for both insured and uninsured patients. In 2005, the cost of unpaid out-of-pocket costs of care for the uninsured in North Carolina was $1.3 billion, and by 2010 it is estimated that the cost will reach nearly $2 billion.

The rising number of uninsured also creates an economic strain on health care institutions caring for both insured and uninsured patients. In 2005, the cost of unpaid out-of-pocket costs of care for the uninsured in North Carolina was $1.3 billion, and by 2010 it is estimated that the cost will reach nearly $2 billion.[8] Nearly 60% of the costs of services received by the uninsured are borne by paying patients through increases in the prices they (or their insurance company) pay for services.[9] The cost of care for the uninsured is eventually borne in part by all North Carolinians through taxes and higher insurance premiums. As a result of compensating for the cost of health care for the uninsured, premiums for private employer-sponsored individual coverage in North Carolina cost an additional $438 (2005) and family premiums cost an additional $1,130.[8] This additional premium cost was more pronounced in North Carolina than the nation, which had an average additional premium cost of $341 for individuals and $922 for families.[8] (See Figure 1.1.)

Figure 1.1
Premium Increases Due to Care for the Uninsured (North Carolina, 2005)



Source: Families USA. Paying a premium: the added cost of care for the uninsured. http://www.familiesusa.org/assets/pdfs/Paying_a_Premium_rev_July_13731e.pdf. Published June 1005. Accessed November 19, 2008.

The lack of health insurance coverage is not the only access barrier that North Carolinians face in obtaining needed health services. Practitioner supply is also a problem, one which is likely to worsen over time. Trends indicate a decreasing supply of practitioners compared to the population and demand for services. This is compounded by an aging population and an aging health care workforce. People use more health care services as they age. Further, more practitioners are likely to retire as the workforce ages. As a result, it is probable that North Carolina will experience a practitioner shortage in the next decade, especially in primary care.[10] Rural and currently underserved areas are predicted to have the greatest shortages.[10] If there are insufficient numbers of health care practitioners available, access to health care services is limited, even for those who have health insurance coverage.

Health Access Study Group

The North Carolina General Assembly asked the North Carolina Institute of Medicine (NCIOM) to convene a Study Group *to study and recommend options to expand access to appropriate and affordable health care* in North Carolina.[b] The Study Group was co-chaired by Representative Hugh Holliman, District 81, North Carolina House of Representatives; Senator Tony Rand, District 19, North Carolina Senate; and L. Allen Dobson Jr, MD, FAAFP, Vice President, Clinical Practice Development, Carolinas HealthCare System. It included 38 additional Study Group and Steering Committee members.

If there are insufficient numbers of health care practitioners available, access to health care services is limited, even for those who have health insurance coverage.

In examining options to expand access to appropriate and affordable health care in North Carolina, the NCIOM was instructed to review:

1. Previous studies by the NCIOM,
2. Relevant current studies by the NCIOM,
3. Successful efforts in other states to improve access to and affordability of health care, and
4. Analysis of relevant federal initiatives.

The authorizing legislation directed the NCIOM to seek the advice and consultation of state and national experts in health care economics, health care systems development, health care delivery, health care access, indigent health care, medical education, health care finance, and other relevant areas of expertise. The NCIOM was required to report back its recommendations to the North Carolina General Assembly no later than January 15, 2009.

The Study Group met a total of five times between September 2008 and January 2009. A complete list of topics and Study Group meeting agendas is included in Appendix A.

b Section 31 of Session Law 2008-181.

Report Structure and Future Study

The report of the North Carolina Institute of Medicine's Health Access Study Group includes nine chapters. Chapter 2 includes more complete information about the uninsured, as well as the major factors contributing to escalating health care costs. Chapter 3 provides information on current innovative initiatives in North Carolina, including Community Care of North Carolina (CCNC) networks for the Medicaid program and the North Carolina Healthcare Quality Alliance. Any efforts to expand access to affordable coverage must be built on the strengths of the current health care delivery system. Chapter 4 focuses on options to expand health insurance coverage to uninsured children, starting with suggestions on how to enroll children who are eligible, but not yet enrolled in publicly available health insurance programs. Chapter 5 focuses on options to expand coverage to low-income adults, building on the state's successful CCNC Medicaid infrastructure. In Chapter 6, the Health Access Study Group identifies options to expand coverage to small employers, as they are the employer group least able to afford or offer coverage. Chapter 7 explores options to strengthen the health care safety net—those organizations with a mission to serve the uninsured. Until we have a financing system that provides health insurance coverage to all, the capacity of these safety net organizations to provide services to the uninsured will need to be strengthened. Chapter 8 examines the health care workforce. Insurance coverage provides an important financing mechanism to help individuals pay for needed services. However, health insurance per se is not sufficient to ensure access to care. North Carolina needs an adequate supply of health care professionals, located throughout the state, to provide the needed health care services. Chapter 9 includes a summary of the Study Group's recommendations, along with a phase-in plan to provide coverage to more of the uninsured.

The longer term goal is to develop public and private approaches that will make health insurance coverage affordable, and to couple it with a mandate to require people to have insurance coverage.

The North Carolina General Assembly asked the North Carolina Institute of Medicine (NCIOM) to convene the Health Access Study Group to explore options to expand access to affordable health care and to report findings to the 2009 Session of the North Carolina General Assembly. North Carolina will be unable to ensure access to affordable health care absent some form of universal coverage, either at the state or federal level. Without a comprehensive plan for universal coverage at the national level, North Carolina can begin to address this problem by expanding existing programs and developing new options to phase-in coverage to more people. The longer term goal is to develop public and private approaches that will make health insurance coverage affordable, and to couple it with a mandate to require people to have insurance coverage.

Because of the limited amount of time given for this study, the Health Access Study Group did not have the time to fully explore all options to achieve universal coverage, reduce escalating health costs, or ensure an adequate supply of health care providers. Additionally, the NCIOM was unable to fully cost-out all the different expansion options. The NCIOM is obtaining actuarial cost estimates of the different coverage options recommended in this report, but these actuarial estimates were not available at the time this report was being written. The estimates will be presented to the North Carolina General Assembly in a separate report.

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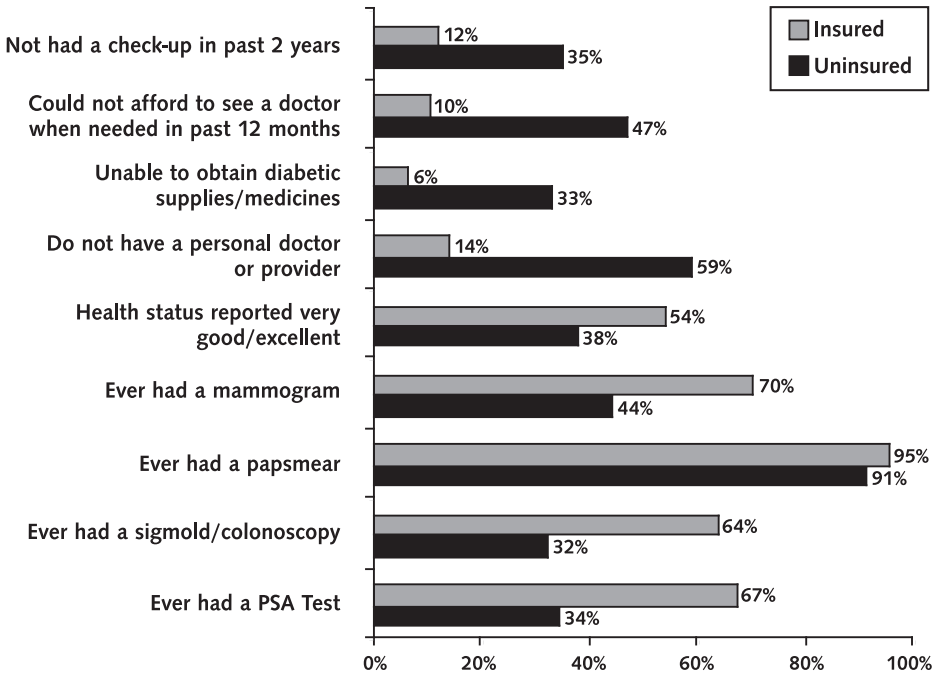
More than 17% of North Carolinians reported that they could not see a physician when they needed because of cost at some time in 2007.[1] Further, 22% of North Carolinians reported that they did not have a regular source of medical care and 15% reported that they had not received a routine check-up within the past two years.[1] People without health insurance coverage are far more likely to report these access barriers than are people with coverage. (See Figure 2.1.) Uninsured North Carolinians are four times more likely than people with insurance coverage to report that they did not seek necessary medical care because of costs (47% vs. 10% respectively) or that they had no usual source of care (59% vs. 14%). The uninsured are nearly three times more likely than people with insurance coverage to have not had a check-up in the last two years (35% v. 12%).[1] In addition, the uninsured are less likely to have had a mammogram, pap smear, sigmoidoscopy, colonoscopy, or a prostate-specific antigen (PSA) test to screen for cancer.[2]

Uninsured North Carolinians are four times more likely than people with insurance coverage to report that they did not seek necessary medical care because of costs (47% vs. 10% respectively) or that they had no usual source of care (59% vs. 14%).

Figure 2.1
The Uninsured are Less Likely to Get Health Services, North Carolina (2006, 2007)*



Source: North Carolina State Center for Health Statistics, North Carolina Department of Health and Human Services. Behavioral Risk Factor Surveillance System, 2006 and 2007. http://www.schs.state.nc.us/SCHS/data/brfss.cfm. Access December 12, 2008.

*2007 data were used for check-up, affordability to see a doctor, personal provider, and health status. 2006 data were used for information not collected on the 2007 survey, including mammogram, pap smear, sigmoidoscopy, colonoscopy, PSA, and diabetic supplies.

Lack of insurance is not the only cause of access barriers. Some people experience barriers because they live in communities that lack sufficient numbers or types of health care practitioners. Others experience access barriers because they have limited health literacy or have language or cultural differences that make it difficult for them to communicate their health concerns with their health care practitioners.[3] However, lack of health insurance is the predominant reason that people experience access barriers.[4] Further, the lack of health insurance negatively impacts on health status. The uninsured are more likely to delay or forego care and are less likely to get preventive screenings or ongoing care for chronic conditions. As a result, they are more likely to be diagnosed with severe health conditions, such as late-stage cancer, and to die prematurely.[5]

Between 1999-2000 and 2006-2007, North Carolina experienced double the increase in the percent uninsured compared to the nation (29% vs. 12% respectively).

The number and percent of people without health insurance has increased both within North Carolina and across the nation more broadly. However, the problem is more acute in North Carolina than in most other states. Between 2000 and 2007, the percent of non-elderly North Carolinians who were uninsured increased by 3.8 percentage points (from 14.8% to 18.6%).[a] In contrast, the nation experienced an increase of 1.6 percentage points (from 15.5% to 17.1%) during the same time period.[6] In effect, between 1999-2000, and 2006-2007, North Carolina has experienced double the increase in the percent uninsured compared to the nation (29% vs. 12% respectively).[b]

While there are many different reasons people lack health insurance, the major factor affecting coverage is cost.[7] Over the last ten years (1999-2008), health insurance premiums increased by 119%. In contrast, wages only increased by 34% and overall prices ("inflation") increased by 29%. (See Figure 2.2.) With the rising costs of health insurance premiums, many employers have shifted more of the costs to employees through increased deductibles, copayments, and coinsurance.[8] Some businesses—particularly small employers—have responded by dropping coverage.

With the rising cost of premiums and cost-sharing and the subsequent drop in employer-sponsored coverage, health insurance is simply too expensive for many people to afford. For example, in 2000 a family of four at 200% of the federal poverty guidelines (FPG), paying the average North Carolina employee share of the family premium, spent 5.2% of their income on health insurance premiums; this percentage increased by nearly 40% to 7.2% by 2006. (See Table 2.1.)

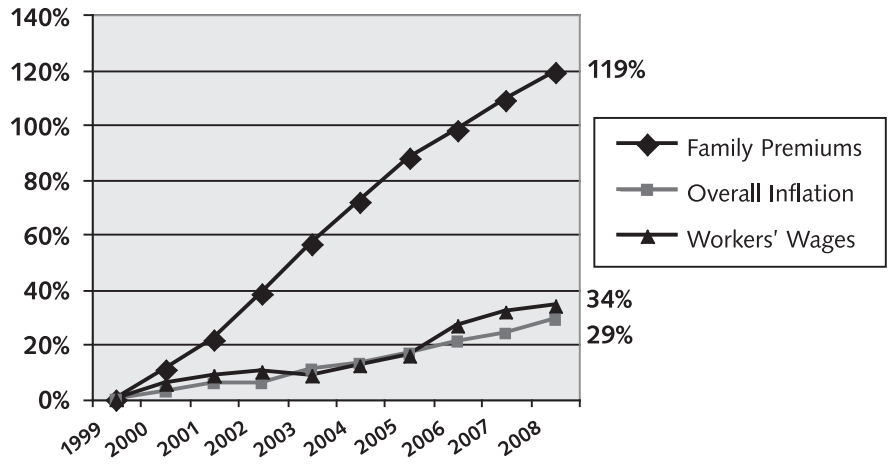
The increase in underlying health care spending contributes to the rising cost of health insurance.[c] Between 1985 and 2006, health care spending in the United

a The approach used to calculate rates yields slightly different estimates than those in other sources due to the particular approach taken here. Please contact the North Carolina Institute of Medicine for information on the approach and methods.

b Unless otherwise noted, all data on the uninsured are based on North Carolina Institute of Medicine analysis of the Current Population Survey's Annual Social and Economic Supplement, published by the US Census Bureau.

c The increase in underlying health care spending drives insurance premiums over time, although there may not be a direct relationship each year as there are other factors, such as the insurance underwriting cycle, which may affect health insurance premiums in the short term. (Ginsburg PB; Robert Wood Johnson Foundation. High and rising health care costs: demystifying US health care spending. http://www.rwjf.org.libproxy.lib.unc.edu/files/research/101508.policysynthesis.costdrivers.brief.pdf.. Accessed January 5, 2009.)

Figure 2.2
Cumulative Changes in Health Insurance Premiums Greater than Changes in Inflation and Wages (United States, 1999-2008)



Source: Kaiser Family Foundation and Health Research and Education Trust. Employer health benefits 2008 annual survey. http://ehbs.kff.org/pdf/7790.pdf. Accessed January 14, 2009.

States grew an average of 7.7% per year, faster than the growth in our gross domestic product (5.6%).[9] North Carolina health care costs per capita increased 7.2% annually from 1998-2004, higher than the national average increase of 6.3%.[10]

North Carolina health care costs per capita increased 7.2% annually from 1998-2004, higher than the national average increase of 6.3%.

This chapter describes, in more detail, the characteristics of the uninsured. Identifying the groups of people who are most likely to be uninsured can help target policy strategies. In addition, this chapter provides more information about key reasons for rising health insurance and health care costs. Neither the state nor the federal government may be able to afford expanded coverage if health care costs continue

Table 2.1
Percent of Income Spent on Health Insurance Premiums Increasing (North Carolina, 2000 and 2006)

Year	Income	Average total premium	Average employee (EE) share	Percent total	Percent EE share
Share of income for family at 200% poverty					
2000	$34,100	$6,649	$1,785	19%	5.2%
2006	$40,000	$10,950	$2,871	27%	7.2%
Share of income for family at 300% poverty					
2000	$51,150	$6,649	$1,785	13%	3.5%
2006	$60,000	$10,950	$2,871	18%	4.8%

Source: Office of the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services. Medical Expenditures Panel Survey, 2000 and 2006. http://www.meps.ahrq.gov/mepsweb/. Accessed December 21, 2008.

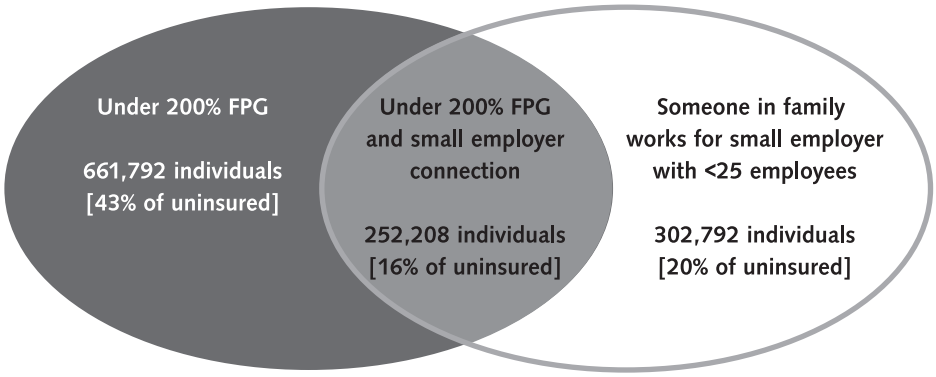
to escalate at the same rate as in the past. Therefore, it is necessary to understand the underlying drivers of health care costs in order to develop future strategies to reduce the rate of growth.

Characteristics of the North Carolina Uninsured[d,e]

There is no single characteristic that describes the uninsured in North Carolina. The uninsured are a diverse group that includes individuals from all income levels, and all racial, ethnic, and age groups. Nonetheless, certain populations are more at risk for being uninsured than others. (See Figure 2.3.) The vast majority, 79%, of the non-eldery uninsured in North Carolina comes from one or more of three groups: children in families with incomes below 200% of the federal poverty guidelines (FPG) (14%), adults with incomes less than 200% FPG (46%), or individuals with

The vast majority, 79%, of the non-elderly uninsured in North Carolina comes from one or more of three groups: children in families with incomes below 200% of the federal poverty guidelines (FPG) (14%), adults with incomes less than 200% FPG (46%), or individuals with a family connection to a small employer with less than 25 employees (36%).

Figure 2.3
Uninsured in North Carolina: Primarily Low-Income or Employee of Small Employer



Other uninsured with incomes >200% FPG and no connection to small employer: 324,611 individuals [21%]

Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

d Before considering data on the uninsured, it is important to understand the source of these and other data included in the report. Most data are based on surveys conducted by federal agencies such as the US Census Bureau, the Agency for Healthcare Research and Quality, and the Centers for Disease Control and Prevention. These surveys are scientifically rigorous and have been used for years by researchers and policymakers, but are only surveys. Just as political polls and other similar surveys typically yield relatively good estimates, they are still estimates and are subject to many factors, including the particular people interviewed and the timeframe of the interview. Thus, in order to obtain more precise estimates, multiple years are often combined, with weights used to adjust for multiple years of data. Other adjustments were made in specific cases. Details of each estimate developed in this report are available from the North Carolina Institute of Medicine, but since the focus of this report is on policy recommendations, the most important aspects of the data are broad patterns and trends rather than detailed methodology. In other words, the data contained here are useful for assessing general patterns, trends, and relative relationships, but may vary from other sources of similar data due to the nature of surveys.

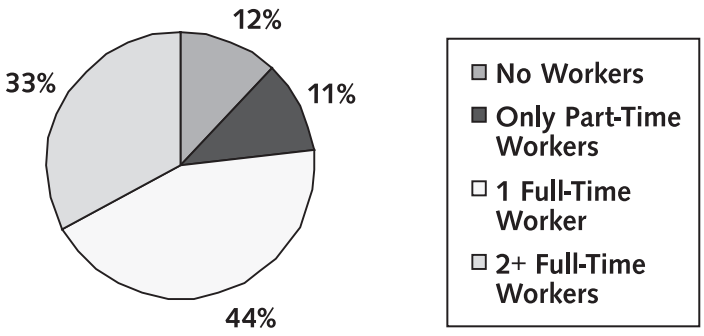
e Data on the North Carolina uninsured are for the non-elderly (<65) population lacking health insurance. Unless otherwise noted, data are for North Carolina's non-elderly uninsured population 2006-2007 and were calculated by the North Carolina Institute of Medicine using the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement.

a family connection to a small employer with less than 25 employees (36%). In addition, individuals of certain racial and ethnic minorities, individuals living in rural areas, and individuals with pre-existing health problems have a greater risk of being uninsured. (See Appendix B for further descriptive data.)

Employment Status

The majority of the uninsured have some family connection to the workforce. Over three-fourths of the uninsured are in a family with at least one full-time worker, with 33% having two or more full-time workers. (See Figure 2.4.) Further, a majority (51.8%) of uninsured adults aged 19-64 are full-time workers themselves, and an additional 14.2% are part-time workers.

Figure 2.4
The Majority of the Uninsured Have a Connection to the Workforce (North Carolina, 2006-2007)



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

Employees working in small firms have a much greater risk of being uninsured than do people working in larger firms, with approximately 32% of individuals working for small employers being uninsured compared to 19% or less for people working for larger employers.

Employees working in small firms have a much greater risk of being uninsured than do people working in larger firms, with approximately 32% of individuals working for small employers being uninsured compared to 19% or less for people working for larger employers. Approximately 49% of the uninsured work for an employer with less than 25 employees, compared with 13% employed in mid-size firms (25-99 employees), 12% in large firms (100-999 employees), and 19% in very large firms (more than 1000 employees).

Additionally, individuals working in certain industries have a higher risk of being uninsured. Agriculture, construction, and hospitality carry the highest risk, with 50%, 48%, and 36% of individuals employed in these industries being uninsured, respectively.

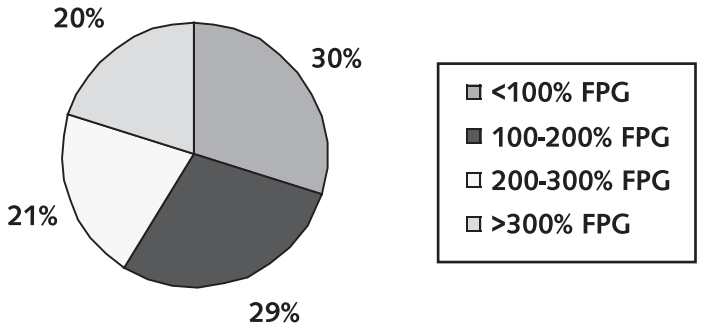
Income Status

Nearly three-fifths of the uninsured in North Carolina have incomes less than 200% FPG. (See Figure 2.5.) Individuals and families with incomes less than 100% FPG ($21,200/year for a family of four in 2008) are the most likely to be uninsured. Approximately 36% of people living in poverty (i.e. <100% FPG) are uninsured, as are 31% of those with incomes between 100%-200% FPG. In contrast, only 7.9% of people with incomes greater than 300% FPG are uninsured.

While the majority of the uninsured in North Carolina are low-income, with incomes less than 200% FPG, approximately 21% have incomes between 200%-300% FPG, and 20% have incomes greater than 300% FPG. There has been a recent increase in the percentage of the uninsured that are near-poor, with incomes between 200%-300% FPG. Since 2001-2002, the percent uninsured who are near-poor has increased by 1.8 percentage points, or 86,000 people.

Nearly three-fifths of the uninsured in North Carolina have incomes less than 200% of the federal poverty guidelines.

Figure 2.5
The Majority of the Uninsured are Low-Income (North Carolina, 2006-2007)



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

Race and Ethnicity, Age, and Gender

While almost half (46%) of all the uninsured in North Carolina are white, non-Hispanic, this group has less chance of being uninsured compared to other racial and ethnic groups. Only 13% of white, non-Hispanics are uninsured, compared to 22% of black, non-Hispanic, 34% of people of other races, and 53% of Hispanics. While 53% of Hispanics are uninsured, they are still a relatively small percentage of the total state population. As a result, Hispanics comprise 20% of the uninsured population in the state.

Individuals between the ages of 18 and 34 have the greatest risk of being uninsured compared to other age groups. Approximately 29% of individuals ages 18-34 are uninsured. A smaller percentage (12.5%) of children ages 0-17 are uninsured, as low-income children generally qualify for public coverage. The percentage of people who are uninsured also decreases in older age cohorts, with 20% of adults ages 35-44, 17% of adults ages 45-54, and 14% of adults ages 55-64 being uninsured. Only 1.5% of older adults, age 65 or older, are uninsured, as most older adults qualify for Medicare.

Men are more likely to be uninsured than women, with approximately 20% of men lacking coverage compared to 17% of women. Since 2001-2002, the percent of men without health insurance has increased by 1.7 percentage points whereas the percent of women lacking coverage declined by 0.6 percentage points.

Geography

Individuals living in rural areas have a greater risk of being uninsured. Approximately 20% of people in rural areas are uninsured compared to 18% of people living in urban areas. However, the majority of the uninsured in North Carolina, approximately 64%, live in urban areas. (See Appendix C for county-level data.)

Drivers of Medical Costs

Between 2000 and 2006, the average total employer-based premium for a working family in North Carolina increased by $4,301, almost 65%. (See Table 2.2.) Of the total increase, the share of the family premium paid by the employee grew by $1,086 (or 66%). People with individual coverage saw an increase of $228 in their share of the premium.[11,12] During the same time period median earnings grew just over 12%, nearly $3,000. In effect, premiums for family coverage have grown more than five times faster than median wage earnings between 2000 and 2006.[13,14]

Between 2000 and 2006, the average total employer-based premium for a working family in North Carolina increased by $4,301, almost 65%.

Table 2.2
Premiums Have Increased for Employer-Based Family Coverage in North Carolina (2000-2006)

	2000	2006	$ Change	% Change
Total Premium (Work + Employer Share)	$6,649	$10,950	$4,301	64.7%
Employer Share	$4,864	$8,079	$3,215	66.1%
Worker Share	$1,785	$2,871	$1,086	60.8%

Source: Agency for Healthcare Research and Quality, US Department of Health and Human Services. Medical Expenditure Panel Survey, 2000 and 2006. http://www.meps.ahrq.gov/mepsweb/data_stats/MEPS_topics.jsp?topicid=7Z2. Accessed January 14, 2009.

This rapid growth in premiums stems from an increase in underlying medical costs. High costs and utilization of medical technology and prescription drugs have fueled the increase in health expenditures.[15-18] Additionally, the growing prevalence of chronic illnesses contributes to escalating premiums.[19] Effectively, the rising numbers of uninsured also impact premiums; providers raise the cost of the care they provide to insured people in order to recoup the cost of uncompensated care provided to the uninsured ("cost-shifting"). In addition, there is some evidence that defensive medicine leads to higher costs, but most research concludes that this is a modest driver of costs.[f,9,20-22]

f Defensive medicine is medical practices designed to avert the future possibility of malpractice suits. In defensive medicine, responses are undertaken primarily to avoid liability rather than to benefit the patient.

Technology

Advances in and diffusion of medical technology have been key drivers in the rise of health care costs, accounting for one-half or more of real spending growth.[23] Now more than ever patients receive high-cost diagnostic and treatment technologies in both inpatient and outpatient settings. Compared to other developed nations, the United States has higher prices, greater availability, and greater per capita use of new technologies. For example, the United States has approximately twice as many magnetic resonance imaging (MRI) scanners per-capita and uses them more frequently than other developed nations.[15] Adding to the cost is that these technologies require more capital to house (e.g. specialized laboratories) and more skilled labor to operate, requiring more extensive, specialized training.[15] In addition, some researchers have found that new innovations do not necessarily reduce the use of older diagnostic and treatment technologies.[16] Instead of replacing one for the other, the technologies are often used in tandem.

Advances in and diffusion of medical technology account for one-half or more of real spending growth in health care.

Prescription Drugs

Prescription drugs are also an important driver of medical costs. Between 1997 and 2007, retail prescription drug prices increased an average of 6.9% a year compared to the average annual inflation rate of 2.6%.[17] Utilization of prescription drugs increased by 72% during the same time period.[17] While prescription drug prices have continued to grow at a higher rate than inflation since 1997, between 1999 and 2006 growth was slower than in previous years as a result of greater use of generics and a decrease in new drugs introduced into the market. In 2006, growth in spending for prescription drugs increased again due to the implementation of Medicare Part D, greater use of specialty drugs, and new indications for drugs already on the market. Spending is predicted to grow slightly between 2008 and 2017, with further increases in drug prices and utilization.[18]

Chronic Illness

In 2005, approximately half of all adults in the United States, more than 130 million people, had at least one chronic illness such as diabetes, heart disease, obesity, asthma, or cancer. With the increasing prevalence of chronic illnesses and greater ability to treat and maintain these conditions, the Centers for Disease Control and Prevention estimates that chronic illness accounts for more than two-thirds of the $2 trillion spent on health care in the United States.[24] National research has found that the increase in prevalence, rather than the cost per treated case, is largely responsible for the increase in health care spending. For example, increases in spending on cancer accounted for 6.4% of the increase in total spending between 1987 and 2002. Sixty-one percent of the increase in cancer spending was due to increased prevalence. Prevalence, rather than cost per case, was responsible for 85% or more of the increased spending for eight of the top 20 conditions with the largest contributions to overall spending increases (mental disorders, high cholesterol, back problems, upper gastrointenstinal, kidney problems, heart disease, bone disorders, and stroke).[19]

Uncompensated Care

Approximately 65% of care received by the uninsured is uncompensated care (i.e. care not paid for by insurance or out-of-pocket by the patient's family).[25] Hospitals and physicians attempt to recoup this loss by seeking reimbursement from government programs and by shifting costs to the commercially insured. Costs are shifted to the commercially insured by charging insured patients more than the actual cost of service. In turn, insurance companies increase premiums. Roughly two-thirds of uncompensated care is eventually paid by the commercially insured through higher premiums.

The cost of providing health care to the uninsured nationally was more than $43 billion in 2005, with almost $28 billion in uncompensated care.[25] In North Carolina, the cost of providing health care to the uninsured was approximately $1.3 billion, with $845 million in uncompensated care. As a result of providing uncompensated care, health insurance premiums for private employer coverage increased by a national average of $922 for family coverage and $341 for individual coverage. In North Carolina, premiums increased by $1,130 for family coverage and $438 for individual coverage.[25]

In North Carolina in 2005, the cost of providing health care to the uninsured was approximately $1.3 billion, with $845 million in uncompensated care.

The Cost of Increasing Insurance Coverage

Although the uninsured receive some health care services, they would receive more services if they had coverage. Thus, expanding health insurance to cover the uninsured has implications for total national health care spending. The Congressional Budget Office estimates that increases in insurance coverage could produce a 10% to 15% growth in long-term health care spending, absent any changes in medical technology.[22] Jack Hadley and John Holahan estimated in 2004 that it would cost approximately $48 billion to cover the previously uninsured who would gain insurance under universal coverage.[26] In addition, the authors found that for uninsured individuals, annual per person spending would increase 39% with full-year coverage.

Because of the short time frame in which the Health Access Study Group had to study all the issues that impact access to affordable health care, the group was unable to examine all the underlying reasons for the increase in health care costs. However, the group recognized the need to further study this issue in order to identify cost containment strategies to slow the rate of growth. Further, the NCIOM contracted with actuaries at Mercer Human Resources Consulting Group to develop cost-estimates for the different proposals included in this report, but these actuarial estimates were not available at the time this report was being written. Thus, the Study Group recommends:

Recommendation 2.1

a) The North Carolina General Assembly should direct the North Carolina Institute of Medicine's Health Access Study Group to continue to meet to consider:

1) Options to reduce escalating health care costs (cost-containment),

2) The costs of the different proposals,

3) **The amount that individuals and families should reasonably be expected to contribute for health insurance premiums and other out-of-pocket costs (affordability),**
4) **Changes in federal laws which may impact on health insurance coverage and financing options to expand coverage to the uninsured,**
5) **Whether other options should be considered for universal coverage (including but not limited to single-payer or multi-payer systems),**
6) **Other ways to make health insurance coverage affordable to small employers, and**
7) **Other options to ensure that there are sufficient numbers of health professionals in the future to meet the state's growing and aging population.**

b) **The Health Access Study Group should report its findings and recommendations no later than the convening of the 2010 Session of the North Carolina General Assembly.**

Ultimately, health care coverage needs to be expanded to all North Carolinians. One way to achieve universal coverage within our current multi-payer health system is to ensure that individuals purchase coverage (i.e. an individual mandate). This is essentially what Massachusetts did in their plan for universal coverage, and what other states have considered.[g,27,28] However, people cannot be required to purchase coverage if it is not affordable. Thus, the Study Group recommended that North Carolina institute an individual mandate after the state institutes programs or policies that ensure that health insurance coverage is affordable.

Recommendation 2.2

a) **The North Carolina General Assembly should require individuals to purchase health insurance coverage, as long as insurance coverage is affordable. In order to effectively mandate health insurance coverage for individual citizens of the state, subsidy programs will need to be in place for lower-income populations. The individual mandate may require a "phasing-in" to allow for a sliding scale subsidy to be put into place for populations up to 300% of the federal poverty guidelines.**

g Chapter 58 of the Acts of 2006, available at http://www.mass.gov/legis/laws/seslaw06/sl060058.htm; 830 CMR 111M.2.1, available at http://www.mass.gov/?pageID=dorterminal&L=6&L0=Home&L1=Businesses&L2=Help+%26+Resources&L3=Legal+Library&L4=Regulations+(CMRs)&L5=111M.00%3a+Individual+Health+Coverage&sid=Ador&b=terminalcontent&f=dor_rul_reg_reg_830_cmr_111m_2_1&csid=Ador

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North Carolina Programs Addressing Cost and Quality

Chapter 3

In order to most effectively increase access to quality health care the state needs to address all three elements of the so-called "Iron Triangle"—access, cost, and quality. Achieving desirable levels of any two elements is possible by sacrificing the third dimension. For example, a highly accessible, low-cost system is possible if it has low quality. Other aspects of the health care system fit into this framework. For example, more effective prevention strategies can lower cost and improve quality. Increases in practitioner supply can lead to increases in access (i.e. more availability) and quality (i.e. greater ability of practitioners to manage their patient panels). The charge to the Health Access Study Group specifically addressed access, however, the Study Group acknowledged that it is important to consider the other two elements as well.

Although there are many effective programs in North Carolina aimed at improving quality and/or reducing cost, there are two particularly innovative programs in North Carolina addressing cost containment and quality improvement: Community Care of North Carolina (formerly Access II and III) and the North Carolina Healthcare Quality Alliance (previously known as the Governor's Quality Initiative). Community Care of North Carolina has been operating for ten years and provides a managed care, medical home model for Medicaid recipients. The North Carolina Healthcare Quality Alliance is still in the design phase and aims to provide standard health care quality measures throughout the state.

In January 2009, Community Care of North Carolina managed the care of more than 874,000 Medicaid enrollees and more than 95,000 children on NC Health Choice.

Community Care of North Carolina (CCNC)

Community Care of North Carolina (CCNC) was initiated in July 1998 as a Medicaid managed care demonstration program designed to reduce health care costs and increase access and quality for the state's Medicaid population.[a] The program creates networks of community providers, such as physicians, hospitals, health departments, and social services to manage the care of the enrolled Medicaid population. There are currently 14 networks in North Carolina. (See Figure 3.1.) These networks are responsible for managing the care of approximately 80% of the state's Medicaid population. In January 2009, CCNC managed the care of more than 874,000 Medicaid enrollees and more than 95,000 children on NC Health Choice.[b]

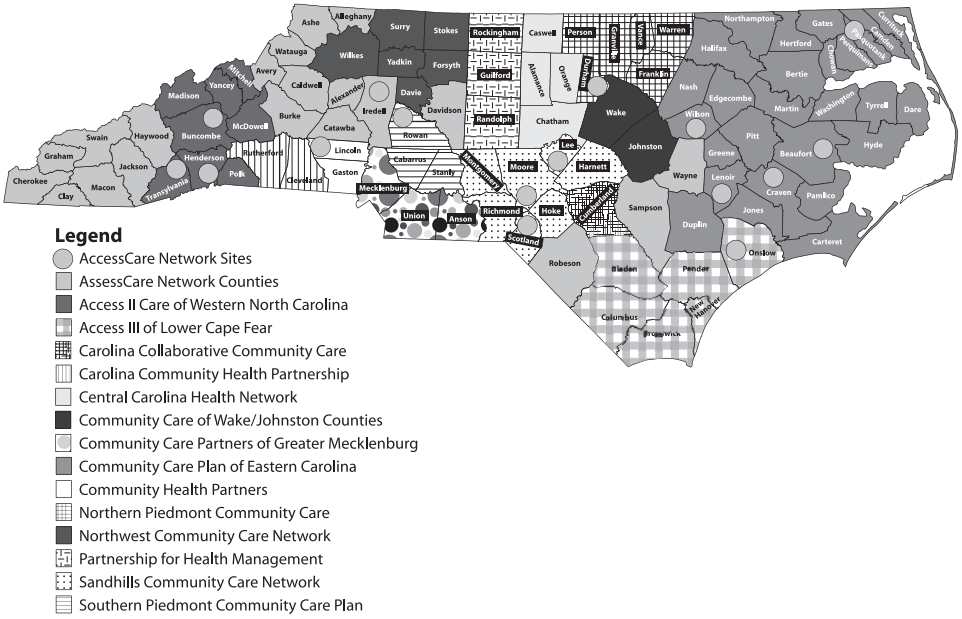
Each network has a CCNC program director, medical director, and case/disease managers. The network medical directors participate in a statewide clinical directors group that aims to identify and adopt statewide quality improvement initiatives. Current statewide disease and care management initiatives include asthma,

a Community Care of North Carolina is sponsored by the Office of the Secretary, Division of Medical Assistance (Medicaid), and the North Carolina Foundation for Advanced Health Programs, Inc. Administration of the program is through the Office of Research, Demonstrations, and Rural Health Development. Additional grant funding for start-up and pilots was obtained from the Kate B. Reynolds Health Care Trust, the Commonwealth Fund, and the Center for Health Care Strategies.

b Collins C. Deputy Director, Office of Rural Health and Community Care, Acting Assistant Director, Division of Medical Assistance. Oral communication regarding Community Care of North Carolina. January 12, 2009.

diabetes, pharmacy management, dental screening and fluoride varnish, emergency department utilization management, case management of high-cost, high-risk populations, and congestive heart failure.[1] The CCNC medical directors identify statewide guidelines and priorities. Additionally, local networks are able to identify additional priorities for their region.

Figure 3.1
Community Care of North Carolina Networks



Source: Steiner, B. et al. Community Care of North Carolina: improving care through community health networks. *Ann Fam Med.* 2008;6:361-367.

More than half of all primary care practices in the state, nearly 1,200, are practicing in Community Care of North Carolina.

CCNC has four primary goals: 1) improving access to care by linking each Medicaid recipient to a primary care medical home; 2) improving the quality of care provided to Medicaid recipients, particularly those with chronic illnesses or complex health problems; 3) helping Medicaid recipients with chronic illnesses learn to manage their own health problems; and 4) reducing the costs of the Medicaid program. The CCNC program has succeeded in each of these goals.

Each patient in the CCNC program is linked to a primary care practice, which serves as the medical home for the patient. The practice provides comprehensive primary care and refers patients to other care when needed. Providers who agree to serve as the medical home receive a per member per month (pmpm) management fee to help coordinate the care provided to Medicaid recipients. More than half of all primary care practices in the state, nearly 1,200, are participating in CCNC.[2]

The 14 networks also receive a small pmpm payment to hire staff—typically nurses or social workers—to provide care or disease management to people with chronic illnesses. The work of the care/disease management staff varies, depending on the needs of the network and individual practices. However, typically, the staff works

in collaboration with the providers and Medicaid recipients to help the Medicaid recipients manage their chronic illnesses. In addition, they help practices improve the quality of care provided to individuals with certain health conditions. For example, they might work with a practice to ensure that the providers develop asthma action plans for all of their patients with asthma, or that the providers refer patients with diabetes for an annual eye exam.

Several evaluations, both external and internal, of cost-containment and quality improvement efforts in the CCNC program have shown positive results. Mercer Human Resources Consulting Group reported that CCNC produced a cost savings of between $161 million and $300 million in fiscal year 2006 depending on the assumptions built into the evaluation model.[c,2] Savings resulted from reduced utilization of emergency departments, outpatient care, and pharmacy. The Cecil G. Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill found that CCNC's asthma management program produced a cost-savings of $3.5 million, and that the diabetes management program saved $2.1 million.[3] Internal analyses have also shown positive cost and quality improvements for the asthma management program and improvement in use of evidence-based practices in the diabetes program.[3] For example, an asthma initiative reduced hospital admission rates by 40%, and a diabetes initiative improved the quality of care by 15%. CCNC has been recognized as a national leader in developing a medical home model of care and in improving the care provided to Medicaid recipients. In 2007, CCNC won the Annie E. Casey Innovations in American Government award from the Kennedy School of Government at Harvard University.

Mercer Human Resources Consulting Group reported that Community Care of North Carolina produced cost savings of between $161-$300 million in fiscal year 2006.

Initially, enrollment in CCNC was limited to Medicaid-eligible children, parents of dependent children, and pregnant women. However, in the last few years CCNC has also been expanded to cover children who receive NC Health Choice and is in the process of expanding to include Medicaid-eligible adults who are disabled or elderly (65 or older). In addition, the program has continued to evolve to further improve care provided to the Medicaid population. For example, some of the practices are involved in mental health co-location efforts (where a mental health practitioner is located in a primary care practice, or visa versa). CCNC has also instituted ePrescribe (an electronic prescribing system), partnered with the North Carolina Area Health Education Centers (AHEC) for the Improving Performance in Practice Initiative, and participated in the Health Net and Care+Share Health Alliance Initiatives (described in Chapter 7). Additionally, CCNC has applied for a Medicaid 646 demonstration waiver for a five year demonstration to manage the care of dual-eligibles (both Medicaid and Medicare eligible), which constitute a large number of Medicaid recipients not currently covered by CCNC. The demonstration would gradually increase the number of dual-eligibles covered until eventually covering 217,808 people by the fifth year.[1] A large amount of the cost-savings from the waiver will be used to provide access to care for low-income uninsured.

c Analysis compared actual costs (model 1) of the program to projected costs (model 2) using historical data from fiscal years 2000-2002.

North Carolina Healthcare Quality Alliance (NCHQA)

National research has found that patients typically receive only about 50% of recommended care.[4] Additionally, the United States regularly ranks last among seven industrialized nations for the quality of health care delivered to its residents.[5] Furthermore, local variation in practice patterns can be considerable, with practitioners in some areas providing care consistent with evidence-based guidelines, while practitioners in other areas may deviate from guidelines. Evidence-based guidelines can lead to great increases in health, resulting in higher quality and lower cost. For example, some research has found a 50% mortality reduction for adherence to some evidence-based best practices.[6,7] In addition, improvements in diabetes care due to adherence to best-practices can lead to considerable subsequent cost-savings.[6,7]

The United States regularly ranks last among seven industrialized nations for the quality of health care delivered to its residents.

The North Carolina Healthcare Quality Alliance (NCHQA) was created by a group of health care community stakeholders to ensure that individuals in North Carolina receive the highest quality health care. An informal group was formed in 2006 to design the initiative, and they agreed on three broad objectives: 1) align quality measures across payers to reduce the variation in quality measurement faced by providers, 2) measure quality and provide feedback on performance to practices, and 3) support practices through quality improvement process using nationally recognized models.[8]

Align Quality Measures: Often, payers measure practitioner quality slightly differently from other payers, meaning that a patient's insurance partly determines the "best" care a patient should receive. One of the goals of the NCHQA is to align quality measures across payers to reduce the variation in quality measurement faced by providers. The initial set of quality measures will focus on the ambulatory care delivered to patients with at least one of five selected conditions: diabetes, asthma, congestive heart failure, hypertension, and post-myocardial infarction. These conditions were selected because they affect many North Carolinians and there are evidence-based guidelines to improve quality. A group of clinicians from across the state have proposed twenty specific measures across these five conditions; a thirty member Clinical Advisory Group consisting of a diverse group of local health care leaders have endorsed these measures, most of which are endorsed or developed by national organizations (such as the National Committee for Quality Assurance).

Performance Feedback: Measurements will build on the current CCNC system of audits. Practices will be given annual performance reports using data from the audits. Each payer will use claims data to create a list of members with one or more of the five conditions. These lists will be submitted to a third party vendor known as a central data warehouse (CDW). This list will be used for two purposes. First, a random set of charts associated with these patients will be audited by NCHQA to determine the quality of care delivered to a representative set of patients with the particular condition seen at a practice. This model builds on the approach

currently taken by CCNC and other payers. The second purpose of the list is to enable practices to deliver better care to their patients.

Practice support: One of the unique features of the initiative is the support that will be available to participating practices to help them improve quality. Direct support will be provided through the Area Health Education Centers and CCNC networks to redesign practice flow, assist with electronic health record implementation, and provide other supports and resources to practices.[d] The CDW-created lists of patients with specific conditions can be used to support disease registries to enable practices to develop point-of-care reminders to ensure the best available care for their patients. A web-based registry, which will be made available at no cost to all participating practices, is currently in pilot testing.

This initiative is only possible due to the unique partnership of physicians, hospitals, insurers, state government, business, and other organizations committed to improving health care quality in North Carolina. Using uniform evidence-based measures, developing innovative technology, and employing community supports will help improve health outcomes, lower costs, and result in a healthier North Carolina.

d These services include regular reports on quality of care, disease registries and electronic health record consultation, quality collaboratives, free continuing medical education (CME) up to 20 hours per year, support to reach North Carolina Healthcare Quality Alliance standards, staff development and continuing education, free access to the Area Health Education Centers (AHEC) digital library, streamlined and coordinated practice support, and public recognition for participation.

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Overview

Approximately 20% of the 1.5 million uninsured in North Carolina in 2006-2007 were children (ages 0-18). This equates to 13% of *all* North Carolina children, or 306,000 children.[a]

Children who are uninsured are more likely to forgo needed health care than children with health insurance.[1] A national study found that only 45% of uninsured children had received a "well child" checkup, compared to 76% of children with public insurance.[2] The study also found that among children with special health care needs, nearly 41% of uninsured children had delayed or foregone care, compared to fewer than 10% of uninsured children.

Children without health insurance have less access to health care services. In 2007, about 16% of uninsured children in North Carolina did not receive all the care their parents thought they needed, compared to less than six percent of insured children. Not surprisingly, cost was the major reason uninsured children did not receive care. Uninsured children were more likely to have never seen a dentist or to have not seen one in more than two years, and less likely to have someone as a "personal" doctor or provider. Uninsured children were roughly twice as likely to delay getting medicine and half as likely to not have had a well visit. Additionally, parents of uninsured children were less likely to rate their child's health as "Excellent."[3]

The percentage of uninsured children has grown more rapidly in North Carolina than nationally. Between 2000-2001 and 2006-2007, the percentage of children who lacked health insurance coverage grew by 2.8 percentage points in North Carolina (from 10.3% to 13.1%), whereas the percentage of uninsured children nationally fell by 0.1 percentage points (from 11.5% to 11.4%). This is due primarily to a larger deterioration of employer-sponsored insurance (ESI) in North Carolina compared to the rest of the nation. (See Table 4.1.)

Between 2000-2001 and 2006-2007, the percentage of children who lacked health insurance coverage grew by 2.8 percentage points in North Carolina, whereas the percentage of uninsured children nationally fell by 0.1 percentage point.

Table 4.1
Percent of Children Lacking Health Insurance Has Grown Between 2000-2001 and 2006-2007

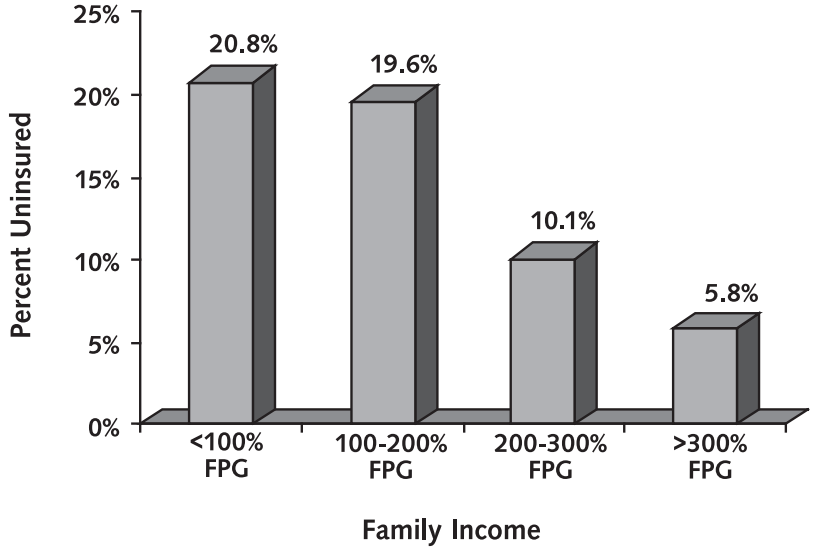
	ESI	Individual	Medicaid/ SCHIP	Uninsured
North Carolina	-10.1%	-0.4%	6.1%	2.8%
United States	-5.6%	0.3%	5.8%	-0.1%

Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement. Table HIA-5 two-year averages, 2000-2007.

a Unless otherwise noted, all data on the uninsured are based on North Carolina Institute of Medicine analysis of the Current Population Survey's Annual Social and Economic Supplement, published by the US Census Bureau.

Poor children are the most likely to lack insurance coverage compared to other children. The percentage of children who are uninsured range from 20.8% for those with family incomes below 100% of the federal poverty guidelines (FPG) ($21,200/year for a family of four in 2008) to 5.8% for those with household incomes above 300% FPG ($63,600/year for a family of four in 2008). (See Figure 4.1.)

Figure 4.1
Children with Family Incomes Below 200% FPG are More Likely to be Uninsured



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement. 2006-2007.

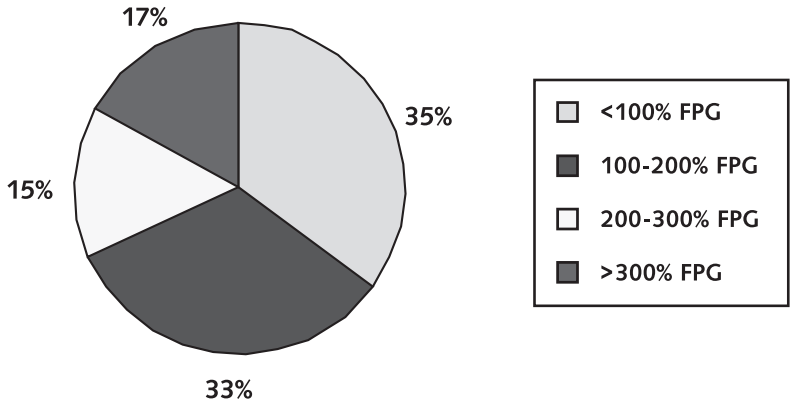
More than one-third (35%) of uninsured children have family incomes of less than 100% of the federal poverty guidelines (FPG), and another 33% of uninsured children have family incomes between 100%-200% FPG.

Not only are poor children more likely to lack health insurance, they also comprise two-thirds of all uninsured children. More than one-third (35%) of uninsured children have family incomes of less than 100% FPG, and another 33% of uninsured children have family incomes between 100%-200% FPG. In total, more than two-thirds of all uninsured children live in a family with incomes less than 200% FPG ($42,400/year for a family of four in 2008). (See Figure 4.2.)

Medicaid and NC Health Choice Program Eligibility

There are two insurance programs available to provide health insurance coverage to low-income children: Medicaid and the State Children's Health Insurance Program (SCHIP). Both are jointly administered between the federal and state governments. Typically, Medicaid is provided to lower-income children and has less cost sharing, and SCHIP is available to cover children with slightly higher

Figure 4.2
Children in Families with Incomes Below 200% FPG Make Up the Majority of Uninsured Children



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement. 2006-2007.

family incomes. In most cases, children must be citizens to qualify, and must have family incomes below a state established income limit.[b,c]

Medicaid is an entitlement program, which means that eligible children are guaranteed coverage. States can change the eligibility rules and/or limit benefits within certain federal parameters. However, every child who meets the established eligibility rules is entitled to coverage, regardless of the state or federal government's budgetary restrictions. Children need not be uninsured in order to qualify for Medicaid, they can have both private coverage and Medicaid. In these instances, Medicaid becomes the secondary payer, and only covers services or costs not already covered by the private insurance plan. In contrast, SCHIP is limited to uninsured children. Children cannot have both private insurance coverage and SCHIP. Another major difference is the federal funding; SCHIP is a block grant program. The federal government allocates a certain amount of money to the states. When funding runs out, children can be denied coverage or put on a waiting list.

In North Carolina, children are eligible for Medicaid or NC Health Choice (North Carolina's SCHIP program) if their household incomes are below 200% FPG and they meet the citizenship requirements. Medicaid (also referred to as Health

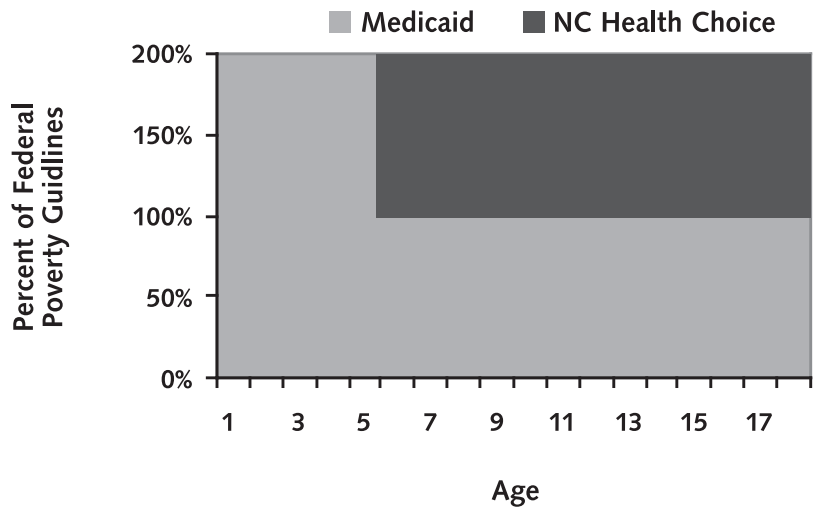
In North Carolina, children are eligible for Medicaid or NC Health Choice if their household incomes are below 200% of the federal poverty guidelines and they meet the citizenship requirements.

b Non-citizens are generally not eligible for health insurance coverage through Medicaid or the State Children's Health Insurance Program. However, there are some immigrants who can qualify. Refugees or asylees may be eligible if they have low enough incomes and otherwise meet eligibility requirements. In addition, some immigrants may qualify after they have resided in the United States lawfully for five years.

c Some states also impose resource limits (e.g. money in the bank). However, North Carolina, like 46 other states for Medicaid and 34 other states for State Children's Health Insurance Program, does not impose a resource limit for coverage for children. (Ross DC, Horn A, and Marks C; Kaiser Commission on Medicaid and the Uninsured. Health Coverage for Children and Families in Medicaid and SCHIP: State Efforts Face New Hurdles. http://kff.org/medicaid/upload/7740_ES.pdf. Accessed January 5, 2009.)

Check) covers children from birth through age five with family incomes no greater than 200% FPG and children ages 6-18 with incomes up to 100% FPG. NC Health Choice covers children ages 6-18 with family incomes between 100%-200% FPG. (See Figure 4.3.) The North Carolina Division of Medical Assistance (DMA) administers the Medicaid program. NC Health Choice is administered jointly by DMA and the State Employees' Health Plan.

Figure 4.3
Medicaid and NC Health Choice Cover Children (0-18) with Family Incomes Below 200% FPG



Source: Division of Medical Assistance, North Carolina Department of Health and Human Services, 2008.

Over the last seven years, the North Carolina General Assembly has established growth caps for the NC Health Choice program.

In November 2008, there were 773,859 children enrolled in the North Carolina Medicaid program, and 123,892 children enrolled in NC Health Choice.[4] Over the last seven years, the North Carolina General Assembly has established growth caps for the NC Health Choice program. For example, in the 2008 Session, the North Carolina General Assembly limited enrollment growth in the NC Health Choice program to six percent. At the time, the country was waiting for SCHIP to be reauthorized.[d] The North Carolina General Assembly specified that if SCHIP was reauthorized, then NC Health Choice could grow by up to 8.73%. Historically, North Carolina limited enrollment growth because the amount of the federal SCHIP block grant allocated to North Carolina was not sufficient to cover all eligibles. In fact, North Carolina was the first state in the country to impose an

d The State Children's Health Insurance Program was scheduled to be reauthorized in 2007. Congress voted to reauthorize and expand the program to cover more eligibles. However, President Bush vetoed the legislation on two separate occasions. As a result, the State Children's Health Insurance Program legislation was extended until March 31, 2009.

enrollment freeze in their SCHIP program (2001).[5] North Carolina has maintained an open enrollment period since that time, although it made other changes in program rules to ensure that eligible children could be covered.[e]

The federal SCHIP program was recently reauthorized (early 2009) for five years.[f] The reauthorization included several important program changes.[6] First it gave states the authority to cover uninsured children with family incomes up to 300% FPG. States can cover children with higher incomes but at the lower Medicaid match rates. The reauthorization also provided additional options and incentives to improve states' enrollment and retention efforts. These include allowing states to use Express Lane Eligibility, under which information collected for other programs (such as Food Stamps) can be used when evaluating a child's eligibility for Medicaid or SCHIP. Bonus payments will also be provided to states that streamline enrollment and retention processes and increase Medicaid enrollment of children above certain target levels. In addition, Congress gave states the authority to cover pregnant women through SCHIP, and to provide Medicaid and SCHIP to legal immigrant children and pregnant women. (Previously, legal immigrants were barred from receiving coverage for five years from their date of entry even if they otherwise met the eligibility requirements.) The reauthorization is expected to increase North Carolina's 2009 federal SCHIP allotment by an estimated $90 million (from $136 million to $246 million).[g,7] Congress funded this reauthorization by increasing the federal tobacco tax by 61.66 cents per pack.

Approximately three out of every five uninsured children in North Carolina (186,000 children) are currently eligible for, but not enrolled in, Medicaid or NC Health Choice.

Outreach and Enrollment Simplification

Approximately three out of every five uninsured children in North Carolina (186,000 children) are currently eligible for, but not enrolled in, Medicaid or NC Health Choice. That is, they are citizen children who live in a household with a family income no greater than 200% FPG. Another 23,000 are not eligible because of citizenship status,[h] and 97,000 are not eligible because their family incomes are above 200% FPG. (See Figure 4.4.) This is not a problem unique to North Carolina. However, other states have implemented successful outreach and administrative simplification strategies to try to identify, enroll, and retain eligible children.

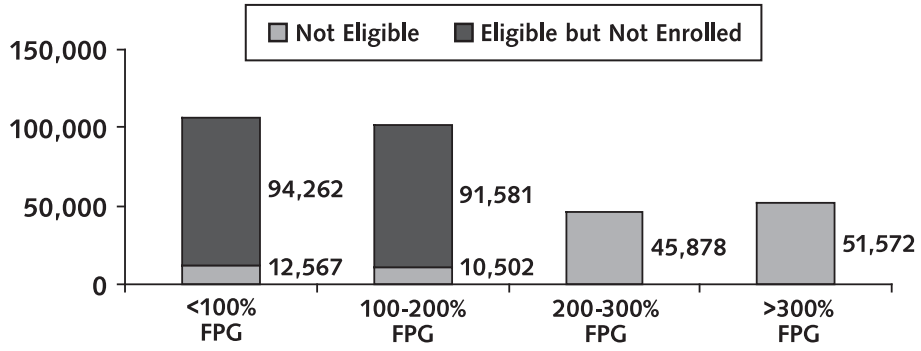
e In 2005, the North Carolina General Assembly changed coverage for the youngest children. Previously, children birth through age one were eligible for Medicaid if their family incomes was no greater than 185% FPG, and children ages one through age five were eligible if their family incomes was no greater than 133% FPG. Children birth through age five in families with higher family incomes (but no greater than 200% FPG) were eligible for NC Health Choice. Effective January 1, 2006, children birth through age five were moved to Medicaid (an entitlement program) if their family income did not exceed 200% FPG. The eligibility rules did not change for older children. Thus, children ages six through 18 are eligible for Medicaid (an entitlement program) if their income is no greater than 100% FPG, and if their family income is higher, then they may qualify for NC Health Choice.

f Pub L No.111-003

g 41 states, including North Carolina, plus the District of Columbia, were expected to have significant State Children's Health Insurance Program funding shortfalls in FY2009 if Congress maintained its funding formula. (McNichol E, Lav IJ; Center of Budget and Policy Priorities. State budget troubles worsen. http://www.cbpp.org/9-8-08sfp.htm. Accessed November 26, 2008.)

h The data used to estimate the number of eligible children does not distinguish between immigrants who are here lawfully (and who may qualify after five years), and those who are in North Carolina without appropriate documents. Therefore, the North Carolina Institute of Medicine only counted uninsured *citizen* children in the estimates of children who are already potentially eligible for Medicaid or NC Health Choice.

Figure 4.4
Children Eligible for but not Enrolled in Medicaid or NC Health Choice



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

County Departments of Social Services (DSS) are required to determine eligibility during both the initial application and during annual recertification.

County Departments of Social Services (DSS) are required to determine eligibility during both the initial application and during annual recertifications. Applications are available through county DSSs, health departments, and through many health care providers or community organizations. Applications can also be downloaded off the web or requested over the phone. Many community organizations and health care providers help families complete their application; however, the applications must be sent to the county DSS to be processed. County DSS eligibility workers will follow-up with the individual if the application is missing information. For example, federal law requires that every Medicaid and/or SCHIP enrollee verify citizenship if they are not eligible as a qualified legal immigrant. States can require families to provide other verifications in addition to that required by the federal government. North Carolina requires that all families submit verification of earned income by submitting wage stubs or other verification for the month prior to application. Children eligible for NC Health Choice must also pay a yearly enrollment fee ($50 for one child or $100 for two or more children) before becoming eligible (or being recertified).

The state Division of Medical Assistance (DMA) sends a reenrollment (recertification) reminder postcard at the end of the 10th month, reminding families that they will need to reenroll their children. If the county DSS does not receive the form by the end of the 11th month, they send out a "timely notice" saying that their coverage will be terminated if they do not submit the reenrollment form. At the end of the 12th month, coverage is terminated if they have not submitted the reenrollment form. Coverage can be restored if the family brings in all the necessary forms and verification by the 10th day of the following month.[i]

i McClanahan C. Chief, Medicaid Eligibility Unit, Division of Medical Assistance, North Carolina Department of Health and Human Services. Oral communication. December 2008.

North Carolina has already adopted some strategies to simplify its enrollment process. For example, North Carolina has a unified application, enrollment, and recertification process for Medicaid and NC Health Choice. North Carolina simplified its application form (from 18 pages to 4 pages in October 1998), and provides for 12-month continuous eligibility (i.e. once eligible, the child remains eligible for 12 months unless they age out of the program or move away from North Carolina). North Carolina also eliminated the resource test for eligibility for children's programs. However, many eligible children are denied coverage or lose eligibility during recertification because of procedural barriers.

A large number of children enrolled in Medicaid or SCHIP experience gaps in coverage.[8] Research has shown that a significant number of children lose public coverage for procedural reasons.[9] One study found that one-third of all uninsured children in 2006 in the United States had been enrolled in Medicaid or SCHIP the previous year.[10] In North Carolina, more than 40% of NC Health Choice enrollment denials were due to procedural reasons.[11] One quarter of Medicaid and NC Health Choice children lose coverage during recertification. Of these, at least 60% were terminated due to procedural reasons including failure to provide necessary information.[j] Additionally, one study showed that nearly 40% of uninsured children in North Carolina had been enrolled in Medicaid or SCHIP the prior year and were still eligible for public coverage but not enrolled.[10]

One quarter of Medicaid and NC Health Choice children lose coverage during recertification… one study showed that nearly 40% of uninsured children in North Carolina had been enrolled in Medicaid or the State Children's Health Insurance Program the prior year and were still eligible for public coverage but not enrolled.

Children, their families, the state, and providers all suffer adverse consequences from churning—that is, having children lose and regain coverage in short periods of time. Some of the problems include:[8]

- Higher program administrative costs due to having to redetermine eligibility;
- Higher administrative costs for providers who need to reconcile enrollment and billing information for patients with changes in coverage status;
- Additional strain on the safety net, since providers are unlikely to be fully compensated for any care provided to uninsured children;
- Difficulties managing and measuring the quality of care if data needed for managing care are not captured during the period of uninsurance; and
- Delayed, inappropriate, and more costly care.

Several states have adopted strategies to simplify their enrollment and renewal procedures to cover more eligible, uninsured children. These strategies include presumptive eligibility, rolling renewals, administrative verification, coordination

j Data from the North Carolina Division of Medical Assistance. Note: These data are based on cases, not numbers of children. These data only include children who are eligible by reason of Medicaid for Infants and Children (MIC) or NC Health Choice. These data do not include children eligible because their parents are receiving or eligible for Temporary Assistance For Needy Families (TANF), children who are receiving foster care or adoption assistance payments, or children eligible by reason of disability.

with other public programs, and more aggressive follow-up to obtain needed information. In addition, outstationing eligibility workers in other health agencies, and working with community groups to expand outreach activities can also assist in enrollment. Expanding coverage to the parents of low-income children has also been found to be an effective way to enroll eligible children. These strategies are described more fully below:

Several states have adopted strategies to simplify their enrollment and renewal procedures to cover more eligible, uninsured children. These strategies include presumptive eligibility… coordination with other public programs, and more aggressive follow-up to obtain needed information.

- ***Presumptive eligibility:*** Presumptive eligibility is a process whereby certain "qualified entities" can temporarily enroll children who appear to be eligible for Medicaid or SCHIP while the family completes the process for eligibility determination.[k] "Qualified entities" could include clinics, hospitals, schools, and other agencies that determine eligibility for public benefits.[12] North Carolina currently allows presumptive eligibility for pregnant women but not for children. Fourteen other states have adopted presumptive eligibility for children in their Medicaid programs, and eight have adopted it for their SCHIP programs.[13]
- ***Rolling renewals:*** Rolling, or off-cycle renewals makes it easier for a family to reapply at the same time that they are applying (or reapplying) for other public programs, such as Temporary Assistance to Needy Families (TANF), Food Stamps, or Child Care subsidies. Under rolling renewals, families can renew their applications at any time in the year, even if they are not yet due for a renewal. Idaho, Illinois, New York, South Dakota, Washington, and Wisconsin all use rolling renewals.[9]
- ***Web-based renewals:*** Pennsylvania uses an online multi-program application process that allows families to renew coverage any time of the day or day of the week. The system keeps client information for multiple programs and allows those renewing coverage to confirm rather than have to reenter data. Renewal applications can be "e-signed," eliminating the need to mail in paper applications.[9]
- ***Administrative verification:*** Administrative verification enables the Department of Social Services (DSS) office to use administrative databases to verify information that the family would otherwise need to provide. For example, DSS may be able to use information from the Employment Security Commission or Social Security Administration to verify earnings. DSS already uses these sources to verify non-wage income (such as unemployment benefits, Social Security or Supplemental Security Income (SSI) payments). This would reduce the number of applications or recertifications that are closed due to procedural reasons. One of the limitations with this approach is the time lag between the individual's earnings and when earnings are captured in these government databases.
- ***Coordination with other public programs:*** More than 70% of uninsured, low-income children participate in other public programs.[12] Public

k 42 CFR §435.1101, 1102; 447.88; 42 USC §1396r-1.

insurance programs can coordinate with these other programs by instituting referrals between programs, combining enrollment, and sharing information to use for administrative verification. Florida, for example, uses its integrated program database to identify children in the Food Stamp program who are not enrolled in Medicaid. Letters are sent to their households with information about the application process.

North Carolina county DSS staff are already authorized to obtain the necessary verification from other programs administered through DSS (such as food stamps or TANF) if the verification is in the person's eligibility file. However, this approach could be strengthened if DSS were able to accept the income verification determination from another program, and/or coordinate with other public programs, such as the free and reduced cost school lunch program, public housing, or other federal or state programs. Past laws made it difficult to coordinate across federal means tested programs. Last year, the federal SCHIP reauthorization bill would have made it easier for states to coordinate eligibility across these public programs, but the proposed legislation was vetoed by President Bush. The 2009 federal reauthorization of SCHIP allows for use of relevant findings from public programs such as school lunch, food stamps, and the Women, Infants and Children (WIC) program when determining eligibility, enrollment, and renewal.[l,14]

The 2009 federal reauthorization of the State Children's Health Insurance Program allows use of relevant findings from public programs such as school lunch, food stamps, and the Women, Infants and Children (WIC) program when determining eligibility, enrollment, and renewal.

- ***Outreach calls to families:*** Some states have established policies to more actively work with families to help them through the eligibility and re-determination process. For example, outreach calls to families to provide renewal assistance has lead to increased retention in California and Arkansas.[9] California increased the number of reminder calls to families from three to five and increased the variety of call times. This change, along with simplifications made to its forms, increased their SCHIP retention rate by 7%.[9]
- ***Outstationing eligibility workers:*** Federal law requires states to outstation eligibility workers at federally qualified health centers (FQHC) (i.e. community and migrant health centers), and at certain hospitals that serve a lot of uninsured and Medicaid patients.[m] DSS workers are

l Pub L No. 111-003.

m 42 USC § 1396a(a)(55). Federal law requires outstationing of eligibility workers at federally qualified health centers (FQHCs) or Disproportionate Share Hospitals (DSH) to take Medicaid/NC Health Choice applications for pregnant women and children, unless it is "an infrequently used location." The federal letter to the states that describes this requirement notes that "it is unlikely that many DSH hospitals or FQHCs would properly be considered sites infrequently used by pregnant women and children in light of the patient mix at most DSH hospitals and FQHCs." The federal regulations do not define "infrequently used location." States are free to define it, and North Carolina has defined it as a location that serves less than 30 individuals not covered by Medicaid or NC Health Choice in a week.

outstationed at many, but not all, FQHCs in North Carolina.[n,o] The federal government pays 50% of the administrative costs of eligibility workers, and counties pay the remaining 50%. Thus, outstationing eligibility workers could increase the administrative costs to the counties. However, increasing the number of children covered by Medicaid and/or NC Health Choice would bring additional health care dollars into the community. The tax revenues and monies generated from the new federal and state Medicaid and NC Health Choice spending could help offset some or all of the administrative costs that counties incur in outstationing eligibility workers.[15]

- ***Community outreach strategies:*** North Carolina relies heavily on community groups to help with outreach and education at the local level. In the past, staff at the Division of Medical Assistance (DMA), Division of Public Health, North Carolina Pediatric Society, and local DSSs aggressively reached out to community groups to train them in filling out Medicaid and NC Health Choice applications. These community groups could then help individual families fill out the necessary forms to enroll their children. However, some of these outreach activities have been curtailed in recent years because of the state imposed NC Health Choice enrollment cap. More assertive outreach activities could be pursued if the North Carolina General Assembly removes the enrollment cap. South Carolina performed targeted outreach in geographic locations where there were large numbers of children using the emergency department (ED) (identified through their multi-agency data warehouse). They also provided enrollment assistance at targeted EDs. This effort reduced the number of uninsured using EDs by 30%.[16]
- ***Covering low-income parents of eligible children:*** Research has shown that when parents are enrolled in public programs along with their children, drop out rates of children are significantly lower.[17] Eligibility for parents in North Carolina's Medicaid program is below the national average.[13] Thus, one strategy to increase enrollment of eligible children is to expand coverage to their parents. This option is discussed more fully in Chapter 5.

Louisiana made same innovative improvements to their enrollment processes and approach…In 2008, fewer than 1% of children enrolled in Louisiana's LaCHIP program lost coverage for procedural or administrative reasons.

Louisiana uses several of the administrative outreach and simplifications procedures listed above. In 2001, a retention analysis was performed for LaCHIP, Louisiana's combined Medicaid and SCHIP program for children. The report indicated that parents were confused about eligibility requirements as well as enrollment and renewal procedures, paperwork was too cumbersome, and parents were delaying enrollment until there was a medical need.[18]

n In an informal survey of FQHCs across the state, 8 of the 25 centers that responded noted that they had requested that Department of Social Services (DSS) workers be outstationed in their centers, but that DSS failed to do so.

o Money, B. Chief Executive Officer, North Carolina Community Health Center Association. Oral communication. December 2008.

To address these results, Louisiana made some innovative improvements to their enrollment processes and approach. They provided training to eligibility workers to help them better understand the important role they play in reducing the number of uninsured children in the state.[19] They also changed their renewal procedures to a four step process.[20] First, administrative renewals are performed for cases unlikely to have any change in circumstances that would affect eligibility. These renewals are performed without any staff intervention. Next, Louisiana uses an "ex parte" renewal process under which eligibility workers can access information available to the Medicaid agency, such as food stamps and Temporary Assistance for Needy Families (TANF) records and payment data from the Social Security Administration, to verify information needed for renewal. Medicaid eligibility workers were also given increased access to vital records for verification of citizenship. There is no required paperwork if income can be verified through the Department of Labor's database.[19] Additional income verification is collected from employers by phone or fax. They do not require income verification from applicants who declare their income to be below 75% of the eligibility standard.[21] An internal study indicated that this approach did not compromise the integrity of the program.[22] Any additional information needed for enrollment is acquired through telephone calls with families.

Only 10% of Louisiana Medicaid case renewals involve the use of a form. More than half (53%) are performed through ex parte renewals, 15% are done through the administrative renewal process, and 22% are completed over the phone.[21] In Louisiana's SCHIP program, only 15% of renewals require a form, 45% are completed over the phone, and 34% are done through ex parte review. In 2008, fewer than 1% of children enrolled in Louisiana's LaCHIP program lost coverage for procedural or administrative reasons.

By eliminating the cap on NC Health Choice enrollees (see Recommendation 4.2 below), and by implementing several of these outreach and administrative simplification strategies, North Carolina can increase the number of eligible uninsured children who enroll and retain coverage in Medicaid and NC Health Choice. Therefore, the Health Access Study Group recommends:

Recommendation 4.1 (PRIORITY RECOMMENDATION)

a) The North Carolina Division of Medical Assistance (DMA) should simplify the eligibility determination and recertification process to facilitate the enrollment of eligible Medicaid and NC Health Choice individuals. Specifically, DMA should:

1) Pilot test the use of North Carolina administrative databases to verify income, and if accurate, use administrative income databases to verify income for eligibility and recertification for all, or a portion, of the applicants and recipients.

2) Develop a system of presumptive eligibility for children.

3) Allow rolling recertification periods to enable individuals to return their recertification forms anytime within the three months prior to the end of their certification period.

4) **Use eligibility information from other public programs (e.g. food stamps, Women, Infants and Children (WIC), free and reduced school meals) to determine Medicaid and NC Health Choice eligibility.**

5) **Use other efforts to reduce the percentage of procedural closings during the eligibility and recertification process.**

b) **DMA should expand outreach efforts to identify and enroll individuals who are eligible for Medicaid and NC Health Choice. Specifically, DMA should:**

1) **Ensure that the Department of Social Services (DSS) eligibility workers are outstationed at Disproportionate Share Hospitals and federally qualified health centers (as required by federal law), and at health departments or other community health providers that serve a large number of potentially eligible Medicaid recipients. Outstationed DSS workers should help individuals fill out Medicaid and NC Health Choice applications and recertification forms and determine eligibility.**

2) **Train community organizations and other health professionals to assist potentially eligible individuals in filling out applications and recertification forms.**

c) **The Department of Public Instruction and Local Education Authorities should actively work to promote health insurance coverage to children eligible for public programs, in coordination with the outreach efforts of the Department of Health and Human Services and local DSSs.**

Expanding Health Insurance Coverage to Children in Families with Higher Incomes

As noted previously, low-income children—those with incomes less than 200% FPG—are most likely to be uninsured. However, there has been a large growth in the percentage of children with family incomes of between 200%-300% FPG. (See Figure 4.5.)

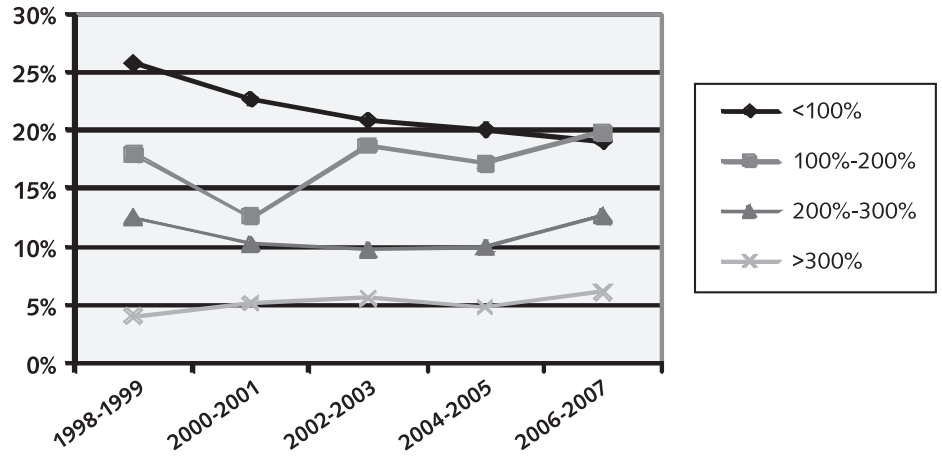
In 2007, there were 19 states (including the District of Columbia) that covered children in families with incomes greater than 200% of the federal poverty guidelines.

North Carolina is one of 23 states that cover children with family incomes equal to or less than 200% FPG through Medicaid or SCHIP.[13] Several states have expanded coverage to children with higher incomes in order to cover more uninsured children.[p] In 2007, there were 19 states (including the District of Columbia) that covered children in families with incomes greater than 200% FPG. Of these:

- Three covered children in families with incomes between 201%–249% FPG,
- Six covered children in families with incomes between 250%–299% FPG, and

p States can effectively increase the income guidelines for children by using "less restrictive income and resource methodologies." 42 USC §§1396u-1(b)(2)(c), 1396a(r)(2) (Medicaid) and 1397 (State Children's Health Insurance Program).

Figure 4.5
Percent Middle-Income Uninsured Children Has Grown Between 2000-2001 and 2006-2007



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

- Ten (including the District of Columbia) covered children in families with incomes up to 300% FPG or more.[q,13]

In North Carolina, an additional 9% of uninsured children (~29,000) could be covered through program expansion to 250% FPG, and 14% (~46,000) children through expansion to 300% FPG.[4]

In North Carolina, an additional 9% of uninsured children (~29,000) could be covered through program expansion to 250% of the federal poverty guidelines (FPG), and 14% (~46,000) through expansion to 300% FPG.

In the 2008 Session, the North Carolina General Assembly gave the Division of Medical Assistance (DMA) the authority to implement NC Kids' Care, a publicly-subsidized health insurance program for uninsured children with family incomes between 200%-250% FPG.[r,s] The program will be a block grant, and coverage will be limited to 15,000 children. Implementation was delayed until the reauthorization of federal SCHIP. NC Kids' Care will be similar to, but have different cost sharing and benefits than NC Health Choice. Cost sharing (premiums, co-payments, and deductibles) will vary according to family income with overall cost sharing capped at five percent of family income.[22] The benefit package will be similar to NC Health Choice, with the exception of dental, which will not be covered.[23]

q States covering children with family incomes up to 300% of the federal poverty guidelines (FPG) include Connecticut, District of Columbia, Hawaii, Maryland, Massachusetts, Missouri, New Hampshire, New Jersey, Pennsylvania, and Vermont.

r The North Carolina General Assembly first created the program in the 2007 Session. At that time, the General Assembly directed the Division of Medical Assistance (DMA) to develop a plan, called NC Kids' Care, to expand health insurance coverage to uninsured children between 200%-300% FPG. DMA was required to report its recommendations back to the 2008 Session. (Sec. 10.48 of Session Law 2007-323.) In the 2008 Session, the General Assembly limited eligibility to children with incomes between 200%-250% FPG.

s Section 10.12(c) of Session Law 2008-107.

In addition to raising the income limits to cover all eligible children below a certain income, states can also target their expansion to cover disabled children. In 2006, the federal government adopted the Family Opportunity Act (part of the Deficit Reduction Act of 2005), which allows states to cover disabled children up to 300% FPG under Medicaid. Coverage under this program will be phased in by age starting with children up to age six in 2007 and rising to age 19 by 2009. States can charge sliding scale premiums to parents, however total premiums and cost sharing under the plan cannot exceed five percent of family income for children in families with incomes below 200% FPG and 7.5% for those children in families with incomes between 200%-300% FPG. Parents are required to participate in family employer-sponsored insurance if the employer covers at least 50% of the premium. Medicaid premiums must be reduced to reflect the premium cost attributable to the disabled child, if the family is covered by an employer-sponsored plan.[24] One major difference between the Family Opportunity Act and SCHIP coverage (NC Health Choice or NC Kids' Care) is that children may have private health insurance coverage and still qualify for Medicaid to pay for services not otherwise covered through the private health plan. This is particularly helpful for children with special health needs.

To expand coverage to include more low-income children, the Health Access Study Group recommended:

Recommendation 4.2 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should:

a) **Remove the cap on coverage of eligible children in the NC Health Choice program.**

b) **Continue to implement NC Kids' Care with coverage of children up to 250% of the federal poverty guidelines (FPG). If sufficient federal and state funds are available, NC Kids' Care should be expanded to cover children up to 300% FPG.**

Recommendation 4.3

The North Carolina General Assembly should expand Medicaid to implement the Family Opportunity Act which allows children who meet the Supplemental Security Income disability standards with family incomes of up to 300% of the federal poverty guidelines to buy-into the Medicaid program.

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Adults with incomes less than 200% of the federal poverty guidelines (FPG) comprise almost half (46%) of all non-elderly uninsured in North Carolina. This amounted to 705,000 uninsured adults in the state in 2006-2007.[a] Most of these low-income adults work: 42% work full-time and 17% work part-time. Approximately 58,000 of the low-income, uninsured adults who are not working full-time have a spouse working full-time. Low-income, uninsured, full-time workers are more likely to work in small firms than similar workers with incomes above 200% FPG (33% in small firms vs. 26% in larger firms). Additionally, they are twice as likely as full-time workers with higher incomes to work in agriculture, construction, and hospitality, which are the industries with the highest uninsurance rates among full-time workers.

Adults with incomes less than 200% of the federal poverty guidelines (FPG) comprise almost half (46%) of all non-elderly uninsured in North Carolina.

The Health Access Study Group explored two options to expand publicly-subsidized coverage to low-income adults (defined as having a family income up to 200% FPG): a Medicaid expansion or a subsidy for low-income adults with pre-existing conditions to enable them to pay for health insurance coverage through the high-risk pool. Both options are discussed in more detail below.

Medicaid Expansion

Unlike low-income, uninsured children, of whom most are already eligible but not enrolled in either Medicaid or NC Health Choice, low-income, uninsured adults are generally not eligible for public coverage.[b] (See Figure 5.1.) Medicaid eligibility is generally limited to certain "categories" of low-income individuals. For adults, this includes pregnant women, adults who are parents of dependent children under age 19, and adults who are disabled or at least 65 years old.[c] There are proposals being discussed in Congress which would eliminate these categorical restrictions and expand Medicaid to cover all low-income adults—regardless of whether they are a parent or childless adult.[1] However, under existing federal Medicaid laws, states cannot cover low-income, childless adults who are not pregnant, disabled, or elderly unless they obtain a waiver of federal Medicaid laws.

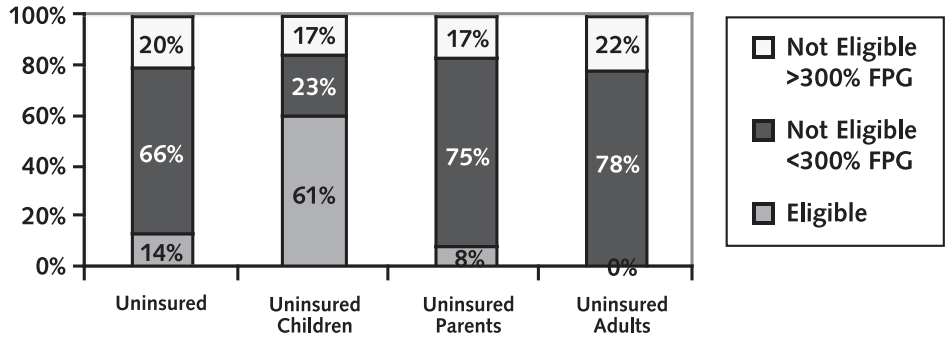
Although most childless adults cannot currently be covered through Medicaid without a federal waiver, low-income parents can be covered. States set the income and resource eligibility requirements for parent coverage, as they do for other eligible groups. North Carolina's income eligibility limits are based on gross income, with some allowable deductions, which are more generous for people with earned income than those without income or with only unearned income

a Unless otherwise noted, all data on the uninsured are based on North Carolina Institute of Medicine analysis of the Current Population Survey's Annual Social and Economic Supplement, published by the US Census Bureau.

b State Children's Health Insurance Program programs are generally limited to coverage of uninsured children (although some states with unspent federal monies were able to obtain waivers to cover uninsured parents through their State Children's Health Insurance Program).

c There are certain limited Medicaid programs which cover certain categories of low-income adults who are not disabled or elderly. For example, North Carolina provides family planning coverage to certain low-income adults with incomes up to 185% of the federal poverty guidelines. In addition, under certain circumstances, North Carolina also provides coverage to women who have been diagnosed with breast or cervical cancer.

Figure 5.1
Most Adults are not Eligible for Existing Public Programs in North Carolina

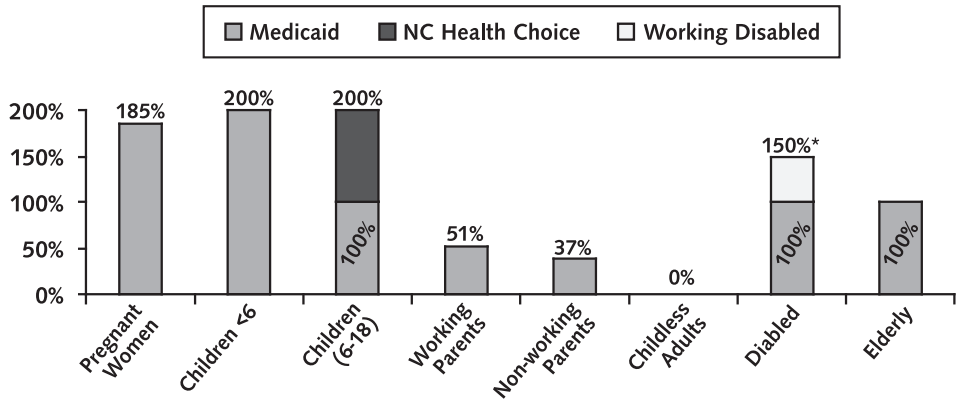


Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

North Carolina's Medicaid maximum income limits for parents are much more restrictive than they are for other eligibility groups.

(such as Supplemental Security Income or unemployment compensation). As seen below in Figure 5.2, North Carolina's Medicaid maximum income limits for parents are much more restrictive than they are for other eligibility groups.

Figure 5.2
North Carolina Medicaid and NC Health Choice Maximum Income Limits for Parents are More Restriction than for Other Groups



Source: Medicaid & CHIP. Statehealthfacts.org, Henry J. Kaiser Family Foundation website. http://www.statehealthfacts.org/profilecat.jsp?rgn=35&cat=4. Accessed March 3, 2009. Based on a family of three in 2008.

*Working disabled individuals can have incomes up to 150% FPG and still qualify for Medicaid. In the future, eligibility will be expanded further to cover disabled individuals with higher incomes (earned or unearned). These individuals will pay sliding scale premiums and cost sharing.

To qualify for Medicaid in North Carolina, a working *parent* with two children must have an income at or below $9,000 (or about half FPG), and a non-working *parent's* income must be at or below $6,528/year (or a little more than one-third FPG).[2] (See Table 5.1.) North Carolina's income threshold for parent eligibility is lower than both the median for the United States and two of its neighboring states, South Carolina and Tennessee.[2] (See Table 5.1.)

Table 5.1
North Carolina Family Income Eligibility Limits for Parents is Lower than the National Median

	Income threshold for non-working parents		Income threshold for working parents	
	Annual dollar amount*	Percent of poverty	Annual dollar amount*	Percent of poverty
US Median	$7,200	41%	$11,928	68%
North Carolina	$6,528	37%	$9,000	51%
Georgia	$5,088	29%	$9,072	52%
South Carolina	$8,580	49%	$15,864	90%
Tennessee	$12,916	73%	$23,628	134%
Virginia	$4,272	24%	$5,352	30%

Source: Medicaid & CHIP. Statehealthfacts.org, Henry J. Kaiser Family Foundation website. http://www.statehealthfacts.org/comparetable.jsp?ind=205&cat=4. Accessed March 12, 2009. Based on a family of three in 2008.

North Carolina also limits the amount of resources an adult can have and still qualify for Medicaid. Countable resources (assets) include money in the bank and most other financial assets that can be easily converted to cash. In North Carolina, a parent can have no more than $3,000 in countable resources for a family of three or $4,000 for a family of four.

Federal Medicaid Relief to the States

Program expansion to cover new eligibles will be difficult during this time of economic upheaval. Therefore, the Health Access Study Group recommended that Congress provide fiscal relief to the states to help the states pay for their growing Medicaid costs. Medicaid is typically considered a countercyclical program—that is, the number of Medicaid recipients grows when the economy gets worse. For example, every 1% increase in the national unemployment rate leads to an increase of approximately one million people in Medicaid and the State Children's Health Insurance Program (SCHIP), an additional 1.1 million uninsured, and a three to four percent decline in state revenues.[3]

Medicaid is typically considered a countercyclical program—that is, the number of Medicaid recipients grows when the economy gets worse.

The negative impact on states' budgets is exacerbated during the first few years of any recession. The current federal Medicaid match rate (federal medical assistance percentage, or FMAP) is calculated based on a state's per capita income compared to the national per capita income, so that states with lower per capita income receive a higher federal match than states with higher per capita incomes.[4] The

FMAP rate is calculated each year, based on a time-lagged three year period. Thus, the FY 2009 FMAP rates were based on the state's per capita income from 2004-2006, when the state's economy was more robust. The confluence of these two factors—growing numbers of eligibles and low FMAP rates—creates major budgetary problems for states, as the states have fewer revenues to pay for growing Medicaid program costs. The federal government gave states a temporary 2.95% increase to the federal medical assistance payment match rate during the last recession (2003-2004), in order to provide fiscal relief to the states.[d,5] Congress is considering providing Medicaid relief as part of a new economic stimulus package.[6] The Health Access Study Group strongly supports a Medicaid fiscal relief package for the states. In addition, the Health Access Study Group also recommends programmatic changes eliminating the categorical eligibility restrictions, which limits coverage of low-income adults to certain "categories" of individuals (including pregnant women, parents of dependent children, people who are disabled or people age 65 or older). Instead, federal Medicaid funds should be available to cover all low-income adults (as it is for children and people over age 65).

To provide fiscal relief to the states, and expand Medicaid laws to allow states to cover all low-income adults, the Health Access Study Group recommends:

Recommendation 5.1 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly and the Governor's Office should work with the North Carolina Congressional delegation to support Medicaid reform that provides fiscal relief to the states and gives states the flexibility and funding to expand coverage to low-income adults without categorical restrictions, along with other efforts to provide an economic stimulus to the state.[e]

Estimates from the Current Population Survey suggest that approximately 30,000 of uninsured adults are already income eligible for Medicaid.

Expanding Outreach and Program Simplification

As noted earlier, there were approximately 693,000 uninsured, low-income adults in North Carolina in 2006-2007. With rising health insurance costs and the downturn in the economy, there are probably many more uninsured, low-income adults today. As with children, some of these low-income adults are already eligible for, but not enrolled in, Medicaid. Estimates from the Current Population Survey suggest that approximately 30,000 of uninsured adults are already income eligible for Medicaid—that is, they have incomes less than approximately 50% FPG and have their children, under age 19, living in the household. As with children, one way to identify and enroll people who are currently eligible for Medicaid is to engage in more aggressive outreach to potentially eligible populations. Another is

d The 2.95 percent increase in the federal medical assistance percentage (FMAP) rates amounted to $10 billion in federal assistance to the states. States had to maintain existing eligibility levels in order to receive the enhanced FMAP rate. However, states still had the authority to make other programmatic cuts, such as eliminating optional services or freezing provider payment levels and still qualify for the enhanced match rate.

e Following the conclusion of the meeting of the Health Access Study Group, Congress passed the American Recovery and Reinvestment Act of 2009 (Pub L No. 111-005) that provids fiscal relief to the states to help pay for increasing Medicaid enrollment (including a general 6.2% in the federal medical assistance percentage (FMAP)). The Study Group supports the Recovery Act.

to simplify the application and recertification procedures. For example, North Carolina could eliminate the resource test for parents, as it has for children and pregnant women. Twenty-two other states have already taken this step.[2] Data from the Division of Medical Assistance show that last year, local Departments of Social Services determined eligibility for almost 250,000 cases involving low-income parents (who were not also receiving Temporary Assistance to Needy Families (TANF)). Fewer than 0.2% were denied (639 cases or 986 people) because they had excess resources. Eliminating the resource limit would streamline the eligibility process and reduce administrative costs to the counties.[f] North Carolina could also increase the resource limits for other eligibility groups, enabling people with disabilities or older adults to qualify. North Carolina could also extend the certification period for parents from six months to 12 months, as have 40 other states.[2] To further simplify enrollment and more aggressively seek to enroll eligible parents, the Health Access Study Group recommends:

Recommendation 5.2 (PRIORITY RECOMMENDATION)

The North Carolina Division of Medical Assistance (DMA) should conduct outreach activities and simplify the eligibility determination and recertification process to facilitate the enrollment of adults eligible for Medicaid. In addition to efforts undertaken for children, DMA should explore other options applicable to adults, including, but not limited to: eliminating the resource limits for low-income parents or childless adults with incomes below 100% of the federal poverty guidelines, expanding the allowable resource limits for other Medicaid eligibles, and increasing the certification period from 6 to 12-months.

Expanding Medicaid to Cover New Eligibles

The Health Access Study Group explored other options to expand Medicaid coverage to low-income, uninsured adults in the most cost-effective way possible. The Health Access Study Group supports further Medicaid expansion, as the federal government pays approximately 65% of program costs (with the state responsible for the remaining 35%).[g,h] The state has two options to expand coverage to low income adults: expand the income limits for low-income parents or seek a Medicaid waiver to enable the state to cover all low-income adults, including childless, non-disabled, non-elderly adults.

Approximately one-fifth of low-income, uninsured adults could qualify for Medicaid if the state increased income limits up to 200% of the federal poverty guidelines.

Expanding Medicaid to cover more low-income parents: Approximately one-fifth of low-income, uninsured adults could qualify for Medicaid if the state increased income limits up to 200% FPG. Estimates from the Current Population Survey suggest that there are another 83,000 uninsured parents of children under age 19

f Currently, the counties pay the 50% non-federal match for county eligibility workers.

g The FFY 2009 federal medical assistance percentage (FMAP) rates can be found at: 72 Fed. Reg. 67304 (Nov. 28, 2007). North Carolina's current FMAP rate (FFY 2009) is: 64.60. The FFY 2010 FMAP rates are at: 73 Fed. Reg. 72051 (Nov. 26, 2008). North Carolina's FFY 2010 FMAP rate is expected to be 65.13.

h FFY 2009 federal medical assistance percentage (FMAP) rates were increased following the passage of the the American Recovery and Reinvestment Act of 2009 (Pub L No. 111-005)

with incomes between 50%-100% FPG and 139,000 with incomes between 100%-200% FPG.[7] North Carolina could increase the income limits for parents without seeking a Medicaid waiver. This would require additional state funds.

Medicaid generally operates as an entitlement program; states are required to cover all eligibles regardless of overall program costs. While states do have options to reduce Medicaid costs, including cutting services, cutting eligibles, freezing or reducing provider payments, or more stringent medical management, North Carolina would still be responsible for coming up with the state match to cover the program expansion for anyone who was eligible under the state's eligibility rules. Absent a waiver, states cannot impose an enrollment cap to limit program growth.

Under a federal Medicaid Section 1115 waiver, states can expand coverage to both low-income parents and to childless adults—potentially covering up to 692,000 uninsured, low-income adults.

Medicaid Section 1115 waiver to cover all low-income adults: Rather than support regular Medicaid expansion, the Health Access Study Group recommended that the state pursue a federal Section 1115 Medicaid waiver to expand coverage to low-income adults. Under this option, states can expand coverage to both low-income parents and to childless adults—potentially covering up to 692,000 uninsured, low-income adults. However, to obtain a waiver, the state must be able to demonstrate cost neutrality to the federal government. Thus, the state must find "savings" to offset the additional costs of program expansion.

The Health Access Study Group recommended that the Division of Medical Assistance (DMA) pursue an 1115 waiver. To limit the costs of the expansion, the Study Group recommended that DMA develop a limited benefit package, enroll Medicaid recipients into Community Care of North Carolina (CCNC), and offer a premium assistance program. North Carolina may be able to show budget neutrality by using program savings the state anticipates will come from expanding CCNC to cover the elderly and disabled. In addition, the state can set a cap on program expenditures or new eligibles under an 1115 waiver. Each of these issues is discussed more fully below.

- ***Limited benefit packages:*** North Carolina can use an 1115 waiver to limit the benefits covered to individuals enrolled in Medicaid. In 2006, the NCIOM Task Force on Covering the Uninsured recommended that North Carolina develop a limited benefit package which emphasizes prevention, primary care, and chronic disease management (and which provides limited coverage of inpatient and outpatient hospitalizations).[i,j] The goal is to help provide the care needed to reduce the need for hospitalizations. DMA should develop a lower cost benefit package, similar to the one described, to offer to low-income adults, which would limit the cost of program expansion.

i North Carolina Institute of Medicine. Expanding Health Insurance Coverage to More North Carolinians. North Carolina Task Force on Covering the Uninsured: April 2006, Durham, NC. April 2006.

j In 2006, Congress enacted the Deficit Reduction Act (DRA), which gave states the ability to limit the benefit package for different groups of eligibles. (Deficit Reduction Act of 2005: Implications for Medicaid. Kaiser Commission on Medicaid and the Uninsured. February 2006). However, the DRA does not allow states to offer this more limited benefit package to groups of eligibles who were not already covered at the time that the DRA was enacted. Thus, North Carolina may need a waiver in order to limit the benefit package.

- ***Premium assistance programs:*** States have the option of using Medicaid dollars to subsidize private health insurance coverage for Medicaid-eligible individuals if it is cost-effective to the state.[k] Most states that operate premium assistance programs use Medicaid funds to help subsidize the employee share of employer-sponsored insurance (ESI). The state benefits from the employer's contributions towards the cost of the health insurance premium, thus reducing the state's Medicaid costs. Some states also use Medicaid funds to help individuals purchase non-group coverage, although it is harder to show that this is cost-effective to the state as there are no employer contributions to non-group coverage.[8]

  North Carolina does not currently operate a premium assistance program. Because of the state's restrictive Medicaid eligibility rules, few people would qualify for both Medicaid coverage and ESI. Most states that have implemented premium assistance programs have higher income eligibility limits for adults. In these states, low-wage, full-time workers might be able to qualify for Medicaid. Some of these workers may have access to ESI. However, even then, most states have had limited enrollment, as many low-income Medicaid eligibles work for small employers that do not offer insurance.[8,9]

  To address this issue, some states have combined premium assistance programs with initiatives to expand health insurance coverage to small employers. New Mexico and Oklahoma have pursued this approach. Both states have developed private-public health insurance plans that are based on their Medicaid managed care programs and have offered this coverage to small employers. North Carolina could pursue a similar approach, working with private insurers to offer a low cost insurance product provided through the Community Care of North Carolina (CCNC) networks and that focuses on prevention, primary care, and chronic disease management. (CCNC is described more fully in Chapter 3.) These plans can be limited to employers that have not previously offered health insurance. The state could then use Medicaid funds for Medicaid recipients to help offset the employees' share of insurance premiums.

- ***Cost neutrality:*** As noted previously, one of the requirements of an 1115 waiver is to show budget neutrality to the federal government. That is, the state must identify sufficient savings to offset any new federal costs due to program expansion. In 2005, the North Carolina General Assembly directed DMA to expand the CCNC chronic disease management system to Medicaid recipients who are aged, blind, or disabled. CCNC has started to enroll some of these recipients, but the program has not been fully extended to all of the aged, blind, and disabled. If North Carolina

One of the requirements of an 1115 waiver is to show budget neutrality…the state must identify sufficient savings to offset any new federal costs due to program expansion.

k States may also use State Children's Health Insurance Program (SCHIP) funding to create a premium assistance program. States that operate SCHIP premium assistance programs can use SCHIP funds to purchase family coverage, if cost effective to the state (i.e. the family share of family coverage is less than the state would have spent on coverage for the child or children).

pursues an 1115 waiver before the program is fully implemented, some of the future program savings may be able to be used to demonstrate cost neutrality to the federal government.

- ***Program caps:*** One of the other advantages of an 1115 waiver from the state's fiscal perspective is that it can cap numbers of eligibles or expenditures for the new group of eligibles. This is particularly important to the state during fiscal shortfalls, as the state has more limited revenues to apply to program expansion.

Given the state's current budget constraints due to the recession, the Health Access Study Group recommended a phased-in expansion to low-income adults through an 1115 waiver. The Health Access Study Group recommends:

Recommendation 5.3 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should direct the Division of Medical Assistance (DMA) to seek a Medicaid Section 1115 waiver to cover more low-income adults. The waiver should be implemented in two phases.

a) **The first phase should be to expand Medicaid coverage to low-income adults with incomes below 100% of the federal poverty guidelines (FPG).**
    1) **DMA should develop a limited benefit package that emphasizes prevention, primary care, chronic disease management, a limited formulary, and limited hospitalizations.**
    2) **Adults covered under this initiative should be enrolled in Community Care of North Carolina (CCNC).**
    3) **DMA should seek to identify other state funds already being used to provide services to this population that could be used as part of the state match for this new Medicaid coverage.**

b) **The second phase should be to expand coverage to adults with incomes between 100%-200% FPG.**
    1) **The adults covered through this waiver should receive the same benefit package and be enrolled in CCNC.**
    2) **DMA should develop a sliding scale for premiums and cost sharing for this group. However, in no event can the combined premium or cost sharing exceed 5% of the families gross income.**

c) **DMA should develop a premium assistance program to enable Medicaid-eligible recipients to use Medicaid funds to pay for employer-sponsored insurance or private non-group insurance purchased in the private market.**

d) In order to expand the availability of coverage in the small group market, DMA should work with North Carolina Community Care Network, Inc. and private insurers to explore the potential for a lower cost insurance product for small employers that do not offer insurance, utilizing the CCNC network. Medicaid-eligible recipients who work for employers who enroll in this lower-cost public-private partnership plan shall also be eligible for premium assistance. The product may include the following features:

1) Connecting all enrollees with a medical home;

2) A more limited benefit package, emphasizing prevention, primary care, and chronic disease management;

3) Ensuring that enrollees with chronic diseases or complex health problems have access to care management and disease management through CCNC networks;

4) An emphasis on wellness, health promotion, and personal responsibility;

5) Provider reimbursement for low-income populations with incomes <200% FPG at lower levels than commercial rates;

6) A requirement that small employers that purchase health insurance coverage through this public-private partnership also offer Section 125 plans.[l]

North Carolina has one of the highest infant mortality rates in the country, ranking 45th in the nation in 2005.

The Health Access Study Group also recommended that the state explore a more limited 1115 Medicaid waiver for women who have had a prior high-risk birth. North Carolina has one of the highest infant mortality rates in the country, ranking 45th in the nation in 2005.[10] This is due, in part, to the number of children who are born preterm. Infants born before their 34th week have a much higher likelihood of being low or very low-birthweight (less than 1500 grams for very low-birthweight), and being born with congenital abnormalities. In 2005, among North Carolina Medicaid births there were 2,140 infants born prematurely (under 34 weeks), 1,217 infants born who were very low birthweight (under 1500 grams), and 1,622 infants born with congenital abnormalities. There were also 263 neonatal infant deaths. In total, there were 3,523 unduplicated high-risk births.

Having a prior preterm birth is one of the strongest predictors of preterm birth.[11] That is because many of the factors contributing to preterm birth, such as chronic illnesses or poor health status, continue after the delivery. North Carolina already has an 1115 family planning waiver that provides family planning services to women with incomes up to 185% FPG.[m] Under the terms of the federal waiver, the state can only cover family planning services and very limited treatment of sexually transmitted diseases. The Medicaid family planning waiver cannot be expanded to provide more comprehensive coverage to women to help them manage chronic

l Section 125 plans are described more fully in Chapter 6.

m The family planning waiver provides family planning services to men between the ages of 19 and 60 and women between the ages of 19 and 55 with incomes below 185% FPG. There is no resource test for this program.

illnesses so that they can be healthy for a subsequent birth. Women who have had a high-risk pregnancy should be provided interconceptional care that includes, at a minimum, treatment of chronic illnesses (such as diabetes or substance abuse), infections, depression, genetic testing, and counseling for diet.[12]

Medicaid pays anywhere from eight to 15 times more for a high-risk birth than for a normal birth. (See Table 5.2.) The state can reduce the number of high-risk births by improving the interconceptional care of the mother. Dunlop et al. conducted a study to determine whether providing interconceptional care to women who had a prior preterm birth would improve subsequent birth outcomes.[13] Study participants were provided medical, dental, and supportive services for two years following their initial delivery. Dunlop found that the women who did not receive the interconceptional care (control group) had 3.5 times as many adverse pregnancy outcomes and 2.6 times as many repeat high-risk pregnancies as the women who were offered comprehensive services.

The state can reduce the number of high-risk births by improving the interconceptional care of the mother.

Table 5.2
Medicaid Pays 8-15 Times More for High-Risk Births than for Normal Births (365 days, 2005)

	Birth with Risk Factor		Normal Birth without Risk Factor	
Risk Factor	Number	Average Medicaid cost first year of life	Number	Average Medicaid cost first year of life
Preterm Birth (less than 34 weeks)	2,140	$44,738.41	47,241	$4,065.00
Very Low Birth Weight (<1500 grams)	1,217	$63,877.32	48,164	$4,360.85
Congenital Abnormality	1,622	$34,713.15	47,759	$4,846.63
Neonatal Infant Death (within 28 days of birth)	263	$16,581.19	49,118	$5,770.06
Total At-risk Birth	3,523	$36.976.61	45,858	$3,434.65

Source: Ross DC, Horn A, and Marks C; Kaiser Commission on Medicaid and the Uninsured. Health Coverage for Children and Families in Medicaid and SCHIP: State Efforts Face New Hurdles. http://kff.org/medicaid/upload/7740_ES.pdf. Accessed January 5, 2009. Based on a family of three in 2008.

If North Carolina is not able to expand Medicaid coverage to all low-income adults, the Health Access Study Group recommends a more limited expansion to women who have had a high-risk pregnancy in the prior two years. In order to improve birth outcomes, North Carolina should develop an 1115 waiver to provide interconceptional care for up to two years for all Medicaid-eligible women with incomes up to 185% FPG who have a high-risk birth. Therefore, the Health Access Study Group recommends:

Recommendation 5.4 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should direct the Division of Medical Assistance (DMA) to seek a Medicaid Section 1115 waiver or implement other Medicaid options to provide interconceptional coverage to low-income women with incomes below 185% of the federal poverty guidelines who have had a high-risk birth. (For purposes of this recommendation, high-risk births are those with infants weighing less than 1500 grams, born less than 34 weeks gestation, born with a congenital anomaly, and/or who has died in the neonatal period (first 28 days of life) within the past two years).

a) **Interconceptional care should be limited to two years following the birth, or until the subsequent birth, whichever occurs sooner.**

b) **DMA should develop a benefit package to improve interconceptional care in order to decrease poor birth outcomes in subsequent pregnancies.**

c) **DMA should explore whether the cost savings from improved health outcomes will offset the cost of providing Medicaid coverage to this targeted population.**

Subsidizing the Costs Of Coverage in the High-Risk Pool

In 2007, the North Carolina General Assembly enacted legislation to create the North Carolina Health Insurance Risk Pool (now known as Inclusive Health).[n] The risk pool provides coverage to individuals who cannot obtain affordable health insurance coverage in the non-group (individual) market because they have a pre-existing medical condition. Benefits are similar to those available in the non-group market, and have annual deductibles starting at $1,000 and a lifetime maximum of $1,000,000. Premiums are set at 175% of the average premium that a person with a standard health risk would pay for similar coverage. Premiums vary by age, gender, and smoker status.

Under the legislation, the Pool's board is required to review methods for providing a premium subsidy on a sliding scale basis for individuals with incomes up to 300% FPG.[o] North Carolina is one of 35 states with a health insurance risk pool. Fourteen of these states provide additional subsidies to help low-income individuals pay for the high-risk pool premium.[14] State pools with low-income subsidies tend to have higher penetration than those without a low-income subsidy. On average, pools with low-income subsidies cover roughly 0.2% of the state's total population and 1.5% of the state's uninsured, compared to less than 0.1% of the population and 0.4% of the uninsured in states with no low-income subsidies.

On average, high risk pools with low-income subsidies cover roughly 0.2% of the state's total population and 1.5% of the state's uninsured, compared to less than 0.1% of the population and 0.4% of the uninsured in states with no low-income subsidies.

n NCGS §58-50-180.
o NCGS §58-50-255.

Premium subsidies in most states provide limited discounts to low-income individuals. The goal is to help make premiums affordable, but to keep the premiums above the standard rate so that the subsidized product does not compete with the private insurance market. Leif and Associates, the actuaries for Inclusive Health, estimated that it would cost $1 million for every 500 low-income people enrolling in the high-risk pool.[p,15] Leif and Associates assumed that the high-risk pool will cover approximately 9,000 people once fully implemented without a premium subsidy. If North Carolina's experience is similar to other states, we might expect an additional 9,000 people to be covered with a premium subsidy. The total annual cost for this premium subsidy would be $18 million/year.

Recommendation 5.5

The North Carolina General Assembly should revise North Carolina General Statute §58-50-180(d) to clarify that the North Carolina Health Insurance Risk Pool has the legal authority to offer premium subsidies.

a) **The North Carolina General Assembly should appropriate $18 million in recurring funds to help subsidize, on a sliding-scale basis, the Pool premium for low-income persons with incomes below 300% of the federal poverty guidelines.**

b) **The Pool should pursue sources of funding for premium subsidies, including but not limited to philanthropic foundations, to supplement any state funds appropriated for that purpose.**

p Leif and Associates assumed a 43% premium subsidy for individuals with incomes between below 200% FPG, and a 20% subsidy for people with incomes between 200%-300% FPG. This would reduce the premiums to 100% of the standard risk for the lower income individuals, and 140% of the standard risk for people with incomes between 200%-300% FPG. The estimate assumes an equal number of participants from each of the two income categories.

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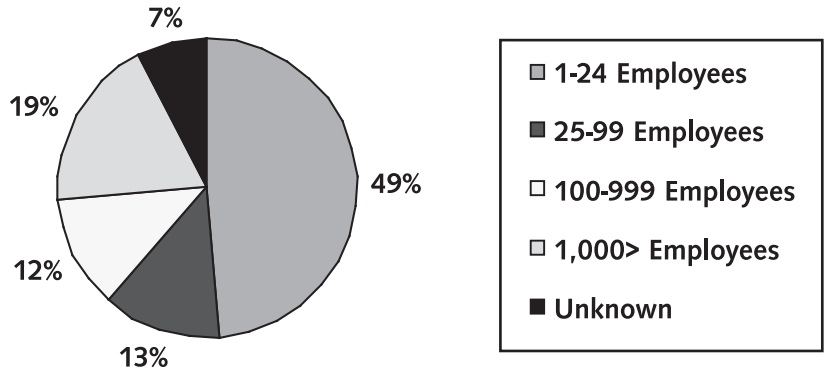
Most uninsured adults have some connection to the workforce. More than half of North Carolina's uninsured adults (ages 19–64) are full-time workers and nearly three-quarters are in a family with at least one full-time worker.[a] Uninsured workers are disproportionately employed by small firms. Although they comprise about one-quarter of all full-time workers, employees of small firms comprise nearly half of North Carolina's uninsured full-time workers. (See Figure 6.1.) Nearly one-third of workers in firms with fewer than 25 employees are uninsured, compared to fewer than 10% of employees in firms with more than 1,000 employees.

Figure 6.1
Employees of Small Firms Comprise Nearly Half of North Carolina's Uninsured, Full-Time Workers



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

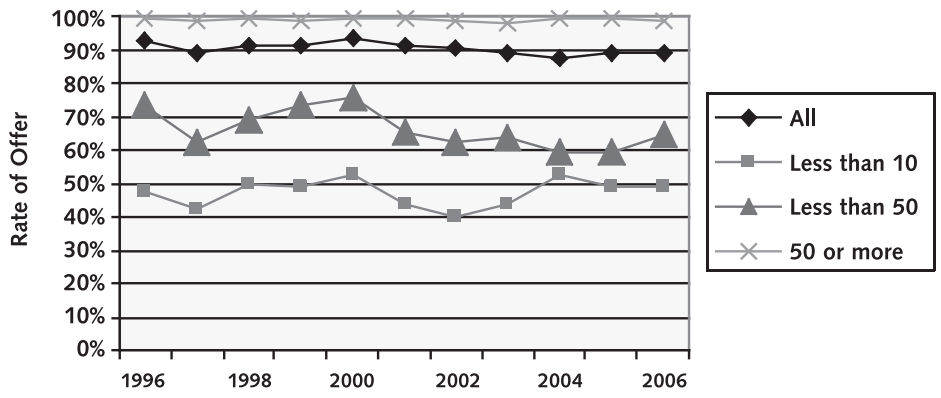
Since 1999-2000, the number of uninsured workers in firms with fewer than 25 employees has increased by 38%, from 244,000 to 337,000.

Small firms are much less likely to offer health insurance to their workers than larger firms. In North Carolina, more than 98% of full-time employees working in firms with more than 50 employees are offered employer-sponsored insurance, compared to less than 50% of those in firms with fewer than 10 employees. (See Figure 6.2.)

Since 1999-2000, the number of uninsured workers in firms with fewer than 25 employees has increased by 38%, from 244,000 to 337,000. At the same time, the number of uninsured workers in firms with greater than 1,000 employees has decreased four percent from 123,000 to 118,000. (See Figure 6.3.)

a Unless otherwise noted, all data on the uninsured are based on North Carolina Institute of Medicine analysis of the Current Population Survey's Annual Social and Economic Supplement, published by the US Census Bureau.

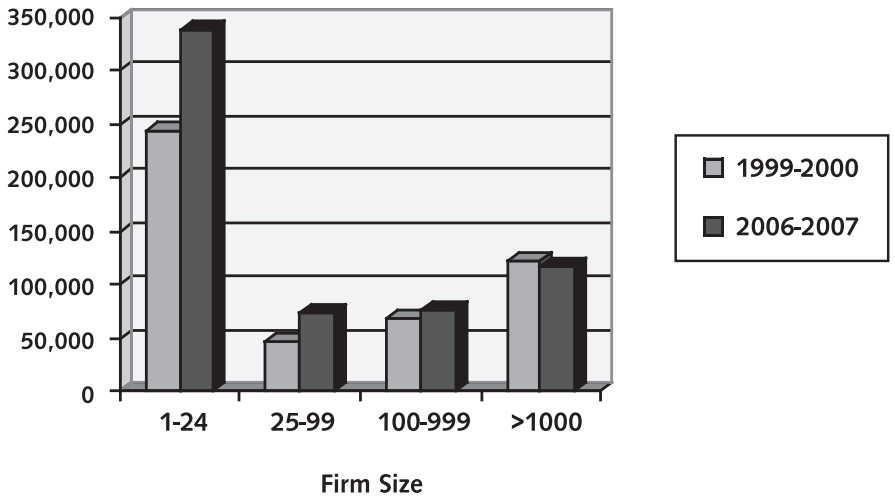
Figure 6.2
Small Firms are Less Likely to Offer Health Insurance to Full-Time Employees



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

Among firms with fewer than 50 employees, the percent who offer health insurance to their employees is lower in North Carolina (62%) than nationally (68%).

Figure 6.3
Number of Uninsured, Full-Time Workers in Firms with Less than 25 Employees has Increased



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2006-2007.

Among firms with fewer than 50 employees, the percent who offer health insurance to their employees is lower in North Carolina (62%) than nationally (68%). This lower rate of offer is offset somewhat by a higher percent of employees who are eligible for employer-sponsored health insurance who actually enroll.[1] (See Table 6.1.) Only 20% of employees who are eligible for coverage do not enroll, and many of the employees who decline may be covered by other sources (such as their spouse). Roughly 40% of those who work full-time for a small employer and who

Table 6.1
Own-Employer Coverage Status for Full-Time Workers at Establishments with Fewer than 50 Employees

	North Carolina	United States
Firm Does Not Offer	38%	32%
Employee Ineligible	4%	7%
Employee Eligible but Declines	11%	13%
Employee Eligible and Enrolled	47%	48%
TOTAL	100%	100%

Source: Estimates derived from Various Tables, Medical Expenditure Panel Survey Insurance Component, 2005-2006. Office of the Assistant Secretary for Planning and Evaluation, Department of Health and Human Services. Medical Expenditures Panel Survey, 2005-2006. http://www.meps.ahrq.gov/mepsweb/. Accessed December 21, 2008

have employer-sponsored insurance (ESI) are covered under someone else's plan (i.e. as a dependent). Notably, employees without ESI are more than three times as likely (38% to 11%) to be employed in a firm that does not offer insurance as they are to have declined the coverage—that is, the employer's decision whether to offer is more often the barrier to ESI coverage than the employee's decision whether to enroll.

The primary reason for the difference in offer rates between small and large firms is that small employers face higher premium costs than their counterparts in the large group market. The average premium for small (<50 employees) North Carolina firms in 2005-2006 was $4,151, which was $313 higher than the average premium for firms with 50 or more employees ($3,838).[1] These higher premiums are a result of many factors including:[2]

- ***Higher administrative loads:*** Administration costs are 25% of the base premium, on average, for small groups compared to 8%-9% for large groups.
- ***More volatile risk:*** A single high cost event can adversely impact on the premiums charged to small groups, as smaller groups have less ability to pool the high costs among a large number of employees. While North Carolina laws somewhat mitigate the amount by which premiums can be adjusted due to the health claims of the group members, small group coverage is still more expensive than for larger groups for comparable coverage.[b]
- ***Higher risk of adverse selection:*** As costs increase, fewer healthy individuals will choose to enroll, further increasing the cost to those who remain in the group.

The average premium for small (<50 employees) North Carolina firms in 2005-2006 was $4,151, which was $313 higher than the average premium for firms with 50 or more employees ($3,838).

b North Carolina small group laws require insurers to use a community rate for all the small groups they cover as the starting point in setting rates. Insurers can then vary the rates charged for any specific employer based on the age and sex of the employees and geographic location. Insurers can also adjust rates up or down by 25%, based on the claims experience of the specific group.

In addition to facing higher premiums, small employers tend to be more sensitive to costs than larger employers. Research has shown that for every 10% increase in premiums, the probability that a business will offer insurance coverage to its employees is reduced by seven percentage points for firms with less than 100 employees and two percentage points for firms with between 100 and 1,000 employees. Large firms, with greater than 1,000 employees, have very little sensitivity to premium costs.[3]

The Health Access Study Group evaluated several strategies for decreasing the number of low-income uninsured workers in small firms. These strategies include the premium assistance programs discussed in Chapter 5, as well as other strategies discussed below. These additional strategies include using Section 125 plans to lower the cost of insurance to workers in small firms, eliminating groups of one from the small group market, and using public subsidies to lower the cost of health insurance for small employers.

Research has shown that for every 10% increase in premiums, the probability that a business will offer insurance coverage to its employees is reduced by seven percentage points for firms with less than 100 employees and two percentage points for firms between 100 and 1,000 employees.

Section 125 Plans

One advantage of enrolling in employer-sponsored insurance (ESI) is an employee's ability to exclude health insurance premiums from his or her taxable wage base. In order to be eligible for this favorable tax treatment, the employer must establish a Section 125 (§125), or cafeteria plan. Under these plans, an employee's portion of health insurance premiums are sheltered from federal income taxes, Social Security and Medicare payroll taxes (FICA), and North Carolina state income taxes. Section 125 plans also reduce the FICA tax liability of the employer even if the employer does not contribute to the premium cost. (See Table 6.2 for an example of the tax benefits of a §125plan.) The primary benefit of a §125 plan is having the premium payments excluded from federal income tax. As such, the program has a larger benefit for those in higher income brackets.

In addition to providing a tax shelter for employee payments towards group employer coverage, §125 plans can also be used to shelter employee payments towards individual health insurance that meet certain requirements and Consolidated Omnibus Budget Reconciliation Act (COBRA) coverage from a former employer.[4] Section 125 plans that are used only to shelter employee health premiums are called premium-only plans. Table 6.2 provides an example of tax savings under a premium-only plan. Note that the actual amount of savings will depend on the family's income and tax filing status, as well as the health insurance premium amount. The employer also benefits from establishing a §125 plan, regardless of whether the employer pays for part of the premium price. If an employee uses a §125 plan to purchase insurance in the private market, his or her taxable income will be reduced, thereby reducing the employer's share of the FICA taxes. The decrease in FICA taxes may be sufficient to offset any costs an employer incurs in establishing the §125 plan.

Table 6.2
Sample Tax Savings from Section 125 Tax Sheltering

	Monthly	Annually
Employee premium (before tax savings)	**$250**	**$3,000**
Tax savings through Section 125 plan:		
■ Federal income tax @15%	$38	$450
■ FICA tax @ 7.65%	$19	$230
■ State income tax @6%	$15	$180
Total employee tax savings	$72	$860
Net cost of coverage after tax savings	$178	$2,140
Percentage savings	29%	29%
Employer savings (from reduction in FICA)	$19	$239

Source: Calculations by the North Carolina Institute of Medicine. Data from: Neuschler E. Section 125 ("cafeteria") plans. Presented to: the North Carolina Institute of Medicine Health Access Study Group; December 10, 2008; Morrisville, NC.

Section 125 plans are not available to self-employed individuals or the unemployed. Small firms offering insurance are less likely to have §125 plans than larger employers. Nationally, 92% of employees in firms with 100 or more workers offering health coverage have a §125 plan, compared to only 35% of employees in firms with 2-9 workers and 50% of employees in firms with 10-24 workers.[5] In addition to lowering the cost of health insurance to an employee, the use of §125 plans can also help lower the cost of state subsidy programs (such as that proposed by the Study Group in Chapter 5), by reducing the net cost of the insurance premium that needs to be subsidized.[4]

Nationally, 92% of employees in firms with 100 or more workers offering health coverage have a section 125 plan, compared to only 35% of employees in firms with 2-9 workers and 50% of employees in firms with 10-24 workers.

There are several approaches states have taken to increase the number of employers offering §125 plans. Some states have mandated that certain employers offer §125 plans to employees with certain characteristics (e.g. employees who purchase non-group coverage). Other states have mandated that firms with certain characteristics (e.g. firms with at least 10 employees) provide a §125 plan, and some states require employers who participate in a specific state program to offer a §125 plan (e.g. a state-subsidized program or health insurance exchange).[4]

Study group members did not believe that requiring §125 plans to be offered would reduce premium prices sufficiently to enable many uninsured workers to purchase coverage in the non-group market without an employer contribution. In addition, there were some questions raised about whether health plans offered in the non-group market would meet the requirements for a §125 eligible health plan.[c] However,

c The state non-group laws must comport with the federal Health Insurance Portability and Accountability Act preventing discrimination based on health status to be able to use a §125 plan to shelter premiums from federal and state income taxes. (Butler PA; California HealthCare Foundation. Employer Cafeteria Plans: states' legal and policy issues. http://www.chcf.org/documents/insurance/EmployerCafeteriaPlans.pdf. Accessed January 20, 2009.)

the Study Group did not need to resolve this issue, as members did not think that the tax subsidy would be enough to enable the uninsured to purchase coverage in the non-group market.

Although the Study Group did not recommend that all employers be required to offer §125 plans, the group did recommend that small employers that purchase the public-private partnership Community Care of North Carolina-based plan, described in Chapter 5, be required to offer a §125 plan. This will help reduce the costs of the premium assistance to the state. (Please refer to Chapter 5, Recommendation 5.3 for recommendation regarding §125 plans).

Small Group Reform

In the 1990's, small group health reform laws were enacted by the North Carolina General Assembly to help stabilize the small group market. These reforms apply to self-employed groups of one as well as small businesses with 50 or fewer employees...By limiting the variance in premiums due to health status, the reforms effectively shift costs from the unhealthy to the healthy groups.

In the 1990s, small group health reform laws were enacted by the North Carolina General Assembly to help stabilize the small group market. These reforms apply to self-employed groups of one as well as small businesses with 50 or fewer employees.[d] The reforms include a requirement that insurance carriers provide insurance to small groups on a guaranteed issue basis, meaning that insurance carriers cannot deny coverage to any small groups or individuals within those groups due to health status. In addition, the reforms required that insurance carriers calculate premiums for small groups using an adjusted-community rating methodology. Under this methodology, small group premiums can vary based on the group's age, gender, industry, family composition, and geographic mix. Health status can be taken into account only on a whole group basis and only by a limited amount; specifically, rates for a small group cannot vary by more than 25% from groups with identical age, gender, industry, family composition, and geographic mix.[e] By limiting the variance in premiums due to health status, the reforms effectively shift costs from the unhealthy to the healthy groups. In other words, there is a cap on how much insurers can charge unhealthy groups, the cost of which is shifted to the healthier groups. This shift can induce healthier groups to drop coverage which results in an increase in average medical expenditures (and thus premiums) across the small group market.

In contrast to the small group market, there is no guaranteed issue requirement in the individual insurance market, and carriers can base individual premiums on the health status of those individuals applying for coverage. Because of the difference in these two insurance markets, insurance premiums for healthy individuals may be lower in the individual market than in the small group market. This creates a problem for the self-employed groups of one, who can choose between coverage in these two insurance markets. If the healthy groups of one enroll in the individual market, that leaves the sicker groups of one in the small group market, which drives up the premiums in that market.

Though we would expect the elimination of groups of one from the small group market to decrease the premiums in that market, the true impact of this type of change is unknown. Additionally, the current groups of one in the small group

d NCGS 58-50-110.
e NCGS 50-58-125.

market would likely face higher premiums in the individual market which may cause them to go without insurance. Another potential consequence is that some of these individuals may qualify for and enroll in Inclusive Health, the state's high-risk pool, which could drive up costs for that program in ways that were not anticipated in its creation. Given these uncertainties, the Health Access Study Group recommends:

Recommendation 6.1

The North Carolina Department of Insurance should obtain from insurers the necessary data to study how changing the existing small group rating laws to eliminate self-employed groups of one impacts small group rates. The Department of Insurance should use the data to study:

a) The impact of changes on the cost of insurance for small groups of size 2-50, for those who, under current small group law, qualify as self-employed groups of one, and for enrollees of the high-risk pool.

b) The impact on the total number of covered lives in the small group market and the high-risk pool.

Employer/Employee Subsidies

Another approach to increasing the number of employers who offer health insurance to their employees is to provide subsidies to employers or employees. These subsidies could take several forms including tax credits, premium assistance, and reinsurance.

Tax Credits

North Carolina has a tax credit for businesses that employ 25 or fewer employees and pay at least 50% of the cost of a health plan that meets or exceeds the basic provisions of the basic health care plan recommended by the Small Employer Carrier Committee. The tax credit is equal to $250 per year for each employee whose total annual wages are $40,000 or less.[f] A survey of 5,000 small businesses in North Carolina found that 63% of businesses were not aware of the tax credit, and that the credit would need to be increased to roughly $1,000 to induce them to offer health insurance.[6] Note that the tax credits are not targeted exclusively to firms that previously had not offered insurance, so some of the tax credits are being used to support firms that previously provided health insurance to their employees.

A survey of 5,000 small businesses in North Carolina found that 63% of businesses were not aware of the North Carolina tax credit, and that the credit would need to be increased to roughly $1,000 to induce them to offer health insurance.

Other states have also tried to use tax credits to encourage small businesses to offer insurance. Montana, for example, provides refundable tax credits to small employers (2-9 employees) with employees earning $75,000 or less per year (excluding the owner) who already provide health insurance coverage to their employees. The tax credits are $100 per month for each of the employee and spouse portions of the premiums and $40 per month for the dependent portion. The tax credit is $125 per month for groups with an average age of 45 or higher. The credit cannot exceed 50% of the premiums paid. Small employers who have

f NCGS 105-129.16E.

not offered health insurance in 24 months are eligible to participate in a subsidized insurance pool. This program is also available on a first-come, first-serve basis. The program is funded through a $1 increase in the cigarette tax. Approximately 40% of the funding is used for tax credits (groups previously insured) and 60% is used for the subsidized pool (groups previously not offering insurance).[7]

Premium Assistance

Premium assistance programs provide a direct subsidy for the cost of employer-sponsored health insurance. They can be targeted to the employer or the employee and can target those who were previously uninsured. Federal Medicaid and State Children's Health Insurance Program matching funds can be used for these programs. Premium assistance programs are described in more detail in Chapter 5.

Premium assistance programs provide a direct subsidy for the cost of employer-sponsored health insurance. They can be targeted to the employer or employee and can target those who were previously uninsured.

Reinsurance

Reinsurance is used to lower premiums in the small group market by eliminating some of the volatility related to high-cost individuals. These programs work by effectively providing insurance to insurance carriers by compensating for a portion of the cost of high-cost individuals. Public reinsurance programs work to lower premium costs in the small group market, inducing more employers to join and eliminating some of the adverse selection which occurs when healthy groups and individuals opt-out of the program because it is too expensive.

Healthy NY serves as a model for states looking to implement a reinsurance program. Healthy NY is a state-subsidized reinsurance program that reimburses private health plans for 90% of health insurance claims between $5,000 and $75,000 for eligible individuals and groups.[8] Employers are eligible if they meet the following requirements:

- They have fewer than 50 employees, 30% of whom earn less than a threshold which is indexed annually ($36,500 in 2007);
- They contribute at least 50% of the premium cost;
- At least 50% of eligible employees participate in the program; and
- They have not offered health insurance to their employees in the last 12 months.

Sole proprietors and other working individuals with incomes under 250% of the federal poverty guidelines are also eligible to participate if they have not had health insurance in the last 12 months. A standard benefit plan, with an optional drug benefit, is available through private insurers. All premiums for the program are community rated and have no adjustments. Healthy NY had nearly 150,000 members in 2007, 31% of which were employees of small firms.[8]

In the 2005-2006 Session of the North Carolina General Assembly, Senator Kerr introduced a bill that would have created "Healthy NC," a program modeled on Healthy NY. Under the proposed program, the state would reimburse health plans for 90% of the cost of enrollees with annual health care costs between $15,000 and $75,000, with the expectation that health care premiums would decrease by

30%. The program targeted working, uninsured adults and their dependents. Small employers could have participated if they had 25 or fewer employees, 30% of whom earned $12 per hour or less. In addition, the employer could not have offered health insurance in the past 12 months, 75% of employees must have participated, and the employer must have contributed at least 50% of the premium. Self-employed and other employed individuals were also eligible for the program if their family incomes were at or less than 250% FPG, they did not have insurance for the past 12 months, and they were not currently eligible for employer subsidized health insurance. The program would have used a standard benefit design offered through multiple private insurers. Premiums would have been the same for both the small group and individual participants and would have been calculated in a fashion similar to that used in the current small group market (as described in the Small Group Reform section).

The actuarial firm Milliman provided actuarial projections of the proposed plan, indicating that the program would not have been feasible in North Carolina under the market conditions existing then. Specifically, the projections indicated that the different rating structures across the individual and Healthy NC markets would lead to severe adverse selection, resulting in premium increases.[9] In other words, Milliman estimated that small group premiums under the Healthy NC program would increase rather than decrease, because the program would attract unhealthy individuals who could get insurance on the individual market only at very high premium costs. As a result, there would be no small employer participants in the program because they could get lower premiums in the regular small group market. The total cost of this program was projected to be $12.3 million for an estimated 5,100 individual enrollees.

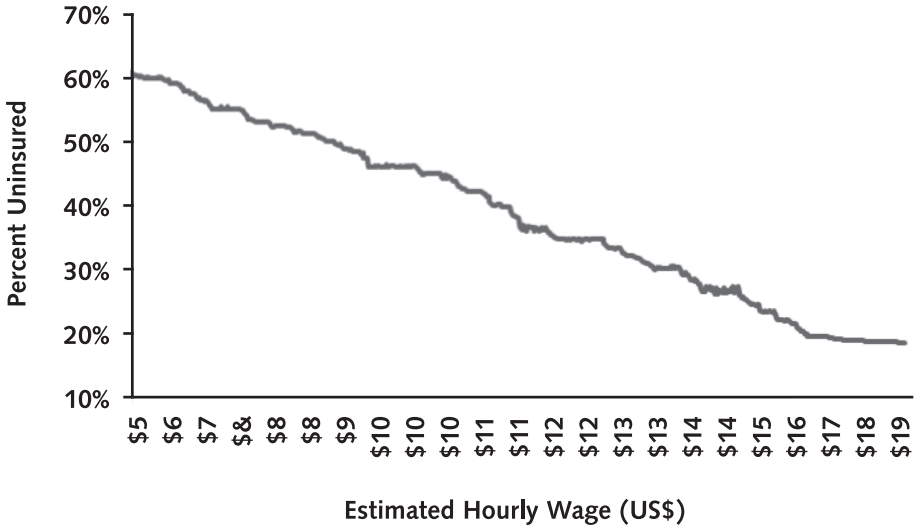
Based of this result, Milliman also estimated the impact of limiting reinsurance to the small group market. Under this scenario, reinsurance would have reduced small group premiums by 17-19%. The total program cost in 2012 was projected to be $11.3 million for an estimated 8,600 enrollees, which exceeded the reinsurance subsidy provided by the state. This would occur because premiums in the individual market are experience rated in North Carolina, whereas the Healthy NC program premiums would combine a portion of the individual and small group market using adjusted-community rating.

One key element driving the higher costs in the Milliman study was the lack of a state high-risk pool. Effectively, Healthy NC would have operated as the state's high-risk pool and covered unhealthy individuals. With North Carolina's operation of the high-risk pool beginning January 2009, the environment is different than that at the time of the Milliman study. Nevertheless, the Study Group was more interested in premium assistance programs than in reinsurance programs for one simple reason: premium assistance programs can target low-wage individuals more effectively than reinsurance programs.

One focus of the Study Group was defining the wage below which full-time workers should receive subsidies. To help guide the recommendations, the Study Group considered the evidence of the relationship between wage and insurance coverage.

Figure 6.4 plots the percent uninsured against hourly wage. Seventeen dollars appears to be a point at which the rate of uninsurance stabilizes. Thus, $17 was the recommended ceiling for subsidies, which translates roughly to $35,000/year for a full-time employee.

Figure 6.4
Seventeen Dollars an Hour is the Approximate Hourly Wage at Which Insurance Coverage Levels Off for Full-Time Workers at Small Firms



Source: North Carolina Institute of Medicine. Analysis of the US Census Bureau, Current Population Survey's Annual Social and Economic Supplement, 2005-2007, full-time workers in small firms (<25 employees).

The Health Access Study Group recommends:

Recommendation 6.2

a) The North Carolina General Assembly should provide tax subsidies or otherwise subsidize the cost of health insurance premiums for small employers. The subsidy may mirror the following example, but successful programs in other states should be reviewed to determine the appropriate levels of subsidy, income level, and employee participation to ensure that most employers and employees participate in purchasing health insurance.

b) Funding should be targeted to small employers with 15 or fewer eligible employees, at least 30% of whom are low-wage workers earning $35,000 or less per year. The North Carolina General Assembly should provide subsidies that will reduce total premiums by 30% for the low-wage workers. To qualify for a subsidy:

1) Small employers that have not previously offered health insurance coverage must pay at least 50% of the costs of employee coverage and enroll at least 75% of eligible employees who do not have other creditable coverage.

2) Small employers that currently offer health insurance coverage must pay at least 50% of the cost of employee coverage, and enroll 90% of eligible employees who do not have other creditable coverage.

3) Health plans must include medical management of resources to reduce cost escalation.

As an illustration of one way this might be designed, consider the following example. (See Table 6.4.) The pre-subsidy column includes current (2005-2006) premium values for small firms (<50 employees). The employer pays, on average, $3,083 per covered employee per year and the employee pays $700 for a total premium of $3,783. If the 30% subsidy were enacted, the amounts paid per high-wage (above $35,000 per year) employee remain the same. For low-wage employees, the government subsidizes 30% of the total premium, or $1,135. There are a number of possible ways to apportion the subsidy between the employer and employee, illustrated by Options 1, 2, and 3. Option 1 demonstrates the allocation if the subsidy were applied against the employer share. The employee receives no decrease in premium, but the average employer share (assuming 50% of employees qualify) decreases by 18%. Option 2 applies the 30% subsidy proportionally between the employee and the employer; each receives a 30% discount. Here, the low-wage employee receives a 30% decrease and the average employer contribution falls by 15%. Finally, Option 3 allocates as much as possible towards the employee, and the employee pays $0. The employer receives a 7% average decrease.

There are many other options not illustrated here, including an employer making the minimum contribution outlined by the recommendation ($3,783 * 50% = $1,892), leaving the low-wage employee with $757. Furthermore, these values are only an illustration and premiums may be much larger than those used here. Different firms may choose different allocation options. Firms that have not previously offered may find Option 1 most appealing; firms that have had trouble meeting the minimum participation may find Option 3 most effective at enrolling low-wage employees.

Table 6.4
State Subsidies Can be Effective at Reducing Premiums for Employers and Employees

	Pre-subsidy		With subsidy		
			Option 1	Option 2	Option 3
Worker	*All*	*High-wage*	*Low-wage*	*Low-wage*	*Low-wage*
Employer (ER) share	$3,083	$3,083	$1,948	$2,158	$2,648
Employee (EE) share	$700	$700	$700	$490	$0
Government			$1,135	$1,135	$1,135
Total	$3,783	$3,783	$3,783	$3,783	$3,783
Min EE share (% of annual income)			2.0%	1.4%	0.0%
Average ER share			2516	2621	2866
(Percent reduction)			18%	15%	7%

Source: North Carolina Institute of Medicine. Analysis of Agency for Healthcare Research and Quality, Medical Expenditure Panel Survey, 2005 and 2006. Two-year weighted averages.

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People who are uninsured have greater difficulties obtaining needed health care services than individuals with insurance. As noted in Chapter 2, multiple studies have shown the adverse health consequences of being uninsured.[1-3] In comparison to people with health insurance coverage, the uninsured are less likely to receive clinical preventive services or care for their ongoing chronic illnesses. They are more likely to delay seeking care because of the costs, and therefore, are more likely to be diagnosed with severe health problems such as late stage cancer. They are also more likely to be hospitalized for preventable health problems. As a result, the uninsured are 25% more likely to die prematurely than those with health insurance.[1]

Access barriers have been growing in North Carolina over the last five years. The percentage of people who reported that they could not see a doctor when they needed to because of costs increased from 12% (2000) to 17.1% (2007). Further, the uninsured are far more likely to report this problem. In 2007, 47% of the uninsured reported that they could not see a physician because of cost, compared to approximately 10% of people with insurance coverage.[4,5] Although the lack of health insurance creates obstacles, it does not prevent the uninsured from receiving any care.

Although the lack of health insurance creates obstacles, it does not prevent the uninsured from receiving any care... There are numerous safety net health care organizations across the state with a legal obligation or mission to provide care to the uninsured.

North Carolina Safety Net Organizations

There are numerous safety net health care organizations across the state with a legal obligation or mission to provide care to the uninsured. Hospitals are the largest provider of care to the uninsured. Under the federal Emergency Medical Treatment and Active Labor Act (EMTALA), hospitals are required to screen and stabilize anyone who presents in the emergency department, regardless of ability to pay. However, emergency departments are not the appropriate place to provide routine or non-urgent care. This care would be better provided in an outpatient primary care setting.

There are other safety net organizations that are organized to provide free or reduced cost preventive, primary, and acute care, as well as chronic disease management to the uninsured.[6] These organizations include:

- ***Federally qualified health centers (FQHCs):*** FQHCs, which include community and migrant health centers, as well as health care for homeless programs, are the most comprehensive of the primary care providers for the uninsured. In 2007, there were 26 FQHCs in North Carolina with 125 different delivery sites, providing care to 194,845 uninsured individuals. FQHCs provide care to the uninsured on a sliding fee-scale basis. FQHCs receive some federal funds to help offset some of the costs to the uninsured, but the federal funds only cover, on average, about 32% of operating costs. All of the FQHCs provide comprehensive primary care services and other medical and non-medical services to help people access care (such as transportation and translation). Most also offer dental and pharmacy

services. FQHCs offer their patients the continuity of care, comprehensive array of services, and high quality expected of a medical home. In addition to the 26 FQHCs, there are 2 FQHC-look-a-likes that operate similarly to FQHCs but do not receive federal operating funds.[a]

- ***State-funded rural health centers:*** State-funded rural health centers are community-owned primary care practices that receive some financial support from the North Carolina Office of Rural Health and Community Care to help offset the cost of care to the uninsured. State-funded rural health centers earn operational support through the Medical Access Plan, a sliding scale program for uninsured patients with incomes below 200% of the federal poverty guidelines (FPG). In SFY 2008, there were 28 state funded rural health centers that received $2.6 million in state funding, of which $1.7 million was for direct indigent care. These centers provided care to 5,400 uninsured people in 2008. All of these centers are located in underserved rural areas.

- ***Public health departments:*** Public health departments generally offer more limited clinical services that focus on prevention and communicable disease control. However, 36 (42%) of the 85 health departments provide primary care to adults, and 51 (60%) provide primary care to children. In addition, 44 health departments offer dental services. Public health departments do not receive any specific state or federal funding to offset the costs of providing comprehensive primary care to the uninsured, but they do receive federal, state, or local funding to pay for the costs of preventive services.

- ***Free clinics:*** Free clinics generally provide more limited primary care and preventive services and have more limited hours of operation than regular clinics. There were 77 free clinics in different communities across the state in 2007, serving approximately 71,973 uninsured patients. Services are provided for free to low-income, uninsured individuals. Free clinics are generally supported through private donations and community fund raising. They rely on the donated effort of local providers as well as services and supplies donated by the community. Blue Cross Blue Shield Association of North Carolina supports free clinics, but the funding is not sufficient to meet the ongoing operational costs of any of the free clinics.[b]

a Federally qualified health center (FQHC) look-alikes receive some other benefits provided to FQHCs, including access to low-cost medications and higher reimbursement from Medicaid and Medicare. Sometimes new organizations attempting to obtain FQHC status first apply to be a FQHC look-alike before converting to FQHC status.

b Blue Cross Blue Shield Association of North Carolina has provided a $10 million grant to the North Carolina Association of Free Clinics over 5 years to expand and support free clinics (2008-2013). On average, each free clinic receives approximately $30,000, which is not enough to support one-full time administrative staff.

- ***Other nonprofit safety net organizations:*** There are several other types of safety net providers that offer some preventive, primary, acute, or chronic care services to the uninsured. Some of these organizations are unique to specific communities; others are outpatient clinics operated by hospitals. In 2007, there were 53 school-based or school-linked health clinics providing services to students and/or families.

Existing public and private funding is insufficient to meet the needs of the growing number of uninsured. Some safety net organizations are having more difficulty than others remaining financially viable given their patient mix. For example, low-income, uninsured patients comprise an average of 51% of the patient population for community health centers. In some centers, more than 80% of the patient population is low-income uninsured. Those organizations serving a larger proportion of uninsured are doing so without commensurate financial support.

Some safety net organizations are having more difficulty than others remaining financially viable given their patient mix... Those organizations serving a larger proportion of uninsured are doing so without commensurate financial support.

Private physicians also provide care to the uninsured. However, on the national level, the number of physicians who reported providing charity care has declined. Between 1997-2005, the percentage of physicians who reported providing charity care declined from 76% to 68.2%.[7] While North Carolina data are not available, there are some positive indications that North Carolina physicians are still committed to providing charity care. Many volunteer through free clinics or at other safety net organizations. Others provide care directly to the uninsured through their offices. Physicians who are part of medical school faculty often provide care to the uninsured in their teaching clinics. In addition, some private physicians have a contractual commitment to provide care to the uninsured in their practices. For example, the North Carolina Medical Society Foundation (NCMSF) operates the Community Practitioner Program (CPP). The CPP offers loan repayment to physicians, physician assistants, and nurse practitioners in return for a commitment to practice in underserved areas. As part of their commitment, community practitioners must also agree to treat uninsured patients on a sliding scale basis. The CPP is currently supporting 83 practitioners. Data are not currently available on the numbers of uninsured they are treating.[c]

In addition to the safety net organizations and private providers who offer preventive, primary care, and chronic care management, there are other organizations that offer more specialized services to the uninsured.

- ***Medication Assistance Programs:*** The Health and Wellness Trust Fund (HWTF) has given grants to establish medication assistance programs that help low-income, uninsured people apply for free medications through pharmaceutical assistance programs. The Health and Wellness Trust Fund is currently supporting 53 Medication Assistance Programs (MAP). In SFY 2008, these organizations helped 27,418 patients obtain more than $27 million in free medications. Since the inception of the

c The Community Practitioner Program (CPP) is in the process of collecting data on the numbers of uninsured seen by CPP practitioners, but data are not yet available.

MAP program in 2003, HWTF has awarded MAP grants to a total of 99 organizations. These organizations helped nearly 100,000 patients receive more than $146 million in free medications. In addition, The Duke Endowment and the North Carolina Foundation for Advanced Health Programs worked with the North Carolina Office of Rural Health and Community Care to develop the Medication Access and Review Program (MARP). This software helps link low-income uninsured to appropriate pharmaceutical assistance programs. The MARP software system is used by many of the Medication Assistance Programs and by other safety net organizations across the state. The Office of Rural Health and Community Care provides technical assistance for this software, supporting more than 135 sites utilizing the MARP software system.

In 2007, nearly 24% of all emergency department visits (or more than 900,000 visits) were by people who lacked insurance coverage...8% of all hospital services were provided to the uninsured.

- ***Hospital Services:*** Hospitals are a major source of health care for the uninsured. Many hospitals have charity care policies, providing free or reduced cost inpatient or outpatient services to the uninsured with incomes below certain prescribed income limits. In addition, all hospitals that have emergency departments provide some care to the uninsured. In 2007, nearly 24% of all emergency department visits (or more than 900,000 visits) were by people who lacked insurance coverage.[8] This constituted a 15% increase in visits by the uninsured since FY 2005. In addition, hospitals provide substantial inpatient services to the uninsured. More than 6.5% of all inpatient visits were for the uninsured. In total, 8% of all hospital services were provided to the uninsured.[9] This includes, but is not limited to, services provided through the emergency department, outpatient surgery or other outpatient clinics, laboratory and diagnostic services, and inpatient care. North Carolina hospitals incurred more than $850 million in uncompensated care costs provided to the uninsured in FY 2007.[d]
- ***Dental Safety Net Clinics:*** Many FQHCs and health departments operate safety net dental clinics that offer an array of dental services to the uninsured and/or low-income people who have Medicaid or NC Health Choice. In addition, some hospitals and other non-profit organizations offer dental services. There are more than 160 different safety net clinics in 75 counties across the state.[e]
- ***Behavioral Health Services:*** Local management entities (LMEs) help manage, coordinate, and arrange for mental health, developmental disabilities, and substance abuse services for certain people who meet the state's definition for priority or target populations. There are currently 24 LMEs covering all 100 counties.

d Uncompensated care includes charity care and bad debt.

e Data in the North Carolina Institute of Medicine safety net website, *www.nchealthcarehelp.org*, indicated that there were 161 different safety dental net clinics across the state. Most of these clinics were in public health departments (64), followed by federally qualified health centers (38) and free clinics (27). The majority of dental clinics (87) serve both adults and children, but 51 of the clinics are limited to serving children only, and 21 are limited to adults.

Nationally, data suggest that more than half of all the uninsured are unaware of safety net health care providers, even when the provider is within five miles of where the person lives.[10] Thus, the North Carolina Institute of Medicine created a website to provide information on available safety net organizations, by county, that provide free or reduced cost care to the uninsured. The website, *www.nchealthcarehelp.org*, provides information on safety net organizations that provide preventive, primary care, specialty care, pharmacy, dental, behavioral health, and enabling services (such as transportation and interpreter services). The website also includes hours of operation, services provided, geographic coverage area, and geographic reach of the different safety net organizations.

Despite the availability of many of these safety net organizations across the state, available data suggest that these providers do not have the capacity to meet the needs of the growing number of uninsured. The North Carolina Institute of Medicine estimated that only 25% of the uninsured were receiving services through primary care health care safety net organizations in 2003.[11] Recent data suggest some progress, but there are still significant unmet needs. As a result, many people without insurance rely on the emergency department when they need care. This is neither the appropriate nor the most cost-effective place to provide primary care services, and is contributing to the overcrowding of hospital emergency departments. And while private physicians help address the health care needs of the uninsured, they are unable to address all unmet needs.

Despite the availability of many of these safety net organizations across the state, available data suggest that these providers do not have the capacity to meet the needs of the growing number of uninsured.

In 2005, the North Carolina General Assembly created the NC Community Health Centers Grants program to begin to expand the availability of safety net services across the state.[12] Grants are distributed, on a competitive basis, to federally qualified health centers, state-designated rural health centers, free clinics, local health departments, school-based health centers, and other nonprofit organizations that provide primary and preventive services to low-income, uninsured patients. Funding can be used to increase access to preventive and primary care services; establish safety net services in counties where services do not currently exist; create new services or augment existing services provided to the uninsured, including preventive and primary care, dental services, pharmacy, and behavioral health; or increase the capacity necessary to serve the uninsured by enhancing or replacing facilities, equipment, or technologies.

The NC Community Health Centers Grants Program has been funded at different levels since it was created. Most of the funding has been in non-recurring funds. (See Table 7.1.)

Table 7.1
Funding for NC Community Health Centers Grants Program Has Been Largely Non-Recurring

	Recurring	Non-recurring
SFY 2005		$7 million
SFY 2006	$2 million	
SFY 2007	$2 million	$3 million
SFY 2008	$2 million	$5 million
SFY 2009	$2 million	$4 million

Source: Silberman P. Community collaborations to care for the uninsured. Presented to: the North Carolina Institute of Medicine Health Access Study Group; December 10, 2008; Morrisville, NC.

According to the North Carolina Office of Rural Health and Community Care, "if all new [Community Health Center Grants] project applications could have been funded, it is estimated that an additional 60,000 persons could have received improved access to health care this year."

Last year (SFY 2008), grant awards were given to 71 organizations.[13] In total, the funds are expected to serve 39,000 uninsured patients through a variety of projects, including:

- Expansion of core primary care services in Alamance, Bertie, Buncombe, Cabarrus, Caldwell, Cleveland, Davidson, Edgecombe, Franklin, Greene, Guilford, Henderson, Hertford, Hyde, Iredell, Johnston, Lincoln, Madison, Mecklenburg, New Hanover, Northampton, Robeson, Rowan, Rutherford, Surry, Wake, Wayne, and Yadkin counties;
- Expansion of behavioral and mental health services in Caldwell, Mecklenburg, and Northampton counties;
- Expansion of pharmaceutical services to the uninsured and medically-indigent in Alamance, Gaston, Iredell, Lincoln, and Mecklenburg counties; and
- Expansion of dental services to the uninsured and medically indigent in Alamance, Cabarrus, Caswell, Durham, Edgecombe, Gaston, Harnett, Iredell, Jackson, Mecklenburg, Person, Robeson, and Yadkin counties.

Because of funding limitations, all of the organizations seeking grant funds could not be funded. According to the North Carolina Office of Rural Health and Community Care, "if all new project applications could have been funded, it is estimated that an additional 60,000 persons could have received improved access to health care this year. Core primary care, pharmaceutical, and dental services would have been provided in an additional eighteen counties across the state."[13]

In the past, most of the funding has been distributed to support replacement of facilities, equipment, or technology. State funds have not been used as directly to expand the availability of services for the uninsured because funding has been largely non-recurring. Organizations generally need to hire staff to support large-scale expansion of safety net services; however, most organizations are reluctant to do this without a source of ongoing support. Further, the funding for safety net organizations has not kept pace with growing needs. State funding, for

example, has remained relatively constant between SFY 2005-2008, but the numbers of uninsured grew by more than 250,000 between 2004 and 2007.[14]

Additional recurring funding is needed to support safety net expansion. Because only about 25% of the uninsured are receiving care through safety net organizations, this suggests there may be as many as one million uninsured people in the state who are not linked to safety net organizations that serve as a medical home. To provide primary care services to these individuals would conservatively cost $150 million/year.[f] Realistically however, safety net organizations can not immediately ramp up to provide this level of support to the uninsured. Thus, the Health Access Study Group recommended phasing in expanded support to safety net organizations. In addition to the $2 million in recurring funds that are already in the state budget, the Study Group recommends:

Recommendation 7.1 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should increase funding to expand safety net capacity. The North Carolina General Assembly should:

a) Appropriate $8 million in new recurring funds in SFY 2010 to the Office of Rural Health and Community Care to support the Community Health Center Grants program. Funding should be used to expand the safety net infrastructure so that safety net organizations can hire staff to establish community-based medical homes and expand the availability of preventive, primary, chronic disease management, specialty, dental, behavioral health, and/or pharmacy services for the uninsured. Some of the funds should be targeted to support safety net organizations that are providing a disproportionate share of care to the uninsured.

Developing Systems of Care for the Uninsured

In most communities, the uninsured have more health care needs than can be addressed by existing safety net organizations. Further, the care that is available is often fragmented. Communities can provide more effective care and address more of the needs of the uninsured by developing systems of care that include specialty services, diagnostic services, hospitalizations, medications, and disease and care management. Several communities across the state have developed these community collaborations to address the health care needs of the uninsured. These collaborations typically involve primary care and specialty practitioners who agree to provide free or reduced cost care for some of the low-income, uninsured patients in their community. The collaborations include local hospitals who agree to provide inpatient and outpatient services for free to eligible individuals.

f This estimate is based on $150 per person, which is the amount that the Bureau of Primary Health Care suggests that community health centers use when submitting a budget to the Bureau of Primary Health Care for federal funding. The $150 is not expected to cover all of the patient's costs. The Bureau of Primary Health Care anticipates that community health centers will find other funds to support care for the uninsured (including state, local, or other support). In North Carolina, the actual cost of providing medical care per patient was $286/year (which was less than the national average of $386/medical patient).

While most of the community providers agree to provide services to eligible uninsured individuals for free or on a sliding scale, there are still costs in developing this system of care. Communities must be able to screen individuals to determine eligibility for these community programs (i.e. the individual must be uninsured and have incomes below certain community-established income guidelines). Communities may also need funding to help purchase medications that are not available through prescription assistance programs.

The goal is to develop systems of care similar to the model offered to Medicaid recipients through Community Care of North Carolina (CCNC). Ideally, the uninsured will be linked to a medical home and offered disease and care management to help them manage their chronic or complex health conditions. These community collaborations will also help patients access other health services (including specialty care and hospitalizations) and medications. As with CCNC, providers will be linked into statewide quality improvement efforts offering the best evidence-based care. The community collaborations will include all existing safety net organizations (including hospitals, private practitioners, safety net organizations, and others), which will engage in community-wide planning to reduce duplication, improve efficiency, and improve care for the uninsured. Ultimately, the care provided to the uninsured through these community collaborations should lead to improved health outcomes, and a reduction in preventable hospitalizations and unnecessary use of the emergency department.

Sixteen communities, covering 27 counties, received HeatlhNet funding in the first year. The Office of Rural Health and Community Care estimate that these collaborations will help provide a medical home to close to 50,000 uninsured patients, at a cost of approximately $43 per enrollee.

In 2008, the North Carolina General Assembly began funding HealthNet, to support the development of community collaborations for the uninsured. Last year (SFY 2009), the North Carolina General Assembly appropriated $2.8 million in recurring funds and $950,000 in non-recurring funds to the Office of Rural Health and Community Care to support HealthNet.[12] To receive state funding, communities must demonstrate that they are working with their local CCNC network, that they are linking patients to a medical home, and that they are collaborating with other health care organizations to expand services to the uninsured.

Sixteen communities, covering 27 counties received HealthNet funding in the first year. The Office of Rural Health and Community Care estimate that these collaborations will help provide a medical home to close to 50,000 uninsured patients, at a cost of approximately $43 per enrollee. The HealthNet funds are not used to support the medical costs associated with caring for the uninsured. Generally, services are donated through the community collaborations or are provided through an existing safety net organization. Rather, the HealthNet funds are used to support the infrastructure needed to sustain the community collaboration (e.g. eligibility determinations, provider referral systems, disease and care management, and information systems).

In addition to the Health Net funds, The Duke Endowment (TDE) is also supporting the development of community collaborations. To date, TDE funds have been used to support 16 organizations, covering 23 counties. The organizations include hospitals, free clinics, Project Access networks, and independent organizations. Some of the projects funded were to develop community collaborations, while other funding

went to safety net organizations with the goal of later developing these into broader community collaborations. Together, HealthNet and TDE funds have been used to support community collaborations covering 47 counties. An additional 24 counties are either in the process of implementing community collaborations or have expressed interest in planning, organization, and implementation of the same. Additional state funding beyond the $2.8 million in recurring funds is needed to further expand the number of community collaborations of care for the uninsured. To achieve this goal, the Health Access Study Group recommends:

Recommendation 7.1 (PRIORITY RECOMMENDATION)

The North Carolina General Assembly should increase funding to expand safety net capacity. The North Carolina General Assembly should:

b) Appropriate $2.2 million in new recurring funds in SFY 2010 to the Office of Rural Health and Community Care to support the HealthNet program. Funds should be used to sustain existing community collaborations to care for the uninsured and expand networks to other parts of the state.

Care Share Health Alliance

A statewide organization, Care Share Health Alliance, has been created to coordinate grantmaking and technical assistance provided to support care for the uninsured across the state. The goal of Care Share Health Alliance is to help communities strengthen their safety net infrastructure (i.e. safety net organizations providing care to the uninsured) as well as develop community collaborative systems of care for the uninsured. Care Share Health Alliance is comprised of representatives of all the major health care foundations, Office of Rural Health and Community Care and other state agencies, safety net organizations, health professional organizations, and other organizations that support community care to the uninsured.[g] Care Share Health Alliance includes a funders committee, to help coordinate grant making to ensure that the limited state and private foundation funds are used as efficiently as possible to support care for the uninsured. In addition, Care Share Health Alliance will have staff that can work with community groups across the state to help these groups develop both the safety net infrastructure and the community collaborations needed to sustain care for the uninsured.

The goal of Care Share Health Alliance is to help communities strengthen their safety net infrastructure… as well as develop community collaborative systems of care for the uninsured.

g The Board includes representatives of the major health care foundations in the state: The Duke Endowment, Kate B. Reynolds Charitable Trust, North Carolina Health and Wellness Trust, North Carolina Blue Cross and Blue Shield Foundation of North Carolina. The Board also includes representatives of safety net organizations or state agencies providing services to low-income uninsured people, including: the Office of Rural Health and Community Care, Community Care of North Carolina, Division of Public Health, Division of Mental Health, Developmental Disabilities and Substance Abuse Services, Office of Minority Health and Health Disparities, North Carolina Medical Society, Old North State Medical Society, North Carolina Hospital Association, North Carolina Community Health Center Association, North Carolina Association of Free Clinics, prescription assistance programs, Healthy Carolinians, dental safety net organizations, local departments of social services, existing community collaborations, and consumer representatives.

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Provider Supply

Chapter 8

Ensuring that everyone has health insurance coverage will not, in itself, guarantee that everyone has access to health services. The state must also ensure that there is an adequate supply of health care professionals, including physicians, nurse practitioners (NPs), physician assistants (PAs), dentists, nurses, pharmacists, health educators, and other allied health professionals to meet the health care needs of the state. Unfortunately, North Carolina—like the rest of the country—is likely to experience a significant provider shortage in the next 10-20 years.[1-4] The Health Access Study Group could not thoroughly examine all health professional workforce issues in the short amount of time it had to examine access issues. Because of the time constraints, the study group focused on the trends in physician, NP, and PA supply.

North Carolina needs an adequate supply of physicians, nurse practitioners, and physician assistants to provide the preventive, primary care, and specialty services needed to maintain and improve health.

North Carolina needs an adequate supply of physicians, nurse practitioners, and physician assistants to provide the preventive, primary care, and specialty services needed to maintain and improve health. There have been numerous studies showing the relationship between access to health services and health outcomes.[5-7] As noted in Chapter 2, those without health insurance coverage have more access problems, and as a result, their health suffers. Providing health insurance coverage will remove or minimize financial barriers that prevent people from receiving necessary care. But without an adequate workforce, the health care needs of both those with insurance and those who remain uninsured will suffer.

Physicians are the leaders of the health care team. Because of their extensive education and training, they are best able to handle complex health problems. However, NPs, PAs, nurses, dentists, pharmacists, public health professionals, and other allied health professionals are also critically important. Each of these professionals helps contribute to the overall well being of the state's population. In the past, many of these health professionals have worked separately in silos—but greater interdisciplinary practice is going to be needed in the future with the growing prevalence of chronic illnesses and complex and comorbid health conditions.

While the number of *newly* licensed physicians, NPs, and PAs is expected to increase over the next 20 years, the growth is not likely to keep pace with the increased demand for health services. In addition, North Carolina is likely to lose a significant proportion of the workforce due to retirement.[1] The health professional workforce is aging, with a large cohort approaching retirement age. In 2004, 68% of North Carolina physicians were age 40 or older. On average, physicians have historically retired around age 66. Assuming that this does not change, a large proportion of the physician workforce will likely retire within the next 20 years. Similarly, 68% of NPs and 51% of PAs were age 40 or older in 2004. The net growth in health care professionals is unlikely to meet the increased demand for services over the next 20 years.

Demand for health services is driven by many factors—most noticeably the growth in the population, aging of the population, and increased number of people living

with chronic illnesses.[a,4] The population is expected to grow 17.6% in North Carolina between July 2007 and July 2020, and another 11.7% by 2030. In addition, the proportion of the population age 65 or older is expected to grow 33.7% between July 2007 and July 2020.[8] Older people generally use more health care services (measured in annual visits) than do younger individuals. For example, people ages 65-74 had an average of 6.2 visits in 2004, whereas younger adults, ages 25-44, had an average of 2.4 visits.[9] Together, the growth and aging of the population is expected to increase demand (measured in annual visits) by 34% between 2004 and 2020.[1] Continued increases in the prevalence of chronic diseases will also increase demand for health care services. In addition, providing people with health insurance coverage may increase demand, as people without health insurance coverage generally use one-half to two-thirds the services of those with coverage.[10] What is unknown is the extent to which increased coverage (and related prevention activities) will affect subsequent demand.

Together, the growth and aging of the population is expected to increase demand (measured in annual visits) by 34% between 2004 and 2020.

The North Carolina Institute of Medicine studied the adequacy of the North Carolina primary care and specialty supply in 2006-2007.[1] The Task Force found that absent major changes in the supply of health professionals, North Carolina was projected to experience a 12% decline in *per capita* physician supply by 2020 and a 26% decline by 2030 (measured as a ratio of physicians to population). (See Table 8.1.) Even under the best scenario, including continued rapid growth in the supply of nurse practitioners (NPs), physician assistants (PAs), and certified nurse midwives

Table 8.1
Projected Decrease in Provider-to-Population Ratios, North Carolina 2020 and 2030

	Projected Change in Provider-to-Adjusted Population Ratios*	
	2020	2030
Physicians only	-12%	-26%
All providers		
Best case**	-1%	-8%
Worst case***	-8%	-19%

Source: North Carolina Institute of Medicine Task Force on Primary Care and Specialty Supply. Providers in Demand: North Carolina's Primary Care and Specialty Supply. North Carolina Institute of Medicine. Durham, NC. June 2007.

* The population figures are weighted to reflect the increased demand for services projected from the aging of the population.

** Best case scenarios are based on the current growth of physicians and the higher than aver age rate of growth of NPs, PAs, and CNMs. The projections weigh non-physician clinicians at .75 full time equivalent (FTE) of a physician.

*** Worst case scenarios are based on the current growth of physicians and the average rate of growth of non-physician clinicians over the last 25 years. Non-physician clinicians are weighted at 0.5 FTE of a physician.

a North Carolina's population is expected to grow 39% by 2029, with the population of adults age 65 or older to grow by 107%. The growth of this demographic is particularly consequential, as those over 65 years of age make twice as many hospital visits as those under 65 due to higher prevalence of major illnesses and chronic diseases.

(CNMs), North Carolina is still projected to experience a 1% (2020) to 8% (2030) decline in practitioners. This does not factor in the increased demand that might occur with increased health insurance coverage. The impact of this practitioner shortage will be felt first and most strongly by underserved communities and in less attractive specialties.[4]

North Carolina should take a proactive approach to address this looming workforce shortage. First, the state should increase the production of new physicians and other non-physician clinicians. We cannot afford to wait, as it takes many years to produce new health care professionals. Second, North Carolina should expand its recruitment and retention efforts, specifically those targeted to expanding the supply of providers in underserved areas. Third, North Carolina should continue to explore new ways of delivering care to improve population health, so that we can more effectively meet the state's health care needs. These options are not mutually exclusive. North Carolina can work to increase the number of students who graduate from medical, NP, or PA programs, while at the same time increasing residency slots, expanding recruitment and retention efforts, and exploring new options to provide services more efficiently. However, it is not enough to increase the raw *numbers* of health professionals practicing in the state. North Carolina also needs to ensure that we produce and/or recruit the types of health care professionals we need (i.e. primary care providers and different *types* of specialists, and underrepresented minorities) and that they practice in *areas of the state* where they are most needed. This is particularly true if the state invests new dollars into increasing supply of health care professionals. Given limited state funds, the North Carolina General Assembly should ensure that any new monies invested in health professional training, recruitment, or retention strategies are designed to meet the health care needs of the state.

This chapter briefly describes the challenges the state faces in producing both the types of health professionals needed, and in ensuring that they are adequately distributed throughout the state. The chapter then covers health professional training and residency programs, and past efforts to recruit and retain health professionals in health professional shortage areas.

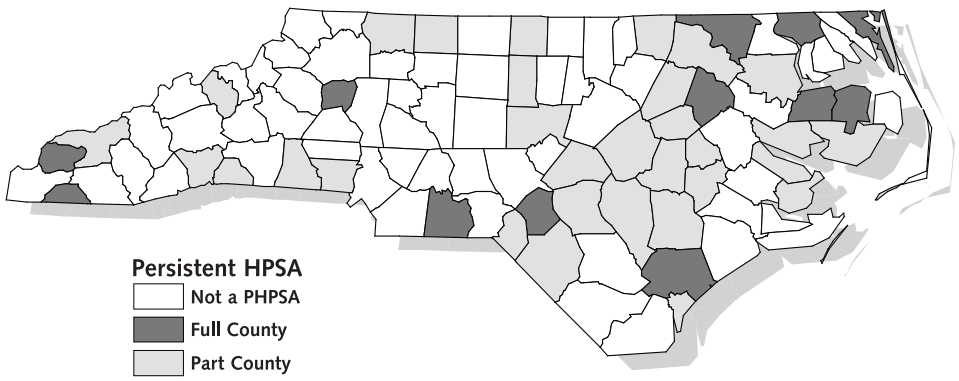
Even under the best scenario, including continued rapid growth in the supply of nurse practitioners, physician assistants, and certified nurse midwives, North Carolina is still projected to experience an 8% (by 2030) decline in practitioners.

Maldistribution of Health Care Professionals

The shortage of health professionals is not merely a theoretical problem that we will face in the future. Some areas of the state are already experiencing provider shortages, forcing residents to travel long distances for health care. Health care professionals tend to congregate around academic centers or major hospitals. In contrast, rural areas or low-income parts of urban communities are more likely to experience shortages. In 2008, there were 11 full counties and 49 part-counties in North Carolina that were considered primary care health professional shortage areas (HPSAs).[11] The US Department of Health and Human Services considers a county (or part of a county) to be a HPSA if there are fewer than one primary care physician to every 3,500 people (or 1:3,000 if there are other factors which indicate unmet health needs). Despite significant efforts to attract physicians and other health care professionals into these counties, some have persistent problems

attracting physicians. (See Figure 8.1.) Forty-two of these counties are considered persistent health professional shortage areas (PHPSAs), designated as HPSAs in six of the last seven HPSA designations.

Figure 8.1
Forty-Two Counties in North Carolina are Persistent Health Professional Shortage Areas



Map created by North Carolina Institute of Medicine.
Data Source: Area Resource File, HPSA status for 1998, 2000, 2001,2002, 2003, 2004, 2007.
Counties defined as persistent if designated a HPSA in 6 of 7 years.

Forty-two counties are considered persistent health professional shortage areas (PHPSAs), designated as health professional shortage areas (HPSAs) in six of the last seven HPSA designations.

Historically, nurse practitioners and physician assistants have helped to address health care needs in rural and underserved communities. Between 2001 and 2005, 47% of new primary care providers in rural North Carolina counties were either NPs or PAs.[1] Nonetheless, NPs and PAs are still more likely to practice in urban areas. In 2007, there were 3.7 NPs per 10,000 population in metropolitan counties and 2.2 NPs per 10,000 in nonmetropolitan counties, 3.8 PAs per 10,000 in metropolitan counties and 2.4 PAs per 10,000 in nonmetropolitan counties.[4] (See Figure 8.2.) As for primary care physicians, there were 9.8 per 10,000 in metropolitan areas and 6.8 per 10,000 in nonmetropolitan areas (24.1 per 10,000 and 13.2 per 10,000 for physicians in general).

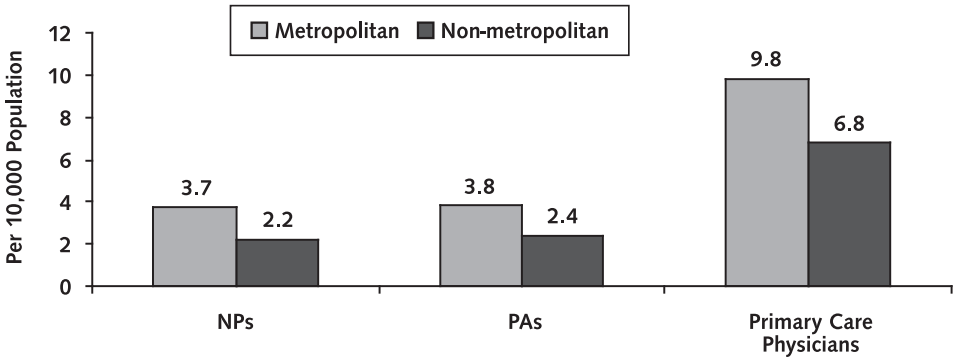
Types of Health Care Professionals Needed

Not only is North Carolina expected to experience an overall health professional shortage, but the state is also likely to experience even greater shortages among certain health specialties, including primary care, psychiatry, and general surgery.

Primary Care Providers

Fewer US-trained medical school graduates are choosing primary care professions, including family medicine, general internal medicine, obstetrics and gynecology, and pediatrics. Instead, they are selecting specialties with "more controllable lifestyles" and/or higher salaries.[4] (See Figure 8.3) Nurse practitioners and physician assistants also provide primary care services, but even among these specialties there has been growing specialization.

Figure 8.2
Medical Professionals are More Likely to Practice in Metropolitan Areas

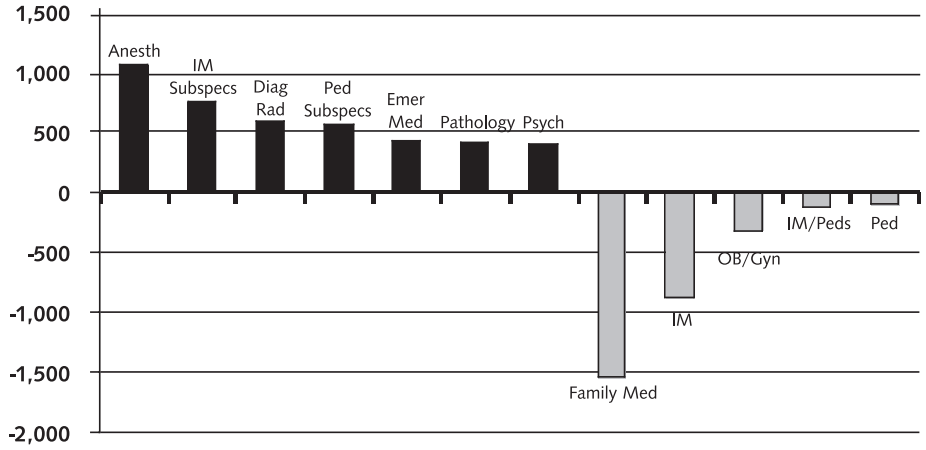


Source: Ricketts, T. Practitioner Supply and Health Care Access in North Carolina. Presented to: The North Carolina Institute of Medicine Health Access Study Group; October 21, 2008; Morrisville, NC. Citing North Carolina Health Professionals Data System, 1979-2007.

Primary care providers serve as the entry point into the health care system for most patients.[1] Some studies have shown a positive relationship between the supply of primary care providers and health outcomes in a given area, even after controlling for personal and environmental factors such as education, income, pollution, unemployment, percentage elderly, percentage urban, minority composition, seatbelt use, obesity, and smoking.[12] North Carolina has approximately 7,660 primary care physicians, or 8.8 per 10,000 population, which is below the national average of 9.43 per 10,000.[1]

North Carolina has approximately 7,660 primary care physicians, or 8.8 per 10,000 population, which is below the national average of 9.43 per 10,000.

Figure 8.3
Fewer US-Trained Medical School Graduates are Choosing Primary Care Professions, 2002-2007



Source: Ricketts, T. Practitioner Supply and Health Care Access in North Carolina. Presented to: The North Carolina Institute of Medicine Health Access Study Group; October 21, 2008; Morrisville, NC.

Ideally, everyone in the state should have access to a medical home, with primary care providers who offer comprehensive, continuous, and patient-centered care.[b] Under this model, primary care providers work with a multidisciplinary team of health professionals who help coordinate the patients' health services and engage in quality improvement activities. Patients are actively engaged in health care decision making and in caring for their own health. This model of care is important for everyone, but particularly important for people with chronic or more complex health problems. North Carolina has successfully implemented this medical home model for Medicaid recipients in Community Care of North Carolina (CCNC), described more fully in Chapter 3. CCNC, which includes primary care providers with a team of other health and social services providers, helps improve the quality of care provided to people with chronic health problems, and has led to demonstrated improvements in health outcomes and reductions in health spending.

Nationally, the number of physicians, physician assistants, and nurse practitioners working in primary care is decreasing. For example, the number of medical school graduates choosing primary care residencies dropped 50% between 1997 and 2005.

Nationally, the number of physicians, PAs, and NPs working in primary care is decreasing. For example, the number of medical school graduates choosing primary care residencies dropped 50% between 1997 and 2005.[13] Part of the explanation for this decline is low provider reimbursement, coupled with increasing demands placed on these providers. The number of recommended preventive and chronic care treatment guidelines has increased to the point that it is almost impossible for an individual physician to provide all the recommended care to patients within the regular work day.[c] While the scope of a primary care providers' practice has increased, their inflation-adjusted salaries have decreased. Between 1995 and 2003, inflation-adjusted salaries decreased 10.2% for primary care physicians, compared to a 7.1% decline for all physicians.[14] Further, primary care providers are among the lowest paid physician specialties. (See Figure 8.4.)

Psychiatrists

In North Carolina, approximately 5.4% of adults and 12% of children have a diagnosable mental illness.[d,15]Many different types of health care professionals treat people with mental illness, including psychiatrists, psychologists, primary care providers, social workers, and clinical nurse specialists. However, psychiatrists are a critical part of the health care team, especially when addressing the needs of patients with complex mental health and/or comorbid health conditions. Psychiatrists can provide medication management and psychotherapy directly to patients, and can also provide clinical consultation to other providers to enable them to treat patients with different types of mental illness.

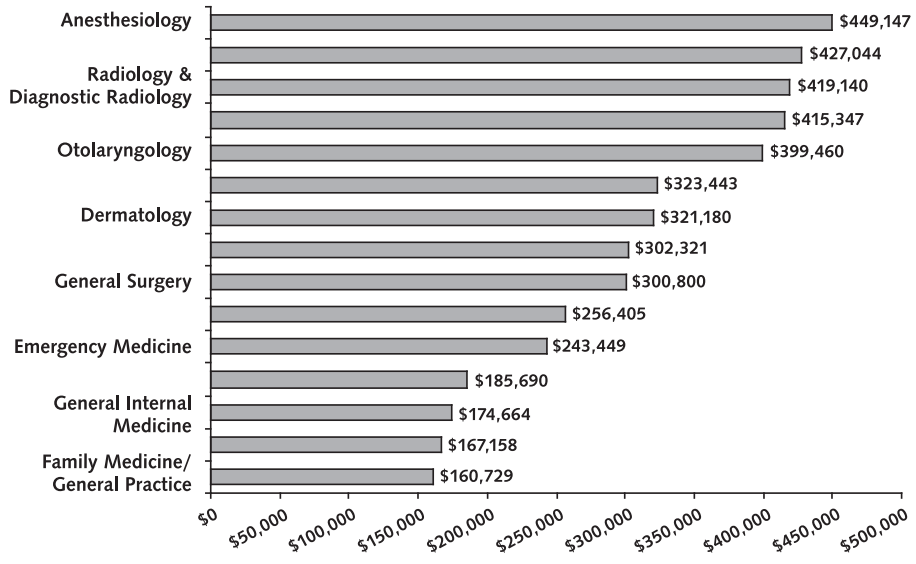
Between 1999 and 2004, nearly two-thirds of North Carolina counties experienced a decline in the psychiatrist to population ratio, or had no psychiatrists. The North

b Information on the Joint Principles of the Patient-Center Medical home can be found at: http://www.aafp.org/online/etc/medialib/aafp_org/documents/policy/fed/jointprinciplespcmh0207.Par.0001.File.tmp/022107medicalhome.pdf

c A primary care practice with a panel of 2,300 patients would have to work more than seven hours a day to provide all the recommended preventive services, and an additional 10 hours a day to provide all the recommended services to patients with chronic health conditions.

d Adults with diagnosable mental illness refer to adults with Serious Mental Illness (SMI). Children with diagnosable mental illness refer to children with Serious Emotional Disturbance.

Figure 8.4
Primary Care Providers are Among the Lowest Paid Physicians (US, 2006)



Source: Cohen J. Physician workforce: trends and expectations. Presented to: Primary Care and Specialty Summit, North Carolina Institute of Medicine; December 21, 2006. Citing Medical Group Management Association Physician Compensation and Production Survey 2001-2006.

Carolina General Assembly has appropriated funding since SFY 2007 to target this problem. In addition, with the help of state and private foundation funding, North Carolina has expanded the availability of mental health services within primary care settings. For example, the Kate B. Reynolds Charitable Trust and The Duke Endowment have helped fund ICARE, a project aimed at increasing collaboration and communication between primary care providers and mental health providers, and in increasing the ability of primary care providers to provide appropriate evidence-based mental health services to their patients.[16] Further, the North Carolina General Assembly appropriated nonrecurring funds to the Office of Rural Health and Community Care to pilot strategies for the Aged, Blind, and Disabled population. A portion of the these funds were utilized in SFY 2007 and SFY 2008 to support co-location of primary care providers and mental health professionals. While these efforts can address the health care needs of people with more mild forms of mental illness, such as depression, additional psychiatrists are needed to help manage or provide consultations for people with more severe mental illnesses or comorbid health problems.

General Surgeons

General surgeons play a critical role in the health care delivery system, particularly for small rural communities. General surgeons generate critical revenue for rural hospitals and provide invaluable health services to communities that cannot afford to hire surgical specialists. As with psychiatrists, there has been a decline in the number of general surgeons in many counties across the state. Between 2000 and

General surgeons generate critical revenue for rural hospitals and provide invaluable health services to communities that cannot afford to hire surgical specialists.

2005, there was a reduction in the number of general surgeons in 53 counties; another 22 counties had no general surgeons in 2005. While additional general surgeons may not be as needed in urban counties that have sufficient surgical specialists, general surgeons are critically important in smaller, rural areas in North Carolina.

Other Specialty Areas

Other types of health care specialists are also needed if we are going to meet the future health care needs of the state. For example, North Carolina will need a greater number of geriatricians, or other health care professionals trained in geriatrics to meet the health care needs of the growing number of older adults in the state. Similarly, North Carolina always needs providers to deliver babies. Yet the NCIOM Task Force on Primary Care and Specialty Supply found that there were eight counties without providers who reported that they provided prenatal care, and 19 counties without a physician delivering babies.

Even though minority populations comprise 30% of North Carolina's population, they only account for 18% of physicians, 12% of physician assistants, and 10% of nurse practitioners.

Underrepresentation of Minority Health Professionals

Increasing the number of underrepresented minorities practicing in North Carolina is also an important consideration if the state wants to meet the health care needs of the increasingly diverse population. Studies show that increasing diversity in health care professions improves access and quality of care for minority patients as well as for patients in shortage areas.[17] When given the option, minority patients are more likely to pick a provider with a similar racial and ethnic background.[18] Also, providers from minority groups are three times more likely than white providers to serve in whole-county health professional shortage areas. Even though minority populations comprise 30% of North Carolina's population, they only account for 18% of physicians, 12% of PAs, and 10% of NPs.[1] In order to increase the number of physicians from underrepresented minorities, it will be important to increase the number of underrepresented minorities in universities and medical schools.

Increasing Provider Supply

In order to address these projected shortages in North Carolina, the state needs to increase the number of health care professionals entering the workforce. One long-term strategy is to increase the number of medical students, NPs, and PAs, who complete their postgraduate training in North Carolina.[1] Another strategy is to increase the number of health professionals recruited from out of state.

Health Professional Training, Clinical Education, and Residency Programs

One way to increase the supply of physicians, nurse practitioners, and physician assistants is to increase the number of people trained in the state. This strategy needs to be pursued on multiple levels. The state can expand the number of students trained in North Carolina medical schools, PA, and NP programs. However, the state must concurrently expand the availability of clinical rotations and residency programs to ensure that students receive meaningful training opportunities in state. Each of these issues is described more fully on the following pages.

Medical Students: Currently, North Carolina has four medical schools, located at Duke University, East Carolina University Brody School of Medicine (ECU), University of North Carolina at Chapel Hill (UNC-Chapel Hill), and Wake Forest University Baptist Medical Center (WFUBMC). The annual number of graduates from the four schools has increased modestly in the last 30 years. Wake Forest University is the only medical school to have seen a recent increase in its class size, increasing to 120 students.[e] Approximately 40% of the students trained in North Carolina medical schools over the last 40 years have remained in the state to practice. Students originally from North Carolina are more likely to practice in North Carolina. Because the two publicly funded schools (UNC-Chapel Hill and ECU) are more likely to admit students originally from North Carolina, they tend to have a much higher proportion of students who decide to practice in North Carolina after finishing their residency programs.[1] Approximately half (49%) of UNC-Chapel Hill medical school graduates and almost three-fifths (59%) of the ECU Brody School of Medicine graduates are currently practicing in North Carolina, compared to 24% of Duke and 39% of WFUBMC graduates.

The American Association of Medical Colleges has called for a 30% increase by 2015 in medical school enrollment to meet the impending physician shortage.

The American Association of Medical Colleges has called for a 30% increase by 2015 in medical school enrollment to meet the impending physician shortage.[19] Since the release of the report from the NCIOM Task Force on Primary Care and Specialty Supply, both UNC-Chapel Hill and ECU Brody School of Medicine have developed plans to expand medical school size. UNC-Chapel Hill has plans to expand the class size from 180 to 250 students, creating satellite campuses for third and fourth year medical students at Carolinas Healthcare System in Charlotte and Mountain Area Health Education Centers Program (MAHEC) in Asheville. ECU Brody School of Medicine has plans to increase its class size from 70 to 120 students. To implement these plans will require additional state support. When fully implemented, the operational costs associated with this expansion would be approximately $40 million annually.

Nurse Practitioners and Physician Assistants: One important strategy to address the impending health professional workforce shortage is to increase the number of NPs and PAs trained in the state. Nurse practitioners and physician assistants provide a great deal of the health care services needed in the state, although their scope of practice and prescribing authority is more limited than physicians. The educational pipeline between first entering school and being licensed to practice is much shorter for PAs and NPs than it is for physicians. On average, it takes about two to three years after completing an undergraduate education to graduate from a PA or NP program, compared to a minimum of seven years of graduate education and residency programs for most physicians. There has already been significant expansion in the number of programs offering PA and NP programs and a commensurate increase in the number of non-clinician practitioners practicing in the state. Between 2001 and 2005, the number of NPs and PAs practicing in North

e Bacon T. Associate Dean and Director, Area Health Education Centers Program School of Medicine. Written (email) communication. January 15, 2009.

Carolina grew by 32%.[1] Duke University is in the process of expanding its PA program, and there have been discussions at other private universities about starting PA programs.

Medical students, along with other health professional students, receive a certain amount of their education in the classroom and part of their training in clinical rotations. Thus, programs must ensure the availability of clinical rotations in order to expand their class size. In the past, there has been a concerted effort by health professional training programs and Area Health Education Centers (AHEC) to move clinical rotations out of academic health settings and into the community. Many programs have also offered rural training sites, in order to expose students and residents to rural practice. However, it is more challenging to establish and maintain community clinical training sites. Community practitioners are needed to supervise students and residents. However, it is difficult for many community practitioners to take off time from their practice to serve as preceptors (as that reduces the time they can spend seeing patients and generating revenues).[1]

About one-half of all physicians who complete residencies in North Carolina remain here to practice.

Residency programs: About one-half of all physicians who complete residencies in North Carolina remain here to practice.[1] Location of residency is an important determinant in where physicians set up practice. Those who complete their medical education and residency in North Carolina are more likely to establish practice in the state. Thus, North Carolina cannot afford to expand the medical school size without also expanding residency training.

Currently, most residencies are supported through Medicare and Medicaid Graduate Medical Education (GME) funds, with Medicare GME funds providing most of the support. Federal Medicare funding for residency programs has been frozen since 1996. North Carolina also appropriates money to support family practice residencies, but these funds have not been increased substantially since 1994, when the North Carolina General Assembly appropriated funds to create the rural track family medicine program.[f] North Carolina needs to invest more in graduate medical education, as we currently have fewer residency slots (3.1) per 10,000 population than the national average of 3.4.[1]

Not only is it important to expand the number of residents trained in North Carolina, but it is also important to target limited state dollars to the types of health care professionals needed to meet the future health care needs of the state. North Carolina also needs to do more to expand the availability of meaningful clinical rotations in rural and underserved areas. Many health care professionals set up practice within 90 miles of where they completed their residencies.[20] Thus, one way to increase the supply of physicians practicing in rural areas is to create rural residency programs. The AHEC program has had a strong track record in creating and supporting rural family practice residency programs. There are currently eight family practice residency programs across the state which enable

f Bacon T. Associate Dean and Director, Area Health Education Centers Program School of Medicine. Written (email) communication. January 15, 2009.

state-wide community training and foster rural practice. Two-thirds (67%) of physicians who completed their residencies at AHEC family practice residencies stayed in North Carolina to practice.[1]

Expansions should focus on increasing the number of physicians in underserved areas, increasing the number of physicians who practice in primary care or other shortage specialties, increasing the number of underrepresented minorities, and increasing the role of NPs, PAs, CNMS, nurses, and other health professionals.

In order to increase the supply of primary care and specialty providers in North Carolina, the Study Group therefore recommends:

Recommendation 8.1

a) The North Carolina General Assembly should increase funding to increase the supply of primary care and specialty providers. Specifically, the North Carolina General Assembly should appropriate:

1) $40 million in recurring funds to support the expansion of the medical schools at The University of North Carolina at Chapel Hill and East Carolina University Brody School of Medicine.[g,h] State funding should be targeted to expansion efforts that result in:

i) Increased numbers of physicians who set up and maintain practices in underserved areas.

ii) Increased numbers of physicians who practice in primary care or other shortage specialties needed to meet the health care needs of North Carolina.

iii) Increased numbers of underrepresented minority physicians.

iv) Greater interdisciplinary didactic and clinical team training among physicians, nurse practitioners, physician assistants, and certified nurse midwives, nurses, and other health care professionals.

2) $1.2 million in recurring funds and/or Medicaid Graduate Medical Education to the North Carolina Area Health Educations Centers (AHEC) program in each year over the next five years to fund 12 new residency positions per year across the state targeted toward the high priority specialty areas of primary care, general surgery, psychiatry, or other specialty shortage areas.

g The expansion of the medical schools would also require approximately $400-$500 million in non-recurring capital costs to build new educational facilities at UNC-CH, ECU, Charlotte, and Asheville. The proposed expansion would increase class size at UNC-CH from 180 to 250, and at ECU from 70-120. With this expansion, there would be 120 new medical graduates per year.

h The $40 million includes $3 million to develop new clinical training sites for students with a priority on community training sites in underserved areas; pay stipends to community preceptors who supervise and teach primary care students; and provide housing, library and other logistical support for students in community settings. Enhanced payments should be made to preceptors who practice in health professional shortage areas.

i) **This funding should be provided to AHEC, with AHEC then making grants to AHEC and university based residency programs that agree to expand residency slots and create programs designed to graduate physicians likely to settle in rural and other underserved areas of the state.**

ii) **$3 million in non-recurring funds should be provided in SFY 2010 and SFY 2011 and $2 million in non-recurring funds in SFY 2012 to help pay for the capital costs involved in developing new community-based residency programs across the state.**

b) **The North Carolina General Assembly should direct General Administration within the University of North Carolina System to explore the possibility of further expansion of physician assistants and nurse practitioner programs in the University of North Carolina System in order to:**

1) **Increase the numbers of nurse practitioners and physician assistants who set up and maintain practices in underserved areas.**

2) **Increase the numbers of nurse practitioners and physician assistants who practice in primary care or other shortage specialties needed to meet the health care needs of North Carolina.**

3) **Increase the numbers of underrepresented minority nurse practitioners and physician assistants.**

4) **Allow for greater interdisciplinary didactic and clinical team training among physicians, nurse practitioners, physician assistants, certified nurse midwives, nurses, and other health care professionals.**

Recruitment and Retention Efforts

Providers want to ensure that their practice will be economically viable before establishing practice in a community.

Underserved Areas

As noted earlier, there are 11 full counties and parts of 49 other counties that are considered health professional shortage areas. Shortages are particularly acute in the eastern part of the state, as well as rural areas in the Piedmont. Although the current federal shortage areas only concentrate on primary care, dental, and behavioral health, there are severe shortages of other specialties in some areas of the state. In many rural areas, residents lack access to specialty services, even when they have adequate access to primary care.[21]

Not surprisingly, providers want to ensure that their practice will be economically viable before establishing practice in a community. This is a particular problem for newly licensed physicians, who typically graduate with extensive medical school loans. More than three-quarters of medical school graduates in 2007 had debt of at least $100,000, with the average medical school graduate in 2007 being $139,517 in debt.[22] As a result, graduates are likely to establish practices in specialties or locations in which they can quickly pay off their debt.

The volume of paying patients in some rural areas may not be large enough to cover operating expenses. Not only do rural areas have fewer patients, but they often have

fewer insured patients—as rural communities typically have higher than average numbers of uninsured individuals who may be unable to pay for services.[1] In addition, people in rural areas are also more likely to be covered by Medicare and Medicaid than those in urban areas.[23] Reimbursement from public programs is lower than commercial insurance, thus further limiting the revenues that rural practices can generate.[23]

Economic incentives need to be established to improve the economic viability of rural practices. One option that the Health Access Study Group recommended was to increase the Medicaid reimbursement rates from 95% of Medicare rates to 100% for primary care practitioners in health professional shortage areas. Other incentives that could be used to encourage practitioners to set up practice in rural or other medically underserved areas include scholarships, loans, loan repayment programs, and direct incentives such as payment for capital costs. The Office of Rural Health and Community Care (ORHCC) is a state-managed program using such incentives to encourage providers to practice in rural communities. Eligible physicians can receive grants of $70,000 (plus 39% tax subsidy) over four years, and PAs and NPs can receive $30,000 (plus 39% tax subsidy) over three years. Approximately 75% of all loan recipients fulfill their obligation.[1] Strengthening the ORHCC would make practicing in rural areas in North Carolina a more attractive and financially viable option.

To address the maldistribution of health care professionals, and ensure that there are sufficient providers practicing in underserved areas, the Study Group recommends:

Recommendation 8.2 (PRIORITY RECOMMENDATION)

In order to maintain and expand access to health care services for low-income and underserved populations, the North Carolina General Assembly should:

a) Continue to support the Community Care of North Carolina (CCNC) program.

b) Continue to tie Medicaid reimbursement to physicians at 95% of the Medicare rates.

c) Direct the Division of Medical Assistance to increase the payment for primary care practitioners practicing in health professional shortage areas either by increasing reimbursement rates or establishing a higher per member per month (pmpm) CCNC payment.

d) The North Carolina General Assembly should appropriate $1,915,600 million in recurring funds in SFY 2010 to the North Carolina Office of Rural Health and Community Care (ORHCC). Of this amount:

1) $350,000 should be appropriated to provide technical assistance to communities to help identify community needs and practice models that can best meet these needs and to provide technical assistance to small practices or solo practitioners practicing in medically underserved communities or serving underserved populations;

2) **$1.5 million should be appropriated to pay for loan repayment and financial incentives to recruit and retain primary care physicians, physician assistants, nurse practitioners, and certified nurse midwives, psychiatrists, psychiatric physician assistants, psychiatric nurse practitioners, general surgeons, and dentists to rural and underserved communities; and**

3) **$65,600 should be appropriated to expand the number of ORHCC staff who recruit practitioners into health professional shortage areas.**

4) **ORHCC should place a special emphasis on recruiting and retaining underrepresented minority, bilingual, and bicultural providers to work in underserved areas or with underserved populations.**

The state should also explore other options to encourage providers to practice in underserved areas. This may include offering tax incentives to help practitioners offset the costs of establishing a practice in an underserved area, increasing reimbursement through the State Health Plan and/or NC Health Choice, paying malpractice premiums, or grants to help establish electronic health records. The Health Access Study Group also recommended that the state continue support for ongoing efforts to small rural hospitals to enable them to pay for call coverage or hiring physicians to practice full-time in the hospital (relieving after hours call-coverage for rural practitioners). The Study Group recommends:

Recommendation 8.3

In order to expand the health professional workforce in underserved areas of the state:

a) **The North Carolina General Assembly should direct the North Carolina Office of Rural Health and Community Care (ORHCC) to explore different forms of financial incentives or other systems to encourage providers to establish and remain in practice in underserved areas or with underserved populations, and report the findings back to the 2011 Session of the North Carolina General Assembly. The ORHCC should work with the North Carolina Medical Society Foundation and other relevant groups to identify appropriate incentives which may include, but not be limited to: tax incentives, increased reimbursement, malpractice premium subsidies, or grants to help practices purchase electronic health record operating systems.**

b) **The North Carolina General Assembly should continue support to existing programs to enable them to work with practices in underserved areas to assist with systems redesign and quality improvement initiatives. These strategies could include, but not be limited to providing support to small rural hospitals to help pay for call coverage or use of hospitalists.**

Because financial viability is such a key element of enabling providers to practice in underserved areas, it will be important for providers to be sufficiently trained with management skills. This includes training on health care billing systems to ensure that outstanding balances are collected. Few residency programs or health professional training schools provide training on business skills needed to establish

or maintain viable practices. This makes it difficult for providers to consider opening a solo or small practice in an underserved area.

Providers often hire practice managers to handle the business side of their practice. Practice managers bring a particular skill set, including proficiency in the array of reimbursement forms and procedures used to receive payment for services. Practice managers have the potential to increase the long-term financial viability of practices in rural and underserved areas.[1]

Other organizations work with providers to provide training in basic financial and clinical management systems. These include the North Carolina Office of Rural Health and Community Care, which helps rural practices and federally qualified health centers by improving billing and management systems, and by increasing financial performance. Providers and practice managers would benefit from continuing education which would enhance their business skills and keep them up to date on health care management techniques. Therefore, the Study Group recommends:

Recommendation 8.4

In order to improve the skills of health care professionals and practice managers to handle the business aspects of running a health care practice:

a) **The North Carolina General Assembly should appropriate $250,000 in recurring funds in SFY 2010 to the North Carolina Office of Rural Health and Community Care (ORHCC). ORHCC should use funding to support technical assistance provided through the ORHCC and the North Carolina Medical Society Foundation *PracEssentials* programs to practices in underserved areas or serving underserved populations.**

b) **The University of North Carolina system, North Carolina community colleges, and North Carolina independent colleges and universities should offer courses that can improve the skills of existing practice managers and increase the supply of new practice managers across the state. These courses should be targeted to underserved areas of the state.**

c) **The North Carolina Area Health Education Centers Program, OHRCC, Community Practitioner Program, North Carolina community colleges, and North Carolina independent colleges and universities should develop educational and continuing education courses for existing practitioners and staff to enhance the business skills needed to maintain a viable practice.**

d) **North Carolina foundations should consider funding start-up programs at community colleges and other organizations to enhance the skills of practice managers and providers and programs targeted to underserved areas.**

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Conclusion

Chapter 9

The number of people reporting access barriers in obtaining needed health care has increased over the last five years in North Carolina. Seventeen percent of North Carolinians reported that they could not see a doctor when they needed to because of costs, up from 12% in 2000.[1,2] There are many reasons people experience access barriers, including low health literacy, high health care costs, and lack of health care professionals. However, the lack of health insurance coverage is the foremost barrier to accessing care. There were more than 1.5 million non-elderly North Carolinians who were uninsured in 2006-2007, almost one out of every five non-elderly people in North Carolina. Compared to individuals with insurance, the uninsured are more likely to report delaying or foregoing needed care due to cost and are less likely to get preventive screenings or ongoing care for chronic conditions. As a result, uninsured adults are 25% more likely to die prematurely than adults with insurance.[3]

Compared to individuals with insurance, the uninsured are more likely to report delaying or foregoing needed care due to costs and are less likely to get preventive screenings or ongoing care for chronic conditions. As a result, uninsured adults are 25% more likely to die prematurely than adults with insurance.

Most uninsured individuals forgo health insurance coverage because of costs. Between 2000 and 2007, premiums for employer-sponsored family coverage grew more than five times faster than median wage earnings.[4] Health insurance has simply become too expensive for many people to afford. High premiums are also the main reason for the decline in employer-sponsored coverage.[5]

North Carolina has experienced a more pronounced growth in the percent uninsured than most of the country. Between 1999-2000 and 2006-2007, the percent of uninsured North Carolinians increased 29%, compared to an average national increase of 12%.[a] Part of the reason for this rapid increase in the uninsured is because of the decline in employer-sponsored insurance. North Carolina experienced a 12.5% decline in employer-sponsored coverage compared to 6.8% nationally. Most of the uninsured fall into one or more of three groups: 1) children in families with incomes below 200% of the federal poverty guidelines (FPG) (14%), 2) adults with incomes below 200% FPG (46%), and 3) people with a family connection to a small employer with less than 25 employees (36%). Together, these three groups comprise 79% of all of the uninsured in the state.

While many of the uninsured can obtain health care services from safety net providers, the safety net system is not robust enough to serve all in need. As a result, people either delay care or end up in the emergency department for their health care. The lack of health insurance has a negative impact on health status of the uninsured, and produces adverse consequences for society at large. Workers in poor health are more likely to work fewer days or hours and students in poor health have more difficulty learning in school.[6] In addition, uncompensated care for the uninsured creates an economic strain on health care institutions which is eventually borne, in part, by all North Carolinians through taxes and higher insurance premiums. Individuals pay, on average, $438 more per year for their

a Unless otherwise noted, all data on the uninsured are based on North Carolina Institute of Medicine analysis of the Current Population Survey's Annual Social and Economic Supplement, published by the US Census Bureau.

individual health insurance coverage, and families pay an additional $1,130 to help pay for uncompensated care provided to the uninsured.[7]

The North Carolina General Assembly directed the North Carolina Institute of Medicine (NCIOM) to convene a study group to examine and recommend options to expand access to appropriate and affordable health care in North Carolina. The Health Access Study Group was charged with presenting a final report to the 2009 General Assembly.[b]

The Study Group met five times between September 2008 and January 2009. The Study Group examined the findings and recommendations from other NCIOM studies, as well as strategies to expand access in other states or being considered at the federal level. The majority of the Study Group's work focused on ways to provide health insurance coverage to the three groups that constitute the majority of the North Carolina uninsured: children in families with incomes below 200% FPG, adults with incomes below 200% FPG, and people with a family connection to a small employer.

The state will need to address costs, quality, population health, and coverage to ensure access to affordable health care.

The Study Group also recognized the importance of strengthening the existing safety net. This is important as a short-term strategy to expand access to health care services for the uninsured. However, it is not a long-term solution. Ultimately, the state neeeds to ensure that everyone has health insurance coverage. North Carolina can begin to address this problem by expanding existing programs and developing new options to phase-in coverage to more people. The longer term goal is to develop public and private approaches that will make health insurance coverage affordable to everyone, and to couple these approaches with an individual mandate to require people to have insurance coverage.

The state will need to address costs, quality, population health, and coverage to ensure access to affordable health care. Unless ways to reduce rising health care costs are identified, North Carolina will be unable to afford health care for anyone in the state—let alone afford expanding coverage to all of the uninsured. Health care quality, improving population health, reducing cost escalation, and access to care are all interrelated, and must be examined holistically to develop long-term solutions to our current health care crisis. More work is needed to examine these issues and identify strategies for North Carolina to reign in rising health care costs, enhance health care quality, and improve population health.

The issue of provider supply was also examined. North Carolina is predicted to experience a provider shortage in the next 10-20 years as a result of a large cohort of physicians reaching retirement age, increased demand for services, and an aging of the general population.[8] As a result, the supply of practitioners is likely to be inadequate, even if the state could expand coverage to all.

b Section 31 of Session Law 2008-181.

The following is a list of the Study Group's recommendations along with the agency or organization charged with addressing the recommendation. The Study Group proposed a plan for phasing in the recommendations. Each phase corresponds with a two-year legislative cycle. Eight of the 17 recommendations were considered top priorities, although all of the recommendations are important.

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
Access and Cost				
Recommendation 2.1 a) The North Carolina General Assembly should direct the North Carolina Institute of Medicine's Health Access Study Group to continue to meet to consider: 1) Options to reduce escalating health care costs (cost-containment), 2) The costs of the different proposals, 3) The amount that individuals and families should reasonably be expected to contribute for health insurance premiums and other out of pocket costs (affordability), 4) Changes in federal laws which may impact on health insurance coverage and financing options to expand coverage to the uninsured, 5) Whether other options should be considered for universal coverage (including but not limited to single payer or multi-payer systems), 6) Other ways to make health insurance coverage affordable to small employers, and 7) Other options to ensure that there are sufficient numbers of health professionals in the future to meet the state's growing and aging population b) The Health Access Study Group should report its findings and recommendations no later than the convening of the 2010 Session of the North Carolina General Assembly.	✓ NCGA, NCIOM Health Access Study Group			
Recommendation 2.2 The North Carolina General Assembly should require individuals to purchase health insurance coverage, as long as insurance coverage is affordable. In order to effectively mandate health insurance coverage for individual citizens of the state, subsidy programs will need to be in place for lower-income populations. The individual mandate may require a "phasing-in" to allow for a sliding scale subsidy to be put into place for populations up to 300% of the federal poverty guidelines.				✓ NCGA

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
Covering Low-Income Children				
Recommendation 4.1 (PRIORITY RECOMMENDATION) a) The North Carolina Division of Medical Assistance (DMA) should simplify the eligibility determination and recertification process to facilitate the enrollment of eligible Medicaid and NC Health Choice individuals. Specifically, DMA should: 1) Pilot test the use of North Carolina administrative databases to verify income, and if accurate, use administrative income databases to verify income for eligibility and recertification for all, or a portion, of the applicants and recipients. 2) Develop a system of presumptive eligibility for children. 3) Allow rolling recertification periods to enable individuals to return their recertification forms anytime within the three months prior to the end of their certification period. 4) Use eligibility information from other public programs (e.g. food stamps, Women, Infants and Children (WIC), free and reduced school meals) to determine Medicaid and NC Health Choice eligibility. 5) Use other efforts to reduce the percentage of procedural closings during the eligibility and recertification process. b) DMA should expand outreach efforts to identify and enroll individuals who are eligible for Medicaid and NC Health Choice. Specifically, DMA should: 1) Ensure that Department of Social Services (DSS) eligibility workers are outstationed at Disproportionate Share Hospitals and federally qualified health centers (as required by federal law), and at health departments or other community health providers that serve a large number of potentially eligible Medicaid recipients. Outstationed DSS workers should help individuals fill out Medicaid and NC Health Choice applications and recertification forms and determine eligibility. 2) Train community organizations and other health professionals to assist potentially eligible individuals in filling out applications and recertification forms. c) The Department of Public Instruction and Local Education Authorities, in coordination with the outreach efforts of the Department of Health and Human Services and local DSSs, should actively work to promote health insurance coverage to children eligible for public programs.	✓ DMA, DSS, DPI, LEA			

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
Recommendation 4.2 (PRIORITY RECOMMENDATION) The North Carolina General Assembly should: a) Remove the cap on coverage of eligible children in the NC Health Choice program. b) Continue to implement Kids' Care, with coverage of children up to 250% of the federal poverty guidelines (FPG). If sufficient federal and state funds are available, Kids Care should be expanded to cover children up to 300% FPG.	✓ NCGA (250% SFY 2010, if sufficient funds 300% or SFY 2011)			
Recommendation 4.3 The North Carolina General Assembly should expand Medicaid to implement the Family Opportunity Act which allows children who meet the Supplemental Security Income (SSI) disability standards with family incomes of up to 300% of the federal poverty guidelines to buy-into the Medicaid program.		✓ NCGA		
Covering Low-Income Adults				
Recommendation 5.1 (PRIORITY RECOMMENDATION) The North Carolina General Assembly and the Governor's Office should work with the North Carolina Congressional delegation to support Medicaid reform that provides fiscal relief to the states and gives states the flexibility and funding to expand coverage to low-income adults without categorical restrictions, along with other efforts to provide an economic stimulus to the state.	✓ NCGA, Gov.'s Off., NC Congressional Delegation			
Recommendation 5.2 (PRIORITY RECOMMENDATION) The North Carolina Division of Medical Assistance (DMA) should conduct outreach activities, and simplify the eligibility determination and recertification process to facilitate the enrollment of Medicaid adults. In addition to efforts undertaken for children, DMA should explore other options applicable to adults, including, but not limited to: eliminating the resource limits for low-income parents or childless adults with incomes below 100% of the federal poverty guidelines and expand the allowable resource limits for other Medicaid eligibles, and expand the certification period from 6 to 12-months.	✓ DMA			
Recommendation 5.3 (PRIORITY RECOMMENDATION) The North Carolina General Assembly should direct the Division of Medical Assistance (DMA) to seek a Medicaid Section1115 waiver to cover more low-income adults. The waiver should be implemented in two phases. a) The first phase should be to expand Medicaid coverage to low-income adults with incomes below 100% of the federal poverty guidelines (FPG).	✓ NCGA, DMA (develop and submit waiver to CMS for coverage up to 200% FPG in two phases)	✓ DMA (implement waiver upon approval, 100% FPG)	✓ DMA (implement waiver upon approval, 200% FPG)	

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
1) DMA should develop a limited benefit package that emphases prevention, primary care, chronic disease management, a limited formulary and limited hospitalizations. 2) Adults covered under this initiative should be enrolled in Community Care of North Carolina (CCNC). 3) DMA should seek to identify other state funds already being used to provide services to this population that could be used as part of the state match for this new Medicaid coverage. b) The second phase should be to expand coverage to adults with incomes between 100%-200% FPG. 1) The adults covered through this waiver should receive the same benefit package and be enrolled in CCNC. 2) DMA should develop a sliding scale for premiums and cost sharing for this group. However, in no event can the combined premium or cost sharing exceed 5% of the families gross income. c) DMA should develop a premium assistance program to enable Medicaid-eligible recipients to use Medicaid funds to pay for employer-sponsored insurance or private non-group insurance purchased in the private market. d) In order to expand the availability of coverage in the small group market, DMA should work with North Carolina Community Care Network, Inc. and private insurers to explore the potential for a lower cost insurance product for small businesses that were previously uninsured, utilizing the CCNC network. Medicaid-eligible recipients who work for employers who enroll in this lower-cost public private partnership plan shall also be eligible for premium assistance. The product may include the following features: 1) Connecting all enrollees with a medical home . 2) A more limited benefit package, emphasizing prevention, primary care and chronic disease management. 3) Ensuring that enrollees with chronic diseases or complex health problems have access to care management and disease management through CCNC networks. 4) An emphasis on wellness, health promotion and personal responsibility. 5) Provider reimbursement for low-income populations with incomes <200% FPG at lower levels than commercial rates.	DMA, CCNC, private insurers (discussions to determine feasibility of public-private, low cost insurance product)	DMA (implement premium assistance)		

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
6) A requirement that small employers that purchase health insurance coverage through this public private partnership also offer Section 125 plans.				
Recommendation 5.4 (PRIORITY RECOMMENDATION) The North Carolina General Assembly should direct the Division of Medical Assistance (DMA) to seek a Medicaid Section 1115 waiver or implement other Medicaid options to provide interconceptional coverage to low-income women with incomes below 185% of the federal poverty guidelines who have had a high-risk birth. (For purposes of this recommendation, high-risk births are those with infants weighing less than 1500 grams, born less than 34 weeks gestation, born with a congenital anomaly, and/or who has died in the neonatal period (first 28 days of life) within the past two years). a) Interconceptional care should be limited to two years following the birth, or until the subsequent birth, whichever occurs sooner. b) DMA should develop a benefit package to improve interconceptional care in order to decrease poor birth outcomes in subsequent pregnancies. c) DMA should explore whether the cost savings from improved health outcomes will offset the cost of providing Medicaid coverage to this targeted population.	✓ NCGA, DMA (implement if no waiver needed, develop and submit waiver to CMS, if necessary)	✓ (Implement after CMS waiver approved, if waiver needed)		
Recommendation 5.5 The North Carolina General Assembly should revise North Carolina General Statute §58-50-180(d) to clarify that the North Carolina Health Insurance Risk Pool has the legal authority to offer premium subsidies. a) The North Carolina General Assembly should appropriate $18 million in recurring funds to help subsidize on a sliding-scale basis the Pool premium for low-income persons with incomes below 300% of the federal poverty guidelines. b) The Pool should pursue sources of funding for premium subsidies, including but not limited to philanthropic foundations to supplement any state funds appropriated for that purpose.		✓ NCGA $18m (NR) NC Risk Pool		

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
Small Employers				
Recommendation 6.1 The North Carolina Department of Insurance should obtain from insurers the necessary data to study how changing the existing small group rating laws to eliminate self-employed groups of one impacts small group rates. The Department of Insurance should use the data to study: a) The impact of changes on the cost of insurance for small groups 2-50, for those who under current small group law qualify as self-employed groups of one, and for enrollees of the high-risk pool. b) The impact on the total number of covered lives in the small group market and the high-risk pool.	✓ DOI (study and seek changes if appropriate)			
Recommendation 6.2 The North Carolina General Assembly should provide tax subsidies or otherwise subsidize the cost of health insurance premiums for small employers. The subsidy may mirror the following example, but successful programs in other states should be reviewed to determine the appropriate levels of subsidy, income level, and employee participation to ensure the most employers and employees participate in purchasing health insurance. a) Funding should be targeted to small employers with15 or fewer eligible employees, at least 30% of which are low-wage workers earning $35,000 or less per year. The North Carolina General Assembly should provide subsidies that will reduce total premiums by 30% for the lower wage workers. To qualify for subsidy: 1) Small employers that have not previously offered health insurance coverage in the last year must pay at least 50% of the costs of employee coverage and enroll at least 75% of eligible employees who do not have other creditable coverage. 2) Small employers that currently offer health insurance coverage must pay at least 50% of the cost of employee coverage, and/or enroll 90% of eligible employees who do not have other creditable coverage. 3) Health plans must include medical management of resources to reduce cost escalation.	✓ NCGA (study to determine costs)	✓ NCGA (implement)		

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
Safety Net				
Recommendation 7.1 (PRIORITY RECOMMENDATION) The North Carolina General Assembly should increase funding to expand safety net capacity. The North Carolina General Assembly should: a) Appropriate $8 million in new recurring funds in SFY 2010 to the Office of Rural Health and Community Care to support the Community Health Center Grants Program. Funding should be used to expand the safety net infrastructure so that safety net organizations can hire staff to support community-based medical homes and expand the availability of preventive, primary, chronic disease management, specialty, dental, behavioral health and/or pharmacy services for the uninsured. Some of the funds should be targeted to support safety net organizations that are providing a disproportionate share of care to the uninsured. b) Appropriate $2.2 million in new recurring funds in SFY 2010 to the Office of Rural Health and Community Care to support the HealthNet program. Funds should be used to sustain existing community collaborations to care for the uninsured and expand networks to other parts of the state.	✓ NCGA $8m SFY 2010 (R) (Community health center grants) $2.2m SFY 2010 (R) (HealthNet) ORHCC			
Workforce				
Recommendation 8.1 a) The North Carolina General Assembly should increase funding to increase the supply of primary care and specialty providers. Specifically, the North Carolina General Assembly should appropriate: 1) $40 million in recurring funds to support the expansion of the medical schools at The University of North Carolina at Chapel Hill and East Carolina University Brody School of Medicine. State funding should be targeted to expansion efforts that result in: i) Increased numbers of physicians who set up and maintain practices in underserved areas. ii) Increased numbers of physicians who practice in primary care or other shortage specialties needed to meet the health care needs of North Carolina. iii) Increased numbers of underrepresented minority physicians. iv) Greater interdisciplinary didactic and clinical team training among physicians, nurse practitioners, physician assistants, and certified nurse midwives, nurses, and other health care professionals.	✓ NCGA $1.2m (R) in SFY 2010 and 2011; $3 m (NR) in SFY 2010 and 2011 for capital costs for community residency programs AHEC (begin residency expansion)	✓ NCGA $1.2m (R) in SFY 2012 and 2013 $2 m (NR) in SFY 2012 for capital costs for community residency programs AHEC (continue residency expansion)	✓ NCGA $1.2m (R) in SFY 2014 AHEC (continue residency expansion)	

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
2) $1.2 million in recurring funds and/or Medicaid Graduate Medical Education to the North Carolina Area Health Educations Centers (AHEC) program in each year over the next five years to fund 12 new residency positions per year across the state targeted toward the high priority specialty areas of primary care, general surgery, psychiatry or other specialty shortage areas. i) This funding should be provided to AHEC, with AHEC then making grants to AHEC and university based residency programs that agree to expand residency slots and create programs designed to graduate physicians likely to settle in rural and other underserved areas of the state. ii) $3million in non-recurring funds in SFY 2010 and 2011 and $2 million in non-recurring funds in SFY 2012 should be provided to help pay for the capital costs involved in developing new community-based residency programs across the state. b) The North Carolina General Assembly should direct General Administration within the University of North Carolina System to explore the possibility of further expansion of physician assistants and nurse practitioner programs in the University of North Carolina System in order to: 1) Increased numbers of nurse practitioners and physician assistants who set up and maintain practices in underserved areas 2) Increased numbers of nurse practitioners and physician assistants who practice in primary care or other shortage specialties needed to meet the health care needs of North Carolina 3) Increased numbers of underrepresented minority nurse practitioners and physician assistants. 4) Greater interdisciplinary didactic and clinical team training among physicians, nurse practitioners, physician assistants, certified nurse midwives, nurses and other health care professionals.	NC University System (study need for PA and NP expansion)	NC University System (Begin phase in medical school expansion) (Implement PA and NP expansion if study finds necessary)	NC University System (Continue phase in of medical school expansion)	
Recommendation 8.2 (PRIORITY RECOMMENDATION) In order to maintain and expand access to health care services for low-income and underserved populations, the North Carolina General Assembly should: a) Continue to support the Community Care of North Carolina (CCNC) program. b) Continue to tie Medicaid reimbursement to physicians at 95% of the Medicare rates.	✓ NCGA $1.9m (R) (SFY 2010) DMA (continue 95% Medicare reimburse.)	✓ DMA (increase reimburse. rates)		

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
c) Direct the Division of Medical Assistance to increase the payment for primary care practitioners practicing in health professional shortage areas either by increasing reimbursement rates or establishing a higher per member per month (pmpm) CCNC payment. d) The North Carolina General Assembly should appropriate $1,915,600 million in recurring funds to the North Carolina Office of Rural Health and Community Care (ORHCC). Of this amount: 1) $350,000 should be appropriated to provide technical assistance to communities to help identify community needs and practice models that can best meet these needs and to provide technical assistance to small practices or solo practitioners practicing in medically underserved communities or serving underserved populations; 2) $1.5 million should be appropriated to pay for loan repayment and financial incentives to recruit and retain primary care physicians, physician assistants, nurse practitioners, and certified nurse midwives, psychiatrists, psychiatric physician assistants, psychiatric nurse practitioners, general surgeons and dentists to rural and underserved communities; and 3) $65,600 should be appropriated to expand the number of ORHCC staff who recruit practitioners into health professional shortage areas. 4) ORHCC should place a special emphasis on recruiting and retaining underrepresented minority, bilingual and bicultural providers to work in underserved areas or with underserved populations.	ORHCC (implement incentives)			
Recommendation 8.3 In order to expand the health professional workforce in underserved areas of the state: a) The North Carolina General Assembly should direct the North Carolina Office of Rural Health and Community Care (ORHCC) to explore different forms of financial incentives or other systems to encourage providers to establish and remain in practice in underserved areas or with underserved populations, and report the findings back to the 2011 Session of the North Carolina General Assembly. The ORHCC should work with the North Carolina Medical Society Foundation and other relevant groups to identify appropriate incentives which may include, but not be limited to: tax credits, increased reimbursement, malpractice premium subsidies or grants to help practices purchase electronic health records.	✓ NCGA (continue support of existing programs) ORHCC (study forms of financial incentives and report to NCGA in 2011 session)			

	Phase 1 (SFY 2010-2011)	Phase 2 (SFY 2012-2014)	Phase 3 (SFY 2015-2016)	Phase 4 (SFY 2017-2018)
b) The North Carolina General Assembly should continue support to existing programs to enable them to work with practices in underserved areas to assist with systems redesign and quality improvement initiatives. These strategies could include, but not be limited to providing support to small rural hospitals to help pay for call coverage or use of hospitalists.				
Recommendation 8.4 In order to improve the skills of health care professionals and practice managers to handle the business aspects of running a health care practice: a) The North Carolina General Assembly should appropriate $250,000 in recurring funds to the North Carolina Office of Rural Health and Community Care (ORHCC). ORHCC should use funding to support technical assistance provided through the Office of Rural Health and Community Care and the North Carolina Medical Society Foundation *PracEssentials* programs to practices in underserved areas or serving underserved populations. b) The University of North Carolina system, North Carolina community colleges, and North Carolina independent colleges and universities should offer courses that can improve the skills of existing practice managers and increase the supply of new practice managers across the state. These courses should be targeted to underserved areas of the state. c) The North Carolina Area Health Education Centers Program, ORHCC, Community Practitioner Program, North Carolina community colleges, and North Carolina independent colleges and universities should develop educational and continuing education courses for existing practitioners and staff to enhance the business skills needed to maintain a viable practice. d) North Carolina foundations should consider funding start-up programs to community colleges and other organizations to enhance the skills of practice managers and providers and programs targeted to underserved areas.	✓ NCGA (250K (R) (SFY 2010) ORHCC (provide technical support)	✓ NC University System, NC community colleges, other colleges (offer courses in practice mngr.) AHEC, ORHCC, NC community colleges, other colleges (develop courses for practice mngr.)		

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Meeting Topics and Presenters

Topics and Presenters

September 23, 2008

Overview of the uninsured
Mark Holmes, PhD
Vice President
North Carolina Institute of Medicine

Prior North Carolina Institute of Medicine Task Force recommendations around access
Pam Silberman, JD, DrPH
President and CEO
North Carolina Institute of Medicine

Current North Carolina health initiatives to improve quality and access
Community Care of North Carolina
Medicare/Medicaid 646 Waiver
Torlen Wade, MSPH
Executive Director
North Carolina Community Care Network, Inc.

North Carolina Healthcare Quality Alliance
Mark Holmes
Vice President
North Carolina Institute of Medicine

North Carolina High Risk Pool
Michael Keough
Executive Director
North Carolina Health Insurance Risk Pool

October 21, 2008

Options to expand coverage to children
Cindy Mann, JD
Executive Director
Center for Children and Families
Georgetown University Health Policy Institute

Primary care and specialty supply trends
Thomas C. Ricketts, III, PhD, MPH
Deputy Director
Cecil G. Sheps Center for Health Service Research
Professor
Health Policy and Management and Social Medicine
The University of North Carolina at Chapel Hill

North Carolina residency programs
Thomas Bacon, DrPH
Associate Dean and Director
Area Health Education Centers Program
School of Medicine

November 12, 2008

Options to expand coverage to low-income adults
Samantha Artiga, MHSA
Senior Policy Analyst
Kaiser Commission on Medicaid and the Uninsured
Henry J. Kaiser Family Foundation

Options to expand coverage to small employers
Joshua Goldberg
Health Policy and Legislative Analyst
National Association of Insurance Commissioners

North Carolina small business innovations
Ken Lewis
CEO
FirstCarolinaCare
President of Board
North Carolina Association of Health Plans

December 10, 2008

Overview of premium assistance programs: Insure Oklahoma and New Mexico State Coverage Insurance
Melissa Pratt
Outreach Manager
Insure Oklahoma

Additional options to expand coverage to small employers: section 125 plans and connectors
Ed Neuschler
Senior Program Officer
Institute for Health Policy Solutions

North Carolina small business innovations
Brian Toomey
CEO
Piedmont Health Services, Inc.

Options to strengthen and expand the health care safety net
Pam Silberman, JD, DrPH
President and CEO
North Carolina Institute of Medicine

January 8, 2009

Review and prioritization of recommendations

Table 1: Non-Elderly (Age 0-64)

Category	2006-2007 Rates			Change: 2001-2002 to 2006-2007		
	Thousands of Uninsured	Percent of All Uninsured	Percent Uninsured	Thousands of Uninsured	Percent of All Uninsured	Percent Uninsured
Total	1,523	100	18.9	206	0	0.6
Income						
<100% FPG	457	30	36	63	0.1	-2.4
100-200% FPG	445	29.2	31	55	-0.4	1.7
200-300% FPG	323	21.2	20.6	86	3.2	1.8
300%+ FPG	299	19.6	7.9	2	-2.9	-0.4
Race/Ethnicity						
White, Not Hispanic	699	45.9	13.2	54	-3.1	-0.5
Af-Amer, Not Hispanic	394	25.9	21.6	9	-3.4	-1.4
Not White or Af-Amer or Hispanic	121	8	33.9	61	3.4	15.5
Hispanic	308	20.2	53.4	82	3	3.3
Labor Force Status						
Not in Labor Force	397	30	23.6	62	0.3	-0.9
Unemployed	107	8.1	46.2	-20	-3.2	4.1
Part Time	183	13.9	28.5	-3	-2.6	-0.7
Full Time	633	48	17.7	154	5.4	2.1
Firm Size						
1-24 employees	395	48.5	31.5	59	-2.1	-2.2
25-99	103	12.6	19.1	41	3.3	2.7
100-999	100	12.3	13.9	23	0.6	3.7
Greater than 1000	152	18.7	9.7	6	-3.3	-0.1
Unknown Size	65	8	48.3	21	1.4	-1.5
Family Workforce Status						
No Workers	188	12.3	20.6	10	-1.2	0.3
Only PT Workers	165	10.8	31.4	-6	-2.2	-3.2
1 FT Worker	668	43.9	19.3	72	-1.4	0.9
2+ FT Workers	502	33	16	130	4.7	1.4
Age						
0-17	283	18.6	12.5	28	-0.8	0.2
18-24	238	15.7	28.9	25	-0.5	0
25-34	372	24.5	29.2	51	0	3
35-44	260	17.1	19.6	14	-1.6	0.2
45-54	217	14.2	17.4	40	0.8	1.1
55-64	153	10	13.7	48	2.1	0.2
Citizenship						
Citizen	1250	82.1	16.5	134	-2.6	0.1
Not a citizen	273	17.9	61.4	72	2.6	4.7
Gender						
Male	827	54.3	20.5	160	3.7	1.7
Female	697	45.7	17.4	46	-3.7	-0.6

Table 1: Non-Elderly (Age 0-64)

	2006-2007 Rates			Change: 2001-2002 to 2006-2007		
Category	Thousands of Uninsured	Percent of All Uninsured	Percent Uninsured	Thousands of Uninsured	Percent of All Uninsured	Percent Uninsured
Rural/Urban						
Urban	977	64.1	18.2	80	-3.9	0.6
Rural	547	35.9	20.4	126	3.9	0.1
Self-Perceived Health Status						
Excellent	373	24.5	12.9	26	-1.8	-1.2
Very Good	523	34.4	20	95	1.8	1.7
Good	490	32.2	27	117	3.9	4
Fair	98	6.5	19.1	-11	-1.8	-5.8
Poor	39	2.5	18.6	-22	-2	-1.2

Source: North Carolina Institute of Medicine Analysis of Current Population Survey Data (US Census Bureau).

Table 2: Adults (Age 19-64)

	2006-2007 Rates			Change: 2001-2002 to 2006-2007		
Category	Thousands of Uninsured Adults	Percent of All Uninsured Adults	Percent of Adults Uninsured	Thousands of Uninsured Adults	Percent of All Uninsured Adults	Percent of Adults Uninsured
Total	1,217	100	21.5	173	0	0.6
Income						
<100% FPG	350	28.8	46.2	59	0.9	-2.6
100-200% FPG	343	28.2	37.5	36	-1.2	1.5
200-300% FPG	277	22.7	24.9	81	4	2
300%+ FPG	247	20.3	8.6	-3	-3.7	-0.7
Race/Ethnicity						
White, Not Hispanic	580	47.7	15	47	-3.4	-0.5
Af-Amer, Not Hispanic	309	25.4	25.9	26	-1.7	-0.2
Not White or Af-Amer or Hispanic	91	7.5	37.6	40	2.6	14
Hispanic	237	19.5	63.9	59	2.5	2.2
Labor Force Status						
Not in Labor Force	314	25.8	24.8	38	-0.6	-1.1
Unemployed	100	8.2	47.1	-19	-3.1	3
Part Time	172	14.2	30.2	0	-2.4	-0.3
Full Time	630	51.8	17.7	154	6.2	2.1
Firm Size						
1-24 employees	391	48.7	31.8	59	-2.4	-2.3
25-99	102	12.7	19.2	41	3.4	2.5
100-999	99	12.3	13.9	24	0.7	3.8
Greater than 1000	152	18.9	9.8	8	-3.2	0.1
Unknown Size	59	7.4	51.2	21	1.5	-3.7
Family Workforce Status						
No Workers	161	13.2	23.2	12	-1	-2
Only PT Workers	129	10.6	38.7	-4	-2.1	-3.3
1 FT Worker	509	41.8	21.9	47	-2.4	1
2+ FT Workers	419	34.4	18	117	5.5	2.1
Age						
18-24	215	17.7	30.5	20	-1	0.5
25-34	372	30.6	29.2	51	-0.2	3
35-44	260	21.4	19.6	14	-2.2	0.2
45-54	217	17.8	17.4	40	0.9	1.1
55-64	153	12.6	13.7	48	2.5	0.2
Citizenship						
Citizen	970	79.7	18.4	104	-3.3	0
Not a citizen	246	20.3	64.2	69	3.3	6
Gender						
Male	668	54.9	23.6	142	4.6	2.1
Female	549	45.1	19.3	31	-4.6	-0.9

Table 2: Adults (Age 19-64)

	2006-2007 Rates			Change: 2001-2002 to 2006-2007		
Category	Thousands of Uninsured Adults	Percent of All Uninsured Adults	Percent of Adults Uninsured	Thousands of Uninsured Adults	Percent of All Uninsured Adults	Percent of Adults Uninsured
Rural/Urban						
Urban	766	62.9	20.2	52	-5.4	0.3
Rural	451	37.1	24	121	5.4	1
Self-Perceived Health Status						
Excellent	260	21.4	15.4	22	-1.5	-1.3
Very Good	400	32.9	21.4	61	0.4	0.9
Good	422	34.7	29.9	112	4.9	4.8
Fair	96	7.9	20	-4	-1.7	-5.4
Poor	39	3.2	18.6	-17	-2.2	-0.8
Industry						
Agriculture	21	2.6	50.2	2	-0.3	15.9
Construction	202	25.2	48.6	58	2.9	5.8
Manufacture	47	5.8	8.8	-22	-4.8	-2.8
Transport	17	2.2	10.7	-2	-0.8	-1.7
Trade	99	12.4	16.8	4	-2.4	-2.1
Health & Education	129	16.1	13.9	41	2.5	3.2
Finance	31	3.9	10.7	15	1.3	3.2
Government	5	0.6	2.7	1	0	-0.8
Hospitality	121	15.1	35.9	38	2.3	1.6
Other	129	16.1	20.5	19	-0.8	0.9

Source: North Carolina Institute of Medicine Analysis of Current Population Survey Data (US Census Bureau).

Table 3: Children (Age 0-18)

	2006-2007 Rates			Change: 2001-2002 to 2006-2007		
Category	Thousands of Uninsured Children	Percent of All Uninsured Children	Percent of Children Uninsured	Thousands of Uninsured Children	Percent of All Uninsured Children	Percent of Children Uninsured
Total	306	100	12.9	33	0	0.2
Income						
<100% FPG	107	34.9	20.8	3	-2.9	-3.1
100-200% FPG	102	33.3	19.6	18	2.8	2.1
200-300% FPG	46	15	10.1	5	0	0
300%+ FPG	52	16.8	5.8	6	0.1	0.4
Race/Ethnicity						
White, Not Hispanic	119	38.9	8.4	7	-2	-0.3
Af-Amer, Not Hispanic	86	27.9	13.5	-18	-9.7	-3.8
Not White or Af-Amer or Hispanic	30	9.8	26	21	6.4	17.7
Hispanic	71	23.3	34.6	22	5.4	4.7
Citizenship						
Citizen	280	91.3	12.1	30	0.2	0.2
Not a citizen	27	8.7	43.9	2	-0.2	-3.9
Gender						
Male	159	51.9	13.1	17	0.2	0.3
Female	147	48.1	12.7	15	-0.2	0.1
Rural/Urban						
Urban	211	68.8	13.4	28	1.9	1.3
Rural	96	31.2	11.8	5	-1.9	-2.2
Self-Perceived Health Status						
Excellent	113	36.7	9.4	4	-2.7	-1
Very Good	123	40.1	16.5	34	7.6	3.4
Good	68	22.3	16.9	6	-0.6	0.5
Fair	2	0.8	7	-7	-2.6	-13.9
Poor	0	0	0	-5	-1.7	-25
Living With Parents?						
Both parents	144	47	9.8	N/A	N/A	N/A
Mother only	102	33.3	16.8	N/A	N/A	N/A
Father only	9	3	12.4	N/A	N/A	N/A
Neither parent	26	8.6	25.8	N/A	N/A	N/A

Source: North Carolina Institute of Medicine Analysis of Current Population Survey Data (US Census Bureau).

County Level Data on the North Carolina Uninsured 2006-2007

Appendix C

	Children (0-18)			Adults (19-64)			Non-elderly (0-64)		
County	Number	Percent	Rank	Number	Percent	Rank	Number	Percent	Rank
Alamance	7,000	17.1%	High	20,000	22.5%	Mid-Low	27,000	20.8%	Mid-High
Alexander	1,000	11.6%	Mid-Low	4,000	19.1%	Low	6,000	16.9%	Low
Alleghany	<500	10.5%	Low	2,000	25.7%	High	2,000	21.4%	Mid-High
Anson	1,000	12.4%	Mid-Low	4,000	25.9%	High	5,000	21.8%	High
Ashe	1,000	10.8%	Low	4,000	24.2%	Mid-High	5,000	20.4%	Mid-High
Avery	1,000	12.1%	Mid-Low	3,000	25.9%	High	3,000	22.2%	High
Beaufort	2,000	12.7%	Mid-Low	7,000	23.8%	Mid-High	8,000	20.2%	Mid-High
Bertie	1,000	13.1%	Mid-High	3,000	24.6%	Mid-High	4,000	20.9%	Mid-High
Bladen	1,000	14.5%	Mid-High	5,000	24.8%	Mid-High	6,000	21.4%	Mid-High
Brunswick	2,000	9.6%	Low	14,000	23.8%	Mid-High	16,000	19.6%	Mid-Low
Buncombe	7,000	11.5%	Mid-Low	29,000	20.8%	Low	36,000	18.1%	Low
Burke	3,000	13.4%	Mid-High	12,000	20.7%	Low	15,000	18.4%	Low
Cabarrus	7,000	14.4%	Mid-High	20,000	19.5%	Low	26,000	17.9%	Low
Caldwell	3,000	11.9%	Mid-Low	10,000	20.1%	Low	13,000	17.6%	Low
Camden	<500	10.2%	Low	1,000	22.0%	Mid-Low	2,000	18.6%	Mid-Low
Carteret	1,000	7.6%	Low	9,000	22.2%	Mid-Low	10,000	18.0%	Low
Caswell	1,000	11.1%	Low	4,000	23.9%	Mid-High	4,000	20.1%	Mid-High
Catawba	6,000	13.7%	Mid-High	20,000	20.0%	Low	26,000	18.0%	Low
Chatham	2,000	15.4%	High	8,000	20.7%	Low	10,000	19.2%	Mid-Low
Cherokee	1,000	9.8%	Low	4,000	25.1%	Mid-High	5,000	20.4%	Mid-High
Chowan	1,000	12.1%	Mid-Low	2,000	25.2%	Mid-High	3,000	21.0%	Mid-High
Clay	<500	6.4%	Low	1,000	24.2%	Mid-High	2,000	19.1%	Mid-Low
Cleveland	3,000	11.7%	Mid-Low	13,000	21.9%	Mid-Low	17,000	18.6%	Mid-Low
Columbus	2,000	13.8%	Mid-High	9,000	27.1%	High	11,000	22.7%	High
Craven	4,000	13.0%	Mid-High	12,000	22.1%	Mid-Low	16,000	19.0%	Mid-Low
Cumberland	15,000	14.8%	High	45,000	24.3%	Mid-High	60,000	21.0%	Mid-High
Currituck	1,000	10.5%	Low	4,000	23.2%	Mid-Low	4,000	19.4%	Mid-Low
Dare	1,000	9.5%	Low	5,000	22.6%	Mid-Low	6,000	18.8%	Mid-Low
Davidson	6,000	13.4%	Mid-High	20,000	20.4%	Low	26,000	18.2%	Low
Davie	1,000	12.7%	Mid-High	5,000	19.7%	Low	6,000	17.6%	Low
Duplin	4,000	24.0%	High	10,000	29.4%	High	13,000	27.6%	High
Durham	11,000	15.1%	High	34,000	21.1%	Low	45,000	19.3%	Mid-Low
Edgecombe	2,000	13.3%	Mid-High	9,000	26.4%	High	11,000	22.1%	High
Forsyth	14,000	14.5%	Mid-High	44,000	20.8%	Low	58,000	18.8%	Mid-Low
Franklin	2,000	14.5%	High	9,000	23.4%	Mid-Low	11,000	20.7%	Mid-High
Gaston	7,000	12.9%	Mid-High	26,000	20.3%	Low	33,000	18.0%	Low
Gates	<500	11.5%	Mid-Low	2,000	24.0%	Mid-High	2,000	20.1%	Mid-Low
Graham	<500	10.7%	Low	1,000	26.8%	High	2,000	21.8%	High
Granville	2,000	14.6%	High	8,000	21.0%	Low	10,000	19.1%	Mid-Low

	Children (0-18)			Adults (19-64)			Non-elderly (0-64)		
County	Number	Percent	Rank	Number	Percent	Rank	Number	Percent	Rank
Greene	1,000	20.6%	High	4,000	28.8%	High	5,000	26.3%	High
Guilford	15,000	11.4%	Mid-Low	59,000	20.5%	Low	74,000	17.7%	Low
Halifax	2,000	11.0%	Low	9,000	27.7%	High	11,000	22.2%	High
Harnett	6,000	17.8%	High	17,000	24.5%	Mid-High	22,000	22.4%	High
Haywood	1,000	9.4%	Low	8,000	22.2%	Mid-Low	9,000	18.4%	Low
Henderson	3,000	13.0%	Mid-High	13,000	22.3%	Mid-Low	16,000	19.4%	Mid-Low
Hertford	1,000	11.6%	Mid-Low	4,000	26.9%	High	5,000	22.1%	High
Hoke	3,000	21.6%	High	7,000	26.8%	High	10,000	25.0%	High
Hyde	<500	10.8%	Low	1,000	31.4%	High	1,000	25.8%	High
Iredell	5,000	12.7%	Mid-Low	19,000	20.0%	Low	24,000	17.7%	Low
Jackson	1,000	10.4%	Low	6,000	24.3%	Mid-High	7,000	20.2%	Mid-High
Johnston	8,000	16.9%	High	23,000	22.8%	Mid-Low	30,000	21.0%	Mid-High
Jones	<500	14.0%	Mid-High	2,000	26.5%	High	2,000	22.7%	High
Lee	3,000	18.3%	High	8,000	22.8%	Mid-Low	11,000	21.2%	Mid-High
Lenoir	2,000	13.8%	Mid-High	9,000	25.3%	Mid-High	11,000	21.5%	Mid-High
Lincoln	3,000	15.3%	High	10,000	21.6%	Mid-Low	13,000	19.7%	Mid-Low
McDowell	2,000	14.0%	Mid-High	6,000	20.7%	Low	7,000	18.7%	Mid-Low
Macon	1,000	9.6%	Low	5,000	25.6%	High	6,000	20.7%	Mid-High
Madison	1,000	11.2%	Low	3,000	22.5%	Mid-Low	3,000	19.1%	Mid-Low
Martin	1,000	13.1%	Mid-High	4,000	25.9%	High	5,000	21.8%	High
Mecklenburg	31,000	12.6%	Mid-Low	110,000	20.3%	Low	142,000	17.9%	Low
Mitchell	<500	10.5%	Low	2,000	23.9%	Mid-High	3,000	19.9%	Mid-Low
Montgomery	2,000	19.9%	High	4,000	25.5%	High	6,000	23.7%	High
Moore	3,000	11.5%	Mid-Low	10,000	21.2%	Low	13,000	18.1%	Low
Nash	4,000	13.2%	Mid-High	13,000	22.1%	Mid-Low	16,000	19.2%	Mid-Low
New Hanover	5,000	9.8%	Low	26,000	21.5%	Mid-Low	30,000	18.1%	Low
Northampton	1,000	9.9%	Low	3,000	24.6%	Mid-High	4,000	19.9%	Mid-Low
Onslow	9,000	16.9%	High	26,000	27.6%	High	34,000	23.8%	High
Orange	4,000	12.0%	Mid-Low	15,000	18.7%	Low	19,000	16.8%	Low
Pamlico	<500	7.5%	Low	2,000	23.3%	Mid-Low	2,000	18.8%	Mid-Low
Pasquotank	2,000	14.3%	Mid-High	7,000	26.1%	High	8,000	22.4%	High
Pender	2,000	12.5%	Mid-Low	8,000	25.3%	Mid-High	10,000	21.5%	Mid-High
Perquimans	<500	9.8%	Low	2,000	25.4%	Mid-High	2,000	20.6%	Mid-High
Person	1,000	13.0%	Mid-High	5,000	21.9%	Mid-Low	7,000	19.2%	Mid-Low
Pitt	6,000	14.6%	High	22,000	23.5%	Mid-High	28,000	20.8%	Mid-High
Polk	1,000	10.8%	Low	2,000	21.2%	Low	3,000	18.1%	Low
Randolph	7,000	15.9%	High	19,000	21.3%	Mid-Low	25,000	19.6%	Mid-Low
Richmond	2,000	14.1%	Mid-High	7,000	25.5%	Mid-High	9,000	21.7%	High
Robeson	7,000	16.0%	High	24,000	30.0%	High	31,000	25.2%	High
Rockingham	4,000	13.9%	Mid-High	13,000	22.7%	Mid-Low	17,000	20.0%	Mid-Low
Rowan	5,000	13.7%	Mid-High	18,000	20.6%	Low	23,000	18.5%	Low

	Children (0-18)			Adults (19-64)			Non-elderly (0-64)		
County	**Number**	**Percent**	**Rank**	**Number**	**Percent**	**Rank**	**Number**	**Percent**	**Rank**
Rutherford	2,000	12.7%	Mid-High	9,000	23.7%	Mid-High	11,000	20.2%	Mid-High
Sampson	4,000	21.3%	High	11,000	27.9%	High	15,000	25.7%	High
Scotland	1,000	11.9%	Mid-Low	6,000	24.5%	Mid-High	7,000	20.4%	Mid-High
Stanly	2,000	12.2%	Mid-Low	8,000	21.5%	Mid-Low	10,000	18.6%	Low
Stokes	1,000	11.7%	Mid-Low	6,000	19.9%	Low	7,000	17.4%	Low
Surry	3,000	16.0%	High	10,000	22.1%	Mid-Low	13,000	20.1%	Mid-High
Swain	<500	12.4%	Mid-Low	2,000	23.8%	Mid-High	2,000	20.0%	Mid-Low
Transylvania	1,000	6.7%	Low	4,000	22.1%	Mid-Low	4,000	17.3%	Low
Tyrrell	<500	16.3%	High	1,000	33.3%	High	1,000	28.6%	High
Union	8,000	14.4%	Mid-High	23,000	20.0%	Low	31,000	18.2%	Low
Vance	2,000	15.5%	High	7,000	26.9%	High	9,000	23.0%	High
Wake	26,000	11.3%	Mid-Low	97,000	18.4%	Low	123,000	16.3%	Low
Warren	1,000	11.7%	Mid-Low	3,000	28.1%	High	4,000	23.2%	High
Washington	<500	10.9%	Low	2,000	28.0%	High	3,000	22.3%	High
Watauga	1,000	11.5%	Mid-Low	7,000	23.6%	Mid-High	8,000	20.5%	Mid-High
Wayne	5,000	15.2%	High	16,000	23.4%	Mid-Low	22,000	20.7%	Mid-High
Wilkes	2,000	12.3%	Mid-Low	9,000	20.4%	Low	11,000	17.9%	Low
Wilson	3,000	15.2%	High	12,000	25.0%	Mid-High	15,000	21.8%	High
Yadkin	2,000	16.6%	High	5,000	21.7%	Mid-Low	7,000	20.1%	Mid-Low
Yancey	1,000	12.3%	Mid-Low	3,000	25.6%	High	3,000	21.6%	Mid-High
North Carolina	**345,000**	**11.3%**		**1,232,000**	**19.5%**		**1,578,000**	**19.5%**	

Source: Produced by North Carolina Institute of Medicine and Cecil G. Sheps Center for Health Services Research.

Estimates rounded to nearest 1000.

Rank: "High" denotes 25 counties with the highest percent uninsured. "Mid-High" next 25 highest,"Mid-Low" next 25 highest, and "Low" denotes the 25 counties with lowest percent non-elderly uninsured.

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