

History of Health Care Policy Making in North Carolina

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I. History of Health Care Policy Making in North Carolina

A. Good Health Movement (1944)

The history of the modern North Carolina health care system began in 1944 when a group of physicians from the NC Medical Society approached Governor J. Melville Broughton (1941-1945) about the shortage of hospitals and physicians in the state. While North Carolina was the 11th most populated state in 1940, it was 45th in the nation in the number of physicians per population, 42nd in the number of hospital beds, and 39th in infant mortality (with the state ranked first being the best in the nation).¹ North Carolina had the largest number of young men of any state who were rejected from the army due to health reasons.^a The leadership of the NC Medical Society approached Governor Broughton with the goal of addressing this problem.

Governor Broughton created the North Carolina Hospital and Medical Care Commission, chaired by Dr. Clarence Poe, editor of the *Progressive Farmer* magazine (hereinafter the “Poe Commission”), to study the hospital and health care needs of the state. The Commission included 50 members, including Dr. Walter Reece Berryhill, dean of the UNC School of Medicine, strong leadership from the NC Medical Society, and other community leaders. At the time of the Poe Commission, the University of North Carolina (UNC) at Chapel Hill had a two-year medical school. There were only two four-year medical schools in the state: Duke University (which was graduating about 20 North Carolina medical students/year); and Wake Forest University (which was graduating approximately 40 North Carolina medical students/year). In addition to the two-year medical school, UNC-Chapel Hill operated a Pharmacy School (established in 1897) and a School of Public Health (established in 1936).^b^{2,3} The Poe Commission recommended generally that North Carolina needed more physicians, more hospitals, and more insurance, and that “the ultimate purpose of this program should be that no person in North Carolina shall lack adequate hospital care or medical treatment by reason of poverty or low income.”

The report identified health problems that still plague the state today.^{c1} For example, the Poe Commission recommended:

^a From April 1942-March 1943, 48.1% of young men were rejected from the army due to physical defects. From February – August 1943, 56.7% of young men were rejected. During the same time period, less than 2% of young men raised in orphanages were rejected due to health reasons. (To the Governor and to the 1945 General Assembly. Final Report of the North Carolina Hospital and Medical Care

Commission. <http://unchsl3.depts.unc.edu/ncmp/hsl-nc-0001.pdf>. Accessed October 12, 2009. Reports of Chairman and Subcommittees of the North Carolina Hospital and Medical Care Commission 1944-45. Hospital and Medical Care for All Our People. <http://unchsl3.depts.unc.edu/ncmp/hsl-nc-0003.pdf>. Accessed October 12, 2009.)

^b In 1936, the UNC School of Public Health was established as part of the UNC School of Medicine. It became a separate school within the university in 1939. The UNC School of Public Health was the first public health school in the country that operated out of a public university.

^c The Commission recommended that North Carolina: 1) expand the two-year medical school at the University of North Carolina at Chapel Hill to a four-year medical school; 2) expand the North Carolina Memorial Hospital to 600 or more beds; 3) create a medical loan fund for medical students; 4) expand medical training for negro youth; 5) create a small number of district hospitals and a larger number of county or rural hospitals; 6) develop a statewide psychiatric program; 7) create a permanent Hospital and Medical Care Commission; 8) increase funding for public

- 1) *More physicians.* The Poe Commission noted that an inadequate number of physicians existed to meet the growing health care needs of the state, and that physicians were not well distributed across the state.⁴ Seventy-three percent of the population lived in rural areas, but only 31% of the physicians practiced in these communities in 1940.⁵ Because UNC-Chapel Hill only had a two-year medical school, students completed the first two-years in Chapel Hill and then often went out of state to complete their final two years. Consequently, North Carolina was not graduating enough new physicians to meet the growing state population or to replace retiring physicians. To address this problem, the Poe Commission recommended the expansion of the UNC School of Medicine from a two-year to a four-year institution. The Poe Commission recommended offering scholarships to North Carolina students who in turn would agree to practice for four-years in rural areas of the state in order to address the maldistribution issues. The Poe Commission also recommended that post-graduate education be provided to physicians throughout the state. Further, while not focusing on other health professionals, the Poe Commission noted that there was also a shortage of nurses, pharmacists and dentists (and suggested that further study be devoted to the creation of a dental school in North Carolina).
- 2) *More hospitals.* Closely connected to the need for more physicians was the need for more hospitals.^d At the time, there were 34 counties without any hospital and an insufficient number of hospital beds to meet the needs of the state.⁶ The Poe Commission members recognized that new medical students were more likely to locate in communities that had access to adequate hospital facilities. Increasing the number of hospitals in rural communities would also help encourage doctors to locate in those areas. The Poe Commission recommended that the state create a central hospital of 600 beds or more to meet the needs of the state. This hospital would be located at UNC-Chapel Hill and would also help provide medical education. In addition, the Poe Commission recommended that the state provide support to help build a small number of district hospitals of approximately 100 beds and small rural hospitals with approximately 60 beds each. The Poe Commission recommended that the General Assembly appropriate \$5 million for hospital construction, along with funds to help pay for indigent care. (See affordability section below.) Further, the Poe Commission recommended the establishment of a permanent State Hospital and Medical Care Council to adopt policies for the hospital building program, medical student loan fund, and general administration of the state hospital and medical care program.
- 3) *More insurance (and affordability of care).* The Poe Commission recognized that many people could not afford to pay for their health services. At the time, there were two Blue Cross plans operating across the state that provided hospital insurance, although these plans did not cover African Americans. Access to insurance for medical services was much more limited. Thus, the

health and school health examinations; and 9) expand the Blue Cross hospital insurance to cover medical costs and drugs.

^d The state's first civilian hospital was St. Peter's Hospital in Charlotte, built in 1876. (UNC TV Online. North Carolina Nurses. A Century of Caring. <http://www.unctv.org/ncnursing/program.html>. Accessed September 29, 2009.)

Poe Commission recommended the development of group medical care plans that would cover medical services and prescribed drugs and that would be made available to African Americans.

Commissioner Poe noted: “The importance of insurance for hospital and medical care in a general program such as ours can hardly be overestimated. Every citizen needs to realize that is just as important to have insurance against sickness-disasters as against fire-disasters.”⁷ The report also noted that: “1) The family that can pay its way will do so—yet the burden on even these families should be eased through health-and-hospital insurance; 2) The family that can partly pay its way will pay this part (likewise helped by insurance to the fullest possible degree); government and philanthropic aid being provided for the remainder; and 3) The family that poverty, illness, or other misfortune has left honestly incapable of paying anything for its fight against disease will nevertheless be helped to an equal chance with the rest of us as it makes the same grim battle against ever-menacing Death which we must all make and see our loved ones make sooner or later.”¹

In addition, to make hospital services more affordable for those without hospital insurance, the Poe Commission recommended that the state help contribute \$1 per day for each indigent patient seen in a non-profit or public hospital. The state funds would be used to match The Duke Endowment’s dollar-a-day program.^e Counties or municipalities would be expected to provide additional resources to help offset the costs of caring for indigent patients.

- 4) *Health disparities.* The Poe Commission recognized health disparities for the African American population, both in health outcomes and in access to care.⁸ At the time of the Good Health Plan, health facilities were segregated. The death rate for African Americans at the time was 146% that of the white death rate.¹ There was no hospital available to treat black patients in 43 counties.^f Access to African American physicians was also more limited for African Americans. While there was one physician for every 1,938 North Carolinians in 1944, there was one doctor for every 6,916 African-Americans.⁹ The medical schools were still segregated at the time. Subsequently, the Poe Commission recommended that a regional medical school for African Americans be established to train African American physicians from North and South Carolina.
- 5) *Mental health.* One of the Commission’s subcommittees, which focused on the mental health needs of the state, noted that 40-70% of the average physician’s practice is devoted to the diagnosis and treatment of health problems that were at least partially psychiatric in nature.

^e J.B. Duke created The Duke Endowment in 1924 with an initial gift of \$40 million. The Duke Endowment helped fund the construction of community hospitals in North Carolina. One of the initial provisions in the trust of indenture was to pay to “each and every such hospital, whether for white or colored, and not operated for private gain, such sum (not exceeding one dollar) per free bed per day for each and every day that said free bed may have been occupied during the period covered by such payment free of charge by patients unable to pay....” This was later known as the “dollar a day” program. (The Duke Endowment Indenture of Trust.

<http://www.dukeendowment.org/images/stories/downloads/tde/indenture.PDF>. Accessed September 28, 2009.)

^f There were separate hospitals for the treatment of African American patients. The first hospital, The Good Samaritan Hospital, opened in Charlotte in 1891.

However, there were few community resources to treat people with mental illness and no insurance coverage (as the Blue Cross plans available at the time excluded coverage for a psychiatric illness). The only available resources were state hospitals that cared for people who were “insane,” but 98% of those with mental illnesses did not need to be institutionalized in one of the state psychiatric hospitals.¹⁰ Thus, the Poe Commission recommended additional training of psychiatrists at the new four-year university, along with adding community mental health beds in local hospitals. The Poe Commission also recommended outpatient psychiatric clinics staffed with psychiatrists and psychiatric social workers.

- 6) *Public Health.* The Poe Commission recognized that state funding for public health was inadequate. Local health departments only covered 91 of the state’s 100 counties at the time of this report, and funding was insufficient to meet the public health needs of the state.¹¹ Thus, the Poe Commission recommended that appropriations for public health work be increased until the state had an adequate program for the prevention of disease, “thus reducing needed hospital and medical care to the lowest practicable minimum,” and that public health be expanded to include all 100 counties.
- 7) *Child School Health program.* The Poe Commission found that most school-age students had health problems. When the United States entered World War II, the state Department of Public Instruction worked with local schools to organize health inspections of the boys in the upper grades. Local physicians and dentists provided health and dental examinations in about half of the schools in the state. They found that 85% of the boys had dental defects, 16% had vision problems, 16% were underweight, and 14% had problems with their tonsils. A majority of children examined in pre-school clinics also had health problems.¹² The Poe Commission recommended that students be provided with an annual health examination. In addition, the Poe Commission also recommended improvement in the extent and quality of health and physical education, improvement in the environmental conditions of the schools, and a special program for children with disabilities. Governor R. Gregg Cherry, who succeeded Governor Broughton and supported these recommendations, stated in his inaugural address:

“I believe that an adequate medical examination, and care, should be provided for all the children in the State whose parents are not able to provide the same. This program is in no sense intended to be a plan of socialized medicine, but it is my belief that where parents are unable to finance the cost of remedying childhood physical defects, the State should make provision for this remedial work to be done. Only less sacred than the right of a child to obtain an education is his right to get a fair chance of health in his youth. The neglect of youth becomes the burden of age and a grievous loss to the State in earning power.”¹³

Governor Cherry presented proposed legislation to a joint session of the North Carolina House and Senate on February 27, 1945; on March 21, 1945, the North Carolina Medical Care Commission Act was ratified (HB 594 – 1945). It included the creation of the NC Medical Care Commission, (now codified at NCGS §143B-165 et. seq.) and support for the expansion of the two-year medical school at UNC-Chapel Hill to a four-year school. The General Assembly appropriated \$500,000 to support the “dollar-a-day”

program, and \$50,000 to establish a loan program to physicians who enroll in a four-year medical school in North Carolina in return for an agreement to practice in a rural area of the state for at least four years. The Commission was given rulemaking authority, including the authority to determine medical indigency for the dollar-a-day program. The rest of the initial legislation was limited to studies. The Commission was directed to survey every county to determine the need for additional hospital services and develop a statewide plan for the construction and maintenance of hospitals, public health centers, and related facilities. In addition, the Commission was directed to study whether to create a four-year medical school and where such a school should be located (and report back to the Governor and UNC Board of Trustees), and was also directed to study methods to train “Negro” students and report its findings to the next session of the General Assembly. The Medical Care Commission was also authorized to encourage the development of group insurance plans.

Although the initial legislation creating the Medical Care Commission appropriated some initial funding to implement specific provisions of the Poe Commission, the statute primarily authorized more studies. The Medical Care Commission was directed to survey the counties to determine the hospital needs of each county and the economic ability of a county or surrounding area to support hospital services. This launched the state’s foray into health planning and determination of need for new health care facilities. (See Certificate of Need section below.)

State leaders realized that to enact the broader package of recommendations would require greater public support. State leaders helped create the North Carolina Good Health Association to support this “Good Health Plan.” The Good Health Association enlisted the support from Kay Kyser, the big band leader from Rocky Mount, to help launch a public relations campaign.¹⁴ The campaign ran from November 1946 to March 1947. Ava Gardner, Red Skelton, Frank Sinatra, Fanny Brice, Lionel Barrymore, Art Linkletter, Claudette Colbert, Perry Como and Dinah Shore all helped promote The Good Health Plan.^{g 15}

The findings and recommendations of the initial Poe Commission foreshadowed the work of the state for the next 60 years. Following recommendations from the Poe Commission, federal and state funds were used to support 445 capital improvement projects over the next 20 years, including but not limited to new hospitals in 62 counties, 21 diagnostic and treatment centers, seven community mental health centers, 91 public health centers, and 15 rehabilitation projects. These construction projects were supported by more than \$130 million in federal funds from the Hill-Burton Act,^h Community Mental Health Centers Act and Appalachian Regional Commission Act, along with \$20.5 million in state funds.

^g Frank Sinatra and Dinah Shore recorded a song, “It’s All Up To You,” to promote the Good Health Plan. The lyrics included: “Spread the health alarm, to every town and farm, and preach the good health view. It’s all up to you, it’s all up to you. You’ll find being healthy means more than a well-filled purse. What good’s being wealthy when you can’t buy a doctor or a nurse. When the job is done, we’ll wind up number one, instead of 42. It’s all up to you, it’s all up to you.”

^h Soon after this Commission issued its report, Congress enacted the Hill-Burton program (1946), which provided federal funds to support local hospital construction and renovation. The Hill-Burton program required a 2:1 match, with \$2 in state or local funds for every \$1 in federal funds. (Newton, DJ. Crossing the Centuries, Committed to Care: Blue Cross and Blue Shield in North Carolina, 1933-2008. Blue Cross and Blue Shield of North Carolina. Durham, NC: 2007. Starr, P. The Social Transformation of American Medicine. Basic Books. New York: 1982).

North Carolina led the nation in the numbers of projects completed under the federal Hill-Burton program, and was seventh in the number of new beds constructed, and ninth in the amount of dollars spent.¹⁴

Aside from expanding the number of hospitals, the state has continued to struggle with a shortage and maldistribution of certain health professionals, lack of insurance coverage, and affordability of care, health disparities, mental health, public health, and child health programs. In addition, new health issues have emerged that were not addressed in the Poe Commission, including the health needs of older adults and a focus on patient safety and quality of care.

B. Efforts to Address the Health Problems Addressed in the Poe Commission report (1940s to present)

1) Expansion of Health Professional Training

a) Physician Training

The origin of the UNC School of Medicine dates back to 1890, when the school opened as a two-year medical institution. Between 1923-1940, there were several state commissions appointed to examine the feasibility of expanding the UNC School of Medicine into a four-year institution, but the plans never were implemented due to lack of funding and controversy about the placement of a four-year medical school. During this time, Duke University School of Medicineⁱ and Wake Forest University School of Medicine^j created four-year programs. North Carolina students who attended the two-year medical school program at UNC-Chapel Hill transferred to other schools for their third and fourth years.

One of the outgrowths of the Poe Commission and the Good Health Plan was the expansion of the two-year medical school at UNC-Chapel Hill to a four-year institution. Between 1945 and 1951, the North Carolina General Assembly appropriated funding to expand the UNC School of Medicine to a four-year institution and to build a 400-bed hospital (i.e. the North Carolina Memorial Hospital). UNC-Chapel Hill graduated its first class out of the four-year medical school in 1954.¹⁶

After the opening of the four-year medical school at UNC-Chapel Hill, the state began graduating more medical students. The number of graduating medical students from UNC-CH grew from 48 in the first class in 1954 to 75 by 1969. Although many of these students remained in North Carolina, the state still

ⁱ Duke University School of Medicine was created with a \$4 million bequest from James Buchanan Duke in 1925. The money was to be used to establish a medical school, hospital and nurses home. The medical school and hospital opened in 1930. (Duke University School of Medicine. About the School: Overview.

http://medschool.duke.edu/modules/som_about/index.php?id=9. Accessed September 28, 2009.)

^j Wake Forest University School of Medicine was an expansion of a two-year Wake Forest College Medical School (founded in 1902). The Hospital—NC Baptist—began treating patients in 1923. The Medical Center was expanded to a four-year institution and moved from Wake County to Winston-Salem in 1941. It was renamed Bowman Gray School of Medicine. (Wake Forest University School of Medicine. Historical Background of the Medical School.

<http://www1.wfubmc.edu/School/About+the+School/WFUSM+History.htm>. Published September 28, 2009. Accessed September 29, 2009.)

lacked primary care providers—especially those interested in serving in rural communities. In 1969, North Carolina ranked 43rd in the ratio of physicians to population and 46th in the ratio of medical students to population.¹⁷ By 1964, there was a movement in eastern North Carolina to create a new medical school at East Carolina University (ECU), which was opposed by the existing medical schools in the state. The North Carolina General Assembly established a legislative research committee to study physician shortages in rural North Carolina. The Commission did not recommend the creation of a new medical school. Instead, it recommended that the UNC School of Medicine be expanded to graduate 200 students per year, and that the state provide subsidies to Duke and Wake Forest Medical Schools to train additional North Carolina students. However, there was a lot of popular support and political leaders who advocated for the creation of a separate medical school at ECU. The school at ECU would be focused on producing primary care providers, particularly those who would serve in eastern North Carolina and other underserved communities. Leo Jenkins, Chancellor of East Carolina University, was one of the leading advocates for a new medical school, and he worked with other political leaders from eastern North Carolina. At the time, North Carolina was still largely a rural state, and rural legislators had powerful sway in the legislature. In 1970, the North Carolina General Assembly appropriated funding to create a one-year medical program at ECU. Funding was expanded in 1974 to include a second year of medical education, and again in 1975 to create a four-year medical school. ECU Brody School of Medicine enrolled its first class into the four year medical college in 1977.¹⁸

b) Nursing

As with physicians, there have been periodic nursing shortages reported in the state. The first nursing school was opened at Rex Hospital in Raleigh in 1894. Watts Hospital School of Nursing in Durham opened a year later and is the oldest school of nursing still in operation in the state. St. Agnes School of Nursing in Raleigh opened in 1896, the first nursing school for African Americans. By the time of the Poe Commission, there were numerous different nursing schools located throughout the state.

There was an acute shortage of registered nurses (RNs) during and immediately after World War II. The Broughton Hospital and Medical Commission recognized the nursing shortage and recommended that UNC-Chapel Hill expand nursing education. To respond to this shortage, the General Assembly amended the Nurse Practice Act in 1947 to include a new category of nurses—licensed practical nurses (LPNs)—who could work under the supervision of registered nurses or physicians. The acute shortage also led to the development of new nursing programs. In 1955, UNC-Chapel Hill opened its nursing school, one of only three in the South to offer a four-year baccalaureate degree. Duke University, Winston-Salem State Teacher's College, and North Carolina A&T State University began offering four-year degrees later in the 1950s.¹⁹ Another nursing shortage was predicted in the 1960s. As a result, both RN and LPN nursing programs were established in the community college system.

North Carolina was at the cutting edge of nursing education and nursing practice in the 1950s-1970s. Duke University developed the first clinical masters program in nursing in 1957, and UNC-Chapel Hill developed one of the first nurse practitioner programs in the country in 1969. Dr. Cynthia Freund partnered with Dr. Lawrence Cutchin, a physician leader, to establish the first nurse practitioner training program outside of Chapel Hill in Tarboro in 1973, and soon expanded this model to a statewide

consortium of nurse practitioner programs. In 1975, North Carolina passed hallmark legislation authorizing nurse practitioners to perform medical acts and prescribe medications under the supervision of a physician. Nurse practitioners were seen as a means of addressing physician shortages—particularly in rural areas of the state. (See Office of Rural Health.) Later in 1993, the General Assembly passed legislation to enable nurse practitioners, physician assistants, nurse midwives, and psychiatric clinical nurse specialists to receive direct reimbursement from health insurers. In 2001, legislation was passed to allow these providers to be listed on a health maintenance organization (HMO) provider panel.

North Carolina has experienced other nursing shortages. While the underlying cause for each shortage is different, there have been some common responses. First, during the shortages, there is more legislative support to expand the number of nursing programs or class size. Funds have been given to support program expansion and scholarships to attend nursing school (in return for practicing in a North Carolina hospital). In recent years, there has been recognition that the lack of qualified nursing educators has created artificial limits on the numbers of new nurses trained in the state. In 2006, North Carolina created the Nursing Faculty Fellows Program to support 80 scholarships for nurses to pursue a masters or doctoral degree, with a commitment to teach in the nursing education programs in North Carolina community colleges or universities. (NCGS §90-171.95.)

c) Physician Assistants

Again, North Carolina was a national leader in the training of physician assistants (PAs). Eugene Stead, Jr., MD, served as the chair of the Department of Medicine at Duke University from 1947-1967. During that time, he used ex-military corpsmen in the early 1960s to meet the health care needs of specialty units at Duke.^k He developed a two-year curriculum to expand the training of these corpsmen to become physician assistants. In 1965, Duke University began the first formal educational program in the country for physician assistants.²⁰ Dr. E. Harvey Estes, Jr., MD, an internist and cardiologist, was appointed chair of a new Department of Community and Family Medicine, which assumed the oversight and sponsorship of the program when Dr. Stead retired from his chair of the Department of Medicine at Duke University. Dr. Estes was born in a small rural community in Georgia and understood the need for health professionals in rural and underserved communities. He saw the potential value of using PAs to meet the needs of people in underserved communities. Dr. Estes helped draft model state laws that allowed physicians to use PAs in their practices. He also helped develop the Duke University family medicine and residency programs, and became a state and national leader in the training of family physicians and physician assistants.²⁰ Later, as the first executive director of the NC Medical Society Foundation, he worked closely with Jim Bernstein and staff at the NC Office of Rural Health and

^k Dr. Eugene Stead first proposed and actually implemented a “nurse practitioner” program in the early 1960s, before the PA Program. The first class graduated, at which point they applied for approval by the National League of Nursing. However, the accreditation request was denied because not all of the faculty were nurses. (Some were physicians). When this occurred, Dr. Stead immediately started preparation for the PA Program, utilizing former corpsmen instead of nurses. (Personal correspondence. E. Harvey Estes, MD. October 20, 2009.)

Community Care (ORHCC) to recruit and retain health care professionals in underserved areas of the state. (See Section on ORHCC.)

d) Dentistry

The Poe Commission also identified a need for a dental school, although that was not part of the initial legislation introduced in 1945. However, the Good Health Plan led to the creation of a dental school at UNC-Chapel Hill. The first class was admitted in 1950 and graduated in 1954. Students first attended classes in Quonset huts before the permanent building opened in 1952.²¹ The UNC School of Dentistry remained the only school of dentistry in the state for the next 60 years. However, by the 1990s, several groups noted that North Carolina had a severe dental shortage.^{22,23} In 1997, North Carolina had the 47th lowest dentist-to-population ratio in the state. At the time, 79 of the state's 100 counties were recognized nationally as dental shortage areas. Further, maldistribution of dentists was a particular problem, with no dentists in four eastern counties in the state. Thus, a group of leaders in eastern North Carolina began to advocate for a new dental school at ECU, which led the UNC Board of Governors to commission a study to identify the need to train additional dental students. The consultants recommended the expansion of the class size at UNC-Chapel Hill, as well as a new dental school at ECU. This recommendation was supported by the UNC Board of Governors in 2002.²⁴ The General Assembly, with strong support from the President Pro Tempore of the Senate, Marc Basnight, supported the development of a second school of dentistry at ECU, giving the first planning grant in State Fiscal Year (SFY) 2007. The first class of dental students is expected to matriculate in 2011.

e) Pharmacy

The School of Pharmacy at UNC-Chapel Hill dates back to 1897. There were no other pharmacy schools in North Carolina until Campbell University opened a pharmacy school in 1986.²⁵ With the growth in new medications available to treat many different health problems, North Carolina began to experience an acute pharmacy shortage. Thus, in 2001, the UNC Board of Governors and Office of the President asked the Area Health Education Centers (AHEC) program (see below) to examine the pharmacy workforce.¹ AHEC contracted with the Health Professions Data System at the Cecil G. Sheps Center for Health Services Research to conduct the study. The study found a shortage of pharmacists, specific to certain areas of the state and in certain clinical settings.²⁶ Another pharmacy school was opened at Wingate University in 2003.²⁷ To try to address the maldistribution of pharmacists in rural and other underserved areas of the state, a partnership was developed between the UNC Eshelman School of Pharmacy in Chapel Hill and Elizabeth City State University. Beginning in 2005, UNC-Chapel Hill is training 15 pharmacy students on the ECSU campus for the first three years through distance education.²⁸

f) The Development of the AHEC Program and Expansion of Continuing Education

¹ NC AHEC then contracted with the Cecil G. Sheps Center for Health Services Research (Sheps Center) at the University of North Carolina at Chapel Hill to complete the study.

One of the outgrowths of the Good Health Movement was the development of the AHEC program. The Poe Commission recommended the expansion of the two-year medical school at UNC-Chapel Hill into a four-year institution with the construction of a larger hospital. The UNC School of Medicine would help train new physicians and treat individual patients. But in addition, the UNC School of Medicine would provide training opportunities for health care professionals, improve the quality of medical care by offering continuing education courses for practitioners in community hospitals and health centers in rural and medically underserved areas, and provide consultation to smaller hospitals. Walter Reece Berryhill, MD, dean of the UNC School of Medicine, was a member of the Poe Commission and became a strong advocate for creating an institution that would produce more primary care practitioners to meet the needs of the state, ensure that practitioners were more widely distributed throughout the state, and provide training and support to practitioners in the field.²⁹

Dr. Berryhill was dean of the UNC School of Medicine from 1941-1964. After taking a sabbatical, Dr. Berryhill came back to UNC in 1966 as director of the new Division of Education and Research in Community Medical Care. He, along with Dr. Harvey Estes, other colleagues at UNC, Duke, and Bowman Gray, began to expand opportunities to teach physicians community medicine outside of the medical school. The UNC School of Medicine began developing formal arrangements with other community hospitals to provide training to medical students. The first formal agreement with Moses Cone Hospital was signed in 1966. This was soon followed by an affiliation agreement with Charlotte Memorial Hospital (now called Carolinas Medical Center), and New Hanover Memorial Hospital.²⁹ Dr. Berryhill stepped down as Division Director in October 1969. He was later replaced by Glenn Wilson.^m

North Carolina was not unique in its effort to produce health care professionals who could meet the health care needs of citizens throughout the state. At the same time that North Carolina was developing community-based medical training, the Carnegie Commission on Higher Education was studying ways to improve the number and distribution of health care professionals.ⁿ The Commission recommended increasing the number of health sciences centers to train health professionals as well as expanding the number of graduating physicians, and the development of AHECs. Specifically, the Carnegie Commission recommended the creation of 126 AHECs in local hospitals throughout the country. The AHECs would train medical and dental students, and provide continuing education for doctors, dentists and their health care professionals.

In 1971, Congress passed the Comprehensive Health Manpower Training Act, which, among other things, created the national AHEC program. In 1972, Wilson, along with some of his colleagues, prepared an application on behalf of the UNC School of Medicine to receive federal AHEC funding. The UNC School of Medicine was one of the first 11 programs to receive funding. Notably, North Carolina received the largest grant and was the only AHEC program that received funding to cover the whole state. Part of the reason for North Carolina's success was that it was already a leader in community-based undergraduate and graduate health education. It also had experience with community-based

^m Glenn Wilson was originally appointed as director of the Division and Associate Dean for Community Health Services in 1970. He was later appointed chair of the Department of Community Medicine and Hospital Administration (later called the Department of Social Medicine) within the UNC School of Medicine.

ⁿ UNC President William Friday was one of 20 members of the Carnegie Commission on Higher Education.

continuing education, and linking community practitioners to teaching resources as part of the federally funded regional medical program.^o By 1971, UNC-Chapel Hill had 16 faculty members located in seven affiliated hospitals throughout the state. The North Carolina AHEC program consisted of the state program, housed at the UNC School of Medicine, and nine affiliated non-profit AHECs covering the state. These regional AHECs were located in Asheville, Charlotte, Durham, Fayetteville, Greensboro, Greenville, Rocky Mount, Wilmington, and Winston-Salem.³⁰

Wilson served as the first director of the NC AHEC program from 1972-1978.^{18,29} Because the success of the AHEC programs was going to be measured, in part, by changes in the supply of health personnel, AHEC contracted with the Cecil Sheps Center for Health Services Research at the University of North Carolina at Chapel Hill in 1973 to begin create a statewide database on physician practicing in North Carolina.^{31,32} This led to the development of the North Carolina Health Professions Data System, which now includes 16 categories of health care professions in North Carolina. The North Carolina Health Professions Data System is one of the most comprehensive state-level data systems used to track health professionals in the country.

Wilson was followed by Dr. Eugene Mayer, MD, MPH, who had served as deputy director of the NC AHEC Program. Dr. Mayer served as director from 1978 until his death in 1994. Thomas Bacon, DrPH, has served as the director of the statewide AHEC program since 1996.

North Carolina's AHEC program has long been recognized as one of the top AHEC programs in the country. Over the years, it has stayed true to its mission of:

- “Improving the distribution and retention of healthcare providers, with a special emphasis on primary care and prevention.
- Improving the diversity and cultural competence of the health care workforce in all disciplines.
- Enhancing the quality of care and improving health care outcomes.
- Addressing the health care needs of underserved communities and populations.”³³

Part of its success is due to the collaborative nature of the AHEC program. AHEC has worked successfully with the state’s five academic health centers, community practitioners, health professional organizations, the community college system, ORHCC, NC Division of Medical Assistance, and many others to move health professional training out of hospitals into community practices; develop targeted pipeline programs for underserved and minority youth to enter health professions; develop innovating

^o In the late 1960s, North Carolina was awarded one of the first, big statewide grants from Health Services and Mental Health Administration to establish a regional medical program to improve the quality of health services by linking health research to community health needs. (U.S. National Library of Medicine, National Institutes of Health, US Department of Health and Human Services. The Regional Medical Programs Collection., <http://profiles.nlm.nih.gov/RM/>. Accessed October 29, 2009.) The regional medical program, located in Durham, received federal funds and provided grants to different academic institutions to provide continuing education to health professionals in the community and link community practitioners to tertiary research and teaching resources in order to improve quality of care. (U.S. National Library of Medicine, National Institutes of Health, US Department of Health and Human Services. Grant proposals and documentation from regional medical programs, July 1970. http://profiles.nlm.nih.gov/RM/A/B/V/E/_rmabve.pdf. Accessed October 29, 2009.)

continuing education programs; and help support practices in quality improvement and systems redesign.

2) Improving Access in Underserved Areas

a) Creation of North Carolina Office of Rural Health

Perhaps no other person has had as much influence on the health care system of North Carolina as James (Jim) D. Bernstein (1942-2005). Jim Bernstein was the first director of the North Carolina Office of Rural Health. He served in that role from 1973 to 2001, when he became the Assistant Secretary for Health under North Carolina Department of Health and Human Services then-Secretary Carmen Hooker Odom.^{34,35}

Bernstein was born and grew up in New York. He earned his undergraduate degree from Johns Hopkins University in political economy. When he graduated, he joined the Peace Corps, serving in a rural community in Morocco where he taught English and physical education. After his Peace Corp experience, he came back to the United States and received a master's degree in hospital administration from the School of Public Health in Ann Arbor, Michigan. He spent a year at Mt. Sinai Hospital in Cleveland and before entering the Public Health Service, where he was sent to work in the Indian Health Service in Santa Fe, New Mexico.

In 1969, Bernstein was awarded a fellowship in Global Community Health. As part of this fellowship, he was encouraged to pursue an advanced degree. He decided he wanted to further his studies in public health while exploring rural health issues in the United States. Bernstein met Glenn Wilson during his administrative residency in Cleveland. Wilson, who later became the first director of the North Carolina AHEC program, suggested that Bernstein talk to Cecil G. Sheps, the director of the UNC Health Services Research Center (which was later named the Cecil G. Sheps Center for Health Services Research). Cecil Sheps convinced Bernstein to move to North Carolina and later helped launch Bernstein's career into rural health.

Bernstein moved to North Carolina to pursue a doctorate in epidemiology. Upon arriving in Chapel Hill, Dr. Sheps connected Bernstein with Dr. Edgar Beddingfield, a highly-respected physician and past-president of the NC Medical Society, who practiced in Wilson, North Carolina. Dr. Beddingfield was working with a group of people in Walstonburg (Greene County) who were trying to develop a health center. Walstonburg had no physicians, similar to many other rural communities across the state and nation. Bernstein, along with Dr. Beddingfield, helped work with the people in Walstonburg to establish a new type of rural health center—one that was staffed by a nurse practitioner with physician backup. Dr. Beddingfield's support for this model, and his willingness to serve as backup for the nurse practitioners, helped allay some of the initial concerns from the medical community to this new model of practice.

Aside from recruiting Bernstein to North Carolina and linking him to Dr. Beddingfield, Dr. Sheps was also instrumental in the creation of the North Carolina Office of Rural Health. According to Bernstein, in a remembrance he wrote for a memorial volume for Cecil G. Sheps:

"James Holshouser had just been elected Governor of North Carolina [in 1972] (the first Republican since Reconstruction). Cecil, in his unique fashion, calls up the Governor-elect to tell him that he has this terrific health program that is going to help solve the health access problems of rural North Carolina. He then asks the Governor-elect when he should come see him. Later, Cecil describes to the Governor his concept of a rural health program built around community-operated health centers staff by family nurse practitioners and physician assistants. When the Governor asks how he is supposed to make this happen, Cecil tells him that will be no problem—just leave it to him. Cecil then calls me into his office to tell me that he has figured out what I need to do next with my career. I am going to Raleigh to set up this new rural health program."³⁶

In 1973, Bernstein became the head of the North Carolina Office of Rural Health, the first state office of rural health in the country. Under his direction, staff from the NC Office of Rural Health (now called the NC Office of Rural Health and Community Care, or ORHCC) helped to develop 81 rural health centers, recruit more than 2,000 medical and dental providers to underserved communities across the state, and provide technical assistance to improve the quality of services and financial viability of small rural hospitals. North Carolina has long been recognized nationally as having the best state Office of Rural Health in the country, in part because of the collaborations it has achieved with other state organizations working to improve access in rural areas. For example, the NC Medical Society Foundation created the Community Practitioner Program (CPP) in 1989. CPP was created to help recruit and retain physicians and other health professionals into medically underserved areas. E. Harvey Estes, MD, Emeritus Professor of Community and Family Medicine at Duke University, served as the first director and quickly began working with Bernstein and the ORHCC to determine how to best coordinate their efforts.^{34,37} Because federal and state financial incentives (i.e. loan forgiveness funds) were more restricted in where they could be used, CPP helped fill in gaps to recruit and retain health professionals in other shortage areas. The ORHCC also began collaborating with the North Carolina Hospital Association's Rural Health Center, which served to strengthen rural hospitals.³⁸ Together, staff from the ORHCC, CPP, Rural Health Center, and AHEC met on a weekly basis to coordinate the work they were doing to improve the health system in rural and other underserved communities.

But Bernstein's work went beyond improving the health care delivery system in rural communities. He also had a passion to improve access to care for all underserved populations, including low-income Medicaid recipients, farmworkers, and the uninsured. The Office of Rural Health helped create Community Care of North Carolina (CCNC), a network of providers, social services agencies and health departments, charged with improving the care and health outcomes of low-income Medicaid recipients (described more fully below). In addition, the ORHCC helped develop a prescription drug assistance program to assist low-income residents obtain prescription drugs, and built local delivery and outreach systems to address the health needs of farmworkers in high-need communities.³⁵

Although Bernstein ran a state agency for almost 30 years, he recognized some of the limitations of working within state government. Despite the fact that the Office of Rural Health was one of the most innovative agencies in state government, it was sometimes hampered in its ability to test new innovative approaches to deliver health care services. As a result, in 1982, Bernstein created the North

Carolina Foundation for Advanced Health Programs (NCFAHP). Over the years, the NCFAHP has served as the laboratory for health care delivery innovations in the state. When it was first created, it helped bring HMOs into the state.¹⁸ More recently, the foundation has worked closely with CCNC in developing innovative programs to improve the health of Medicaid recipients. For example, the Foundation obtained funding to develop a diabetes disparities initiative to improve health outcomes for African Americans and other people of color, and helped develop software to link uninsured patients to free Patient Assistance Programs (which provide medications free of charge to certain low-income uninsured patients). Currently, it has a special initiative to help improve the capacity of primary care practices to provide mental health, developmental disabilities and substance abuse services.³⁹

One of the primary reasons for Bernstein's success, and by extension that of the NC Office of Rural Health, was Bernstein's underlying philosophy. He approached health care as a community development initiative. The Office of Rural Health never went into a community uninvited, and never stayed in the community if its services were no longer wanted. His approach was born out of his experiences in the Peace Corp and with the Indian Health Service. He knew that communities had to have a personal investment in the services for the system to succeed. According to Bernstein, "If improvement in [health] care or service is the goal, then those who are responsible for making it happen must have ownership of the improvement process."³⁵

Another reason for Bernstein's success was due to his ability to make connections with people at the state and local level. He was well respected by health and hospital leaders, community leaders, county commissioners, and state legislators. The issue of access to care in rural and underserved areas was not partisan; he worked well under both Republican and Democratic governors and with members of both parties in the General Assembly. Further, he recruited a highly qualified staff who could work in diverse communities. Jim was also an innovative thinker and could bring together the right people who could make a difference on his different initiatives.

b) Safety Net Providers

Many health care providers have a mission, or legal obligation, to provide health care services to the uninsured. These health care "safety-net" providers often offer health care services to the uninsured for free, or on a sliding-scale basis. Hospitals are one of the largest providers of health care services to the uninsured. Almost all of the hospitals in North Carolina operate emergency departments. Under the federal Emergency Medical Treatment and Active Labor Act (EMTALA) of 1985, hospitals that participate in Medicare and that operate emergency departments must screen anyone who requests treatment regardless of ability to pay. If the person has a medical emergency, the hospital must either treat them to stabilize the condition, or appropriately transfer the patient to another hospital.^{40,41} Many North Carolina hospitals also provide inpatient and outpatient services to low-income uninsured for free, or on a sliding-scale basis.^p

^p See North Carolina Hospital Association Community Benefits Report at: <http://www.ncha.org/public/>.

Primary care services are often provided by other safety net providers, including community and migrant health centers (also known as federally qualified health centers, or FQHCs), free clinics, rural health centers, public health departments, and school-based and school-linked health centers.^q⁴¹ Lincoln Community Health Center in Durham, and Piedmont Community Health Center (in Orange, Chatham, Alamance and Caswell counties) are the two oldest federally-funded community health centers in the state—dating back to the early 1970s.⁴² Over time, the number of FQHCs has grown, with expansion of federal funding. There were 26 FQHCs and 2 FQHC look-alikes in North Carolina with clinics in 44 counties in 2009.^r North Carolina also had approximately 30 state-supported rural health clinics that provide primary care services to low-income uninsured on a sliding-scale basis.^s In addition, North Carolina had more than 70 free clinics serving at least 79 counties in 2009. These clinics provide free health services to low-income uninsured—largely through volunteer efforts of health professionals. North Carolina is a national leader in the number of free clinics serving the uninsured. However, because these organizations are staffed primarily through volunteers, the array of services and hours of operation are typically more limited than other health care providers. There are also more than 50 school-based or school-linked health clinics located in 22 counties across the state.^t These centers provide primary care and mental health services to adolescents and other youth in or near school settings. In addition to the organizations providing free and reduced cost primary care services, there also are special initiatives to help provide dental care, specialty care, and access to free or low-cost pharmaceuticals.

In some communities there are multiple different safety net organizations that can provide a wide array of health services to meet the health care needs of the uninsured. In others, there are very few safety net organizations, and their ability to meet the needs of the uninsured is limited. A 2005 study found that across the state, safety net organizations were only providing primary care services to 25% of the uninsured.^{40,43} Further, even when a community could meet the primary care needs of the uninsured, there were few communities that could meet all of the health care needs of the uninsured (including access to specialty services, prescription drugs, dental, and behavioral health). Thus, while safety net organizations have done a lot to meet the health care needs of the uninsured, they can not provide all the needed health services for the uninsured. North Carolina has not historically been at the forefront of addressing health insurance coverage for the uninsured.

c) Emergency Medical Services (EMS)

North Carolina EMS also play an important role in the state’s safety net, helping to ensure access to emergency services. EMS was historically provided by untrained personnel from volunteer rescue squads or local funeral homes.⁴⁴ However, by the mid 1960s and later in the 1970s, federal legislation

^q Information about North Carolina safety net providers, their location, hours of operation and services provided can be accessed through: www.nchealthcarehelp.org.

^r More information about FQHCs and FQHC look-alikes is available at: <http://www.ncfreeclinics.org/>. FQHCs receive some federal grant funds from the US Bureau of Primary Health Care to help offset some of the costs for serving the uninsured. FQHC look-alikes do not receive federal funds.

^s More information about North Carolina’s free clinics is available at: <http://www.ncfreeclinics.org/>.

^t More information about school-based and school-linked health centers is available at: <http://ncscha.org/>.

was passed that helped fund and establish federal standards for the modern EMS systems across the country.⁴⁴ In 1967, the North Carolina General Assembly enacted the Ambulance Services Act, the first to provide state oversight of the state's ambulance and rescue services. In 1973, the General Assembly enacted the North Carolina EMS Act, creating the North Carolina Office of Emergency Medical Services within the NC Department of Health and Human Services.⁴⁵ North Carolina was one of the first states in the country to develop a comprehensive EMS system across the state that incorporated the new federal standards.

3) Expansion of Insurance Coverage and Affordability of Care

a) Development of Blue Cross and Blue Shield of North Carolina

The genesis of the modern Blue Cross and Blue Shield of North Carolina (BCBSNC) plan dates back to the 1930s. North Carolina had two competing prepaid non-profit hospitalization plans, the Hospital Savings Association and the Hospital Care Association. Both qualified as Blue Cross plans. By the 1940s, these two plans covered more than 100,000 North Carolinians with prepaid hospital insurance.⁴⁶ In the early 1940s, both plans expanded to begin offering surgical and in-hospital medical benefits. As non-profits, they were initially exempt from state insurance regulation oversight; however, the state laws were amended in 1941 to regulate these non-profit insurance companies.⁴⁶

Medical prepayment plans began expanding around the country in the early 1940s. By 1947, the Hospital Savings Association received support from the NC Medical Society to begin offering a medical prepayment plan along with its hospital prepayment plan and began marketing under the Blue Shield emblem.⁴⁶ The Hospital Care Association did not begin marketing a medical prepayment plan until 1962.

BCBSNC began as a nonprofit insurance company in 1968 and grew out of the consolidation of these two separate Blue Cross and Blue Shield plans. Over the years, BCBSNC has offered numerous types of insurance plans, including but not limited to: comprehensive major medical plans, health maintenance organizations (HMOs), and preferred provider organizations (PPOs).

In 1997, legislation was introduced in the North Carolina General Assembly that would have given BCBSNC the authority to convert to for-profit status (SB 993). Nationally, from the late 1980s through 1990s, there were a number of health plans and insurance companies that converted from not-for-profit to for-profit status. Many of these early conversions occurred because HMOs lost federal operating support, and thus were seeking other sources of operating capital. California led the nation in conversions of HMOs, and was the first state where Blue Cross converted from nonprofit to for-profit status.⁴⁷ Under federal tax laws, when a nonprofit organization converts to for-profit status, it must distribute the corpus of its assets to another nonprofit organization dedicated to a similar purpose. However, the early nonprofit health plans that converted to nonprofit status were seriously

⁴⁴ Congress passed the National Highway Safety Act in 1966, which called on the US Department of Transportation to develop standards of care for accident victims. In 1973, Congress approved the Emergency Medical Services System Act, which provided funding to develop EMS programs throughout the country. (Atkinson WK. Overview of Emergency Medical Services in North Carolina. North Carolina Medical Journal. July/August 2007;68(4):233-241.)

undervalued, and as a consequence, fewer resources were distributed to another nonprofit organization to serve the health needs of the community.

In 1997, legislation was introduced in North Carolina that would have given the Commissioner of Insurance the authority to adopt rules to protect the rights of the insured if Blue Cross Blue Shield converted to a nonprofit corporation (SB 993). However, the legislation as it initially passed the North Carolina Senate did not establish a process to establish the true value of the BCBSNC, nor did it ensure that the value of BCBSNC would be given to another nonprofit if it converted. Once it reached the North Carolina House, a group of consumer advocates, nonprofit foundations, and community leaders, created a Coalition—called the Coalition for the Public Trust—to oppose the legislation as written. They argued that the public's interest was not being protected for the years in which BCBSNC received tax advantages from being a nonprofit corporation. On July 10, 1997, a group of community leaders, including two former Governors (Holshouser and Sanford), William Friday, Emeritus President of the University of North Carolina, and individual leaders from North Carolina philanthropic organizations and other state nonprofits, sent a letter to the top political leadership in the state to urge them to require BCBSNC to contribute the fair market value of its assets to another nonprofit. In a press release dated July 10, 1997, these community leaders argued that "Assets owned by public or nonprofit entities must not be transferred to private interests for less than fair market value. To do otherwise erodes the integrity of public and nonprofit corporations."⁴⁸ As a result of the involvement of the Coalition for Public Trust and other community leaders, the bill was turned into a study commission.⁴⁹ The legislature eventually adopted legislation that was a model for other states seeking to protect the public's interest in the event of a conversion (Session Law 1998-3). To convert, both the Commissioner of Insurance and the Attorney General would have been required to approve the conversion. The Commissioner of Insurance was required to ensure that the rights of the insured were protected, and that the conversion would not adversely affect the accessibility or affordability of health care. The Attorney General was required to approve the valuation of BCBSNC and to oversee the development of a new health foundation dedicated to promote the health of the people of North Carolina that would receive the fair market value of BCBSNC's assets. BCBSNC began the conversion process in January 2002 but eventually withdrew its proposal in July 2003.

BCBSNC is currently the largest health insurer in the state. BCBSNC provides health insurance coverage to employer groups, individuals in the non-group market, Medicare health plans (including comprehensive Medicare health plans, Medicare supplements, and prescription drug plans), and serves as a third party administrator to large businesses that are self-insured. In 2008, BCBSNC covered more than 3.7 million North Carolinians with annual claims of more than \$9 billion.⁵⁰

b) Expanding Insurance Coverage to Low-Income Populations: Medicaid

Congress created the Medicaid and Medicare programs in 1965. Medicare is a federally financed health insurance program that provides coverage to almost all older adults age 65 or older, and some younger people with disabilities. In contrast, Medicaid is a publicly supported program that provides health insurance coverage targeted to low-income individuals and families. The program is jointly administered between the federal and state government. States need not participate in the program, but if they

choose to do so, the federal government pays between 50-80% of program costs. (The amount of the federal match is based on the state's per capita income, with poorer states receiving a higher federal match.) The federal government sets broad parameters for the program. Within that, states can determine eligibility standards, covered services, and provider payment levels. In 1969, North Carolina submitted its first state Medicaid plan to the federal government. (NCGS §108A-54 et. seq.) The program began enrolling people in 1970.

The NC Medicaid program was originally administered through the Department of Social Services, through a contract with BCBSNC. In 1975, the state contracted with a private company—Health Applications System—to manage the Medicaid program and assume full financial risks for the costs. However, the company suffered financial losses, so the contract was cancelled in 1976 and brought in-house to administer. Later, the program was moved to the new Department of Human Resources (subsequently renamed the Department of Health and Human Services). The Medicaid program became a separate division within the Department in 1978, called the Division of Medical Assistance (DMA). Barbara Matula became its director in 1979.⁵¹

Matula served as Director for 19 years (1979-1998) and was instrumental in shaping the Medicaid program from one that simply paid health bills to one that helped manage the health of Medicaid recipients. The program grew tremendously during the 1980-2000 time period. Initially, eligibility in the Medicaid program was limited to those who were receiving cash assistance (i.e. low-income families receiving Aid to Families with Dependent Children, or older adults or people with disabilities receiving state-funded cash assistance). However, beginning in 1987, the state began to expand Medicaid to other people who do not qualify for cash assistance. For example, in 1987, the state began covering children ages 19-20 years and pregnant women and infants with incomes too high to qualify for cash assistance but who had incomes below the federal poverty guidelines (FPG). In 1990, Medicaid was expanded further to cover pregnant women and infants with incomes up to 185% FPG, and services were expanded to help address the state's high infant mortality rate. In 1995, the General Assembly expanded Medicaid to cover all older adults and people with disabilities who were receiving Supplemental Security Income (SSI). Eligibility has grown from covering 340,000 recipients for a cost of \$379.8 million (1979) to 1,682,028 people for a cost of \$9.0 billion (2007).^{51,52}

There are a number of factors that have led to this program expansion. The first was political leadership. Matula served under both Democratic and Republican leadership and was well-respected by leadership in both parties. In addition, she had strong support from some of the legislative leaders for program expansion during this time period, including Senator Russell Walker, Sr., chair of the Senate Health and Human Services Appropriations Subcommittee, and Representative David Diamont, chair of the House Health and Human Services Appropriations Subcommittee and later chair of the full Appropriations Committee. The second factor was political opportunity. In 1990, preliminary data from the US Centers for Disease Control and Prevention (CDC) identified North Carolina as having the highest infant mortality rate in the country. This created front-page headlines and opened a "policy window" to allow greater Medicaid expansion for pregnant women and infants. Similarly, the problem with the growing numbers of uninsured was a major issue during the 1992-1993 elections. As a result, in 1995, the General Assembly enacted major Medicaid reform to cover additional older adults and people with

disabilities. Third, the state wanted to leverage federal funds. Many of the individuals who were newly insured through Medicaid were already receiving some assistance through state-run health programs. However, these programs were funded through 100% state funds. Rather than use 100% state funds, state policymakers chose to expand Medicaid and draw down approximately 65% in federal funds. Thus, with the same or slightly increased state funds, the state could expand Medicaid to cover more people, provide more services, and have the federal government pay approximately two-thirds of program costs.

Expanding Medicaid to cover more people was an important step in improving access. However, expanding insurance coverage did not guarantee access to care. Historically, it was difficult to find physicians in some parts of the state who were willing to accept Medicaid patients because of low reimbursement levels. As a result, many Medicaid recipients used the hospital emergency department for care, which was driving up program costs.⁵³ To address these problems, Matula and her staff at the DMA worked with Jim Bernstein and his staff at the Office of Rural Health to create the Carolina Access program. The program began in 1991 in five counties and became statewide by the mid-1990s.^{51,54} Carolina Access linked patients to a primary care medical home. Medicaid, in turn, increased provider reimbursement levels and paid a small monthly incentive payment to provide 24-hour access and to help keep patients out of the emergency department.

While Carolina Access was successful in linking Medicaid patients to primary care providers, it was not designed to address quality or costs (aside from unnecessary use of the emergency department). By the mid-1990s, the state was experiencing severe budgetary constraints. Medicaid costs—like other health insurance programs—were growing faster than general revenues, eating up more of the state’s budget. The Medicaid program is a countercyclical program, meaning enrollment and program costs grow during times of economic distress and lower state revenues. Further, Medicaid is an entitlement program, which requires the state to provide coverage to anyone who applies and meets the eligibility criteria, regardless of the costs to the state or federal government. During the mid-1990s, many other states were contracting with managed care organizations (MCOs) to reduce costs. Rather than contract with outside managed care organizations, the Secretary of the North Carolina Department of Health and Human Services, Dr. David Bruton (a pediatrician), pulled together a team including Matula and Bernstein to develop an enhanced medical home model that would also address cost and quality. This program, Community Care of North Carolina (CCNC),^v began in 1998 and was statewide by 2005. CCNC is comprised of networks of primary care and specialty providers, social services, public health and hospitals that work together to improve the health of Medicaid recipients. CCNC focuses on improving the care of people with chronic and complex medical conditions through care management, disease management and quality improvement activities.⁵⁵⁻⁵⁷

c) Expanding Health Insurance to More Children: NC Health Choice

In 1997, Congress passed the State Child Health Insurance Program as part of the Balanced Budget Act. This program gave state’s a higher federal match to expand health insurance coverage to *uninsured*

^v The program was initially called Access II and III.

children with incomes too high to qualify for Medicaid but too low to afford private insurance coverage. Thus, in 1988, the state began to offer publicly-subsidized child health insurance coverage to children with family incomes that are too high to qualify for Medicaid, but no more than 200% FPG (\$44,100 for a family of four in 2009). The North Carolina General Assembly enacted North Carolina's child health insurance program (CHIP), called NC Health Choice, in April 1998 in a special session called by Governor James B. Hunt. (Session Law 1998-1.)^w

NC Health Choice was jointly administered between the State Employees Health Plan and the DMA.^x Like Medicaid, it is a jointly-financed program between the federal government and the state; however, unlike Medicaid, it is a block grant program. The federal government only contributes a set amount of money to help pay for the costs of insurance coverage to children. If the state runs out of money, it can restrict enrollment. In fact, North Carolina was the first state in the country to impose a waiting list and close enrollment to new children in NC Health Choice. From January 1, 2001, to October 13, 2001, the state closed enrollment to new enrollees, and enrollment dropped from 72,024 at the beginning of January 2001 to 51,294 in October 2001.⁵⁸

Unlike other states which had difficulties spending all their federal CHIP funds, North Carolina has repeatedly spent its federal allotment and experienced budgetary shortfalls. However, rather than again instituting a waiting list and freezing enrollment, the North Carolina General Assembly, and then Governor Easley, found other ways to keep enrollment open.^{59,60} In January 2006, all young children birth through age five were moved into the Medicaid program in order to guarantee program coverage for these youngest children. Medicaid typically paid providers at lower rates than NC Health Choice. In 2006, provider reimbursement was cut for older children so that providers received the same reimbursement for Medicaid and NC Health Choice. In July 2010, program administration will be moved totally to the DMA, which is expected to reduce administration costs. NC Health Choice enrollees will also be enrolled into CCNC, which will be particularly helpful for children with chronic illnesses.

d) Health Planning and Certificate of Need (CON) program

North Carolina began its foray into state health planning with the creation of the Medical Care Commission in 1945, and later as a requirement for receipt of federal Hill-Burton funds. As part of the federal Hill-Burton Act, states were required to prepare a medical facilities plan to inventory existing facilities and identify need for new facilities.⁶¹ The state had to show a “need” for the proposed capital

^w The genesis of the North Carolina program grew out of work of a North Carolina Institute of Medicine (NCIOM) Task Force on Child Health Insurance that was created at the request of North Carolina Department of Health and Human Services then-Secretary David H. Bruton. A special legislative study Commission was created to make recommendations for the development of North Carolina's child health insurance program, building off of the work of the NCIOM Task Force. Governor Hunt called the North Carolina General Assembly into a special session in March 1998 to enact the state's child health insurance program so that North Carolina could begin to draw down the federal funds to cover more uninsured. Ultimately, the program—NC Health Choice—was an amalgamation that included some of the original recommendations of the NCIOM Task Force as well as other legislative changes.

^x The Division of Medical Assistance determines eligibility. Children are first screened for Medicaid, and if ineligible, they are assessed to determine eligibility for the NC Health Choice program. The State Employees Health Plan administers the benefits under a contract with BCBSNC.

expenditures (for new construction or modernization) in order to obtain federal Hill-Burton funds. However, early federal health planning laws through the mid-1960s did not control or regulate expenditures or projects that were not financed with Hill-Burton or other federal funds. New York was the first state (1966) to enact more stringent CON laws, which restricted market entry or capital expenditures to those facilities that were deemed to be needed under a state's medical facility plan. CON laws were set up to: 1) reduce unnecessary utilization and duplication of health care services and facilities (cost containment); 2) improve quality of care; 3) ensure more rational geographic distribution of health care services and facilities across the state and access to underserved populations; 4) limit public outlays for Medicaid; and 5) assure public participation in the decision making process for approval of major capital expenditures.⁶¹

North Carolina enacted its first CON law in 1971. However, the North Carolina Supreme Court later struck down this law as violating the North Carolina due process clause. (*In the Matter of Certificate of Need for Aston Park Hospital*, 282 NC 542, 193 S.E.2d 729 1973). The federal government subsequently enacted the National Health Planning and Resources Development Act of 1974 and conditioned the receipt of certain federal health funds on states enacting CON laws. The National Health Planning and Resources Development Act was challenged in federal court by the State of North Carolina joined by the American Medical Association, but was held to be constitutional. The court held that Congress had the authority to set conditions on the receipt of federal funds and that the states were free to either accept federal funding (accepting the federal requirements) or reject funding. (*State of North Carolina vs. Califano*. 445 F. Supp. 532 (1977)). To avoid the potential loss of approximately \$50 million in federal funds, North Carolina again enacted a CON law in 1977.^y Although the federal law mandating the enactment of state CON laws was subsequently repealed, North Carolina is one of about 36 states across the country that has maintained some type of CON program.⁶²

4) Health Disparities

As noted in the Poe Commission report, medical education and health care was segregated in the 1940s. However, North Carolina had once been at the forefront in the country of medical education for African Americans. Shaw University began the Leonard Medical School in 1882, only the third medical school for African Americans and the first four-year medical school for either whites or blacks in the country. However, support for this institution dried up after the issuance of the Flexner report in 1910, which criticized the quality of medical education provided in five of the seven African American medical schools, along with the quality of medical education provided in many of the historically white medical schools around the country.^z As a result, Leonard Medical School closed in 1918.⁶³

^y NCGS §131E-175 *et. seq.* Under the new law, responsibility for developing a state medical facilities plan was vested in the North Carolina State Health Coordinating Council.

^z At the time of the Flexner report, there were four medical schools in North Carolina. Wake Forest and The University of North Carolina at Chapel Hill both had two years schools that received high marks. The medical facilities at Shaw University and at the North Carolina Medical College in Charlotte were criticized as inadequate. Both of these latter schools disappeared as a result of this critical evaluation. (Hiatt, MD, Stockton, CG. The Impact of the Flexner Report on the Fate of Medical Schools in North America after 1909. *Journal of American Physicians and Surgeons*. Summer 2003;8(2):37-40.)

The Poe Commission recommended the creation of a regional medical school to train black physicians. No effort was taken to support that idea. Instead, the UNC School of Medicine began admitting African American medical students in 1951. However, North Carolina Memorial Hospital continued to be segregated until 1961. In 1964, Duke Hospital was integrated. Duke University and Wake Forest University began admitting African American medical students in 1967, at the same time that the NC Medical Society changed its policies to make it easier to admit black members. The first African American physician appointed to serve on the North Carolina Medical Board did not occur until 1980.⁶³

The Poe Commission recognized health disparities both in terms of health outcomes and in the supply of health care professionals and hospitals available to treat African-Americans. Disparities in health outcomes have continued over the last 60+ years, even after the integration of health care services in the 1960s. African Americans constituted 21.0%, Latinos 7.0%, and American Indians 1.2% of the state's population in 2007. These groups are more likely to live in poverty and to lack health insurance coverage. With the exception of the Latino population (who tend to be younger), minorities are generally in worse health than whites. In fact, the life expectancy at birth is almost five years less for minority populations than for whites. The State Center for Health Statistics, in its Health Profile of North Carolinians, 2009 Update reported:

North Carolina Mortality Rates and Risk Factor Percentages by Race and Ethnicity

	White, Non- Hispanic	African American Non- Hispanic	American Indian, Non- Hispanic	Other Races, Non- Hispanic	Latino/ Hispanic	Total
Mortality Rates, 2003-2007^a						
Infant deaths per 1,000 live births ^b	6.1	15.2	12.0	6.0	6.5	8.4
Heart Disease	200.3	247.8	230.6	85.7	70.3	206.5
Cerebrovascular disease (stroke)	52.2	78.1	61.2	36.1	20.8	56.4
Diabetes	20.5	53.1	50.2	13.6	11.4	25.9
Nephritis, nephrosis, and nephritic syndrome	14.6	36.0	23.0	9.4	9.7	18.1
Chronic lower respiratory diseases	50.7	29.8	32.0	8.5	9.7	46.5
HIV	1.3	17.6	2.8*	1.3*	2.8	4.7
Total Cancer	187.0	226.5	161.5	95.2	78.5	191.4
- Lung cancer	59.9	57.1	54.8	21.8	14.6	58.5
- Colorectal cancer	16.5	23.6	12.3	9.8	8.2	17.5
- Breast cancer	22.9	33.8	21.1	9.8	9.5	24.7
- Prostate cancer	22.2	61.0	31.5	6.8*	6.8*	27.5
Unintentional motor vehicle injury	18.6	18.4	39.4	10.5	26.9	19.3
Other unintentional injuries	29.9	22.0	28.1	8.3	13.4	27.5
Homicide	3.6	16.3	19.0	4.7	10.2	7.2
Suicide	14.1	5.0	8.3	6.0	4.8	11.6
Behavioral Risk Factors (percentages) 2007						
Adults with high blood pressure	28.2	39.7	29.3	16.7	12.7	28.8
Adults who smoke	23.2	23.3	32.9	18.8	19.2	22.9
Adults who are obese	26.4	39.2	36.7	22.9	25.4	28.7
Adults who engage in no leisure	21.2	28.7	36.6	20.5	40.6	24.3

time physical activity						
Adults in fair/poor health	16.6	21.8	26.8	14.6	29.7	18.7
Adults diagnosed with diabetes	8.5	13.7	12.6	6.3	3.1	9.1

Source: State Center for Health Statistics. Health Profile of North Carolinians, 2009 Update. May 2009.

<http://www.schs.state.nc.us/SCHS/pdf/HealthProfile2009.pdf>. Accessed September 29, 2009.

^a Except for the infant death rate, mortality rates are age-adjusted and expressed per 100,000 population.

Denominators for the mortality rates (except for infant deaths) are based on the 2007 National Center for Health Statistics Bridged Population Estimate files.

^b The infant mortality data is derived from the consolidated infant death file which matches all infant deaths to their live birth records. Figures presented here may not match those published in other reports due to the use of the matched infant death file.

* Rates based on small numbers (fewer than 20 deaths) are statistically unstable.

North Carolina will not be able to make significant improvements in its overall population health without addressing these health care disparities. This will take a concerted effort that includes expanding health insurance coverage to those who are uninsured, addressing socioeconomic differences (including poverty and educational differences), and developing evidence-based health interventions that are culturally and linguistically accessible for the targeted population.⁶⁴ Additionally, North Carolina still has a dearth of minority health care professionals. In 2004, minority populations constituted 30% of North Carolina's population, but accounted for only 18% of physicians, 12% of physician assistants and 10% of nurse practitioners in the state.⁶⁵ A diverse workforce is important, as given the option, people are more likely to choose a provider with a similar racial and ethnic background.

5. Public Health

There is a strong historical tie between public health and the NC Medical Society. Public health in our state dates back to 1877, when the North Carolina General Assembly constituted the entire membership of the NC Medical Society to serve as the first state Board of Health.⁶⁶ The State Board of Health was charged with investigating the sanitary and environmental conditions related to the causes and prevention of diseases, and caring for the health of North Carolina citizens. County medical societies served as county boards of health. Over time, the appointment of the state and local boards of health changed. Public health was given the responsibility for vaccinations; preventing the spread of infectious and communicable disease; performing autopsies; addressing the health needs of prisoners and inmates of public institutions; collecting and maintaining vital records; ensuring safe water and food supply; maternal and child health; oral hygiene; laboratory services; reducing environmental and occupational hazards; early detection and treatment of cancer; injury prevention; mental health; licensure of nursing homes; and control or eradication of veterinary diseases that were transmittable to humans.

The first full-time county health department in North Carolina was in Guilford County in 1911. This was the second full-time county health department in the country. The first rural health department in the country was established in Robeson County in 1912.¹⁹ By 1949, every county was covered by a full-time health department. In 1958, in response to the growing polio epidemic, the North Carolina General Assembly was the first state in the country to pass legislation to require students to be vaccinated as a

prerequisite for entrance into public schools, and this strong involvement with improving health of students in schools has continued over time.

The Division of Public Health has had strong leadership for most of the last 30 years, with Dr. Ron Levine serving for 16 years (1981-1997) and Dr. Leah Devlin, DDS, MPH serving for eight years (2001-2009). While the leadership has remained relatively stable, the state public health agency has been reorganized multiple times, with functions being moved from the Department of Health and Human Services (formerly Department of Human Resources) to the Department of Environment, Health and Natural Resources, and back again.^{aa} Throughout all of this, most of the core public health functions remained. Over the years, the Division of Public Health (DPH), and the Commission for Public Health (which is the current name for the rulemaking body, similar to the old State Board of Health) has been responsible for: preventing health risks and disease, identifying and reducing health risks, detecting and preventing the spread of disease, promoting healthy lifestyles, promoting a safe and healthy environment, promoting the availability and accessibility of quality health services through the private health sector, and providing quality health care when not otherwise available. (NCGS §130A-1.1.) Specifically, public health is charged with ensuring that essential health services are available to all citizens of the state, including:

- (1) Health Support:
 - a. Assessment of health status, health needs, and environmental risks
 - b. Patient and community education;
 - c. Public health laboratory;
 - d. Registration of vital events;
- (2) Environmental Health:
 - a. Lodging and institutional sanitation;
 - b. On-site domestic sewage disposal;
 - c. Water and food safety and sanitation; and
- (3) Personal health:
 - a. Child health;
 - b. Chronic disease control;
 - c. Communicable disease control;

^{aa} When the State Board of Health was brought under the Department of Human Resources in 1973, the State Board of Health and its governing authority ended. Instead, rulemaking authority for public health was placed in the newly created Commission for Health Services. Most of the responsibilities that had been vested in public health (except facility licensure) was organized into a new Division of Health Services. In 1989, public health was again reorganized. Under then-Governor James G. Martin and with the support of the General Assembly, the Division of Health Services was moved from the Department of Human Resources to a new Department of Environment, Health, and Natural Resources. With this reorganization, all of the environmental functions of public health (i.e. restaurant inspection, well inspection) was combined with the environmental regulatory functions of the Department of Environment and Natural Resources. (Government Records Branch of North Carolina, NC Office of Archives and History. Agency History: 1755-1990s. <http://www.records.ncdcr.gov/schedules/dhhs.htm#hist>. Accessed October 4, 2009.) However, this administrative structure only lasted until 1997, when public health was again moved back to the Department of Health and Human Services.

- d. Dental public health;
- e. Family planning;
- f. Health promotion and risk reduction;
- g. Maternal health. (NCGS §130A-1.1(b))

Unlike many other public health agencies across the country, North Carolina public health agencies have assumed more responsibility for providing clinical primary care services to the uninsured when resources have been unavailable elsewhere in the community. For example in 2005, 54% of North Carolina local health departments provided school health (compared to 41% nationally); 90% reported that they provided well-child services (compared to 46% nationally); 99% reported that they provided family planning (compared to 58% nationally); 84% reported that they offered prenatal services (compared to 42% nationally); 41% reported that they provided primary care for adults (compared to 14% nationally); and 52% reported that they offered dental services (compared to 31% nationally).^{67,68}

North Carolina is an early leader in local public health accountability. In 2002, DPH and North Carolina Association of Local Health Directors began to develop a mandatory system to accredit local health departments. By 2009, 50 of the state's 79 local and district public health departments had been accredited.^{bb69,70} More recently (2009), the NC Division of Public Health and other collaborating partners have created the NC Center for Public Health Quality in order to create a culture of accountability and continuous quality improvement. This partnership includes the North Carolina Hospital Association, NC Center for Hospital Quality and Patient Safety, NC Institute for Public Health, NC AHEC, NC Public Health Foundation, NC Association of Local Health Directors, UNC Gillings School of Global Public Health, and is being funded by three of the state's philanthropic organizations, including The Duke Endowment, Kate B. Reynolds Charitable Trust and Blue Cross and Blue Shield of North Carolina Foundation.

North Carolina is also a leader in public health preparedness, whether that is responding to emerging infectious diseases (such as the SARS epidemic or the H1N1 influenza pandemic), or man-made or natural disasters. In 2004, DPH worked with the UNC Department of Emergency Medicine to develop the North Carolina Disease Event Tracking and Epidemiologic Collection Tool (NC DETECT).⁷¹ NC DETECT is one of the most comprehensive state public health surveillance systems in the country. It can monitor near real-time data from hospital emergency departments, the Carolinas Poison Center, the Pre-hospital Medical Information System, Piedmont Wildlife Center, North Carolina State University College of Veterinary Medicine Laboratories and select urgent care centers to detect emerging infections, and to respond to bioterrorism attacks or natural disasters. The data can also be used for routine public health surveillance, and to support the work of local public health agencies.⁷²

While North Carolina has been at the forefront of quality assurance and preparedness within public health, the state still has a long way to go before it is recognized as a leader in overall population health measures. According to the 2009 America's Health Rankings, North Carolina was ranked 37th in overall

^{bb} Because of the recession in 2009, the North Carolina General Assembly placed a one-year moratorium on additional accreditation efforts to reduce state expenditures (SFY 2010). Accreditation activities are scheduled to begin again in SFY 2011.

health, and 40th in premature death (with “1” being the best state).⁷³ The Division has a history of collaboration with other organizations, recognizing that promoting population health involves a coordinated approach with multiple federal, state and local agencies, as well as other health professionals and community and business leaders. Over the years, the Division of Public Health has learned how to successfully tackle some of North Carolina’s most intractable public health problems. For example, North Carolina has historically had one of the highest smoking rates in the country. North Carolina first began its multi-faceted strategy to reduce tobacco use in 1991 with funding from the National Cancer Institute and American Cancer Society which was used to develop the comprehensive tobacco prevention and reduction plan. Prior to that, there was little improvement in tobacco use rates. The state implemented more systematic multi-faceted tobacco prevention and cessation interventions with the infusion of funding from the North Carolina Health and Wellness Trust Fund (HWTF). For example, the HWTF initiated a social marketing campaign (TRU) aimed at discouraging youth from smoking, and helped provide funding for QuitlineNC, which helped support individuals who wanted to quit smoking, and supported efforts to create 100% tobacco free schools and colleges. North Carolina public and private insurers began to pay for clinical interventions (e.g. counseling and tobacco cessation medications). Private funders (e.g., The Duke Endowment and Kate B. Reynolds) supported interventions to reduce tobacco use in the community, and the North Carolina General Assembly supported policy interventions (e.g. increasing the tobacco tax, and later, mandating that all public schools be 100% tobacco-free). Between 1995 and 2003, the adult smoking rate hovered at about 25%. Since implementing this multifaceted evidence-based strategy, the adult smoking rate decreased from 24.8% (2003) to 20.9% (2008). Similarly, the youth smoking rate has declined. From 2003 to 2007, the high school use rate has declined from 27.3% to 19.0%, while the middle school use rate dropped from 9.3% to 4.5%.⁶⁴

While North Carolina has been very successful taking this multi-faceted approach to reducing smoking rates across the state, we have not taken a similar approach to other population health measures. North Carolina spends less on public health per capita than most of the country. We spend, on average, \$50 per person which places us in the bottom of 12 states in terms of public health spending.⁷³

Because of North Carolina’s historically poor health status, four of the state’s major health foundations approached the North Carolina Institute of Medicine (NCIOM) to convene a task force to develop a prevention action plan for the state. (See below for more information about the NCIOM.) The NCIOM worked with the NC Division of Public Health and many other public health, health care, business and community leaders to develop *Prevention for the Health of North Carolina: A Prevention Action Plan.*^{64,74} The task force identified the preventable risk factors contributing to the leading causes of death and disability in the state. Building off the lessons learned from the state’s successful tobacco reduction campaign, the Prevention Action Plan contains multi-faceted evidence-based strategies, which if implemented, should lead to improved population health.

6. Mental Health

The state involvement in mental health dates back to 1856 with the construction of the North Carolina Insane Asylum in Raleigh (initially called Dix Hill, and later renamed Dorothea Dix). The psychiatric

institution was built after Dorothea Dix, a national crusader for the humane treatment of people with mental illness, visited Raleigh and talked to the state legislature. While in Raleigh, she visited and helped nurse the dying wife of James C. Dobbin, a leading member of the House of Commons (now referred to as the House of Representatives). Upon her deathbed, Mrs. Dobbins urged her husband to support the legislation to create a psychiatric hospital. According to Allison Gray, in *Reforming Mental Health Reform: the History of Mental Health Reform in North Carolina*, the bill was nearly defeated until James C. Dobbin urged the legislature to support the legislation.⁷⁵ Two additional hospitals were built in the 1800s: Broughton in Morganton in 1883 and Cherry for African Americans in Goldsboro in 1880. One additional state psychiatric hospital was created in 1947, when the state purchased a hospital in Butner from the federal government.

Up through the 1940s, most people received care in state psychiatric institutions. By 1949, North Carolina had the second highest expenditures in the South for the care of people with mental illness in state psychiatric institutions (second only to Virginia). The movement towards community based treatment of people with mental illness began after World War II. North Carolina began to build community-based mental health institutions supported by local counties (including ones in Charlotte, Raleigh, and Winston-Salem). However, the real effort to move people out of hospitals and into community-based services began to take hold during the 1960s. In 1963, President Kennedy, who had a sister with mental illness, pushed for and supported the Community Mental Health Act. This legislation provided funding to the states to support the development of community mental health services and was followed by additional funding two years later to support staffing costs of community mental health centers.

The enactment of Medicare and Medicaid in the 1960s also created significant changes in the care of people with mental illness. Because states had historically been responsible for the costs of caring for people with mental illness in state institutions, both Medicaid and Medicare restricted federal payments for inpatient psychiatric care. Medicare, for example, restricted coverage for care in private and public psychiatric hospitals to 190-day lifetime maximum; Medicaid excluded coverage in state psychiatric hospitals and other institutions for mental diseases for non-elderly adults. As a result, states moved the care for older adults with psychiatric illnesses from public mental hospitals to nursing homes.

The North Carolina legislature began to provide closer oversight of the state's mental health system in 1973, with the creation of the Legislative Oversight Committee (LOC). The LOC was charged with overseeing the delivery of mental health, developmental disabilities, and substance abuse services in North Carolina. Senator Kenneth C. Royall, Jr., was chair of the LOC between 1973 and 1992. Sen. Royall was one of the most powerful legislators in the North Carolina Senate and was chairman of the Senate Appropriations Committee. By the early 1970s, North Carolina's mental health system was organized around county, or multi-county (regional), mental health authorities. By the mid-1970s, North Carolina had expanded its Medicaid program to pay for inpatient mental health services for older adults (age 65 or older), children under the age of 21, and for services in mental health centers. Because of the availability of Medicaid funding for general hospitals, more people began to receive psychiatric care in general hospitals (rather than in the state psychiatric institutions). This care tended to be more

episodic in nature, rather than the long-term institutionalization more common in state psychiatric hospitals.

According to Gray, by the 1970s, a new type of patient population arose,

“consisting of young adults who had reached adulthood within the community and had been rarely confined for any length of time in psychiatric hospitals. These individuals, whose mental disorders were fundamentally the same as the prior generations, nevertheless behaved in very different ways than those who had been confined for long periods in state hospitals. The new generation of young-adult patients with severe mental disorders (1) tended to be more aggressive, volatile, and noncompliant; (2) typically lacked functional and adaptive skills; and (3) generally had high rates of alcoholism and substance abuse which heightened the more negative aspects of their behavior and complicated their treatment.”⁷⁵

With the movement towards de-institutionalization, without commensurate increase in community-based services and supportive housing, many of these individuals became homeless. According to a report in the *News & Observer*, the Wake County sheriff estimated that 80% of the inmates in his jail had mental health problems, often in conjunction with addiction and substance abuse issues. “That, in effect, made the Wake County jail the largest mental institution in the state.”⁷⁶ Two changes at the national level supported further deinstitutionalization: the passage of the Americans with Disabilities Act (ADA) in 1990, and the *Olmstead v. L.C.* Supreme Court decision in 1999. The ADA prohibited states or any organization receiving public funds from discriminating against individuals because of their disabilities (including mental illness or developmental disabilities). In *Olmstead v. L.C.*, 119 S.Ct. 2176, the Supreme Court held that the unjustified institutionalizations of people with mental illness or developmental disabilities in a state psychiatric hospital could violate the ADA. According to the decision, states must provide community-based treatment if the individuals want to be served in the community; treatment professionals determine that placement is appropriate; and the treatment needs can be reasonably accommodated within state resources and considering the needs of other people with disabilities.

Despite the national movement towards deinstitutionalization and the commensurate reduction in the use of psychiatric hospitals in North Carolina,⁷⁷ the state continued to rely more heavily on state psychiatric hospitals than in most of the rest of the country. According to a state auditor’s report (2000), North Carolina’s psychiatric bed capacity was 23% higher than the average of a peer group of nine states, and the rate of adult admissions was second highest.⁷⁵ The Auditor recommended closing one of the state psychiatric hospitals, replacing the other state institutions with new facilities, and expanding community-based services. The State Auditor also raised concerns with the way the state

⁷⁵ The psychiatric bed count per 100,000 population in North Carolina fell from 234.5 (1955) to 17.1 (2004-2005). Despite this large decline in the number of psychiatric beds per population in North Carolina, other states experienced a more significant decline in their psychiatric hospital capacity. (Gray, A. Reforming Mental Health Reform: The History of Mental Health Reform in North Carolina. North Carolina Center for Public Policy Research. March 2009.)

organized and provided community based services. At the time, community-based services were provided by single county or regional semi-autonomous area mental health programs. These area programs were responsible both for overseeing the mental health, developmental disabilities, and substance abuse system at the local level, and for providing services directly. This was perceived as a conflict of interest, as many area programs were reluctant to refer patients to private providers. Further, most of the resources were being used to serve those with less severe disabilities. Concerns were also raised about the quality of care provided, and their ability to manage public funds. As a result, the Auditor also recommended restructuring community-based services, so that local public mental health agencies would oversee and coordinate care, and would contract for services with private providers.

In 2000, the North Carolina General Assembly directed the LOC to develop a plan to restructure the state's behavioral health system in accordance with the State Auditor's recommendations. (Session Law 2000-83, HB 1519.) The "mental health reform" of 2001 had three core components: 1) transfer of management and oversight from the existing quasi-state local area authorities to fully accountable Local Management Entities (LMEs); 2) privatization of clinical services; and 3) targeting LME services to those with the most severe disabilities (targeted populations).⁷⁵

The mental health "reform" appears to have substituted a new set of problems for the old. While the goal was to target people with more serious behavioral health disorders, people with severe and persistent mental illness continued to have problems accessing services.⁷⁵ Those who are not in a "target" (or priority) group often have more difficulties obtaining services. Further, over the last five years, there have been a series of problems plaguing the state-run institutions, including loss of accreditation and federal funding, and well-publicized instances of patient abuse and deaths. The General Assembly appropriated funding to build a new state psychiatric hospital in Butner (to replace John Umstead and Dorothea Dix), but even the new hospital had problems with accreditation.⁷⁷⁻⁷⁹

In addition, the system has not been able to assure the availability of private providers needed to meet the needs of people with severe and persistent mental illness, substance abuse disorders, or intellectual or other developmental disabilities. Workforce issues continue to be a problem due to a lack of psychiatrists and other trained behavioral health specialists. A study of the supply and distribution of psychiatrists in North Carolina in 2006 found that there was a serious maldistribution of psychiatrists and a critical shortage of child psychiatrists.⁸⁰ In 2007, the Division of Mental Health, Developmental Disabilities and Substance Abuse Services (DMHDDSAS) and the Commission for Mental Health, Developmental Disabilities and Substance Abuse Services created a workgroup to study the availability of a trained workforce to provide services and supports to people with mental illness, developmental disabilities and substance abuse services. The study found a need for more management and clinical supervisors, a shortage and maldistribution of psychiatric and other professional and direct support staff across the state, high rate of staff turnover, and inadequate planning to meet current and future workforce needs.⁸¹ This shortage of trained behavioral health professionals and direct support workers is one of the underlying problems which had led to a shortage of private providers willing and able to serve people with mental health, developmental disabilities and substance abuse problems.

The mental health financing system has also contributed to the shortage of trained, qualified behavioral health professionals. Historically, mental health and substance abuse services have been supported in large part through public DMHDDSAS or Medicaid funds. Private insurance coverage did not provide the same level of coverage for these conditions as it did for other medical needs. Reliance on public funding can create barriers if the reimbursement is not sufficient to attract sufficient number of professionals or other providers who can deliver services. Health care professionals who provide medical services can address public payment shortages by shifting the underpayments to other private insurers (“cost-shifting”). However, because of a lack of parity in coverage of mental health and substance abuse services, behavioral health professionals have less ability to cost shift.

This began to change at the state level with the passage of a state mental health parity law in 2007.^{dd} (Session Law 2007-268.) The state law applies to all groups, including small employers, which purchase insurance from state-regulated insurance companies (e.g. it does not cover some larger employers who operate ERISA plans). The state law also does not cover people diagnosed with a substance abuse disorder. However, Congress passed the Mental Health Parity and Addiction Equity Act as part of the Emergency Economic Stabilization Act of 2008, which expanded third-party coverage for both mental health and substance abuse services.^{ee} Under the new federal law, group health plans must generally provide mental health and substance abuse coverage in parity with medical and surgical benefits. This federal law only applies to all employer groups with 50 or more employees if the employer offers insurance with mental health coverage.

The state and federal laws are still too new to determine whether they will be able to address some of the provider shortages. However, even if these laws are able to entice more people into behavioral health specialties, there are still shortages in other services needed to support people with mental illness, developmental disabilities or substance abuse disorders. For example, studies have shown a shortage of supported housing, supported employment, psychiatric services, and crisis interventions.⁸²⁻⁸⁴ In SFY 2008 and 2009, the North Carolina General Assembly began to address some of the service gaps, including funding for crisis services. However, in SFY 2010, the General Assembly was forced to make significant cuts in the mental health budget to address the budget shortfalls.⁸⁵

7. School Health

The guiding mission of the State Board of Education (SBE) is to ensure that “every public school student will graduate from high school, globally competitive for work and postsecondary education and be prepared for life in the 21st century.”⁸⁶ To accomplish this, one of the five goals of the SBE is to ensure

^{dd} Session Law 2007-268. Under the state law, North Carolina insurers must provide the same coverage of certain mental health disorders as provided other physical illnesses generally. The mental illnesses that are covered under the state law include bipolar disorder, other major depressive disorder, obsessive compulsive disorder, paranoid and other psychotic disorder, schizoaffective disorder, schizophrenia, post-traumatic stress disorder, anorexia nervosa, and bulimia. Insurers are also required to provide at least 30 days of inpatient and outpatient treatment and at least 30 days of office visits for other mental health disorders. People with substance abuse disorders as their primary diagnosis are not covered by this law.

^{ee} Subtitle B—Paul Wellstone and Pete Domenici Mental Health Parity and Addiction Equity Act of 2008. Public Law 110-343, codified at 29 USC § 1185a, 42 USC § 300gg-5.

that NC public school students are healthy and responsible. The recognition that students must be healthy to be able to learn dates back to the Good Health Movement in the 1940s.

School-aged children spend almost one-third of their waking time per week in schools; thus, schools are seen as a good place to intervene to improve the health of school children.⁶⁴ Schools can promote the health of the students by using a coordinated school health approach. This includes offering nutritious foods in school cafeterias and vending machines; offering evidence-based health education curriculum; providing adequate time for high quality physical education; providing a healthy school environment; meeting the behavioral health needs of students; offering health services in schools; ensuring healthy staff; and promoting family and community involvement in schools. However, few schools meet all of these requirements. Thus, the General Assembly, Governor, SBE and Department of Public Instruction (DPI) have implemented public policies to improve the health of North Carolina public school students.

Students are required to receive health education content every year from kindergarten through eighth grade (and one unit of combined health education/physical education in high school). The DPI Standard Course of Study (SCOS) in Healthful Living Education is comprised of yearly objectives that include: mental and emotional health; personal and consumer health; nutrition and weight management; interpersonal communication and relationships; and substance abuse prevention.⁸⁷ The SBE approves the SCOS, but the selection of the specific curriculum used to teach these objectives is a decision made by local school districts. While there are evidence-based curricula for some of the subject areas that have been shown to produce behavioral changes, schools are not required to use these curricula, nor does the state evaluate the current course offerings to determine whether the classes are effective in promoting knowledge or the skills needed to help students lead healthy lives.^{ff} Further, schools do not always have trained health educators teach the health education courses; many physical education teachers were assigned to teach health education without a requisite background in health education.^{gg}

Schools also help feed many of the students during school hours. In 2008, North Carolina schools prepared meals, breakfast and lunch, for nearly 1.4 million students daily. About half of these students qualified for free or reduced price meals.⁸⁸ The National School Lunch Program (NSLP) was created by Congress in 1946, shortly after World War II. The Act provided federal funding to offer nutritious meals to students. In the 1980s, the federal government cut funding to this program. This forced schools to find alternative revenues. Local schools began selling extra foods and drinks to students who could afford to pay ("supplemental school meal sales") in order to help offset loss of federal funds. Schools began to focus more on generating revenues than on serving the foods and beverages that were most nutritious for students.⁸⁸ To address the rising childhood obesity epidemic, the North Carolina General Assembly passed legislation to require SBE to adopt nutrition standards for all meals and snacks served

^{ff} Examples of evidence-based health education include: Making a Difference (covers HIV/STD/teen pregnancy prevention); Life Skills Training and Project TNT (covers drug/alcohol and tobacco prevention), and Second Step and Victims, Aggressors, and Bystanders (covers violence prevention). (Breitenstein D. North Carolina standard course of study in healthful living. Presented to: the North Carolina Institute of Medicine Task Force on Substance Abuse Services; October 10, 2008; Morrisville, NC.)

^{gg} In October 2008, the SBE passed a policy stating that teachers who teach health must either be licensed in health education or jointly licensed in physical education and health education by 2012.

in public schools. In response to this mandate, the SBE adopted healthier nutrition standards that were to begin being implemented in elementary schools. The new standards were tested in elementary schools, and results showed that schools statewide would lose \$20 million annually to implement these standards. As a result, mandatory implementation of these standards was delayed until 2010.^{hh}

Physical education continues to be part of the North Carolina's Healthful Living Standard Course of Study. However, with the push to improve academic performance, many schools have reduced the frequency of physical education classes taught. Thus, in 2003, the SBE implemented the Healthy Active Children Policy, which highly recommends 150 minutes per week of physical education in grades K-5, and 225 minutes per week of the Healthful Living (health education and physical education) in grades 6-8. This policy further requires schools to provide children in grades K-8 at least 30 minutes of *physical activity* daily. While physical activity within a physical education class can count toward the 30 minute requirement, the Healthy Active Children Policy does not require physical activity to be conducted in traditional physical education classes or facilities such as gyms. Instead, physical activity can be accumulated in periods of 10-15 minutes through classroom-based movement, recess, walking or biking to school, activity during physical education courses, and sports that occur during, before, and after school. High school students are required to have one unit of Healthful Living (combined health education and physical education) as a requirement for graduation.

State policy makers have also taken positive steps to improve the health of the physical environment. In 2000, Governor Hunt held a Youth Summit and sent a letter to all public school principals, superintendents, school board chairs and PTA encouraging them to implement 100% tobacco-free policies on school grounds and at school-related events.⁸⁹ At the time, only about 10 of the 117 Local Education Agencies (LEAs) were 100% tobacco-free. In 2001-2002, Governor Easley and DPI Superintendent Mike Ward sent out another letter further encouraging school districts to implement 100% tobacco-free policies. Over the years, many school districts voluntarily implemented 100% tobacco-free policies. The remaining LEAs were required to implement 100% tobacco-free policies by August 2008, after the General Assembly required all school districts to be 100% tobacco-free. (Session Law 2007-236.) In 2006, the General Assembly also passed the School Children's Health Act to reduce student and staff exposure to certain pollutants including pesticides, mercury, arsenic, diesel fumes, and mold/mildew. (Session Law 2006-143.)

The General Assembly has also implemented policies to promote the availability of health personnel in schools. The presence of nurses in schools nationally dates back to 1902, when nurses were placed in schools to reduce absenteeism by helping control communicable diseases.⁹⁰ Nurses continue to play a critical role in meeting the health needs of public school students by: providing health services to students with chronic health conditions; administering medications, preventive services, screenings and case management; planning and overseeing other health services; referring students to other health services as needed; and generally promoting a healthy school environment. In 2009, North Carolina had an average of 1 nurse for every 1,207 students, although the recommended nursing-to-student ratio is

^{hh} NCGS §115C-264.3.

1:750 students. Recognizing the importance of school nurses, over the last five years (since 2004), the North Carolina General Assembly has appropriated new funds to help hire more than 300 additional school nurses with a goal of continued funding to meet the 1:750 ratio by 2014. The General Assembly also provides funds to help support some of the school-based and school-linked health centers in the state. In addition, in 2005 Governor Easley advocated to create 100 school-based Child and Family Support Teams (CFST) in 21 LEAs across North Carolina. The CFSTs include school nurses and licensed school social workers who are placed into high-risk schools. The teams work with school staff, staff within LMEs, social services, health departments, juvenile courts and families to ensure that at-risk students receive appropriate and timely services.

All of these individual component parts of a healthy school (i.e. health education, nutrition, physical activity, healthy environment, school health personnel) are part of a comprehensive school health approach. Since 1988, DPI has been one of 20 states to receive federal funding from CDC to promote the Coordinated School Health (CSH) approach at the state and local levels. The NC Healthy Schools partnership is a collaboration between the Department of Public Instruction and the Department of Health and Human Services, Division of Public Health and provides CSH technical assistance, professional development and resources at both the state and local levels.⁹¹ Through the work of this Healthy Schools partnership, all 115 Local Education Administrative units (LEA's) have implemented all, or parts of the Coordinated School Health approach. The collaboration between DPI and DPH, already strong, has taken on even more urgency in recent years as both agencies begin to address the rising childhood obesity rates.

While much of the work historically to improve child health in schools has been based on the understanding that healthy children have fewer absences and generally do better in school; there is now mounting evidence that education and health outcomes are tightly intertwined, and that academic achievement (years of school) affects a person's health throughout their lifetime.^{64,92} Thus, the connection between DPI and DHHS at the state level, and between LEAs and local health departments is likely to strengthen further in the future.

C. Responding to New Challenges in Health Care Access, Quality and Outcomes

1) Creation of the North Carolina Institute of Medicine

The Poe Commission recommended the creation of the Medical Care Commission, in part to respond to and study needed changes in the health system. When initially created in 1945, the Medical Care Commission was directed to study and develop a plan for hospital construction, the expansion of the two-year medical school to a four-year medical school, and how to train minority health professionals. Over time, however, the Medical Care Commission focused its work on the construction and maintenance of public and private hospitals, medical centers and related facilities, and had rulemaking authority for the operation of hospitals, nursing homes, adult care homes, emergency medical services, and certain other health care providers and medical facilities. (NCGS §145B-165.) The Commission lost its initial responsibility of studying broader health system issues.

In 1983, a group of physician leaders in the state, led by Drs. James E. Davis, past president of the NC Medical Society and the American Medical Association and Dr. William Anlyan, Vice President for Health Affairs at Duke University School of Medicine, approached Senator Kenneth Royall of Durham to enact legislation to create the North Carolina Institute of Medicine (NCIOM). The NCIOM was chartered by the North Carolina General Assembly in 1983 to serve as a non-political source of analysis and advice on major health issues facing the state. (NCGS §90-470.) It was modeled on but not directly affiliated with the Institute of Medicine in Washington, DC, and is the first such state Institute of Medicine in the country. Dr. James E. Davis served as the first Chair of the Board (1983-1996). He was followed by Dr. E. Harvey Estes. The Board is comprised of key health leaders in the state, including the CEOs of all the academic health centers, State Health Director, Secretary of the NC Department of Health and Human Services, leading health professional associations (including the NC Medical Society, NC Hospital Association, and NC Healthcare Facilities Association), and other business and community leaders. During the first 10 years, the NCIOM studied relatively few issues. However, the work of the NCIOM expanded significantly when Gordon DeFriese, PhD, Professor of Social Medicine and the Director of the Cecil G. Sheps Center for Health Services Research at UNC-Chapel Hill, assumed the helm (1994-2005).⁹³

The NCIOM studies health issues at the request of the North Carolina General Assembly, state agencies, and other health professional or community organizations. Over the years, the work of the NCIOM has generally fallen into five areas: access to care, underserved or other vulnerable populations (i.e. children and adolescents, frail and older adults, people with disabilities, racial and ethnic minorities), health professions workforce, prevention and health promotion, and quality. The NCIOM operates by convening diverse task forces that include representatives of state and local policy makers, health professionals, different stakeholder groups, and other interested people to study important health issues and develop workable solutions to address these problems. The NCIOM conducts regular follow-ups to find out what has happened to Task Force recommendations. Typically, between 50-75% of its Task Force recommendations are implemented—in whole or in part—within two to three years of issuing its report.

2) Health Impacts of the Aging of North Carolina Population

Notably absent from the Poe Commission report was any reference to the health needs of the older adult population. The absence of this issue in the earlier report is presumably due to the age distribution of the state at the time. In 1900, North Carolina had one of the youngest populations in the country.⁹⁴ More than 40% of the state's population was younger than age 15, whereas only 3.5% was age 65 or older. It was not until the later part of the century when the state's age distribution began shifting. Starting in the 1970s, North Carolina started attracting people into the state, including older adults. By the 1990s, North Carolina had the sixth highest in-migration of older adults. With the aging of the general population due to declining fertility, longer life expectancies, and the in-migration of older adults, North Carolina's population age 65 or older reached rough parity with the national average in 2000. By 2006, North Carolina had more than one million older adults (age 65 or older), and 136,229 adults age 85 or older. This makes North Carolina the 10th highest in terms of total numbers, but still only 38th in terms of the percentage of population age 65 or older. Further, North Carolina still has a relatively young "old" population, with more than half of the older adult population being in the 65-74

age range (versus those who are 75-84, or 85+). This is important because the younger older adults generally are in better health than those who are older.

Although the proportion of the state's population that is age 65 or older is not large compared to other states, the mere number of older adults is and will continue to create health and financing challenges for the state. Between 2001-2030, North Carolina's older adult population will more than double (to approximately 2.2 million people), as the baby boomers reach retirement years. Further, the population age 85 or older is expected to grow from 112,797 (1.4% of the population) to approximately 268,000 (2.2% of the population) during the same time period.⁹⁵

Older adults face similar and different health challenges to younger adults. Unlike approximately 20% of the non-elderly population, almost all North Carolina adults age 65 or older have health insurance coverage. Only 1% of the state's population age 65 or older is uninsured. The overwhelming majority of older adults (96%) have Medicare—the federally financed health insurance program for people age 65 or older or for certain people who are disabled. However, Medicare has large out of pocket expenses and does not cover all of the person's health care needs. On average, Medicare only covered 44% of Medicare beneficiaries' health care costs in 2005.⁹⁶

Many older adults live with chronic illnesses, similar to those facing younger generations. However, the likelihood of being diagnosed or hospitalized with a chronic health problem increases as the person ages. In North Carolina, older adults age 65 or older are more likely to be hospitalized than younger adults (ages 50-64) for a variety of chronic conditions including: cancer, heart disease, diabetes, chronic respiratory condition, stroke, arthritis, and Alzheimer's disease.⁹⁵ Older adults also are more likely to be diagnosed with new cases of cancer and to be hospitalized for motor vehicle injuries or unintentional injuries than younger adults. Further, many older adults live with a physical or sensory disability. North Carolina has a higher rate of sensory, physical, mobility, cognitive, or self-care disability for older adults than in two-thirds of the other states in the country.⁹⁷

As people age, they are more likely to need assistance with activities of daily living (ADL) such as bathing, eating, dressing, using the toilet or getting into or out of a bed or chair, or instrumental activities of daily living (IADL) such as preparing meals, managing money, shopping, doing housework or using a telephone. Although 42% of the people who need long term care services are younger than age 65, most people who need long-term care are 65 or older.⁹⁸ Nationally, two-thirds of older adults age 65 or older are expected to have a moderate disability which would necessitate home or facility based long-term care services sometime in their lives.^{jj99} Of these, 65% will need in-home services (either informal or formal) and 37% will use facility based services such as nursing or assisted living facilities.

ⁱⁱ In 2005, Medicare recipients paid about one-fourth of all health care services out-of-pocket, either by paying for Part B or Medicare supplement premiums (10%) or for health care services (16%), including cost-sharing and non-covered services (e.g., long-term care). Note, these data do not include the drug-related premium costs or coverage from Medicare Part D, which was implemented in January 2006.

^{jj} This study classified people as needing long-term care if they needed help with one or more ADLs or four or more IADLs.

The growth in the aging population, many of whom will at some point need long-term care services, has profound budgetary implications for the state. While many people rely on informal support from family or friends to meet their long-term care needs, others need more formal help—either in-home or in a nursing or assisted living facility. Medicaid is the largest single source of financing for long-term care services. Nationally, 43% of nursing home expenditures and 40% of all long-term care expenditures are financed through the Medicaid program.⁹⁸

In North Carolina, oversight and financing of services and supports needed for older adults is shared among multiple agencies. The federal Medicare program pays for most of the acute and preventive services provided to older adults (age 65 or older). The Division of Aging and Adult Services (DAAS) within the NC Department of Health and Human Services (DHHS) is the state's aging agency and administers the programs financed through the federal Older Americans Act as well as the state Home and Community Block Grant. In addition, DAAS administers the State-County Special Assistance Program, which helps low-income older adults and younger people with disabilities finance their care in assisted living facilities. The Division of Health Services Regulation, within NC DHHS, has responsibility for licensure and inspection of health care facilities and agencies, including hospitals, nursing homes, home health agencies, and assisted living facilities. However, it is the Division of Medical Assistance (DMA), the state's Medicaid agency, that finances most of the long-term care services provided in the state. This bifurcation of services and financing across so many agencies causes problems for some older adults, who do not always know where to turn for care. This is particularly problematic for frail elders or people with disabilities who need help with long-term care services.¹⁰⁰ As a result, the NC DHHS created an Office of Long-Term Services and Supports to coordinate services across agencies.

In North Carolina, 12.7% of all Medicaid expenditures in SFY 2007 were for nursing facility services, and another 8.2% of Medicaid expenditures were for home health services or personal care services provided in the person's home or in an assisted living facility.⁵² Medicaid spent a total of \$1.7 billion for nursing facilities, home health, personal care, and personal care for people in assisted living that year, and an additional \$440 million for people living in intermediate care facilities for the mentally retarded (ICFs-MR). Studies consistently show that people prefer to be cared for in their homes rather than in a facility.¹⁰¹⁻¹⁰³ Yet many communities lack the array of services needed to support older and frail adults or people with disabilities in their homes.¹⁰⁰ Additionally, many older adults lack the resources to pay for the home- and community-based services that could keep them in their homes. As a result, many older adults end up in institutional settings.

Over the years, North Carolina has made much progress in balancing funding for nursing facility services versus home- and community-based services. The state has a strong Certificate of Need (CON) law which limits the number of new nursing homes built. As a result, North Carolina was ranked 36th in terms of the number of nursing facility beds in 2007 (with "1" being the state with the highest number of nursing facility beds).⁹⁷ In contrast, we have far more than the national average of assisted living and residential care units (ranking 9th in the country). Unlike nursing facilities, which began to be regulated under CON laws when they were first enacted in 1977, assisted living facilities were not brought under

the CON process until 2001.^{kk} We spend a smaller percentage of our long-term care dollars on nursing facilities than nationally (61% compared to 73%), and a greater percentage on personal care services or other home and community based services provided to people in their home or in assisted living.

3) Statewide Quality Initiatives

In recent years, North Carolina has focused more heavily on improving quality of care. Ensuring that health care organizations and health professionals meet certain competency and quality standards have long been within the purview of state licensure boards,^{ll} and to facility licensure and accreditation bodies. However, there has been a heightened push to improve the quality of care provided by health care professionals and organizations. These statewide efforts have been prompted by several national studies which have pointed out specific problems, as well as wide variation in the quality of care provided.

In 2000, the Institute of Medicine of the National Academies of Sciences, published To Err is Human: Building a Safer Health System. In that report, the Institute of Medicine reported that between 44,000-98,000 people die every year in US hospitals due to medical errors. These preventable adverse events were estimated to cost between \$17-\$29 billion annually, due to increased health care costs lost income and productivity. The report called for systems changes to reduce these preventable medical errors.¹⁰⁴ At around the same time, Elizabeth McGlynn and her colleagues published two articles showing that patients received, on average, only about 50% of clinically recommended care.^{105,106} These articles followed decades of work by Wennberg and his colleagues at Dartmouth, showing significant practice variations across the country.¹⁰⁷

North Carolina responded to these studies in a variety of ways. First, CCNC was developed to try to improve the quality of care provided to Medicaid recipients. Under the program, physicians and health care professionals from across the state identify nationally recognized practice guidelines for the treatment of certain chronic illnesses or other complex health problems, and measure provider performance against those standards. (See Medicaid section.) More recently (2007), the NC Academy of Family Physicians received a Robert Wood Johnson grant to develop a new system to help improve the quality of care provided in primary care practices (initially called Improving Performance in Practice, or IPIP).^{mm} Under this model, AHEC quality improvement consultants work with individual provider

^{kk} Session Law 2001-234.

^{ll} When the predecessor to the current North Carolina Medical Society was first chartered in 1799, it included a committee of censors to examine new members. The current North Carolina Medical Society was chartered by the General Assembly in 1849, and began to consider the creation of a medical licensing board in 1858. The North Carolina General Assembly passed legislation to create a medical licensure board in 1859. (North Carolina Medical Board. North Carolina Medical Board Timeline. <http://www.ncmedboard.org/timeline/>. Accessed October 12, 2009.) North Carolina was the first state in the country to enact laws to regulate nursing (1902). The Board of Nursing was created in 1903. Nurses had to successfully complete a licensure exam to be registered. (Johnson P. Our Future Nursing Workforce: A Regulatory Perspective. *NC Med J* March/April 2004;65(2):84-6. North Carolina Nurses: A Century of Caring. Nursing Then and Now. UNC-TV.

<http://www.unctv.org/ncnursing/thenandnow.html>. Accessed October 12, 2009.)

^{mm} Under this model, initially called Improving Performance in Practice, quality improvement consultants work with primary care practices to modify the practice's internal workflow systems to improve quality of care.

offices to help them change their systems of care to promote quality improvement. These two efforts to improve quality—CCNC and IPIP—became the cornerstone of a larger quality initiative promoted by Governor Easley and his staff.¹⁰⁸ The North Carolina Quality Alliance grew out of a collaborative effort between CCNC, AHEC, BCBSNC, State Employees Health Plan, NC Medical Society, and NC Hospital Association (NCHA). The goal is of this effort is to align quality measures, provide feedback to providers to measure their performance against the guidelines, and to offer practice support to providers to help them improve quality.¹⁰⁹

The NCHA also took a leadership role in trying to improve the quality of care provided in hospitals. In 2004, the NCHA created the NC Center for Hospital Quality and Patient Safety, with funding from The Duke Endowment and Blue Cross Blue Shield of North Carolina Foundation. As part of this initiative, North Carolina hospitals report data on certain standardized quality indicators for treatment of heart attack, heart failure, pneumonia, and surgical care. Consumers can review individual hospital quality indicators and compare them to other North Carolina hospitals and the national average. The hospitals have also developed a voluntary system for hospital infection measurement.¹¹⁰ And in December 2008, the NC Center for Hospital Quality and Patient Safety became certified as the first federal Patient Safety Organization in North Carolina.¹¹¹

II. Challenges and Successes

Certain health problems have plagued the state for most of the last sixty years. North Carolina continues to rank poorly compared to other states on key health indicators. Further, we continue to have access problems, both due to maldistribution of health care professionals and lack of insurance coverage. Since the Good Health Movement in the 1940s, there have been only isolated attempts to strengthen North Carolina's health system. These efforts have generally been in response to an actual or perceived health crisis (such as nursing shortages, or when CDC provisional data showed that North Carolina had the worst infant mortality rate in the country), or in response to changes at the federal level (including the federal enactment of the Medicaid program and Children's Health Insurance Program). Since the Good Health Plan, North Carolina governors have focused more heavily on education or economic development, not health. Until Governor Perdue, no Governor has campaigned on or promised to serve as the "Health Governor."

In the past 60 years, we have experienced some improvements in health status, access and quality. However, we often experience improvements, only to be followed by periods of significant challenges.

- *Health Status.* North Carolina fares poorly on most national health rankings. North Carolina is 37th in terms of overall health and 40th in premature death.⁷³ In addition, North Carolina has a higher infant mortality rate and lower life expectancy at birth (77.1 compared to 77.7 nationally).¹¹² North Carolina adults are more likely to smoke and less likely to engage in physical activity, are more likely to live in poverty and less likely to graduate high school than nationally.⁶⁴ Underlying these poor health rankings are poverty, lack of education, and racial/ethnic disparities.

In the past, we have often viewed these problems as intractable, and thus have not focused on the

resources needed to make meaningful improvements in health status. However, since 2003, North Carolina has seen significant improvements in the youth smoking rates (as well as some reduction in adult smoking). This was a direct result of a concerted effort of many different state and local organizations, including but not limited to the North Carolina Division of Public Health and local public health professionals, the Health and Wellness Trust Fund, The Duke Endowment, NC Prevention Partners, NC Alliance for Health, hospitals, schools, and insurers. Over the years, these groups as well as many others implemented multi-faceted interventions aimed at changing individual behavior, social norms, community and environment, and public policies. (See public health discussion above).

With its successful experience in reducing youth and, to a lesser extent, adult tobacco use, the state has the knowledge in how to make meaningful improvements in health status. The issue is whether North Carolina is willing to invest in these evidence-based strategies when there are competing demands on the state's limited resources, and powerful lobbies against changes that threaten powerful economic interests. Heretofore, North Carolina has not chosen to make significant investments in public health or efforts to improve population health. Compared to other states, North Carolina spends less on public health. In 2008, North Carolina ranked in the bottom 12 states in terms of public health spending.⁷³

- *Access to health services for the uninsured:* North Carolina, like the rest of the country, has experienced a rapid increase in the numbers of uninsured. However, since 2000, North Carolina has seen a faster growth in the percentage of uninsured and a faster decline in employer-based coverage than most of the rest of the nation. Between 1999-2000 and 2007-2008, North Carolina experienced a 19.2% increase in the percentage of people who were uninsured (compared to 9.9% nationally). During the same time period, North Carolina experienced a much more rapid decline in employer-based coverage (NC: 14.5%, US: 8.3%).¹¹³ The loss of employer-based coverage is one of the primary reasons for the increase in the percentage of uninsured.

In 2006-2007, North Carolina had a higher percentage of uninsured children than nationally (NC: 13.3%, US: 11.3%), despite slightly higher enrollment of children in Medicaid and other public coverage (NC: 32.1%, US: 29%). However, a much smaller percentage of North Carolina children had private employer-based coverage (49.6% compared to 55.3% nationally).¹¹⁴ The situation is similar for non-elderly adults ages 19-64 years, as North Carolina adults are more likely to be uninsured than nationally (22.1% compared to 19.7% nationally); about equally likely to have public coverage (11.5% vs. 11% nationally); but less likely to have employer-sponsored insurance (60.7% compared to 63.2% nationally).

To address the uninsured, North Carolina could expand publicly-subsidized insurance (i.e. Medicaid and CHIP) to cover uninsured children and parents. North Carolina has one of the most strict income limits for Medicaid coverage for adults (36 states have more liberal rules, allowing more low income adults to qualify for public coverage).¹¹⁵ Similarly, the state could expand its child health insurance programs to cover more low income children, as have 24 other states.^{116,117} However, the

North Carolina General Assembly has generally been reluctant to expand these public programs, especially Medicaid, because it is an entitlement program and puts the state at risk for budget deficits if the program grows faster than expected. Before the recession and temporary infusion of new federal funds into the Medicaid program, the state share of Medicaid and NC Health Choice combined was budgeted to consume 15.2% of the state's general revenues for SFY 2008-2009.¹¹⁸ When the state spends more on the Medicaid program, it affects its ability to use resources for other public purposes, such as education. As a result, the Medicaid program is often viewed as the barrier which prevents the state from investing more heavily in K-12 education, community colleges, or the UNC system. However, because of the federal match rate, the state has generally been reluctant to cut eligibles or services. A 2003 study of the North Carolina Medicaid program found that for every dollar of state and local funds, the federal government contributed \$1.67. In 2003, Medicaid expenditures helped create 182,000 full or part-time jobs, \$6.1 billion in wages and other labor-related income, and \$1.9 billion in capital income.¹¹⁹ Historically, instead of expanding health insurance coverage to the uninsured, North Carolina has relied more heavily on safety-net organizations to provide services to the uninsured.

- *Access to providers in health professional shortage areas:* In contrast, North Carolina has long been considered a national leader in addressing health professional shortages in rural and underserved areas; although even here, the state has experienced its share of challenges. North Carolina has the preeminent state Office of Rural Health in the country, largely due to the leadership and vision of James Bernstein, the first director. (See section on Jim Bernstein.) North Carolina has led the nation in its effort to recruit and retain physicians and other health professionals into health professional shortage areas.ⁿⁿ Nevertheless, we still experience significant differences in the distribution of health care professionals across the state. For example, in 2005 there were 33.7 and 22.5 primary care physicians per 10,000 people in Orange and Durham counties, respectively. In contrast, there were only 0.9 and 1.1 primary care physicians per 10,000 people in Gates and Camden counties, respectively. Despite the work of the Office of Rural Health and the Community Practitioner Program, it is still difficult to recruit and retain health professionals in many of the more remote and rural communities in the state. Providers choose where to practice for a variety of reasons, including their ability to earn money and lifestyle preferences. Rural areas have a lower population density and more people who are uninsured, making it more difficult to establish financially viable practices. Urban areas often offer more cultural and recreational opportunities as well as options for schooling or employment for spouses. Thus, there are a number of counties that have historically had difficulty attracting and retaining primary care providers. In 2005, there were 11 whole counties and portions of 27 other counties that were considered persistent health professional shortage

ⁿⁿ The Bureau of Health Professions in the US Department of Health and Human Services Health Resources and Services Administration had designated certain communities, population groups or medical facilities as Health Professional Shortage Areas (HPSAs). Counties, or parts thereof, are considered HPSAs if they have fewer than one primary care provider for every 3,500 people, or one primary care provider for every 3,000 people if in a high needs area. Communities that are considered HPSAs are eligible for certain federal subsidies or services aimed at increasing health professional supply and access to care.

areas (HPSA) (i.e. designated as a HPSA in six of the last seven HPSA designations).¹²⁰

- **Costs.** The high cost of health care continues to trouble North Carolina, as it does the entire country. Between 1999 and 2009, health insurance premiums increased 131%, compared with general inflation (28%) or wage growth (38%).¹²¹ The high costs of health care has made premiums unaffordable to more people—driving up the numbers of uninsured. Further, rising health care costs make it difficult for people to see a physician when they need it. In a 2008 survey of North Carolinians, 45.0% of the uninsured and 10.0% of those with insurance coverage reported that there was a time in the past 12 months when they needed to see a doctor, but could not because of costs.¹²² Those with certain health problems, such as diabetes, asthma, history of cardiovascular diseases, or those with certain health risks, such as smokers or being obese, were more likely to report barriers receiving necessary care due to costs. While this problem is certainly not unique to North Carolina, it is a problem that has been exacerbated by rapidly increasing health care costs and the growing numbers of uninsured. Health care costs are increasing in large part, because people are using more services and because the costs of the services are increasing. This, in turn, is due to the advent of new medications and technologies, as well as the growing incidence and prevalence of certain health conditions.^{oo123} These rising health care costs—particularly in the Medicaid and State Employees Health Plan—increasingly affects the state’s ability to invest in other key programs, including education, economic development, the environment, or other social services programs.

III. Lessons Learned

North Carolina health policies are often driven by political crises and media attention. For example, the North Carolina Good Health Plan grew out of the fact that North Carolina had the highest percentage of its young men rejected from enlisting in the army during World War II. Similarly, North Carolina only seriously began to tackle its high infant mortality rate when the CDC released provisional data in 1990 which showed that North Carolina had the worst infant mortality rate in the country. North Carolina had historically had one of the worst infant mortality rates in the country, but it was not until we had the notoriety of being listed with the worst infant mortality rate in the country – with the commensurate media coverage – did politicians choose to invest heavily in infant mortality reduction strategies.

^{oo} A national study determined that 20 medical conditions accounted for 67.0% of the growth in private health insurance premiums between 1987-2002. This included: newborn and maternity care, cancer, pulmonary conditions, arthritis, mental disorders, hyperlipidemia, hypertension, lupus, back problems, upper gastrointestinal, diabetes, kidney problems, infectious disease, heart disease, skin disorders, bronchitis, endocrine disorders, other gastrointestinal diseases, bone disorders, and cerebrovascular disease. For most of these conditions, it was the rise in treated disease prevalence rather than the rise in the cost of treatment per case that accounted for most of the increase in health care spending. Much of this increase is attributable to the rising prevalence of insured adults who are considered obese. In 1987, obese adults with private insurance spent, on average, \$272 more per year than a normal weight insured adult. This difference increased to \$1,244 more per insured adult by 2002. (Thorpe, KE, Florence CS, Howard DH, et al. The Rising Prevalence of Treated Disease: Effect on Private Health Insurance Spending. *Health Aff* June 27, 2005; W5-317-325).

Political leadership helps facilitate health policy changes. Since Governors Broughton and Cherry, North Carolina has not had Governors who have focused on *broad-based* health system reform. However, many of the Governors played critical roles in more focused health policy changes. For example, Governor Holshouser was instrumental in creating the state's first Office of Rural Health. Governor Hunt, with his focus on children and education, helped push for the NC Health Choice program and was instrumental in advocating for 100% tobacco free schools. Further, Governor Hunt supported early childhood health initiatives as part of his Smart Start program. One of Governor Easley's initial campaign promises was to enact a Managed Care Patient's Bill of Rights to provide more consumer protections for managed care enrollees. And Governor Perdue is well-poised, with her past leadership of the Health and Wellness Trust Fund, to be a major proponent for prevention and wellness.

In addition to the Governor's involvement in specific health policy issues, other state policy makers have played strong leadership roles in shaping state health policy. For example, Sen. Royall was a major force in shaping the state's mental health system during the 1970s-1990s. Sen. Nesbitt and Rep. Insko have assumed strong leadership roles in mental health reform during the most recent decade. State agency officials, including Barbara Matula (Medicaid), and Jim Bernstein (Office of Rural Health), Ron Levine and Leah Devlin (Public Health) also left indelible marks on the programs they administered. Their influence often went far beyond that of the specific state agency that they directed.

Historically, the state's political leaders have historically focused more attention on improving health services for children than it has for other population groups. In recent years, many of the new health programs, such as NC Health Choice, have focused on children. This priority on children may be attributable to several reasons. First, there is a strong connection between education and the health of our children.^{124,125} Governor Hunt, Governor Easley, and Governor Perdue all campaigned on, and placed a priority on improving North Carolina's education system. There is a strong connection between the health of students and educational achievements. Thus, making investments in improving the health of youth can be supported as a means of improving educational outcomes. Second, children are relatively healthy. Thus, their health care needs are less expensive to address than adults. For example, in the North Carolina Medicaid program in SFY 2007, children cost on average between \$2,000-\$3400/year (depending on the eligibility group). Older adults (ages 65 or older) cost on average \$11,303, and people with disabilities cost, on average, \$14,500.⁵²

The health care needs of children are followed by that of older adults. Historically, the state political leadership has been more reluctant to address the health care needs of able-bodied adults, regardless of how poor they are. Medicaid policies reflect this bias. Children, for example, can qualify for Medicaid or NC Health Choice if their family incomes are no greater than 200% FPG (\$44,100 for a family of four in 2009). Older adults and people with disabilities can generally qualify if their income is no more than 100% FPG. But parents cannot qualify for Medicaid unless their family income is no more than 51% FPG in 2009. And, because of federal Medicaid restrictions, childless, non-elderly and non-disabled adults cannot qualify for Medicaid regardless of how poor.¹²⁶

Health professional associations and other stakeholder groups play a strong role in shaping health policies in North Carolina. North Carolina has powerful health professional trade associations, insurance

companies, and academic institutions—including the North Carolina Hospital Association, NC Medical Society, NC Health Care Facilities Association, Blue Cross Blue Shield of North Carolina, the University of North Carolina system, and the NC Community College System. These organizations and institutions have played a powerful role in shaping health policies in the state. Consumer groups also play an important role, including the NC Health Access Coalition, AARP, Action for Children, and advocacy groups for particular issues (such as Alliance for Health), or specific illnesses or health conditions (American Cancer Society or Lung Association or Coalition 2001—a coalition of advocacy and provider groups working on mental health, developmental disabilities and substance abuse issues). As with other policies, it is easier to enact legislation or adopt new rules when the proposed policies are supported by different health professional, business and consumer groups. However, the groups' interests are not always aligned, so that coalitions are formed and quickly disbanded over different health policy issues.

North Carolina favors community-based solutions versus large public programs. Historically, North Carolina has favored strategies to expand access to health services at a local level, rather than statewide health insurance options. This is particularly true since the mid-to-late 1990s, the last time North Carolina expanded Medicaid (to cover all elderly and disabled who were receiving SSI), and passed NC Health Choice. While many states have explored options to expand health insurance coverage to the uninsured, North Carolina has relied more extensively on local agencies and health professionals to meet the health care needs of the uninsured. For example, local health departments in North Carolina are far more likely to offer a wide array of primary care services than are other health departments across the country. Further, North Carolina has more free clinics—nonprofit organizations that rely on volunteer health professionals to meet the needs of the uninsured—than any/most other states. As a result, there is differential access based on the county commissioners willingness to fund primary care services, other local resources, availability of health care professionals, and willingness and ability of local providers to fill in gaps in care for the uninsured.

Federal policies and funding have helped shape state health policies. Dating back to the 1940s, changes in federal policies, as well as the availability of federal funding, often drives state health policies. Many of North Carolina hospitals were built or expanded in the 1940s-70s with low-cost federal loans or grants made available through the Hill-Burton program. The NC AHEC program first began with federal funds, and federal funding has been used to support health professional training, incentive programs to recruit and retain providers in underserved areas, and the health care safety net. Additionally, the state created both the Medicaid and NC Health Choice program to pull down federal funds.

In many ways, federal funds have enabled the state to pay for health programs or services it would otherwise have supported independently. In other instances, the state has made policy decisions primarily to leverage federal funds. For example, many of state mental health policies have been driven by the goal of maximizing federal Medicaid funds (e.g. the move from state psychiatric hospitals to community general hospitals or outpatient care).

NC Foundations have played a key role in piloting innovative health care initiatives. North Carolina is blessed with strong independently funded foundations that have provided funding to pilot new health programs, many of which are later incorporated into statewide policy. The Duke Endowment (TDE, founded in 1924), Kate B. Reynolds Charitable Trust (KBR, founded in 1947), Blue Cross and Blue Shield of North Carolina Foundation (BCBSNCF, founded in 2000), and the Health and Wellness Trust Fund (HWTF, founded with tobacco settlement monies in 2001) are the primary statewide foundations that focus on health care grant-making.¹²⁷⁻¹³⁰ In addition to these major health care foundations, there are numerous other foundations in North Carolina that invest in health promotion, health services, or other health related services to all or part of the state.⁴¹

These foundations help fund direct delivery of services, support construction and capital investments in health care organizations, and provided support to expand health professional training programs. In addition, these foundations have helped support new program development in state government. Many of these early pilot programs have been adopted and expanded statewide. For example, KBR helped provide the initial funding to support home and community based services for frail older adults and people with disabilities (as an alternative to nursing home care). This later became the model for the state's home and community based Medicaid waiver program. KBR and TDE helped support co-location of behavioral health providers into primary care practices within Community Care of North Carolina (CCNC). TDE has helped support the development of nursing education programs to expand the supply of nurses in the state. HWTF has taken a leadership role in tobacco cessation activities, and has helped fund the Division of Public Health to support tobacco cessation programs. KBR and BCBSNC Foundation have invested heavily in the Community Practitioner Program, to help provide financial incentives to health professionals willing to work in underserved areas. And all four foundations have invested heavily in prevention and health promotion activities.

Health care is one of the economic engines in the state's current economy. Between 2001 and 2008, general employment increased by 5.4%, whereas employment in the health sector increased by 45.2%. Further, health related jobs are more "recession-proof" than are other jobs. Between January 2008 and May 2009, non-health care jobs declined by 6.4%. During this same time period, health care related employment remained relatively stable, and actually increased by 1.1%.¹³¹ This "silver lining" in our current economy is really a double-edge sword. Health care costs are rising more rapidly than the general economy and consequently are consuming more and more of our resources. Yet, efforts to reduce health care spending can negatively impact the one segment of the economy that is growing. This is particularly important for the rural areas of the state, as hospitals and nursing homes are often among the largest employers in these communities. It is because of this connection between health care and rural economies that Governor Purdue, the Golden Leaf Foundation, Health and Wellness Trust Fund, and Rural Economic Development Center recently collaborated to fund and announce the Rural Hope funds. These funds will help support construction or expansion of health facilities which will improve health care and create new jobs in rural communities.¹³²

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