

## State and Local Partnerships for Meeting the Healthcare Needs of Small and Often Remote Rural Communities

Thomas C. Ricketts III, MPH, PhD

American healthcare has been described as a “non-system,” but there have been persistent efforts to coordinate and rationalize how we provide medical care in the United States. These efforts have resulted in what may be called informal systems of care. A perfect example of one of those systems is in North Carolina, a system created for the people of the state’s smaller and poorer communities, communities that are most often rural and more often inhabited by racial and ethnic minority citizens.

Almost all of North Carolina could have been called rural at the end of World War II. The 1940 Census classified 72.7% of the state’s population as rural or living in communities with fewer than 2,500 residents. A few cities—Charlotte, Durham, Greensboro, Asheville, Raleigh—had modestly large populations, but no city in the state had a population greater than 110,000. The state’s economy was strongly linked to agriculture, and the prevailing perception of North Carolina was of a sleepy, rural, somewhat backward state.

World War II created an economic stimulus for the state when military installations were located in North Carolina—shipyards were established in Wilmington to build liberty ships, and facilities were developed to house prisoners of war in the central and the mountain regions of the state. But the war left another legacy beyond economic benefit: the state had experienced the highest medical rejection rate for its draftees of any state in the Union. The causes for rejection were usually chronic problems related to nutrition and poor or unavailable basic medical care and health advice. This embarrassing fact is often cited as the driver of the statewide “Good Health Campaign” promoted in 1949 by prominent North Carolinians, including Kay Kyser, who recruited radio personalities and Hollywood stars to help raise money and direct attention to the healthcare needs of the state. That public effort had a significant impact, but it built on prior efforts to expand health resources. For years, politicians had been debating whether to assist one or both of the private medical schools in the state (Duke

University and Bowman Gray) or whether to create a large medical center by expanding the two-year medical school at the state university in Chapel Hill. Governor Melville Broughton appointed a Medical Care Commission in 1944 to study the health and medical needs of the state. That commission recommended the creation of a new, state-supported, four-year medical school in Chapel Hill that would share space with the existing School of Public Health and occupy space adjacent to a new, comprehensive teaching hospital. After years of consideration, the General Assembly supplied construction funds that were combined with money from the Hospital Planning and Construction Act of 1947, the Hill-Burton Act, to build Memorial Hospital in Chapel Hill and to create the teaching hospital. The Hill-Burton program also supported the construction of many North Carolina hospitals and public health facilities in rural communities.

As late as the 1950s, healthcare services in rural North Carolina were considered inadequate. An unflattering review of the quality of general practice in the state was published in the *Journal of Medical Education* in 1956.<sup>1</sup> However, there were examples of excellent medical care in some communities and effective public health structures had long existed in others. The nation’s first local health department was established in Guilford County in 1911. Robeson County set up the first professionally managed rural health department in 1912 when county commissioners appointed a full-time county health director charged with the task of creating an administrative unit of county government to ensure the health of the county’s citizens. The state’s growing appropriations to the state Board of Health soon allowed other counties to organize their own essentially independent public health units.

Walter Hines Page and the Country Life Commission, a national organization committed to “uplift rural folk,” helped to bring the problem of hookworm disease in North Carolina and the rural south to the attention of the Rockefeller Sanitary Commission for the Eradication of Hookworm Disease, which in

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**Thomas C. Ricketts III, MPH, PhD**, is a Deputy Director at the Cecil G. Sheps Center for Health Services Research and Professor of Health Policy and Administration in the School of Public Health at the University of North Carolina at Chapel Hill. He is also an Associate Editor of the *North Carolina Medical Journal*. He can be reached at ricketts@schr.unc.edu or CB# 7590, UNC-Chapel Hill, NC 27599-7590. Telephone: 919-966-7120.

1909, began taking steps to eliminate this debilitating infection as one step toward improving the economy of the south. Because state officials considered the direct involvement of the Rockefeller group to be too intrusive on a population distrustful of wealthy northerners, the state Board of Health set up a cooperative Bureau for Hookworm Control to sponsor the campaign in North Carolina. The combined efforts eliminated the hookworm scourge and, in the process, created a lasting focus on public health at the county level. Rutherford County physician, Dr. Benjamin Washburn, who had worked in Wilson County during the hookworm campaign, began forming additional county departments modeled on the Wilson experiment.

A Division of Public Health in the two-year University of North Carolina (UNC) Medical School was created in 1936 with funds from Title VI of the Social Security Act. That Division, under the leadership of Milton Rosenau, continued the tradition of community-based programs and projects, and that orientation became part of the tradition of the independent school of public health that emerged in 1940. This commitment set the tone for the next generation of public health and rural health leaders, both academic- and practice-based, who assumed their positions in the 1940s, 1950s, and 1960s and who viewed the role and mission of state institutions as one of service outside their walls.

Milton Rosenau died unexpectedly in April 1946, soon after being elected President of the American Public Health Association. The University's President Frank Porter Graham, who was largely responsible for the service orientation of the University, followed the recommendation of the School of Public Health's acting directors and named Edward McGavran to become the new dean in April 1947. McGavran—a graduate of Harvard Medical School, a former county health director, director of a Kellogg Foundation public health training program, and a professor of Preventive Medicine at the University of Kansas—firmly fit the mold of the “outsiders” who came to North Carolina to encourage creativity in healthcare delivery and public health.

An addition to the School of Public Health faculty ensured a focus on rural and community-based health services in the state. In 1947, Cecil G. Sheps joined the faculty as an associate professor of public health administration. Sheps, a native of Winnipeg, Canada, and his wife Mindel, a professor of biostatistics, had been involved in the development of the Saskatchewan health insurance system that became the model for the universal, province-based system of healthcare financing in Canada. In a 1953 report to the Medical Society of North Carolina, Sheps maintained that a key ingredient in solving the state's healthcare delivery problems rested on “the development of a program of an extension of services from the University Health System to the state at large ... in concert with other similar institutions of the state so far as medical and nursing schools are concerned.” That commitment was later to result in discussions that created the Area Health Education Centers (AHEC) concept.

## **Building AHEC: Bringing Clinical Training to the Community**

In 1965, Dr. Reece Berryhill, former dean of the UNC School of Medicine, became director of the new Division of Education and Research in Community Medical Care, created jointly by the UNC Schools of Medicine and Public Health to work in local communities that were forming working relationships with private practitioners. Dr. Berryhill was succeeded in 1967 by Robert Smith, MD, a general practice physician formerly of Guys Hospital in London. In 1967, the Division began an affiliation with Moses Cone Hospital in Greensboro, with financial support from Moses Cone Hospital, to give physicians from UNC-Chapel Hill another local practice option as part of their training in internal medicine and pediatrics. Later, through the Health Councils of Eastern Appalachia, the Division received a grant from the North Carolina Regional Medical Program in 1968 to support additional community-based training and to send clinical specialists to smaller hospitals for teaching and consultation assistance. In 1969, Glenn Wilson, the Vice President of Kaiser Cleveland Health Foundation, was recruited to UNC-Chapel Hill as Associate Dean for Community Health Sciences and as the new Director of the Division of Education and Research in Community Medical Care.

The North Carolina General Assembly appropriated \$395,000 for a community-based training program for physicians at UNC in 1969 and again in 1971. These funds were used to support fourth-year medical school clerkships in affiliated community hospitals in Wilmington, Charlotte, Raleigh, Rocky Mount, and Tarboro.

The Carnegie Commission on Higher Education, with University of North Carolina President William Friday as a member, issued its report *Higher Education and the Nation's Health* in 1970. This report called for medical schools to devote more of their clinical training time to community settings using a new kind of entity, the Area Health Education Center. The United States Congress responded by authorizing the development of a limited number of community-based health professional educational partnerships under the Comprehensive Health Manpower Training Act of 1971 (P.L. 92-157). That legislation, which surprisingly did not include the term “Area Health Education Center,” but used this term only in the conference report that followed enactment, made available federal funds for demonstration projects that would link academic health centers and community-based hospitals in networks focused on the training of multiple health professions as well as the stimulation of professional continuing education of those already in practice. As this new legislation was enacted, Glenn Wilson at the UNC School of Medicine assembled an interdisciplinary team to begin aggressive efforts to work out affiliation agreements with several additional hospitals and medical centers throughout the state for the purpose of applying to be designated as one of the first federally funded Area Health Education Centers Programs. The initial grant to the UNC School of Medicine to develop the AHEC Program in North Carolina was more than \$8 million. The North Carolina AHEC Program

would eventually involve collaborative relationships with the four schools of medicine (UNC-Chapel Hill, Duke University, Bowman Gray School of Medicine of Wake Forest University,\* and East Carolina University's Brody School of Medicine).

A key element of the AHEC structure was the creation of regional centers that were closer to rural communities throughout the state. There was one completely rural AHEC, termed "Area L AHEC" after the multipurpose regional planning designation for the counties surrounding Rocky Mount and Tarboro. The decision to encourage distributed medical education recognized the state's demographics and gave the medical schools incentives to work with essentially rural hospitals. That initial AHEC focus on rural communities set a pattern for later development and orientation and closely followed the traditions of the University and the state's politics.

For the 1974/1976 biennium, the North Carolina General Assembly appropriated \$23,500,000 for capital costs to build regional AHEC centers, \$4,548,720 for operating expenses, \$1,125,000 for residency grants, and \$250,000 for Community Practitioner Stipends. The General Assembly also set targets for training in the AHECs, committing the program to develop 300 new primary care residency positions by 1980. Simultaneous with the establishment of the AHEC program, the state also began funding family medicine training programs. UNC established its Family Medicine Department in 1969 with Dr. Robert Smith as its first chairman, and the Bowman Gray School of Medicine in Winston-Salem opened its department in 1974. Duke University Medical Center added a division of family practice to its Department of Community Medicine in 1972. The General Assembly has continued its support of these programs with direct appropriations and capitated student and resident support.

By 1975, the federal AHEC program had funded programs in 11 states, including North Carolina, where the concept had already received legislative, professional, and public acceptance. There is general consensus that the North Carolina Area Health Education Centers Program was, at its inception, and remains today, the model for the nation, and that is due to the willingness of many partners to cooperate in its development and operations.

## **North Carolina's Health Services Research Center**

Another key element of the rural policy structure fell into place with the founding of the Health Services Research Center at the University of North Carolina at Chapel Hill in 1968. The goal of the proposed center was to help develop more effective ways to "deliver personal health services in community settings" by exploring "new roles for professionals" and productive means to change organizational features of healthcare practice.<sup>2</sup> The Health Services Research Center fit snugly into the rural health policy network because the community-based system it

intended to examine was largely devoted to increasing access for rural residents. As sites for its study of experimental comprehensive health centers, the Research Center selected the rural parts of Orange County and all of Caswell County, a 100% rural county. These areas formed the service area for a United States Office of Economic Opportunity (OEO) Neighborhood Health Center that used nurse practitioners. The Research Center soon worked out cooperative research and technical assistance agreements with other clinics being established in Walstonburg, Tarboro, and Hot Springs—all of which were located in very rural sites in the eastern and western parts of the state.

In 1970, three young United States Public Health Service (USPHS) officers (James Bernstein, Ted Parrish, and Michael Samuels) were selected as fellows in the USPHS Program in Global Community Health and were given the opportunity to enroll in graduate programs in the UNC School of Public Health. Each of these young Public Health Service scholars focused their work on problems related to rural primary care and the supply of rural healthcare professionals. All three men were full-time employees of the United States Public Health Service. All three men meshed well with the activities accompanying the development of the Health Services Research Center, with Samuels concentrating on problems of professional recruitment, Parrish on community-based health education, and Bernstein on the appropriate community structure for viable rural health services. Samuels graduated in 1975 and went on to a career in the Public Health Service, during which he served as deputy administrator of the National Health Services Corps and the Health Services and Resources Administration and as deputy to the United States Surgeon General. He later held faculty positions at the Universities of South Carolina and Kentucky. Parrish became active in local North Carolina health program development and is Chair of the Department of Health Education at North Carolina Central University.

James Bernstein took advantage of the commitment to rural communities, which was the focus of the UNC-Chapel Hill Health Services Research Center, where he was mentored by Cecil G. Sheps, the Center's director, and Glenn Wilson, the Associate Dean of the UNC School of Medicine. When James Holshouser became the first Republican governor of North Carolina in the 20th century, he began exploring ways in which he could bring the influence of the governor's office to bear on the extreme shortages of primary medical care in North Carolina's rural communities. He asked Dr. Cecil Sheps, then the acting vice chancellor for health affairs at UNC as well as the director of the Health Services Research Center, to discuss this matter with his colleagues and propose some concrete ways in which the state might address these problems during his four-year term of office. Sheps suggested to the new governor the idea of community-based primary care clinics staffed by advanced practice nurses specially trained to meet the everyday medical care needs of residents, who would be backed up in

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\* The Bowman Gray School of Medicine is now the Wake Forest University School of Medicine.

their clinical work by local physicians. The governor asked Sheps to elaborate on this idea and present a detailed proposal for how such an initiative might be taken. Dr. Sheps turned to Jim Bernstein to develop the formal proposal document. Once the governor studied the proposal, he concluded that it outlined a viable program, and he gave it his full support. He translated that support into an executive order that became part of his legislative agenda. Subsequently, the proposal drew wide support from politicians of both parties, including the Democratic lieutenant governor, James B. Hunt. Convinced that such a program would greatly benefit the state, the General Assembly created the Office of Rural Health with an appropriation of \$456,000 in 1973.

## North Carolina Office of Rural Health

A key element in the early success of the Office of Rural Health and its clinics was the support of the North Carolina Medical Society for the use of nurse practitioners. Two prominent physicians, Drs. Glen Pickard (of Chapel Hill) and Edward Beddingfield (of Wilson), convinced the Society to support a nurse practitioner practice act acceptable to the physician community. That support helped build the legal structure that allowed advanced practice nurses (called family nurse practitioners) to be trained, first at UNC-Chapel Hill and later at other institutions, and the new clinics to open. Even with this broad backing, gaining acceptance of the Office within state government remained a struggle.

Professionals in the Department of Human Resources, recently created during a general government reorganization to include the traditional public health functions as well as new and old programs related to health services, did not believe the Office would survive beyond the Holshouser Administration. After its initial placement in the Governor's Office, the legislature placed the Office of Rural Health within the Division of Facility Services, an agency previously responsible for administering the Hill-Burton Program and licensing hospitals. However, Governor Holshouser firmly insisted that the Office was attached to the Division only for administrative purposes and that any policy decisions were to involve consultation with the Governor's office. Prior to passage of the authorizing legislation and subsequent appropriations, the governor and the principal proponents of the program struck an agreement expressly delineating the direct route of accountability to the governor—a surprising agreement since it bucked the current trend toward greater consolidation of government into cabinet departments. This element of policy independence from other agencies in government, consequently, provided the key to the success of the Office and has remained one of its defining characteristics to the present.

The appropriation for the Office of Rural Health almost tripled in its second year to \$1,200,000 and jumped to \$1,611,000 in the third year. Funding grew much more slowly afterward as the Office gained recognition as a focused programmatic agency with a bounded set of goals. The Office established strong political stability in large part because Governor Hunt, elected to succeed Governor Holshouser, became a strong supporter of

the Office and its concepts and because the Office carefully avoided using its policy independence to compete for resources directed to other agencies. The Office continued its independent role during a reorganization of health agencies under the administration of Hunt's Republican successor, Governor James Martin, during which time it was briefly aligned with the state's health planning functions. It became the Office of Rural Health and Resource Development, placed administratively within the Department of Human Resources, after Jim Hunt was elected for an historically unprecedented third four-year term in 1992. The reorganization that resulted in the Department of Health and Human Services (DHHS), under H. David Bruton, who served as Secretary of the newly named Department. At that time, the Office was renamed the Office of Research, Demonstrations, and Rural Health Development (ORDRHD, more often called the Office of Rural Health), to emphasize its role in fostering innovative approaches to health-care delivery and financing. In 2000, when Michael Easley was elected Governor, he appointed Carmen Hooker Odom as DHHS Secretary, and she brought Bernstein into the position of Assistant Secretary for Health. Following Bernstein's retirement from state government in the fall of 2004, Torlen Wade became Director of the Office, and it retains a key place in the structure of the Department.

The accomplishments of the Office include the development of more than 80 rural health clinics; the placement and support of more than 2,500 physicians, nurse practitioners, physician assistants, and dentists; and the creation of the Community Care of North Carolina (CCNC, formerly Access II-III) networks that provide capitated care management for Medicaid eligibles. The office also supports a Migrant Health Program that awards small grants yearly on a competitive basis to local health departments and non-profit agencies for primary care services to farmworkers in high-need areas. This work is coordinated with the North Carolina Association of Community Health Centers, which operates an active regional technical assistance system for the Mid-Atlantic Region, as well as supporting the migrant health centers in the state.

The Office of Rural Health may serve as the focus of policy relating to rural health issues, but it does not exercise formal administrative responsibility for oversight or even coordination of programs in other state agencies that serve rural communities or affect rural healthcare delivery. Instead, in part through support from private foundations, combined with the ability to create special programs from time-limited special appropriations, the Office serves as a resource and brokering agency that stimulates coordination among program directors and exerts its capacity to add value to programs and projects with funding flexibility. Consequently, few programs or initiatives in primary or community-based healthcare delivery fail to receive some input from the Office, as much because of its experience in working with almost every aspect of the delivery system as for its policy role and its close political ties to the General Assembly and the Governor's Office.

## **The North Carolina Foundation for Advanced Health Programs**

The North Carolina Foundation for Advanced Health Programs, Inc., (NCFAHP) is a statewide non-profit organization charged with the mission of increasing the availability and affordability of healthcare for North Carolina residents. The Foundation, established in 1982 on the recommendation of a special legislative commission studying the issue of healthcare costs in the state, serves as a catalyst for programs that improve the quality of and access to healthcare while controlling costs. It works with business, medical, and civic leaders throughout North Carolina to explore solutions to healthcare problems and to develop specific approaches that meet community needs.

In the early 1980s, the first major initiative by the Foundation helped to expand the quality and number of competing alternative health plans available to North Carolina residents in a program to improve the healthcare marketplace. As part of that effort, the Foundation worked to bring health maintenance organizations (HMOs) to North Carolina for the first time. The Foundation was also instrumental in establishing Preferred Provider Organizations (PPOs) in the state and has encouraged the formation of locally-formed alternative health plans.

Through the hospital-based Rural Health Project, funded by the Robert Wood Johnson Foundation from 1986-1992, the Foundation helped to organize three hospital alliances, which assisted small rural hospitals in developing more cost-effective methods of maintaining and expanding appropriate medical services. The primary objectives of this program were to improve the financial stability of participating hospitals through the development of programs to improve market share, to enhance reimbursement options, and to increase the quality of, access to, and cost-efficiency of health services for rural residents. As an outgrowth of this project, the Foundation has also developed a model to assist small rural hospitals in their transition from acute care medical centers to primary care and specialty care providers. Our Community Hospital in Scotland Neck converted its 20-bed acute care unit into a 100-bed medical services center offering nursing home care and specialty care for senior citizens as well as emergency care and augmented primary care services for the general population.

The Foundation developed a program to improve the care of Medicaid recipients starting in 1986 with a single county demonstration program, the Wilson County Health Plan. That effort, jointly supported by the Kate B. Reynolds Charitable Trust promoted the concept of a "medical home" for Medicaid recipients in this largely rural county. From that demonstration, the Carolina ACCESS program evolved. This was a collaboration with the North Carolina Division of Medical Assistance to implement a federal waiver to demonstrate regionally the effectiveness of the "medical home" concept using a care manager supported with a per-enrollee fee. The program was successfully implemented in 12 counties with the Foundation providing leadership and management. With the approval of the General Assembly, the program was transferred to the Division of Medical Assistance and implemented on a statewide basis and now

operates in 99 counties as Community Care of North Carolina (CCNC).

The Foundation also supports and manages projects intended to improve care for the uninsured poor, including a community-based primary care program that has provided the impetus for the development of new start-up community health centers in Wilmington, Kinston, and Wilson County. The Foundation also coordinated the "Covering Kids" demonstration to increase enrollment of children in Health Check/North Carolina Health Choice. Other projects included efforts to improve the management of health services, for example, supporting the implementation of the Baby Love program in 22 primary care centers to improve prenatal care; support of pharmacy access projects, including the 340-B program in the state; and developing networks among rural hospitals to assist in compliance with quality standards.

The NCFAHP is also the recipient of other grants to supplement the work of the Community Care of North Carolina program in its primary care management systems in rural parts of the state. The NCFAHP is the coordinator for one of five national demonstrations to improve the care of the elderly by improving working conditions for caregivers in the Better Jobs Better Care Program sponsored by the Robert Wood Johnson Foundation. The Foundation also managed the National Program Office for the Practice Sights program. That work supported the development of model recruitment and retention systems in other states using the successful methods and approaches of the North Carolina Office of Rural Health.

## **The East Carolina University Medical School**

An important addition to the rural healthcare delivery structure in the state was the East Carolina University's Brody School of Medicine, in Greenville, North Carolina. Predominately rural, with an economy based on tobacco-dominated agriculture, eastern North Carolina has long projected an image as the state's poorest region and has lagged behind the rest of the state in industrial development. National commissions studying methods to expand the supply of physicians had identified North Carolina as a potential candidate for a new medical school. Politicians appreciated an opportunity to develop a stable economic engine for the east as well as to raise the prestige of the regional state university. However, the decision to create the medical school was a contentious one.

The battle to develop the East Carolina School of Medicine began in 1964 when Dr. Ernest Furguson, a general practitioner from Plymouth, North Carolina, and East Carolina College president Dr. Leo Jenkins agreed that East Carolina College (ECC), as it was then known, should build a medical school. Dr. Jenkins asked local physician Dr. Ed Monroe and ECC Professor Robert Williams to conduct a needs assessment, following which, Jenkins began an arduous campaign to locate a medical school on his campus.

The initial proposal from the needs assessment called for the creation of a two-year medical school that would send students to the UNC School of Medicine for the remainder of

their education, an idea strongly opposed by the three other Schools of Medicine. Jenkins then went to the North Carolina General Assembly, which authorized and appropriated funds in 1965 to plan a two-year medical school at ECC if accreditation could be obtained, ignoring a recommendation from a panel of consultants who preferred to expand the existing ECC allied health programs. When ECC requested, in 1967, that the General Assembly grant it independent status as East Carolina University (ECU), the legislature rejected that proposal and instead made it one of the constituent universities of the consolidated University of North Carolina system, but it also authorized the creation of a Health Sciences Institute at ECU (which became the School of Allied Health and Social Professions.)

The need for more physicians in the state at that time was evident in statistics. North Carolina ranked 43rd of the 50 states in the ratio of physicians to population and 46th in the ratio of medical students to population. Mortality figures identified the state as one of the least healthy regions in the nation. In 1969, a Committee on Physician Shortage in Rural North Carolina appointed by the Legislative Research Commission acknowledged the need for better access to medical care and as a solution, recommended the expansion of the UNC School of Medicine from 75 to 200 graduates a year and the provision of subsidies to Duke University School of Medicine and the Wake Forest University School of Medicine to train North Carolina residents.

Popular support for a medical school at ECU continued, however, and in 1970, the General Assembly appropriated funds to develop a two-year medical curriculum at ECU, which then admitted 20 students to a one-year program.

Leaders in North Carolina's other three medical schools had heavily invested in training specialists, and they argued that if a crisis in access to primary care existed in North Carolina, it could best be addressed by training physician assistants and nurse practitioners. They also claimed that the problem was not a deficiency of medical students, but the lack of capacity for residency training.

In 1972, the UNC Board of Governors appointed a five-member committee headed by Lt. Governor Robert Jordan to advise it on health manpower needs. The committee subsequently recommended paying the Duke University and Wake Forest University Schools of Medicine a per-student stipend to train North Carolina medical students (\$5,000 in 1975; \$6,000 in 1976), continuing to enroll 20 degree candidates in the one-year ECU program, and commissioning a team of national consultants for a feasibility study.

The most significant body to study the issue of manpower and the possible need for a second, publicly-supported medical school was the so-called "Bennett Commission," which rendered its report in September 1973. That report indicated that the proposal to build a four-year school of medicine in Greenville was "premature" and that the only hope of success was to expand the school of medicine at Chapel Hill. The North Carolina General Assembly, in the end, did not accept the key recommendation of this report and appropriated funds for the development of what is now the Brody School of Medicine at ECU.

The 1974 General Assembly appropriated funds to expand the ECU school, adding a second year emphasizing family medicine and encouraging the recruitment of minorities. In November 1974, President William Friday proposed to the UNC Board of Governors that the ECU School of Medicine become a full, four-year medical school, and the 1975 General Assembly appropriated funds to make his proposal a reality. Enrolling its first class as four-year medical school in 1977, the school set as its central task the training of primary care doctors for rural and eastern areas of the state, with the intention of alleviating apparent shortages of physicians. The school was renamed the Brody School of Medicine in 1999 in recognition of the Brody family, prominent in business in the eastern part of the state.

The ECU Brody School of Medicine has been active in the training of primary care physicians with the support of the Robert Wood Johnson Foundation's Generalist Physician Initiative, the development of rural community-based residency sites, and participation in the Rural Scholars Program, where medical students from ECU and UNC receive focused clinical skills training in rural settings.

## **The North Carolina Student Rural Health Coalition**

The North Carolina Student Rural Health Coalition emerged as an outgrowth of the success of the Tennessee Student Health Coalition that began at Vanderbilt University in 1969 and developed into a family of effective student activist organizations, which included the Appalachian Student Health Coalition and the West Tennessee Student Health Coalition. While he was a fourth-year medical student at Vanderbilt, Grady Stumbo, directed a related, but more professionally-oriented project sponsored by the Student American Medical Association (SAMA) to assist Appalachian communities. Those projects were the result of a general sense of dissatisfaction among medical students with the relationship between organized medicine and formal medical education and the needs of communities. The contrast between the theoretical component of a medical education at Vanderbilt or the University of Tennessee and the reality of the lives led by Appalachian residents in the late 1960s was too stark to be overlooked by concerned students in a period when social activism was the prevailing ethic. Richard Couto describes the origins and development of those Tennessee projects in *Streams of Idealism*,<sup>3</sup> a title drawn from commentary by Robert Coles,<sup>4</sup> who also figured in the development of social activism among healthcare professionals at the University of North Carolina and Duke University and who remains active in both universities working with medical students and faculty. Donald Madison, a medical school faculty physician at UNC-Chapel Hill and one of the staff recruited by Cecil Sheps to begin the UNC-Chapel Hill Health Services Research Center (now named for Sheps) played a substantial role in the development of the North Carolina Rural Health Center movement. Not only did he take a lead role in writing the proposal to fund the Lincoln Community Health Center in Durham and Durham County, but he played an active role with the development of the Hot

Springs Health Center in rural Madison County in the North Carolina mountains. In the mid-1970s, Madison was asked by the Robert Wood Johnson Foundation to lead the Rural Practice Project, a national program in which multi-disciplinary teams of healthcare professionals and administrative personnel were assembled to begin primary care clinical practices in communities having severe access to care problems in several states.<sup>5,6</sup>

In the early 1980s, students from a mix of health sciences schools organized the North Carolina Student Rural Health Coalition in the Durham-Chapel Hill area, with activity centered at Duke University and UNC-Chapel Hill. The Coalition subsequently sponsored health fairs in rural communities, helped place students and professionals in underserved towns and villages, supported public health awareness in rural communities, and agitated for more attentiveness to the rural healthcare and community development needs of rural North Carolina. Eventually, students from the ECU Brody School of Medicine and North Carolina Central University combined to create the current structure of the coalition, which also includes students from the UNC-Chapel Hill School of Public Health and the UNC-Chapel Hill and Duke University Schools of Nursing.

Students have been active in creating or supporting so-called "People's Clinics." Medical students from ECU, UNC, and Duke University and nursing students from North Carolina Central University offer free medical check-ups and other medical services in five community-managed clinics in eastern North Carolina: Fremont in Wayne County; Shiloh in Wake County; Garysburg in Northampton County; Bloomer Hill, which straddles the Nash-Edgecombe county lines; and Tillery in Halifax County. All five clinics are in rural, deprived, predominately minority communities, with few, if any, medical care resources, very high infant mortality rates, and severe economic problems.

## **Community Practitioner Program**

The North Carolina Medical Society Foundation developed the Community Practitioner Program in 1989 with initial support coming from the Kate B. Reynolds Charitable Trust in the form of a \$4.5 million grant. The program functions as a coordinating center for the recruitment and support of physicians, physician assistants, and family nurse practitioners who provide primary care in underserved areas in North Carolina. The funds go for loan repayment as well as for practice development. Practitioners receive support in return for five years of service in a qualified community, and they also agree to accept Medicaid and Medicare patients. To date, the Community Practitioner Program (CPP) has assisted 336 primary care physicians, physician assistants, and family nurse practitioners in 126 communities located in 76 economically distressed or medically underserved counties. In 2005, more than 400,000 patients were seen by CPP providers. Of the practitioners who were with the program for the five-year service period, 64% remain in the target communities; 73% continue to practice in rural or economically distressed counties, and 85% remain in North Carolina. In 2006, the program will add a management support capacity, Project Sustain, to continue

to assist the community-based practices.

The program has been able to leverage the original Kate B. Reynolds funds to a total of \$12 million over the 15-year period. That investment has allowed CCP-supported practitioners to provide approximately \$225 million in care to uninsured patients. The CPP is the only non-governmental program of its kind in the nation and other states and medical societies have looked to it as a model for their own efforts.

## **The North Carolina Hospital Association**

The North Carolina Hospital Association created the North Carolina Rural Center in 1996 to help its rural member hospitals cope with the special pressures they face. Initial support from the Center came from the Association's membership and a grant from the Kate B. Reynolds Charitable Trust. Under the leadership of Jeff Spade, the Center musters the resources of current Association members, private consultants, state government agencies, and university faculty to provide support and advice to rural hospitals and communities. Its initial work focused on the support of networks to bring resources to rural communities through links between larger hospitals and smaller rural hospitals. The Rural Center sponsors an annual small and rural hospitals conference that brings together individuals from all sectors of healthcare and community development. The support goes beyond networking to practical technical assistance in quality assurance and information technology, two areas that are at the forefront of the Center's agenda for the 21st century.

## **The Duke Endowment**

One of the largest private foundations in the United States, with \$2.5 billion in assets at the close of 2004, The Duke Endowment devotes part of its primary focus to the support of hospitals and healthcare in North and South Carolina. It provided over \$39 million in health grants in 2004 and supported almost every rural hospital in North Carolina with funds to cover indigent care and special projects, including grants to renovate the obstetrics department in Ashe County in the rural mountains and to develop an injury prevention center in Kinston in eastern North Carolina. In recent grants, The Endowment has emphasized children's health, with multiple grants to support school-based services. In 2005, its grants were focused on developing access to care for indigent populations with an emphasis on prevention. The Endowment looks to foster cooperation among agencies and organizations to leverage funds for greater impact. For example, specific to rural health, The Endowment, provided core funding for a family practice residency program in Hendersonville, North Carolina. This project involved the joint efforts of the Central and Mountain AHECs, the North Carolina Medical Society, the state's four medical schools, other tertiary care hospitals in the region, and the North Carolina Hospital Association. The Endowment is targeting Health Information Technology in its 2006 health program along with its traditional focus on access to care. For rural North Carolina, the Endowment supports projects in economic

and social development through its “Program for the Rural Carolinas” that recognizes healthcare as an integral part of rural communities.

### **The Kate B. Reynolds Charitable Trust**

The Kate B. Reynolds Charitable Trust was created in 1947 by the will of Mrs. William Neal Reynolds of Winston-Salem and is one of the largest foundations in North Carolina, with assets of more than \$500 million. Three-fourths of the Trust’s grants are designated for health-related programs and services across North Carolina, and this amounted to \$18.2 million in grants in 2004. Many grants have helped support healthcare innovation and service delivery in rural North Carolina as the Trust sought to achieve its primary goal of increasing the availability of health services to underserved groups. The Trust has an explicit emphasis on funding rural areas. A sample of recent grants illustrates this: funds to the Bertie County Rural Health Association and the Tyrell County Rural Health Association for capital projects to support access-oriented facilities; to Blue Ridge Hospital Systems to help improve access in a rural mountain area; to the Pender County Health Department to expand dental hygiene services for low-income children. The Trust works with other funders and agencies to coordinate its work to enhance the impact of its giving; this is facilitated by the participation on its advisory board of leaders in the North Carolina AHEC, the North Carolina Medical Society, North Carolina Hospital Association, and regional civic leaders from across the State.

### **Bringing It All Together**

This brief review has only touched on some of the more prominent of the many people and programs that have helped

the people of rural North Carolina receive the healthcare they need. The number and range of programs described here points to a single characteristic of the North Carolina approach to improving rural health: leaders in North Carolina healthcare and public policy have recognized that no one agency, organization or institution could really improve access to care alone—all of the fundamental elements of healthcare delivery had to be involved to truly have an impact. However, to make that happen, there needed to be some focus, some entity that, though it did not “command and control,” helped various groups convene and collaborate. That entity was the Office of Research, Demonstrations, and Rural Health Development which, in turn, was supported by a network of connections and relationships that spanned government, the professions, and the institutions involved in healthcare delivery and finance.

The momentum for change was in place before the Office was founded—there were proposals for networks and changes in professional roles when the Office opened. But to make those things work in communities with the effective support of agencies and institutions required some central organization to work out the details at the local level, negotiate with the powers that affected all aspects of healthcare delivery, and, in the end, allow the credit for the small and large victories to be shared. This comprehensive approach was not so much a formal process of consensus, but rather a shared recognition that all stakeholders were invited to join in the work and that these efforts ought to focus at the community level. While large bureaucracies and interest groups might be able to stand apart at the state level, it is in the local community that the dangers and negative effects of isolation and separation are readily seen. **NCMedJ**

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