

The Area Health Education Center's Role in North Carolina's Health Workforce Development

Thomas J. Bacon, DrPH; Samuel Cykert, MD

The North Carolina Area Health Education Centers (AHEC) Program was founded in the early 1970s to address critical shortages of health professionals, with a particular focus on the primary care needs of rural communities in the state. From the outset, AHEC was designed as a comprehensive workforce development program to augment the work of the academic health centers in preparing health professionals to meet the needs of these underserved communities. The AHEC Program was created under the premise that the state would only successfully improve the supply and distribution of health practitioners if it put in place a comprehensive, multidisciplinary set of regionally-based programs to influence all stages of the health professions education and practice pipeline. As a result, AHEC's core services include:

- Programs to recruit young people into health careers, with a special focus on underrepresented and disadvantaged students.
- Comprehensive community-based experiences for health professions students in communities across North Carolina.
- Primary care residencies to prepare physicians to meet the needs of underserved communities in the state.
- Continuing education programs for all types of health professionals to improve the environment for practice and strengthen the quality of health care.
- Library and information services to provide the latest health information for students, residents, and health professionals.

In order to increase the supply of primary care physicians in the state, primary care residency programs were established in 5 AHECs in the state in the 1970s. They were developed in collaboration with the large community teaching hospitals in Charlotte, Greensboro, Asheville, Wilmington, and Fayetteville. In addition, a substantial rotational site for University of North Carolina at Chapel Hill residents was created at WakeMed/Wake AHEC. These residency programs in family medicine, general internal medicine, pediatrics, and obstetrics and

gynecology have graduated nearly 2000 graduates since the late 1970s. Of these, over 1100 are now practicing in North Carolina, providing vitally needed primary care services to communities across the state. Without these physicians, a substantially higher number of North Carolina counties would currently be categorized as health professional shortage areas than is currently the case.

In addition to primary care, since 1985 the AHEC Program has partnered with the 4 departments of psychiatry at the medical schools in the state. Through AHEC, psychiatry residents from all 4 schools receive rotations in community settings across North

“The AHEC Program was created ... to influence all stages of the health professions education and practice pipeline.”

Carolina, many of these in rural and small towns. These rotations are designed to give residents experiences in community and public psychiatry and to expose them to opportunities for practice upon graduation. Although the evidence is antidotal, it appears that these experiences have increased the number of graduates choosing careers in the public mental health field.

The Area Health Education Centers Program has also been a partner in the dramatic growth in the numbers of students and graduates in the physician assistant, nurse practitioner, and

Thomas J. Bacon, DrPH, is executive associate dean and director of the North Carolina Area Health Education Centers Program at the School of Medicine at the University of North Carolina at Chapel Hill. He can be reached at tom_bacon@med.unc.edu or 101 Medical Drive, CB 7165, Chapel Hill, NC 27599-7165.

Samuel Cykert, MD, is associate director for medical education and quality improvement for the North Carolina Area Health Education Centers Program and an internist and director of the internal medicine residency program at Moses Cone Health System.

nurse midwifery programs in the state. The Area Health Education Centers Program's support for community primary care experiences for these students has contributed to the schools' abilities to expand enrollments and further impact the availability of primary care services in the state. The number of primary care nurse practitioners (NPs) and physician assistants (PAs) has nearly doubled during the past 10 years to approximately 1300 NPs and 1100 PAs actively practicing in the state.

The mission to support North Carolina's health care workforce remains active and the North Carolina AHEC Program is addressing the state's primary care practitioner needs in several ways. First, the program continues its support for educational opportunities in the state's communities for medical, physician assistant, nurse practitioner, and nurse midwifery students at every level of training by recruiting preceptors, providing nominal preceptor payments, and arranging housing and library services for participating students from all schools in the state.

Second, AHEC-supported primary care residency programs, with a robust 65% North Carolina retention rate, continue to serve as an efficient reservoir of new primary care doctors in the state. These residencies produce approximately 50 graduates in family practice, 24 in internal medicine, 6 in pediatrics, and 12 in obstetrics and gynecology annually.

Third, AHEC has been working in close collaboration with the Office of Rural Health and Community Care, the Division of Mental Health, Developmental Disabilities, and Substance Abuse Services, the professional associations, and others to develop a series of community-based initiatives to build on the existing infrastructure of primary care with integration of psychiatric clinical care and consultation to simultaneously meet patients' physical and mental health needs. These model programs are being developed in a number of communities across the state by building on the unique characteristics and assets of each community.

Ongoing efforts have been productive, but AHEC will have to do more to address looming practitioner shortages and ongoing concerns of maldistribution and lack of diversity in our health care professions. If we are truly to create a strong and stable primary care workforce for all communities in the state, though, it must be acknowledged that more comprehensive solutions need to be forthcoming. For instance, there will never be an adequate pool of primary care physicians or psychiatrists without payment reform at the national level that narrows the income gap between specialties. Such reform should place appropriate value on primary care as well as other cognitive services. We will not draw large numbers of graduates to rural areas without selectively admitting rural students to medical school, alleviating heavy medical school debt, and providing monetary incentives and systems of care that make rural practice more attractive to future practitioners.

Similar issues and solutions apply to the recruitment of underrepresented and disadvantaged students as well. Our pipeline programs to support students must be better connected at all levels of the educational process. Additional scholarship funding is essential, and strong academic and social support services are critical if all students are to thrive and reach their full potential.

Given these caveats and limitations, what more can AHEC

do? One step is to leverage the success of our primary care residencies. We can increase the number of residency slots. By simply maintaining current retention rates, we will produce more doctors in needed specialties for North Carolina. One of the recommendations of the North Carolina Institute of Medicine Primary Care and Specialty Supply Task Force is to create 100 new residency positions in North Carolina, and AHEC is prepared to play a lead role to assure that the state's investment gives us the return we need by producing doctors in specialties most needed by the state's communities.

In the same vein, we are prepared to expand training opportunities for students of all types and to create stronger incentives for moving training into rural and underserved sites. We also must track our pipeline programs better and identify strategies that most effectively direct talented young people to the health professions of our state.

In addition and most importantly, simply adding students and residents to the educational pipeline will not keep pace with the escalation of services needed for the anticipated pace of population growth and aging. Improving and organizing systems of care, especially for chronic illness, will be crucial to improving access to care and health outcomes for North Carolinians. Given AHEC's strong ties to the health profession schools, its faculties on and off campus, and practitioners in local communities, it is in a unique position to coalesce and disseminate novel approaches to care in rural and underserved regions in collaboration with the nationally recognized Community Care Networks across the state. These approaches can use new options for technology support, regional on-call systems, and multidisciplinary teams to create and monitor coordinated systems of care that achieve excellence in health care milestones. With such innovation, we will build teams that make rural health care more rewarding and relieve the imponderable stress on harried practitioners in small practices who want to but cannot muster the resources to provide such comprehensive care. It will be crucial for residents and students to venture away from large medical centers and fully participate in these new styles of care so that they can embrace careers in these communities and serve as leaders in the transition toward innovative approaches.

Increasing the number of trainees at every level will inevitably increase the cost of medical education. We will need new teachers that include AHEC-based faculty and dedicated community preceptors. Sites for comprehensive care models will need to be recruited and created. If we want quality sites and quality teachers, we will need to pay for them. We will also have to finance the informatics systems and other innovative changes required to achieve new paradigms for educational and chronic care work. Finally, residency positions, traditionally supported by the Medicare program, are frozen, so we will have to pay directly for any new AHEC residency slots until federal policy changes. The reward for this investment will be better care for all North Carolinians garnered through prevention of practitioner shortages, improved distribution of care, and use of more efficient, more organized, and more effective systems of care. **NCMJ**