

Surviving the Silver Tsunami: Training a Health Care Workforce to Care for North Carolina's Aging Population

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North Carolina's aging population will require a health care workforce prepared to meet patients' complex care needs. The keys to training this workforce include continuing to mobilize the state's educational infrastructure to provide interprofessional, community-based experiences and maximizing exposure to new models of care.

The older adult population in North Carolina is growing rapidly. By 2034, the number of people in the state over 65 years of age will approach 2.5 million and will make up just over 20% of the total population [1]. As they age, this group will inevitably face greater health challenges and, as a result, endure more disability and utilize health care services at a higher rate than their younger counterparts [2]. Meeting their needs will require a larger, more accessible workforce trained in the unique aspects of caring for older adults. Priorities related to the health and well-being of this population extend beyond management of disease to include preservation of ability, dignity, and quality of life. State- and national-level health objectives, such as Healthy People 2020, focus on optimizing function and care coordination for senior citizens.

Surveys of older adults indicate that they have a strong desire to remain in the community as long as possible [3]. The changing health care landscape presents unique opportunities to meet this goal. A greater emphasis by payers on quality of care and more attention to relevant outcomes, like function, will reward interprofessional teams that provide patient-centered care delivered across settings, systems, and communities. North Carolina's plan for the future must include a blueprint for building a larger, smarter workforce that is more diverse in its professional makeup and more connected in its ties to senior citizens and their communities.

In 2008, the National Academy of Medicine published the report *Retooling for an Aging America: Building the Health Care Workforce* [4]. This report challenged governments, health systems, academic institutions, insurers, and communities to collaborate to enhance competence in geriatrics, to increase recruitment and retention of health professions focused on caring for older adults, and to explore new models of care. Although progress has been made, gaps remain between the care senior citizens seek and what they receive

[5, 6]. These problems reflect continued shortfalls in the availability and quality of training for the current and future health care workforce. Reports indicate that enrollment in geriatrics training programs is stagnant across different professions and that there is a persistent lack of formal training in care of older adults among health professional graduates [4]. This shortage has led to very limited access to geriatrics expertise and lack of knowledge about resources for caring for older adults with complex care needs. However, North Carolina is poised to lead the nation in addressing issues related to the workforce shortage and the need for care strategies that address these problems by integrating health care systems and communities.

Workforce Issues

The shortage of health professionals trained to care for older adults is well documented [7]. Nationwide, there are currently 7,428 physicians who hold board certification in geriatrics and 1,629 who hold board certification in geriatric psychiatry [8]. Each year about half of the more than 400 fellowship training slots available nationwide in geriatric medicine go unfilled. In North Carolina, only 216 geriatricians and 37 geriatric psychiatrists are certified to practice in their specialty [8]. This means there is about 1 geriatrician for every 7,000 adults over age 65 years in the state and approximately 1 geriatric psychiatrist for every 40,000 adults over age 65 years.

These numbers fall well short of what would be needed to provide each older North Carolinian with ready access to care by a geriatrics-trained physician. Initiatives to create incentives for eligible trainees—including shortening fellowship training in 1995—have failed to spur increases in the number of geriatricians. Leaders in the field point to a number of reasons for the shortage. Geriatricians are paid less on average than other specialists, due in part to challenges in maintaining high-volume practices and receiving limited

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reimbursement from Medicare. Beyond that, caring for frail older adults is hard work. Older adults' medical and social situations are complex, and physicians often must modify guideline-based approaches to care [9].

A steady increase in the number of advanced practice providers—including nurse practitioners, physician assistants, and clinical nurse specialists—over the past several years has helped to meet the rising demand for care among senior citizens. Published models indicate improved effectiveness and efficiency in geriatric care delivered by qualified advanced practice providers [10]. However, in North Carolina and 30 other states, physician supervision requirements have limited their ability to meet growing demands [11]. Further, less than 1% of registered nurses and fewer than 3% of advanced practice registered nurses are certified in geriatrics according to the American Geriatric Society [12]. Similar gaps in both size and preparation exist for social work, physical therapy, occupational therapy, psychology, pharmacy, and direct care workers [13].

While a portion of the National Academy of Medicine report describes means of increasing the number of geriatricians through pay incentives, most of the recommendations focus on how to optimize the ability of other providers and professions to care effectively for older adults. Indeed, older adults with complex care needs benefit most from care by an interprofessional team that includes nurses, social workers, pharmacists, and allied health providers. The report called for a renewed focus on programs to train students in these fields and to educate practicing providers in geriatric care principles.

What Is Different About Caring for Older Adults?

Care of older adults is fundamentally different from care provided to younger adults. Most senior citizens suffer from multiple chronic conditions that have cumulative effects on health and function. These conditions often lead to prescription of multiple medications with their own set of potential deleterious effects and interactions. Older adults also frequently suffer from any or all of a set of life altering "geriatric syndromes," including cognitive decline, immobility, falls, and incontinence. Declines in function threaten their ability to live independently and necessitate their finding reliable assistance or changing their living circumstances. All the while, decisions ranging from choice of medical care to location of living require some assessment of prognosis and preference, with engagement of patients and their families in shared decision making. Once decisions are made, health care providers must then bring to bear an understanding of health systems, including Medicare in its various iterations, to cover acute care, long-term care, ambulatory care, and medications. In addition, it is critical that providers have knowledge of community resources, options for in-home and institutional care, and regulatory issues. In North Carolina, a substantial percentage of older adults have limited resources and access to care. Also, a disproportionate number of older

residents live in rural areas and have incomes at or below the poverty line [14]. Care of these patients and their families invariably involves mobilization of local, state, and federal resources (like Medicaid) and determination of eligibility for and enrollment in community care options, such as adult day health programs and programs for all-inclusive care of the elderly (PACE).

Workforce Enhancement in North Carolina

North Carolina boasts a rich array of health professional training options through its universities, community colleges, and community education networks. In 2014, 459 medical students earned degrees in North Carolina from 4 allopathic medical schools, and Campbell University School of Osteopathic Medicine will graduate its inaugural class of students in 2017. All 4 allopathic schools have geriatrics clinical programs that offer training experiences for students and postgraduate trainees, including geriatric medicine fellowships. Further, an array of graduate medical education training opportunities exist at academic health centers, Veterans Affairs (VA) Medical Centers, and community-based settings. Among other primary care and specialty training programs, they offer fellowship positions in geriatric medicine. The state also has 77 accredited nursing schools that graduate students with a range of degrees, from licensed practical nursing degrees to doctorates. In addition, 17 health centers and systems statewide offer education and leadership development through participation in the Nurses Improving Care for Health System Elders (NICHE) program. The state's outstanding community college system covers all 100 counties and offers a range of health professional certificates and associate degrees, including those for direct care workers. Likewise, the state has a very robust network of Area Health Education Centers (AHECs) that sponsor training programs in communities across the state; these programs range from continuing education for practicing professionals to formal accredited training programs for the full range of professions.

Interprofessional Programs

Recent consensus publications provide a competency-based framework for interprofessional education and clinical practice. Ideally, high-functioning teams should operate with a set of shared values, establish clear roles and responsibilities, and implement reliable communication strategies to engage in continuous quality improvement. Several examples exist to guide implementation of teamwork competencies across North Carolina. TEAMStepps training is offered through most institutions and AHECs on a recurring basis. The Virtual Clinical Community Learning Environment at East Carolina University (ECU) offers a means for nursing students to interact with consultants from a range of professions while providing care for a virtual patient [15]. Also at ECU, geriatric faculty developed a teaching nursing home on campus that provides clinical teaching experiences for stu-

dents from medicine, nursing, pharmacy, and physical therapy. Similarly, a course for prelicensure students at Duke University challenges teams of learners from nursing, pharmacy, physical therapy, medicine, and physician assistant programs to develop shared strategies for improving transitions of care for older adults with heart failure [16]. Based on the recommendations of the Interprofessional Education Collaborative, the Duke Geriatric Education Center offers a workshop series for teams from long-term care settings, providing team-building exercises and opportunities to work on a shared performance improvement project.

Community-Based Programs

Programs that are community-based tend to take learners from the classroom to the bedside, engage them in

clinical care, and allow them to work with practicing professionals. Students from Wake Forest School of Medicine interact with participants in the Meals on Wheels program to learn about the service and to practice home-based performance of specific geriatric competencies [17]. The Community Health and Mobility Partnership program provides an exemplar of an academic-community partnership in which physical therapy and nursing faculty from the University of North Carolina at Chapel Hill work with faculty, physical therapy, physical therapy assistant students, and representatives from local agencies in rural Caldwell County to develop a falls screening and risk management program [18]. Similarly, the Duke Center for Geriatric Nursing Excellence, in collaboration with community colleges, provides educational sessions on dementia

management for interprofessional staff at a variety of community-based sites across the region, including long-term care facilities and PACE programs.

Models of Care

Introduction of new models of care for older adults will be a critical feature in the development of the future health care workforce in geriatrics. Ideally, innovative approaches will improve access and experience for frail senior citizens in the community. Successful models will guide reform of reimbursement strategies from fee-for-service models to those that span episodes of illness and integrate care across disciplines, professions, and settings. Examples of this include an array of initiatives developed by Community Care of North Carolina (CCNC) and its constituent networks for the state's underserved and underinsured populations, including elderly individuals. Recently, CCNC was awarded a

Practice Transformation Network award to provide technical assistance in performance improvement to practices across the state.

VA Medical Centers have also served as leaders of innovation in geriatrics. VA has a network that spans the state and supports a large interprofessional workforce in its care of older adults. Recent innovations include telehealth geriatric assessment programs that reach primary care practices across the state; these programs promise to improve access to geriatrics while affording educational opportunities for those in more remote primary care practices. VA has also developed innovative home-care programs for frail veterans and their caregivers, with a specific emphasis on those with dementia [19].

Finally, the North Carolina Medical Society has promoted innovation for care of older adults through its Toward Accountable Care collaborative, which has brought together

the leadership of many of the state's accountable care organizations (ACOs) to share best practices and approaches to optimizing care.

Next Steps: The Geriatric Workforce Enhancement Programs

At the White House Conference on Aging in July 2015, the Health Resources and Services Administration announced 41 awards in 29 states to support Geriatric Workforce Enhancement Programs (GWEPs). The GWEPs are tasked with improving the quality of care for older Americans through education and training of senior citizens, family caregivers, and professionals providing care. While most other programs are distributed across the nation, North Carolina is home to 3 GWEPs. Duke University, ECU, and the University of North Carolina at Chapel Hill will aim to grow the size and quality of the health professional workforce across the state in a variety of ways. Their programs will reach learners and professionals in practice using many of the networks described above, including the health professional schools at their institutions, the state's AHECs, the community college system, ACOs, PACE programs, and senior centers. They intend to engage the range of professions caring for older adults, and all will focus some portion of their program on improving care of people with dementia. This is a very exciting development and will leverage the aforementioned resources and expertise to move North Carolina to the forefront in retooling its workforce.

Conclusion

North Carolina is well prepared to meet the health care needs of its aging population. It is essential that the state provide continued support and growth of educational programs that train students and practicing providers in interprofessional care in community-based settings. NCMJ

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