

Community Care of North Carolina— An Enhanced Medical Home Model

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Like many states, North Carolina is challenged with the ongoing pressure to provide cost-effective and high quality health care to its Medicaid population. And, like our national government, North Carolina is trying to stop the rapid rise in health care costs while assuring that health outcomes are improved and needed health care is provided to all our citizens. In states like North Carolina, the challenge in funding an innovative approach to address the quality and cost problem is that much greater. North Carolina has a diffused population, with a significant percentage still living in rural, even remote, areas; its medical services infrastructure remains dominated by small physician practices and loosely-connected health organizations; and managed care penetration is low. Through its Community Care of North Carolina program (Community Care), North Carolina has built a statewide infrastructure that has substantially improved care for Medicaid recipients and has also provided the vehicle for improving care for all patients. In his commentary, Charles Willson discusses the creation and evolution of Community Care of North Carolina in more detail.

At the heart of the Community Care program is the “medical home,” a concept more fully described by C. Annette DuBard in this issue of the *Journal*. North Carolina has historically been committed to establishing a primary care medical home for Medicaid recipients, with our first initiative, Carolina Access, beginning in 1991. Carolina Access was a Medicaid primary care case management (PCCM) model aimed at improving access to primary care and reducing unnecessary emergency department visits and hospitalizations by requiring Medicaid recipients to choose a primary care provider (PCP). The primary goal of Carolina Access was to make sure each Medicaid

enrollee had a primary care physician and to ensure access to primary and preventive care and referrals to needed specialty care. PCPs included family physicians, pediatricians, internists, obstetrician/gynecologists, physician assistants, family nurse practitioners, federally qualified health centers, rural health clinics, and some specialists. In this model, PCPs provided

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conventional diagnostic and therapeutic services, as well as coordinated care for their enrollees that required services outside of the primary care delivery settings. The PCP aimed to provide necessary and appropriate care while avoiding unnecessary tests, procedures, emergency department visits, and hospital admissions.

The Carolina Access program laid the essential foundation for what has now become the Community Care program. North Carolina state leadership recognized the importance of having a solid primary care foundation upon which to build the Community Care program. The Carolina Access program

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created statewide access to primary care providers and these providers became willing partners with the state in managing the Medicaid population. By the mid-1990s, Carolina Access was statewide and had become the predominant vehicle for providing care to Medicaid enrollees. Although Carolina Access was very popular with enrollees and providers, and was moderately effective in reducing inappropriate emergency department (ED) use, this program could not achieve significant improvements in the quality and cost-effectiveness of care without creating a community-based infrastructure that could support the physicians and the Medicaid patients they served. Community Care is an exemplary model of a state/local and public/private partnership. In their commentary, Dr. Steven Wegner and colleagues describe how the Medicaid agency has partnered with providers in the creation of the North Carolina Physician Advisory Group and describe the value of their collaboration.

When severe budget pressures emerged in the mid-1990s, North Carolina's administration and legislature began looking for ways to control Medicaid expenditures. The Secretary of the North Carolina Department of Health and Human Services established a team in 1996 to develop a transformation plan that would retain the Carolina Access "medical home" as the foundation but would also include enhancements that could further address quality and cost. The transformation plan that was eventually adopted by the Secretary introduced four new components that were designed to strengthen the ability of the primary care provider to manage patient care and to improve patient outcomes. The four components were:

1. **Formation of community networks:** To strengthen the ability of physicians to manage care, the primary care physicians would be encouraged to work together and with other community health providers in community networks to cooperatively plan for meeting the care needs of recipients, particularly those with chronic conditions.
2. **Population management tools:** To provide the physicians and other network partners with the tools needed to improve care, the new program would include such population management approaches as evidence-based programs and protocols, disease management, pharmacy management, care management, and practice-based improvements. Dr. Troy Trygstad discusses pharmacy management and the role of the CCNC pharmacist in more detail in this issue of the *Journal*.
3. **Case management and clinical support:** To provide the support and coordination needed by physicians to care for complex chronic care patients who see many providers. The perspective of two case managers is presented by Elizabeth St. Martin and Lori Harris-Stevens in their commentary.
4. **Data and feedback:** To provide physicians (and network partners) with relevant information on how their patients are faring and to point out opportunities for improvement in quality, utilization, cost, and core

processes by collecting, analyzing, and regularly reporting performance metrics back to physicians and networks. A critical element of this is health information technology and electronic medical records. In his commentary, Dr. Steven Crane explores how HIT has been instrumental in providing quality care to CCNC clients in rural North Carolina.

Community Care grew from this transformation plan, and in 1998 we began with nine pilot networks in nine counties, including a network of large pediatric practices and a little over 120,000 enrollees. The initial structure of these pilot networks varied. After several years of operation, the state incorporated the key lessons learned from each network into a state strategy for a required structure for expansion. The Community Care program is now a robust statewide system of community health networks that are organized and operated by local physicians, hospitals, health departments, and departments of social services as required partners. Networks are also encouraged to include other health care providers and health support agencies in order to build local system coordination. Through these private, not-for-profit provider networks, the state is putting in place the local systems that are needed to achieve long-term quality, cost, access, and utilization objectives in the management of care for the entire Medicaid population.

This public-private partnership has changed the relationship of the state payer from a regulatory model to that of an active manager of a health program utilizing a shared accountability model with local Community Care networks for the cost and quality of the services provided. Under the federal Medicaid regulations, the Community Care program is structured through the North Carolina state plan as an enhanced primary care case management model, with designated medical homes receiving a fee-for-service payment and \$2.50 pmpm (per member/per month) to compensate for key access and population management (including acute and preventive care and disease and care management) activities. The Community Care networks also receive \$3.00 pmpm to support the medical home in the population management activities. These payments are for the Temporary Assistance for Needy Families (TANF for women and children) populations managed by the program. As Community Care has expanded to other Medicaid eligibility groups such as the aged, blind, and disabled populations, the medical home per member per month payment and network per member per month are higher due to the increased complexities of managing this population (\$5.00 and \$8.00 respectively). The network payments provide resources for networks to hire case managers/care coordinators to work with primary care physicians and patients; to provide reimbursement for a part-time medical director and medical management committee meetings of key physician leaders from participating practices; to hire a local clinical pharmacist to assist with complex medication problems; and to obtain other shared resources needed to improve the care of patients locally. The state, through its relationship with networks, has a willing and able partner to tackle complex issues at the local

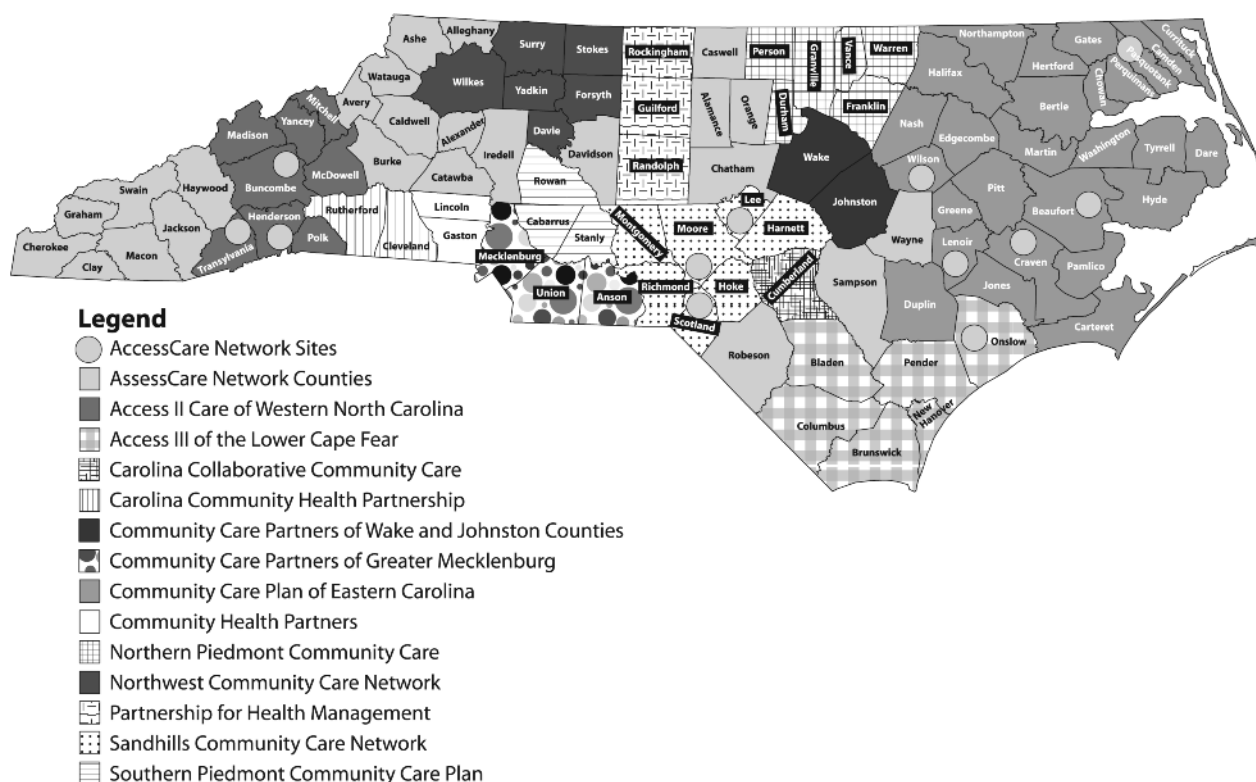
level. Using the networks, North Carolina has been able to pilot multiple interventions that can later be expanded to the rest of the state if successful.

There are currently 14 Community Care networks, with more than 3,500 physicians and 1,200 practices, serving over 913,000 Medicaid enrollees (as of May 2009) and covering all 100 counties in our state (see Figure 1).

As of May 2009, the 14 networks and their coverage area and enrollees include:

- **AccessCare** (24 counties with 150 provider sites including UNC—Alamance, Alexander, Alleghany, Ashe, Avery, Burke, Caldwell, Caswell, Catawba, Chatham, Cherokee, Clay, Davidson, Graham, Haywood, Iredell, Jackson, Macon, Orange, Robeson, Sampson, Swain, Watauga, and Wayne); 220,864 enrollees
- **Access II Care of Western North Carolina** (8 counties—Buncombe, Henderson, Madison, McDowell, Mitchell, Polk, Transylvania, and Yancey); 36,492 enrollees
- **Access III of the Lower Cape Fear** (6 counties—Bladen, Brunswick, Columbus, New Hanover, Onslow, and Pender); 48,027 enrollees
- **Carolina Collaborative Community Care** (1 county—Cumberland); 40,473 enrollees
- **Carolina Community Health Partnership** (2 counties—Cleveland and Rutherford); 20,386 enrollees
- **Community Care of Wake and Johnston Counties** (2 counties—Wake and Johnston); 65,555 enrollees
- **Community Care Partners of Greater Mecklenburg** (3 counties—Anson, Mecklenburg, and Union); 103,053 enrollees
- **Community Care Plan of Eastern Carolina** (27 counties—Beaufort, Bertie, Camden, Carteret, Chowan, Craven, Currituck, Dare, Duplin, Edgecombe, Gates, Greene, Halifax, Hertford, Hyde, Jones, Lenoir, Martin, Nash, Northampton, Pamlico, Pasquotank, Perquimans, Pitt, Tyrrell, Washington, and Wilson); 109,103 enrollees
- **Community Health Partners** (2 counties—Gaston and Lincoln); 27,687 enrollees
- **Northern Piedmont Community Care** (6 counties—Durham, Franklin, Granville, Person, Vance, and Warren); 43,279 enrollees
- **Northwest Community Care Network** (6 counties—Davie, Forsyth, Stokes, Surry, Wilkes, and Yadkin); 63,728 enrollees
- **Partnership for Health Management** (3 counties—Guilford, Randolph, and Rockingham); 38,229 enrollees
- **Sandhills Community Care Network** (7 counties—Harnett, Hoke, Lee, Montgomery, Moore, Richmond, and Scotland); 36,134 enrollees
- **Southern Piedmont Community Care Plan** (3 counties—Cabarrus, Rowan, and Stanly); 38,846 enrollees

Figure 1.
Community Care of North Carolina Networks



Each network is unique and has different lessons to share. In this issue of the *Journal*, leaders in three distinct networks offer their perspective about the creation and management of their network. Paul Harrison provides an urban point of view by writing about his network, Community Care of Wake and Johnston Counties. Lydia Faulkner Newman contrasts this with a rural perspective as she describes the experiences of Access III of the Lower Cape Fear. Finally, Dr. Elizabeth Gamble and colleagues share their thoughts on how their network, the Northwest Community Care Network, has benefited from the ability to maintain flexibility. This issue of the *Journal* also presents the viewpoint of a practicing CCNC physician, Dr. Rueben Rivers, as well as the perspective of a CCNC client named Adrienne presented by Lindsey Haynes.

The Community Care networks use population-based health care management tools, providing an enrollee with a medical home, implementing evidence-based practice guidelines, providing targeted case and disease management, coordinating the delivery of care, helping physician practices improve how they manage chronic patients, and getting community providers to work together in managing care of the enrollee. Through this collaborative the networks have developed a community-based health care delivery system available

nowhere else in the US. This model provides quality and efficient care in the most appropriate setting and has strengthened local systems for all patients.

The importance of the patient-centered medical home, as recently described by the Patient-Centered Primary Care Collaborative¹ (PCPCC) and the Chronic Care Model² as described by Dr. Ed Wagner, is supported by two emerging trends—the growing shortage of primary care physicians and the increasing prevalence of chronic diseases. If built correctly, networks of medical homes connected to the larger local health care system will result in improved quality and coordination of care and increased support to primary care physicians, while the cost of care will decrease. Community Care is creating the infrastructure needed to blend the important components of both the patient-centered primary care medical home (see Figure 2) and the Chronic Care Model. Community Care is the best example of a large scale implementation of such a system and is creating the system changes needed to support quality improvement and disease management for chronic illness care and a solid primary care platform.

In addition to the elements listed above, the Chronic Care Model includes patient self-management, delivery system redesign, health care organization integration, adequate decision

Figure 2.
Components of the Primary Care Medical Home³

Accessible

- Care is provided in the community.
- All insurance, including Medicaid, is accepted and changes are accommodated.

Family-Centered

- Mutual responsibility and trust exist between the patient, family, and the medical home.

Comprehensive

- Provides or ensures necessary services are provided, such as acute, chronic, and preventive care.
- Coordinates care across providers and delivery settings.

Continuous

- Same primary pediatric health care professionals are available from infancy through adolescence and young adulthood.
- The medical home provider participates to the fullest extent allowed in care and discharge planning when the child is hospitalized or care is provided in another facility or by another provider.

Coordinated

- Assistance with transitions (to school, home, and/or adult services) is provided.
- A plan of care is developed by the physician, child or youth, and family and is shared with other providers, agencies, and organizations involved with the care of the patient.
- A central record or database containing all pertinent medical information, including hospitalizations and specialty care, is maintained at the practice. The record is accessible, but confidentiality is preserved.

Compassionate

- Concern for the well-being of child and family is expressed and demonstrated in verbal and nonverbal interactions.

Culturally Effective

- All efforts are made to ensure that the child or youth and family understand the results of the medical encounter and the care plan, including the provision of professional translators and interpreters, as needed.
- Written materials are provided in the family's primary language.

support, transitional support across delivery settings, enhanced population stratification techniques, clinical information systems, and community resources.

Community Care physicians have selected and adopted evidence-based practice guidelines for asthma, diabetes, congestive heart failure, depression, and chronic obstructive pulmonary disease. The networks have integrated targeted case management initiatives to help physicians manage and care for the most frail and costly patients. Case managers are hired locally by the networks and work with primary care physicians and patients to implement care and disease management interventions. Community Care produces and distributes reports to physicians and practices that highlight their effectiveness in meeting performance measures and goals and offers tools to improve outcomes. In addition to these core initiatives, networks have piloted innovative programs that have been replicated across the state. Dr. Marian Earls in her commentary on the Assuring Better Child Health and Development (ABCD) project describes the power and innovation of one network driven pilot that was expanded and replicated across other networks.

The most significant achievement of the Community Care program is taking community-based medicine, a well-understood idea but one rarely implemented on a grand scale, and spreading it statewide. The principle is that by partnering with those who care for Medicaid recipients—community primary care physicians and other community providers—a state can build a provider-led system that uses best medical standards, care coordination, and other population management programs to improve patient care and outcomes. Community Care has greatly improved care for its targeted population and has produced significant savings that can be reinvested in health care. Improvements in care reach beyond the Medicaid population because standards of care adopted by physicians are applied to all patients, not just those in the Medicaid program. Community Care has demonstrated that if you engage those community providers who care for the patients and provide them with a system and support, community-based health care is effective in improving quality of care and helping preserve limited health care resources. In her commentary, Denise Levis Hewson discusses in more detail how the CCNC model increases the quality of health care.

Community Care has demonstrated quality improvement, cost savings, and phenomenal growth. Community Care physicians develop and agree upon measures of quality care and desired outcomes whether for local initiatives or statewide projects. The results are monitored and reported to networks and practices. Many networks have shown significant improvements in asthma care that have resulted in a 35% decrease in hospitalizations, a 55% increase in staging the severity of the disease, and 95% of those patients staged were on appropriate medications.⁴ Quality performance measures for diabetes care also increased by 15%. These types of improvements in quality have also helped to drive cost savings. From July 1, 2003 through June 30, 2006, actuarial studies conducted by Mercer Government Human Services Consulting estimated

that Community Care saved over \$473 million, and statistically reliable cost comparisons have shown savings exceeding \$100 million every year since 2003.⁵ In this issue of the *Journal*, Alice Fortune-Greeley and Sandra Greene highlight additional information on the Community Care program evaluation.

The importance to North Carolina of having a statewide provider network in place cannot be overstated. Not only is the Community Care system achieving documented improvements in the quality, utilization, and cost-effectiveness of care for Medicaid enrollees, it also has given North Carolina a community-based infrastructure that can be used to tackle a range of problems. By providing a structure for community providers to work together, by providing the tools and supports for networks to design and develop programs, and by providing the resources to implement programs, North Carolina has created a system that, if nurtured, can continue to grow and respond to state and local health needs. Because of Community Care's success with improving the care and outcomes for women and children enrolled in the Medicaid program, the administration and legislature have turned to Community Care for help with other health priorities including:

- In 2004, the North Carolina General Assembly requested and provided funds for Community Care to extend its community-based model to aged, blind, and disabled recipients.
- As North Carolina moves toward a community-based mental health and substance abuse system, the administration requested in 2005 that Community Care work with the Division of Mental Health to develop community-based models that can address access and coordination issues and that can improve the ability of primary care physicians to care for mental health and substance abuse patients. Chris Collins explores the issue of behavioral health within the context of CCNC in her commentary in this issue of the *Journal*.
- In 2006, the Governor began work on a statewide public-private quality improvement initiative that will bring together the state's largest insurers (Blue Cross and Blue Shield, State Health Plan, and Medicaid) and providers (North Carolina Medical Society, Pediatric Society, North Carolina Academy of Family Physicians, and the UNC School of Medicine to name a few) to work collaboratively to develop and implement a common set of best medical quality standards and measures for five diseases and/or conditions (asthma, diabetes, congestive heart failure, hypertension, and post myocardial infarction care). This initiative builds on the Community Care platform and utilizes existing resources, such as the North Carolina Area Health Education Centers (AHEC) system, as partners to provide practice improvement resources to individual practices.

The Community Care program has the potential to be replicated in other states and health care delivery systems. It has demonstrated capability to be effective in both urban and

rural areas. The Community Care organizational system, which features strong provider buy-in and engagement, local community leadership and ownership, and organizational collaboration with multiple agencies involved in caring for the target population, has created synergy for change in the local health care delivery systems. The Community Care infrastructure enabled the networks to apply for a 646 waiver to serve the Medicare population as described in more detail by Torlen Wade's commentary on the Medicare Health Care Quality Demonstration Program.

On a large scale, North Carolina's program can serve as an enhanced medical home model where an enhanced primary care case management system can be a catalyst and vehicle for basic health care system redesign. On a smaller scale, there are processes within our program that can be replicated and expanded to other systems of care, such as:

- The approach of developing regional provider networks able to support and enhance the medical home model.
- The private-public partnership where the community providers are able and willing to assume responsibility and accountability for a target population and/or initiative.
- The successful management of the program allows for reinvestment of savings into the community.
- The manner of partnering with local physicians "in the field" to develop and implement quality improvement strategies.

- The community-based approaches to care and disease management and quality improvement.
- The state and local partnership where initiatives, performance measures, and benchmarks are chosen collaboratively.

The Community Care program has demonstrated that a public/private partnership aimed at better managing the Medicaid population can successfully create a community-based infrastructure that not only supports primary care practices in managing chronic illness(es) but positively impacts the quality and efficiency of care being delivered to some of the most vulnerable residents in North Carolina. The program continues to demonstrate that the Medicaid agency, in concert with community providers, can be a catalyst to support a health care system that delivers high quality patient-centered care in a cost-effective manner. During these tough fiscal times when the Medicaid budget draws a lot of attention, it is important for local communities to take responsibility for better managing their patient population and to be part of the solution. The Community Care networks, with strong local physician leadership and community partnerships, have continued to explore new opportunities to achieve these goals and have risen to the challenge of demonstrating improvement in both the quality and cost of health care. **NCMJ**

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