

# **Community Care of North Carolina:**

## **A Provider-Led Strategy for Delivering Cost-Effective Primary Care to Medicaid Beneficiaries**

June 2006

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# Community Care of the North Carolina: A Case Study

## Background

North Carolina's Medicaid program has a unique provider led managed care strategy. What begun in 1991 as Carolina Access, a primary care case management demonstration program initially operating in five counties, has developed into a "coordinated community management system" known as Community Care of North Carolina (CCNC), which manages nearly three-fourths of the state's entire Medicaid population. Carolina Access "was developed to enhance recipient access to community-based primary care, to improve the coordination of care, and to reduce reliance on hospital emergency departments."<sup>1</sup>

North Carolina has a rich history of developing community-based health care systems. In 1973, the nation's first state office of rural health was established in North Carolina, known today as the Office of Research, Demonstrations and Rural Health Development (ORDRHD). Jim Bernstein, the founding director of the Office, summed up the core belief guiding the Office since its inception as, "if improvement in [health] care or service is the goal, then those who are responsible for making it happen must have ownership of the improvement process." This core belief is put into practice through a state/local partnership approach and a focus on community investment as the cornerstone of all project and improvement strategies.

Five key principles, which continue to shape the Office's partnership initiatives, have significantly influenced the development of primary care networks, Carolina Access, and CCNC:

- Ownership is vested with community participants;
- Roles and responsibilities of participants (both community and government) are clearly defined;
- In-depth technical assistance is provided by the state on a continuous basis;
- Accountability is clear and measured; and
- Meeting patient and community needs remains the focus of all activities.<sup>2</sup>

To address rising Medicaid costs and state budget shortfalls in the 1990s, North Carolina, like most states, instituted a managed care option. The state tested a traditional capitation payment model in its most populous urban county involving the operation of commercial managed care organizations (MCOs). At the same time, ORDRHD—along with the North Carolina Academy of Family Physicians and the North Carolina Pediatric Society, with full support of the Secretary of the Department of Health and Human Services (a pediatrician)—decided to pilot an alternative to traditional Medicaid managed care—an expansion of the fee-for-service primary care case management model known as Carolina Access. By 1998, Carolina Access had grown to include nine networks and 20 primary care practices, prompting the state to mandate Medicaid recipients in those locations to choose an Access practice/primary care provider.<sup>3</sup> Carolina Access enrolled primary care physicians to serve as patients'

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<sup>1</sup> Community Care of North Carolina website: [www.communitycarenc.com](http://www.communitycarenc.com)

<sup>2</sup> Wade, Radford and Price, "Building Local and State Partnerships in North Carolina: Lessons Learned." *North Carolina Medical Journal*. January/February 2006, Vol. 67, No.1.

<sup>3</sup> April 25<sup>th</sup> 2006 interview with Allen Dobson, MD, Assistant Secretary for Health Policy and Medical Assistance, North Carolina Department of Health and Human Services.



gatekeepers to more specialized—and expensive—services. In return, Medicaid agreed to pay participating physicians a modest care coordination fee in addition to the fee-for-service payment. In 1991, Carolina Access started in five counties, and by 1999 covered 99 of the state's 100 counties. These Medicaid managed care expansions were called Access II and Access III.<sup>4</sup> With the success of Carolina Access, most commercial MCOs have left the market, leaving the Access program as the sole Medicaid managed care strategy.<sup>5</sup>

While Carolina Access accomplished its original objective of providing Medicaid recipients with a medical home and primary care providers who effectively rendered care<sup>6</sup>, participating providers found they lacked the resources to effectively manage the care of an enrolled population. In 1998, the state decided to pilot a new initiative in the nine Access networks to develop health care systems able to support programs and infrastructures that manage the Medicaid population through “integrated community management.” ORDRHD, in concert with the pilot network sites, identified the core program components needed to manage the Medicaid population with the aim of improving quality and containing costs. These components included disease and care management, population management, utilization management and quality improvement initiatives (implementing evidence-based practice guidelines).<sup>7</sup>

Development of program parameters for the pilot networks occurred through a collaborative planning process involving state government and key health provider groups<sup>8</sup>, including the North Carolina Academy of Family Physicians, North Carolina Pediatric Society, North Carolina Medical Society and the North Carolina Hospital Association.<sup>9</sup> The development of these primary care case management networks became known as Community Care of North Carolina.

The role of the health provider associations was to convince Access physicians that the CCNC model:

- Was the most desirable Medicaid managed care option,

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<sup>4</sup> Certain Medicaid recipients, including families receiving cash assistance under the Temporary Aid to Needy Families (TANF) program, children, and people with disabilities who are not also receiving Medicare, are generally required to enroll in managed care. Pregnant women, dual eligibles (individuals covered by both Medicaid and Medicare), and foster children are enrolled on a voluntary basis. The medically needy, institutionalized individuals and immigrants are excluded from participation in Medicaid managed care. Enrollment by the Medicaid beneficiary into one of the managed care programs is more a function of the choice of primary care physician or practice than a conscious choice between managed care models.

<sup>5</sup> Mecklenburg County initiated a fully capitated managed care program in 1996 and by 2002 became the last of the 100 counties to start an Access program. The last MCO contract in the county was not renewed by the state in May 2006.

<sup>6</sup> Primary care is generally defined as the patient's primary medical home, and includes the practice of family medicine, pediatrics and general internal medicine provided in community settings such as private physician offices, community health centers and rural health clinics. Midlevel providers such as nurse practitioners and physician assistants are used more frequently to deliver primary care in the state's rural areas. A specialist or specialty practice may participate if they agree to the patient's medical home and see them for all their non-urgent and preventive needs. The Medicaid recipient normally chooses a practice, not a single physician, as their medical home.

<sup>7</sup> Ibid., CCNC website. Dr. Allen Dobson, a family physician from Cabarrus County, North Carolina who has since been appointed Assistant Secretary for Health Policy and Medical Assistance in North Carolina's Department of Health and Human Services, was the clinical director of one of the initial pilot networks. Dr. Dobson has continued to be a strong leader, spokesperson and advocate for the CCNC program.

<sup>8</sup> A memorandum of agreement between the state's Medicaid program and ORDRHD delegated development, implementation and administration of this collaborative planning process to ORDRHD. Small planning grants (\$20,000) were made available by the state to develop nine networks and their operations.

<sup>9</sup> While most of the state's hospitals enthusiastically support the local community care management concept because it lowers inappropriate emergency department use, improves quality management, and reinvests local cost savings in the local networks, a few hospitals remain skeptical of this physician control model and loss of market share (Interview with Hugh Tilson, Jr. and Jeffery Spaid, North Carolina Hospital Association, May 8, 2006.)



- Provided them an opportunity to plan services/programs in which they would participate, and
- Would give them the chance to implement services that would significantly improve care for their Medicaid patients.

Moreover, Access providers that participate in CCNC receive an additional case management fee to implement the new enrollee management initiatives in their networks. For physicians as a whole, the alternative was to serve under an outside Medicaid managed care organization over which they would have little or no control. Virtually all primary care Medicaid providers in the county agreed to participate in the local networks. Under CCNC, Medicaid enrollees choose the physician practice rather than the physician.

In 1998, each CCNC-funded network's designated clinical director began meeting together as a statewide board and, along with ORDHRD and the health provider associations, started to analyze how best to build an optimum health care system for Medicaid recipients that could improve quality, access and contain costs. Four key concepts emerged to guide these developments:

- The importance of local control and physician leadership in building sustained community care systems;
- A primary focus on improving quality of care through population management;
- The necessity of creating a public/private partnership that would bring together all the key local healthcare and social service providers, or face control by an outside entity; and
- A shared state/local responsibility to develop the tools needed to manage the Medicaid population, including a system of new incentives that better align state and community goals with desired outcomes.

CCNC was designed to support the development of community care systems that have the ability to develop programs and infrastructures to manage health care needs of the Medicaid population and to improve the quality of their care through integrated community management. Primary care providers (PCPs) are given the opportunity through local networks to work together with other community providers and network case managers to develop the tools, information and support needed to coordinate prevention, treatment, referral and institutional services for Medicaid beneficiaries.

Provider associations were also charged with convincing the state legislature to support this type of Medicaid managed care program. Initially, the appeal to the legislature of the commercial managed care approach was quick savings and no budget risk ("predictable cost"). Cost savings to the state under the community care management approach were shown not to be immediate, but would accrue as the program is implemented. The legislature became largely supportive of the CCNC approach, allowing the state to pilot the alternative models in the rural and urban areas where commercial managed care had no market presence or interest.<sup>10</sup>

Moreover, as savings were realized, the legislature approved statewide expansion of the CCNC program in 2002, and directed the Division of Medical Assistance (DMA) to monitor cost savings and quality indicators for the Medicaid population enrolled in CCNC. Accordingly, the state initiated two

<sup>10</sup> The success of previous community-based primary care programs developed by ORDHRD as well as the recent reports of significant Medicaid cost savings were key factors behind the initial and ongoing support granted by the legislature (May 11<sup>th</sup> 2006 phone interview with state Senator Bill Purcell, Chair of the Health and Human Services Committee).



assessments of the program. The first focused on overall CCNC program costs to DMA, and the other was to focus on the effects of specific disease management efforts within CCNC.<sup>11</sup>

## Community Care of North Carolina Today

In 2006, Community Care of North Carolina (CCNC) consists of 15 local networks across the state, including more than 3,000 physicians practicing in collaboration with local health departments, hospitals, social service agencies, and other community providers, that manage the care of over 681,000 Medicaid enrollees—about 74 percent of all eligible Medicaid beneficiaries in the state.<sup>12</sup>

CCNC is a state/local partnership that develops networks of local essential health providers and strengthens the community health care delivery infrastructure. Two state agencies—the Division of Medical Assistance (Medicaid) and the Office of Research, Demonstrations and Rural Health Development—agree to jointly administer and supervise the local networks. The state provides funding, information and technical support to help the networks effectively deliver and manage care to Medicaid enrollees, while encouraging the networks to ‘localize their strategies.’

CCNC achieves its objectives by anchoring its work to a handful of key philosophies that involve:

- Working directly with community providers who have traditionally cared for North Carolina’s low income residents;
- Building partnerships where community providers cooperatively plan to meet patients needs and where existing resources can be used most efficiently;
- Conveying responsibility for managing care of a specific Medicaid population to an independent network;
- Placing responsibility for performance (and improvement) in the hands of those who actually deliver the care;
- Ensuring that all funds are kept local and go to providing care; and
- Putting in place independent local networks that can manage all Medicaid patients and services, and can address larger community health issues.

Community Care of North Carolina incorporates many of the principles for reform of the U.S. healthcare system recommended in the 2001 Institute of Medicine report, Crossing the Quality Chasm. Network services are designed to meet the most common needs of their patients and provide information and education to enable the Medicaid beneficiary to make informed decisions. Care is based upon evidence-based best practice guidelines, and resources are used efficiently and in appropriate settings. Collaboration and coordination among clinicians is promoted and assured and duplication is minimized.

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<sup>11</sup> The first study by the Mercer Consulting Group focused on overall cost and utilization of the CCNC program compared to an anticipated cost without managed care (CCNC website: [www.communitycarenc.com](http://www.communitycarenc.com) ). The second study by the Sheps Center of the University of North Carolina assessed utilization and cost savings in CCNC in comparison with similar enrollees in the Access program. The assessment focused on expenditures and utilization of services for Medicaid beneficiaries with asthma and diabetes (Thomas Ricketts, Sandra Greene, Pam Silberman, Hilda A. Howard,, Stephanie Poley, Evaluation of Community Care of North Carolina Asthma and Diabetes Management Initiatives: January 2000-December 2002. North Carolina Rural Health Research and Policy Analysis Program, The Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill, April 15, 2004, p. 3.) See Appendix A for more information on these studies.

<sup>12</sup> Ibid, CCNC website. Because patient enrollment in Carolina Access is mandatory and since the state has almost all the Access practices (minus 5 counties) participating in CCNC, nearly 700,000 of the 730,000 eligible Medicaid recipients are served by CCNC.



## Local Networks

Local networks take responsibility for managing the care of an enrolled population. The networks plan programs to provide preventive services and develop processes by which at-risk patients can be identified and their care managed before high cost interventions are necessary. By employing tools such as risk stratification, disease and case management, the networks establish the care management processes and support mechanisms needed to improve enrollee care and achieve program objectives.<sup>13</sup>

All local CCNC networks are 501 C(3) non-profit organizations which, at a minimum, include area primary care providers (PCPs), a hospital, the county Department of Social Services (Medicaid) office, and county health department. Each network receives a \$2.50 per member per month (PMPM) Medicaid enhanced care management fee, which is used to hire local case managers or otherwise pay for the resources necessary to manage enrollees.<sup>14</sup> Using information gathered both locally and through Medicaid's claims system, the networks assess the needs and severity of their Medicaid enrollees to target care and disease management initiatives toward those enrollees at greatest risk. Networks then develop care management initiatives needed to improve patient care outcomes.<sup>15</sup>

Each network is responsible for population management which involves identifying individuals with certain high-cost or complex health conditions in need of case management, assisting PCPs with disease management education, helping patients coordinate care, and collecting and reporting program and patient data to the CCNC statewide office.

## Clinical Directors and Quality Improvement

Each network elects a physician to serve as their medical director who participates on a statewide board of clinical directors responsible for steering disease and case management initiatives of the CCNC program. The clinical directors group identifies the quality improvement, cost containment and care management initiatives to be undertaken by their networks, and establishes the processes and strategies to accomplish program goals, including measures to assess the initiatives' impact on quality and outcomes.<sup>16</sup>

Some disease management initiatives such as diabetes, asthma and congestive heart failure care management are implemented statewide, while others are tested or operate in individual networks and later may be implemented more widely. Asthma and diabetes were chosen as two of the first statewide disease management initiatives because they met the guidelines established by the clinical directors. Guidelines for disease management are selected in consultation with 'field experts', and are based on

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<sup>13</sup> Each network determines its own drug formulary. Several networks have begun a "standing orders" initiative with local pharmacies where they ask them to always give the most cost effective drug. It is not yet known the impact of this effort on costs. Many practices also voluntarily use CCNC's 'list' which gives physicians the cost of drugs in tiers. North Carolina Medicaid currently does not provide a drug formulary.

<sup>14</sup> Each network determines its budget based on the PMPM fee. Based on the expected revenue from their enrollment, they must submit a budget to CCNC for approval a year in advance. Then, they submit a 6 month report with expenditures to date and a year end report. The state reviews each network's budget to see that the bulk of funds go to enhancing case and disease management activities for the enrollees to justify those expenditures in case of a state or federal audit. CCNC has informally discussed the possibility of altering (reducing) the PMPM fee for the larger, more mature networks that receive some 'economies of scale' due to their size and experience.

<sup>15</sup> Ibid, CCNC website.

<sup>16</sup> Most network medical directors are compensated for their work. A couple of networks are moving towards hiring their medical director as a .5 or .75 FTE. Other networks pay the physicians separately for their time when working on CCNC activities.



existing, disease-specific, evidence-based models of care management. The disease management process involves continuous coordination between PCPs and the CCNC network care coordinators.

Physician leaders from participating networks routinely come together to design, develop and implement statewide clinical improvement initiatives in several areas, including:

- Asthma and diabetes management programs;
- Congestive heart failure
- Pharmacy initiatives addressing cost and utilization;
- Emergency department utilization; and
- Managing those enrollees and services at highest risk and cost.<sup>17</sup>

Many communities use the relationships and infrastructures developed through the networks to address the needs and problems of other populations such as the uninsured, indigent populations or nursing home residents. A number of pilot initiatives are being pursued that focus on therapy services, low birth weight, health disparities, mental health integration, in-home care and sickle cell anemia.<sup>18</sup>

#### Other Network Staff

The success of CCNC depends on its ability to have local networks implement system changes needed at the physician practice level, which enables targeted care and disease management initiatives to occur. Other network staff needed to accomplish this objective include:

- Network coordinator/director
- Case managers
- Quality improvement champions
- Information and administrative support staff

Network coordinators oversee the daily operation of the clinical care coordination team (case managers and clerical support) for each network. They assist in the planning, implementation and assessment of new initiatives by establishing collaborative relationships with physicians and community partners to ensure that patients are cared for in the most appropriate setting. The coordinator is accountable to achieve effective and measurable clinical, financial and functional outcomes.

The networks follow a rapid cycle quality improvement model which stresses setting aims, establishing measures and making system changes that remove barriers to excellent care. The quality improvement model is being implemented in each network through both the clinical directors and local medical management committee meetings. Focus is on implementing evidence-based practices in medicine at each individual practice where quality improvement (QI) champions are identified. This clinician attends the network's medical management meetings and represents the providers in the practice. QI experts focus on implementing processes that will improve care of the Medicaid population within their practice. Importantly, each participating practice also has access to dedicated case managers that will assist them in managing Medicaid enrollees.<sup>19</sup> The role of case managers is discussed below.

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<sup>17</sup> CCNC-U.S. Centers for Medicare and Medicaid Services Partnership Proposal, December 1, 2005.

<sup>18</sup> The Commonwealth Fund. Improving Access to Primary Care: Community Care of North Carolina, 2006.

<sup>19</sup> Ibid., Ricketts et al, 2004. p 6-7.



## Participating Primary Care Providers

Primary care providers are expected to participate in various network functions, including:

- Following recommended practice guidelines to assess patients and develop treatment plans,
- Helping educate patients to manage their own care and use appropriate medical equipment,
- Provide clinical information for network and CCNC management systems,
- Provide '24/7' coverage under program rules, and
- Carry minimum liability insurance.

PCPs enrolled in CCNC receive an enhanced case management fee from Medicaid of \$2.50 PMPM. The goal of the program and the purpose of the enhanced management fees are to develop local disease management and care coordination systems that reduce Medicaid expenditures by encouraging efficient and appropriate health care utilization and improve health outcomes through the quality improvement initiatives.<sup>20</sup>

### Case Management

Case management plays a central role in CCNC network operations. Participating networks receive a case management fee of \$2.50 PMPM, and use these funds to hire case managers to work with physician practices and provide the resources and support needed for physician practices to better manage the care of enrollees. Case managers are primarily responsible for:

- Helping identify patients with high risk conditions or needs,
- Assisting PCPs in disease management education and/or follow-up,
- Helping patients coordinate their care or access needed services, and
- Collecting data on process and outcomes measures.

Case managers may be social workers, nurses or other clinicians. Some networks contract for the services of case managers from local health departments and community health centers.<sup>21</sup> They assume different responsibilities depending on local community and provider needs, but always have an integral part in managing the Medicaid population. They may serve as a patient advocate, and intervene with other community based health and social service organizations to assure the patient receives all necessary and coordinated services for optimal health outcomes. Examples of such services include mental health and addiction treatment, housing, transportation, dental care, education, emergency food and nutrition services.<sup>22</sup>

Several Access networks have developed information systems to support documentation of case management interventions. One network, AccessCare, instituted a web-based case management system whose development and operation was funded by a Medicaid \$2.50 PMPM fee paid to the network and a small foundation grant. AccessCare case managers, in collaboration with case managers of the other networks, designed the case management system in conjunction with an outside software program development firm.

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<sup>20</sup> Ibid., CCNC-CMS proposal.

<sup>21</sup> Ibid., CCNC website.

<sup>22</sup> Interviews with CCNC network directors, April 24-27 2006.



The AccessCare case management system eventually became the statewide model for networks after it was ceded to ORDRHD in 2004 for continued operation and maintenance.<sup>23</sup> A statewide case identification data base was developed to assist case managers in identifying individuals who might benefit from their services. The data base contains claims information on a network's enrollees, such as diagnosis, cost, procedure/drug information, and quarterly utilization.

Each case, once identified, is intended to have a clear illustration of problems, interventions, goals and cost savings which are recorded in the CCNC Care Management Information System (CMIS) or a similar database. CCNC staff retrieves all medical and utilization outcomes data for that individual from CMIS and the Medicaid claims database. Data are then analyzed for meaningful trends in quality and cost of care. Case managers look for implementation of best practice guidelines, achievement of clinical outcomes (such as reduction in HbA1c in patients with diabetes), and changes in utilization patterns (such as a reduction in number of visits to the hospital emergency room).<sup>24</sup>

### **Demonstrated Cost Savings**

There have been two major evaluations of the CCNC and Carolina Access programs that reveal considerable cost savings and quality improvement. A study performed by Mercer Government Human Services Consulting found the Carolina Access program, when compared to historical fee-for-service program benchmarks, saved the state \$195 to \$215 million in 2003 and between \$230 and \$260 million in 2004. In comparison to what the Carolina Access program would have cost with any concerted effort to control costs, Mercer also found the program saved between \$50 and \$70 million in 2003 and between \$118 and \$130 million in 2004.<sup>25</sup>

Moreover, an evaluation of CCNC disease management initiatives performed by the University of North Carolina found the costs to CCNC of caring for Medicaid patients with asthma and diabetes to be much less than for those Medicaid patients served in the Access program, resulting in estimated savings in 2002 of over \$1.5 million for asthma patients (especially individuals 45 years of age and older) and \$306,000 for patients with diabetes associated with significant changes in utilization and other practice measures (i.e., reduction in hospital emergency room visits). Over three years (2000-2002), the study concluded the state would have saved about \$3.3 million for CCNC enrollees with asthma and approximately \$2.1 million for CCNC patients needing diabetes care. *Summaries of these evaluations are found in Appendix A of this report.*

### **Future Program Enhancements and Expansions**

In 2006-2007, CCNC plans to implement additional programs and services, including:

*Chronic disease management.* A plan to manage enrollees with congestive heart failure and chronic pulmonary disease is being driven in part by a 2005 directive from the state legislature to the North Carolina Department of Health and Human Services "to expand the scope of Community Care of

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<sup>23</sup> Interview with John J. Bristol, Vice President for Finance and Operations, AccessCare, Inc., April 25, 2006.

<sup>24</sup> Ibid., CCNC website.

<sup>25</sup> These estimated savings take into account the additional expenditure of the \$2.50 PMPM fee.



North Carolina care management model to recipients of Medicaid and dually eligible individuals with a chronic condition and long-term care needs...”<sup>26</sup>

*Behavioral health management.* In response to a growing presence in several CCNC primary care practices of Medicaid enrollees with both behavioral and physical health care needs, four networks in 2005 began piloting a collaborative care management approach for these patients. This mental health integration pilot is a state-level collaboration between the Division of Mental Health; the Division of Medical Assistance, The Office of Research, Demonstrations and Rural Health Development (CCNC Program Office) and the North Carolina Foundation for Advanced Health Programs. Strategies and plan design models developed and implemented in these pilots will support the replication and expansion efforts in other networks and communities.<sup>27</sup>

*Electronic health records.* Local networks cite the need for an electronic health record to enable them to provide more timely and coordinated care with improved quality and adherence to practice guidelines. While it is widely recognized that such technology can greatly improve overall patient care and reduce unnecessary duplication of services, such a system is costly and will involve a major financial commitment from CCNC and the networks. It is hoped that future cost savings will be invested in the development and operation of an electronic health record system.

## Conclusion

The following elements have been critical to the success of Carolina Access and Community Care of North Carolina:

- A *statewide visionary leader(s)* who can articulate a redesign of the health care system that incorporates innovations in clinical care and public health to lower costs and improve quality, access and health outcomes for Medicaid beneficiaries.
- *Local and statewide physician leadership and support.*
- Recognition that the best source for enabling long-term reform and sustainability *must be local.*
- *Financial and technical support from state government and private sources.*

The CCNC program demonstrates that when physicians formally share responsibility for a patient population—with the assistance of case managers and cooperation of staff and patients—positive behavior change will occur. CCNC physicians interviewed for this study felt their Medicaid patients received overall better care and in more appropriate settings, and that caring for Medicaid patients was more desirable, particularly because of the:

- Added services of case managers;
- Added PMPM care management fee and enhanced Medicaid fee-for-service payment (95% of the Medicare fee schedule); and
- Opportunity to participate in the development and application of evidence-based clinical guidelines.

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<sup>26</sup> Ibid.

<sup>27</sup> “Piloting Mental Health Integration in the Community Care of North Carolina Program.” North Carolina Medical Journal, January/February 2006, Vol. 67. No. 1.



Family medicine is in a unique position to improve the quality and lower the cost of care delivered to Medicaid patients by advocating that states re-design their Medicaid care management programs based on this proven CCNC model. There is sufficient evidence now to demonstrate that by developing local care networks with strong physician leadership, applying evidence-based practice guidelines, integrating the concepts of case management and care management, and paying additional fees will result in improved care, reduced costs and increased access for Medicaid patients. States continue to struggle to find ways to improve their Medicaid programs, and state legislatures are demanding greater accountability and a reduction in spending for high cost programs such as Medicaid. Family physicians must provide the guidance and leadership to states to design successful programs to accomplish these goals.



## Appendix A: Program Evaluations

### Evaluation of Program Cost Savings

The North Carolina Division of Medical Assistance contracted with Mercer Government Human Services Consulting to evaluate cost savings in the Carolina Access program for specified services provided to Medicaid patients for state fiscal years 2003 and 2004.<sup>28</sup> Statewide Medicaid claims experience and eligibility data for dates of service in state fiscal years 2000, 2001 and 2002 were used as a program benchmark against which to compare costs and savings, and included all categories of service.

The Mercer Consulting evaluation found considerable Medicaid cost savings in 2003 and 2004 attributable to the Carolina Access program. When compared to statewide historical fee-for-service benchmarks, the study found Carolina Access saved the state between \$195 and \$215 million in 2003, and between \$230 and 260 million in 2004. In comparison to what the Carolina Access program would have cost with any concerted effort to control costs, Mercer also found the program saved between \$50 and \$70 million in 2003 and between \$118 and \$130 million in 2004.

Inpatient services continue to cost significantly less under the Access program (when compared to fee-for-service), and emerging cost savings are indicated for outpatient services as well.

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<sup>28</sup> "Access Cost Savings-State Fiscal Year 2003 Analysis", Letter to Jeffrey Simms from Mercer Government Human Services Consulting, June 25, 2004. "Access Cost Savings-State Fiscal Year 2004 Analysis", Letter to Jeffrey Simms from Mercer Government Human Services Consulting, March 24, 2005.



## Disease Management Study

The state also contracted with the Sheps Center for Health Service Research of the University of North Carolina<sup>29</sup> to assess the effectiveness of North Carolina's Medicaid disease management programs. Understanding the effects of a primary care case management and disease management initiative in a statewide Medicaid program is challenging for several reasons.<sup>30</sup> Using Medicaid claims and enrollment data, the Sheps study compared the costs and utilization of Medicaid beneficiaries diagnosed with asthma or diabetes who were enrolled in Carolina Access and participated in CCNC (CCNC participation) versus those enrolled in Carolina Access without CCNC participation (Access only).

### Asthma Costs

In 2002, the average per member per month (PMPM) costs for people with asthma in 'Access only' was \$534 compared to \$378 for CCNC-participating Access patients. These estimates include all Medicaid costs, including the physician case management fee and the additional CCNC network fee. The data were further adjusted to reflect the age-cohort differences in savings.<sup>31</sup> The greatest cost savings for CCNC participants were concentrated among individuals 45 years of age and older. 'CCNC care' was more expensive than 'Access only' care for 6-20 year olds (7.1%) and slightly greater for 21-44 year olds (.7%). These two more costly groups comprised 62 percent of the enrolled populations of CCNC. Assuming a constant population for all 12 months, the estimated annual cost savings in 2002 for CCNC was \$1,580,040.

### Asthma Utilization

One of the goals of the CCNC program is to better coordinate care to allow disease and its consequences to be prevented or its effects diminished. One indicator of use which has high costs is hospitalization. Medicaid asthma-related hospitalizations on a per-enrollee basis in North Carolina have been historically higher than in the non-Medicaid population. During the three-year study period (state fiscal years 2000-2002), the asthma hospitalization rate among Medicaid enrollees was at least twice that of the non-Medicaid population (except for 2001). Hospitalization rates decreased by 10 percent for all Medicaid patients, but just three percent for the non-Medicaid population.

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<sup>29</sup> Ibid., Ricketts et al.

<sup>30</sup> As the Access program was piloted and later implemented more widely, there is little opportunity to identify clear starting and ending points and to isolate specific program effects. Medicaid patients may switch between Medicaid managed care programs while under care for the same episode of disease or even lose Medicaid coverage entirely. Likewise, the training of care managers and practitioners can only be accomplished incrementally. It is widely accepted that disease management programs do not produce immediate improvements in costs and utilization; in fact, better adherence to drug therapies, which lead to long-term decreases in utilization, can actually lead to short-term increases in costs. Further, the research design must carefully select the measurements on which performance comparisons will be made. The primary foci of Medicaid disease management program evaluations are costs and quality. A wide range of indicators may be used to measure quality, including such process measures as number of health education sessions, essential (disease-specific) screenings and provider adherence to clinical practice guidelines. Outcome measures may include improved clinical indicators (e.g. weight, HbA1c levels) or decreased utilization of inpatient or emergency department services). The decision of which measures to include is important to evaluate the state's initiative and each requires different considerations of the methodological issues used.

<sup>31</sup> CCNC had a younger enrolled population than Access. A concerted effort was made to enroll pediatric Medicaid providers in the CCNC networks. Eighty-three percent of the CCNC enrollees are under 21 years of age, compared to only 57 percent of the Access enrollees. The cost data were adjusted by the researchers to reflect the differences in age distribution across the two programs.



In 2000, there were 23 percent fewer hospitalizations per 1,000 CCNC enrollees under age 21 than for Access only enrollees. These differences between CCNC and Access only enrollees widened in 2001 and 2002.

A closely related measure of utilization is the intensity of the hospitalizations that do occur, commonly measured as inpatient days, or days spent in the hospital per 1,000 enrollees. Again, the average number of inpatient days per 1,000 asthmatic enrollees was consistently lower for CCNC participants than Access only participants. Overall, inpatient days per 1,000 declined 28 percent for people with asthma enrolled in Access only, and 30 percent for CCNC enrollees. The greatest improvements over the period were observed in the under age 21 cohort. The trends for asthma-related inpatient days are similar to those observed in admissions. Overall, asthma-related admissions per 1,000 declined 48 percent in Access only and 54 percent in CCNC over the three year period. The decline in utilization by asthmatics of the hospital emergency department (ED) was most significant. Overall, the use of the ED declined most substantially for asthma-related conditions in both CCNC and Access only, and the decline was slightly greater among Access only enrollees.

Another measure of utilization that reflects changes in need and/or the effects of preventive services are the use of prescription drugs. Higher costs for prescription drugs may reflect appropriate long-term and measurable cost-savings if subsequent episodes of illness are prevented. The number of prescriptions per enrollee with a diagnosis of asthma has decreased over time for both Access only and CCNC enrollees.

#### Diabetes Costs

With all age cohorts combined, the average PMPM cost for diabetes in 2002 was \$880 for Access only patients and \$859 for CCNC patients. Based on this difference, the overall savings to CCNC was estimated to be \$306,432 annually or \$2,083,824 over the three years of the study.

#### Diabetes Utilization

When all hospital admissions for diabetics are counted regardless of the discharge diagnosis, the rate for Access only diabetics ranged from 337 to 352 days, while the rate for CCNC ranged from 288 to 318 days. In all three years, the rate of hospitalization was lower in CCNC, which is one of the goals of the disease management approach.

The diabetic population uses the emergency room with high frequency. While the overall rates are high, there is evidence of some decline over the three years of the study. Overall, there were fewer ED visits for CCNC diabetics than for Access only diabetics. Rates are significantly lower when just examining ED visits for the diagnoses of diabetes. These rates were almost half in 2002 what they were in 2000. Fewer ER visits with the primary diagnosis of diabetes indicates that this population has co-morbidities that may be exacerbated by diabetes. The rate of prescription drug use for the diabetic population has increased over the three years for both Access only and CCNC patients, even though each year the rate is lower for CCNC diabetics by about nine percent.



## Conclusion

The Sheps study concludes that the CCNC program has helped reduce overall health care expenditures for individuals with asthma and diabetes, with greater savings for the treatment of individuals diagnosed with asthma than among those with diabetes. Much of the projected savings for people with asthma is due to a reduction in hospital use among enrollees, suggesting that CCNC does a better job helping individuals with chronic illness manage their health care problems. The Medicaid program may have saved approximately \$3.3 million in the three year time period for CCNC enrollees with asthma over what the state would have spent if these individuals were enrolled only in Access. The projected savings for diabetes care for the three year period totals nearly \$2.1 million. The CCNC program appears to have had more impact at reducing costs among older groups than among younger populations. The authors projected a potential savings of an additional \$5.9 million in 2002 if all the Access enrollees had been enrolled in CCNC.<sup>32</sup>

The authors conclude that it may take several years for CCNC to see a real improvement in health status with the related reduction in health care costs. The state may be able to achieve additional cost savings as the program is rolled out across the state and an older population is enrolled. The authors observe that the greatest potential for future cost savings lies in reducing practice variations among network sites toward the patterns of the more effective practices. For example, the average PMPM costs of treating children with asthma varied from a low of \$153 in Wilson County to a high of \$403 in Buncombe County, with a statewide average of \$286.

## Discussion and Further Study

Future savings may be difficult to achieve and sustain. Practice patterns of decision making are not easily changed. The success of the CCNC program is largely dependent on the cooperation of primary care providers willing to follow prescribed practice guidelines and disease management initiatives. The CCNC program has primarily operated in communities where the providers voluntarily chose to participate. These providers have expressed a willingness to follow new treatment guidelines, to work closely with case management staff, and to have their caseloads closely monitored to determine if they are adhering to practice guidelines, and therefore are more likely to "buy in" to the program.

The Sheps Center evaluation focused primarily on the effects of disease management and adherence to practice guidelines on asthma and diabetes. It would be a serious mistake to assume that the positive outcomes and savings are attributed solely to adherence to these criteria. There is no independent evaluation of the effect of the case management services independent of disease management. Disease management is an integral part but only one of the critical components of the CCNC program. The case managers intervene in issues of transportation to get to an appointment for the enrollee, eliminate barriers to services, assist in the coordination of care thereby potentially avoiding duplication and redundancy, provide education, provide information and feedback to the providers and coordinate with other health and social service agencies to arrange for meeting the human service needs of the enrollees. Also, the interagency coordination between the County social services department, health department and mental health services can not be quantified or adequately evaluated.

<sup>32</sup> Since the number of Medicaid beneficiaries was low during the period of these studies and is now substantially larger, there are plans to replicate the study.



The clinical directors of the networks universally indicated that the case managers are a critical component of the overall success of the program and stated that the providers have found their services to be invaluable in meeting the myriad of education, health and social service needs of their patients.

Since initiating the asthma and diabetes disease management initiatives, an independent chart audit demonstrated a 21 percent increase in the number of patients with asthma who have been staged and a 112 percent increase in the number of asthma patients receiving flu vaccines. Early results from the diabetes initiative demonstrate improvement in process measures and implementation of evidence-based best practice guidelines. Randomized chart audits demonstrated a 7 percent increase in referrals for dilated eye exams and a 23 percent increase in foot exams being performed on a bi-annual basis.



## **Appendix B: Persons Interviewed for the Case Study**

Allen Dobson, MD, Assistant Secretary for Health Policy and Medical Assistance, North Carolina  
Department of Health and Human Services, Raleigh

Jeffrey Simms, MPH, Assistant Director, North Carolina Division of Medical Assistance, Raleigh

Denise Levis, BSN, MSPH, Director of Quality Improvement/Senior Consultant, CCNC Program,  
Raleigh

Torlen Wade, MPH, Director, North Carolina Office of Research, Demonstrations and Rural Health  
Development and Community Care of North Carolina, Raleigh

Rob Sullivan, MD, Medical Director, Community Care of North Carolina, Raleigh

Steve Crane MD, Vice Chair, Access II Care of Western North Carolina and Residency Program  
Director, Hendersonville Family Practice Residency Program, Hendersonville

Susan Mims, MD, Chair, Access II Care of Western North Carolina and Medical Director, Buncombe  
County Health Center, Asheville

Jennifer Wehe, Interim Executive Director, Access II Care of Western North Carolina, Asheville

Claudette Johnson, RN, Executive Director, Partnership for Health Management, Greensboro

Marian Earls, MD, Medical Director, Guilford Child Health, Greensboro

Steve Wegner, MD, JD, President and Medical Director, AccessCare Inc., Morrisville

John Bristol, MBA, Vice President of Operations, AccessCare, Inc., Morrisville

Chuck Wilson, MD, Medical Director, Community Care Plan of Eastern Carolina, Greenville

Michelle Brooks, RN, Executive Director, Community Care Plan of Eastern Carolina, Greenville

Sue Makey, Executive Vice President, North Carolina Academy of Family Physicians, Raleigh

Peyton Maynard, Legislative Consultant, North Carolina Academy of Family Physicians, Raleigh

Sonya Bruton, MS, Executive Director, North Carolina Community Health Center Association,  
Morrisville

E. Benjamin Money, Jr. MPH, Associate Director, North Carolina Community Health Center  
Association, Morrisville

Anne Marie Lester, Healthy Communities Access Program Coordinator, Hendersonville

State Senator Bill Purcell, 25<sup>th</sup> District

Hugh Tilson, Jr. and Jeff Spaid, North Carolina Hospital Association, Raleigh

*With acknowledgement of the support and assistance provided by Rebecca Slivkin, PhD, the Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.*



# **Community Care of North Carolina:**

## **A Provider-Led Strategy for Delivering Cost-Effective Primary Care to Medicaid Beneficiaries**

June 2006

Stephen Wilhide & Tim Henderson  
*Consultants*



**Government Relations**

**American Academy of Family Physicians  
2021 Massachusetts Avenue, NW  
Washington, DC 20036**



# Community Care of the North Carolina: A Case Study

## **Background**

North Carolina's Medicaid program has a unique provider led managed care strategy. What begun in 1991 as Carolina Access, a primary care case management demonstration program initially operating in five counties, has developed into a "coordinated community management system" known as Community Care of North Carolina (CCNC), which manages nearly three-fourths of the state's entire Medicaid population. Carolina Access "was developed to enhance recipient access to community-based primary care, to improve the coordination of care, and to reduce reliance on hospital emergency departments."<sup>1</sup>

North Carolina has a rich history of developing community-based health care systems. In 1973, the nation's first state office of rural health was established in North Carolina, known today as the Office of Research, Demonstrations and Rural Health Development (ORDRHD). Jim Bernstein, the founding director of the Office, summed up the core belief guiding the Office since its inception as, "if improvement in [health] care or service is the goal, then those who are responsible for making it happen must have ownership of the improvement process." This core belief is put into practice through a state/local partnership approach and a focus on community investment as the cornerstone of all project and improvement strategies.

Five key principles, which continue to shape the Office's partnership initiatives, have significantly influenced the development of primary care networks, Carolina Access, and CCNC:

- Ownership is vested with community participants;
- Roles and responsibilities of participants (both community and government) are clearly defined;
- In-depth technical assistance is provided by the state on a continuous basis;
- Accountability is clear and measured; and
- Meeting patient and community needs remains the focus of all activities.<sup>2</sup>

To address rising Medicaid costs and state budget shortfalls in the 1990s, North Carolina, like most states, instituted a managed care option. The state tested a traditional capitation payment model in its most populous urban county involving the operation of commercial managed care organizations (MCOs). At the same time, ORDRHD—along with the North Carolina Academy of Family Physicians and the North Carolina Pediatric Society, with full support of the Secretary of the Department of Health and Human Services (a pediatrician)—decided to pilot an alternative to traditional Medicaid managed care—an expansion of the fee-for-service primary care case management model known as Carolina Access. By 1998, Carolina Access had grown to include nine networks and 20 primary care practices, prompting the state to mandate Medicaid recipients in those locations to choose an Access practice/primary care provider.<sup>3</sup> Carolina Access enrolled primary care physicians to serve as patients'

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<sup>1</sup> Community Care of North Carolina website: [www.communitycarenc.com](http://www.communitycarenc.com)

<sup>2</sup> Wade, Radford and Price, "Building Local and State Partnerships in North Carolina: Lessons Learned. North Carolina Medical Journal January/February 2006, Vol. 67, No.1.

<sup>3</sup> April 25<sup>th</sup> 2006 interview with Allen Dobson, MD, Assistant Secretary for Health Policy and Medical Assistance, North Carolina Department of Health and Human Services.



gatekeepers to more specialized—and expensive—services. In return, Medicaid agreed to pay participating physicians a modest care coordination fee in addition to the fee-for-service payment. In 1991, Carolina Access started in five counties, and by 1999 covered 99 of the state's 100 counties. These Medicaid managed care expansions were called Access II and Access III.<sup>4</sup> With the success of Carolina Access, most commercial MCOs have left the market, leaving the Access program as the sole Medicaid managed care strategy.<sup>5</sup>

While Carolina Access accomplished its original objective of providing Medicaid recipients with a medical home and primary care providers who effectively rendered care<sup>6</sup>, participating providers found they lacked the resources to effectively manage the care of an enrolled population. In 1998, the state decided to pilot a new initiative in the nine Access networks to develop health care systems able to support programs and infrastructures that manage the Medicaid population through “integrated community management.” ORDRHD, in concert with the pilot network sites, identified the core program components needed to manage the Medicaid population with the aim of improving quality and containing costs. These components included disease and care management, population management, utilization management and quality improvement initiatives (implementing evidence-based practice guidelines).<sup>7</sup>

Development of program parameters for the pilot networks occurred through a collaborative planning process involving state government and key health provider groups<sup>8</sup>, including the North Carolina Academy of Family Physicians, North Carolina Pediatric Society, North Carolina Medical Society and the North Carolina Hospital Association.<sup>9</sup> The development of these primary care case management networks became known as Community Care of North Carolina.

The role of the health provider associations was to convince Access physicians that the CCNC model:

- Was the most desirable Medicaid managed care option,

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<sup>4</sup> Certain Medicaid recipients, including families receiving cash assistance under the Temporary Aid to Needy Families (TANF) program, children, and people with disabilities who are not also receiving Medicare, are generally required to enroll in managed care. Pregnant women, dual eligibles (individuals covered by both Medicaid and Medicare), and foster children are enrolled on a voluntary basis. The medically needy, institutionalized individuals and immigrants are excluded from participation in Medicaid managed care. Enrollment by the Medicaid beneficiary into one of the managed care programs is more a function of the choice of primary care physician or practice than a conscious choice between managed care models.

<sup>5</sup> Mecklenburg County initiated a fully capitated managed care program in 1996 and by 2002 became the last of the 100 counties to start an Access program. The last MCO contract in the county was not renewed by the state in May 2006.

<sup>6</sup> Primary care is generally defined as the patient's primary medical home, and includes the practice of family medicine, pediatrics and general internal medicine provided in community settings such as private physician offices, community health centers and rural health clinics. Midlevel providers such as nurse practitioners and physician assistants are used more frequently to deliver primary care in the state's rural areas. A specialist or specialty practice may participate if they agree to the patient's medical home and see them for all their non-urgent and preventive needs. The Medicaid recipient normally chooses a practice, not a single physician, as their medical home.

<sup>7</sup> Ibid., CCNC website. Dr. Allen Dobson, a family physician from Cabarrus County, North Carolina who has since been appointed Assistant Secretary for Health Policy and Medical Assistance in North Carolina's Department of Health and Human Services, was the clinical director of one of the initial pilot networks. Dr. Dobson has continued to be a strong leader, spokesperson and advocate for the CCNC program.

<sup>8</sup> A memorandum of agreement between the state's Medicaid program and ORDRHD delegated development, implementation and administration of this collaborative planning process to ORDRHD. Small planning grants (\$20,000) were made available by the state to develop nine networks and their operations.

<sup>9</sup> While most of the state's hospitals enthusiastically support the local community care management concept because it lowers inappropriate emergency department use, improves quality management, and reinvests local cost savings in the local networks, a few hospitals remain skeptical of this physician control model and loss of market share (Interview with Hugh Tilson, Jr. and Jeffery Spaid, North Carolina Hospital Association, May 8, 2006.)



- Provided them an opportunity to plan services/programs in which they would participate, and
- Would give them the chance to implement services that would significantly improve care for their Medicaid patients.

Moreover, Access providers that participate in CCNC receive an additional case management fee to implement the new enrollee management initiatives in their networks. For physicians as a whole, the alternative was to serve under an outside Medicaid managed care organization over which they would have little or no control. Virtually all primary care Medicaid providers in the county agreed to participate in the local networks. Under CCNC, Medicaid enrollees choose the physician practice rather than the physician.

In 1998, each CCNC-funded network's designated clinical director began meeting together as a statewide board and, along with ORDHRD and the health provider associations, started to analyze how best to build an optimum health care system for Medicaid recipients that could improve quality, access and contain costs. Four key concepts emerged to guide these developments:

- The importance of local control and physician leadership in building sustained community care systems;
- A primary focus on improving quality of care through population management;
- The necessity of creating a public/private partnership that would bring together all the key local healthcare and social service providers, or face control by an outside entity; and
- A shared state/local responsibility to develop the tools needed to manage the Medicaid population, including a system of new incentives that better align state and community goals with desired outcomes.

CCNC was designed to support the development of community care systems that have the ability to develop programs and infrastructures to manage health care needs of the Medicaid population and to improve the quality of their care through integrated community management. Primary care providers (PCPs) are given the opportunity through local networks to work together with other community providers and network case managers to develop the tools, information and support needed to coordinate prevention, treatment, referral and institutional services for Medicaid beneficiaries.

Provider associations were also charged with convincing the state legislature to support this type of Medicaid managed care program. Initially, the appeal to the legislature of the commercial managed care approach was quick savings and no budget risk ("predictable cost"). Cost savings to the state under the community care management approach were shown not to be immediate, but would accrue as the program is implemented. The legislature became largely supportive of the CCNC approach, allowing the state to pilot the alternative models in the rural and urban areas where commercial managed care had no market presence or interest.<sup>10</sup>

Moreover, as savings were realized, the legislature approved statewide expansion of the CCNC program in 2002, and directed the Division of Medical Assistance (DMA) to monitor cost savings and quality indicators for the Medicaid population enrolled in CCNC. Accordingly, the state initiated two

<sup>10</sup> The success of previous community-based primary care programs developed by ORDHRD as well as the recent reports of significant Medicaid cost savings were key factors behind the initial and ongoing support granted by the legislature (May 11<sup>th</sup> 2006 phone interview with state Senator Bill Purcell, Chair of the Health and Human Services Committee).



assessments of the program. The first focused on overall CCNC program costs to DMA, and the other was to focus on the effects of specific disease management efforts within CCNC.<sup>11</sup>

## Community Care of North Carolina Today

In 2006, Community Care of North Carolina (CCNC) consists of 15 local networks across the state, including more than 3,000 physicians practicing in collaboration with local health departments, hospitals, social service agencies, and other community providers, that manage the care of over 681,000 Medicaid enrollees—about 74 percent of all eligible Medicaid beneficiaries in the state.<sup>12</sup>

CCNC is a state/local partnership that develops networks of local essential health providers and strengthens the community health care delivery infrastructure. Two state agencies—the Division of Medical Assistance (Medicaid) and the Office of Research, Demonstrations and Rural Health Development—agree to jointly administer and supervise the local networks. The state provides funding, information and technical support to help the networks effectively deliver and manage care to Medicaid enrollees, while encouraging the networks to ‘localize their strategies.’

CCNC achieves its objectives by anchoring its work to a handful of key philosophies that involve:

- Working directly with community providers who have traditionally cared for North Carolina’s low income residents;
- Building partnerships where community providers cooperatively plan to meet patients needs and where existing resources can be used most efficiently;
- Conveying responsibility for managing care of a specific Medicaid population to an independent network;
- Placing responsibility for performance (and improvement) in the hands of those who actually deliver the care;
- Ensuring that all funds are kept local and go to providing care; and
- Putting in place independent local networks that can manage all Medicaid patients and services, and can address larger community health issues.

Community Care of North Carolina incorporates many of the principles for reform of the U.S. healthcare system recommended in the 2001 Institute of Medicine report, Crossing the Quality Chasm. Network services are designed to meet the most common needs of their patients and provide information and education to enable the Medicaid beneficiary to make informed decisions. Care is based upon evidence-based best practice guidelines, and resources are used efficiently and in appropriate settings. Collaboration and coordination among clinicians is promoted and assured and duplication is minimized.

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<sup>11</sup> The first study by the Mercer Consulting Group focused on overall cost and utilization of the CCNC program compared to an anticipated cost without managed care (CCNC website: [www.communitycarenc.com](http://www.communitycarenc.com) ). The second study by the Sheps Center of the University of North Carolina assessed utilization and cost savings in CCNC in comparison with similar enrollees in the Access program. The assessment focused on expenditures and utilization of services for Medicaid beneficiaries with asthma and diabetes (Thomas Ricketts, Sandra Greene, Pam Silberman, Hilda A. Howard,, Stephanie Poley, Evaluation of Community Care of North Carolina Asthma and Diabetes Management Initiatives: January 2000-December 2002. North Carolina Rural Health Research and Policy Analysis Program, The Cecil G. Sheps Center for Health Services Research, The University of North Carolina at Chapel Hill, April 15, 2004, p. 3.) See Appendix A for more information on these studies.

<sup>12</sup> Ibid, CCNC website. Because patient enrollment in Carolina Access is mandatory and since the state has almost all the Access practices (minus 5 counties) participating in CCNC, nearly 700,000 of the 730,000 eligible Medicaid recipients are served by CCNC.



## Local Networks

Local networks take responsibility for managing the care of an enrolled population. The networks plan programs to provide preventive services and develop processes by which at-risk patients can be identified and their care managed before high cost interventions are necessary. By employing tools such as risk stratification, disease and case management, the networks establish the care management processes and support mechanisms needed to improve enrollee care and achieve program objectives.<sup>13</sup>

All local CCNC networks are 501 C(3) non-profit organizations which, at a minimum, include area primary care providers (PCPs), a hospital, the county Department of Social Services (Medicaid) office, and county health department. Each network receives a \$2.50 per member per month (PMPM) Medicaid enhanced care management fee, which is used to hire local case managers or otherwise pay for the resources necessary to manage enrollees.<sup>14</sup> Using information gathered both locally and through Medicaid's claims system, the networks assess the needs and severity of their Medicaid enrollees to target care and disease management initiatives toward those enrollees at greatest risk. Networks then develop care management initiatives needed to improve patient care outcomes.<sup>15</sup>

Each network is responsible for population management which involves identifying individuals with certain high-cost or complex health conditions in need of case management, assisting PCPs with disease management education, helping patients coordinate care, and collecting and reporting program and patient data to the CCNC statewide office.

## Clinical Directors and Quality Improvement

Each network elects a physician to serve as their medical director who participates on a statewide board of clinical directors responsible for steering disease and case management initiatives of the CCNC program. The clinical directors group identifies the quality improvement, cost containment and care management initiatives to be undertaken by their networks, and establishes the processes and strategies to accomplish program goals, including measures to assess the initiatives' impact on quality and outcomes.<sup>16</sup>

Some disease management initiatives such as diabetes, asthma and congestive heart failure care management are implemented statewide, while others are tested or operate in individual networks and later may be implemented more widely. Asthma and diabetes were chosen as two of the first statewide disease management initiatives because they met the guidelines established by the clinical directors. Guidelines for disease management are selected in consultation with 'field experts', and are based on

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<sup>13</sup> Each network determines its own drug formulary. Several networks have begun a "standing orders" initiative with local pharmacies where they ask them to always give the most cost effective drug. It is not yet known the impact of this effort on costs. Many practices also voluntarily use CCNC's 'list' which gives physicians the cost of drugs in tiers. North Carolina Medicaid currently does not provide a drug formulary.

<sup>14</sup> Each network determines its budget based on the PMPM fee. Based on the expected revenue from their enrollment, they must submit a budget to CCNC for approval a year in advance. Then, they submit a 6 month report with expenditures to date and a year end report. The state reviews each network's budget to see that the bulk of funds go to enhancing case and disease management activities for the enrollees to justify those expenditures in case of a state or federal audit. CCNC has informally discussed the possibility of altering (reducing) the PMPM fee for the larger, more mature networks that receive some 'economies of scale' due to their size and experience.

<sup>15</sup> Ibid, CCNC website.

<sup>16</sup> Most network medical directors are compensated for their work. A couple of networks are moving towards hiring their medical director as a .5 or .75 FTE. Other networks pay the physicians separately for their time when working on CCNC activities.



existing, disease-specific, evidence-based models of care management. The disease management process involves continuous coordination between PCPs and the CCNC network care coordinators.

Physician leaders from participating networks routinely come together to design, develop and implement statewide clinical improvement initiatives in several areas, including:

- Asthma and diabetes management programs;
- Congestive heart failure
- Pharmacy initiatives addressing cost and utilization;
- Emergency department utilization; and
- Managing those enrollees and services at highest risk and cost.<sup>17</sup>

Many communities use the relationships and infrastructures developed through the networks to address the needs and problems of other populations such as the uninsured, indigent populations or nursing home residents. A number of pilot initiatives are being pursued that focus on therapy services, low birth weight, health disparities, mental health integration, in-home care and sickle cell anemia.<sup>18</sup>

#### Other Network Staff

The success of CCNC depends on its ability to have local networks implement system changes needed at the physician practice level, which enables targeted care and disease management initiatives to occur. Other network staff needed to accomplish this objective include:

- Network coordinator/director
- Case managers
- Quality improvement champions
- Information and administrative support staff

Network coordinators oversee the daily operation of the clinical care coordination team (case managers and clerical support) for each network. They assist in the planning, implementation and assessment of new initiatives by establishing collaborative relationships with physicians and community partners to ensure that patients are cared for in the most appropriate setting. The coordinator is accountable to achieve effective and measurable clinical, financial and functional outcomes.

The networks follow a rapid cycle quality improvement model which stresses setting aims, establishing measures and making system changes that remove barriers to excellent care. The quality improvement model is being implemented in each network through both the clinical directors and local medical management committee meetings. Focus is on implementing evidence-based practices in medicine at each individual practice where quality improvement (QI) champions are identified. This clinician attends the network's medical management meetings and represents the providers in the practice. QI experts focus on implementing processes that will improve care of the Medicaid population within their practice. Importantly, each participating practice also has access to dedicated case managers that will assist them in managing Medicaid enrollees.<sup>19</sup> The role of case managers is discussed below.

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<sup>17</sup> CCNC-U.S. Centers for Medicare and Medicaid Services Partnership Proposal, December 1, 2005.

<sup>18</sup> The Commonwealth Fund. Improving Access to Primary Care: Community Care of North Carolina, 2006.

<sup>19</sup> Ibid., Ricketts et al, 2004. p 6-7.



## Participating Primary Care Providers

Primary care providers are expected to participate in various network functions, including:

- Following recommended practice guidelines to assess patients and develop treatment plans,
- Helping educate patients to manage their own care and use appropriate medical equipment,
- Provide clinical information for network and CCNC management systems,
- Provide '24/7' coverage under program rules, and
- Carry minimum liability insurance.

PCPs enrolled in CCNC receive an enhanced case management fee from Medicaid of \$2.50 PMPM. The goal of the program and the purpose of the enhanced management fees are to develop local disease management and care coordination systems that reduce Medicaid expenditures by encouraging efficient and appropriate health care utilization and improve health outcomes through the quality improvement initiatives.<sup>20</sup>

### Case Management

Case management plays a central role in CCNC network operations. Participating networks receive a case management fee of \$2.50 PMPM, and use these funds to hire case managers to work with physician practices and provide the resources and support needed for physician practices to better manage the care of enrollees. Case managers are primarily responsible for:

- Helping identify patients with high risk conditions or needs,
- Assisting PCPs in disease management education and/or follow-up,
- Helping patients coordinate their care or access needed services, and
- Collecting data on process and outcomes measures.

Case managers may be social workers, nurses or other clinicians. Some networks contract for the services of case managers from local health departments and community health centers.<sup>21</sup> They assume different responsibilities depending on local community and provider needs, but always have an integral part in managing the Medicaid population. They may serve as a patient advocate, and intervene with other community based health and social service organizations to assure the patient receives all necessary and coordinated services for optimal health outcomes. Examples of such services include mental health and addiction treatment, housing, transportation, dental care, education, emergency food and nutrition services.<sup>22</sup>

Several Access networks have developed information systems to support documentation of case management interventions. One network, AccessCare, instituted a web-based case management system whose development and operation was funded by a Medicaid \$2.50 PMPM fee paid to the network and a small foundation grant. AccessCare case managers, in collaboration with case managers of the other networks, designed the case management system in conjunction with an outside software program development firm.

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<sup>20</sup> Ibid., CCNC-CMS proposal.

<sup>21</sup> Ibid., CCNC website.

<sup>22</sup> Interviews with CCNC network directors, April 24-27 2006.



The AccessCare case management system eventually became the statewide model for networks after it was ceded to ORDRHD in 2004 for continued operation and maintenance.<sup>23</sup> A statewide case identification data base was developed to assist case managers in identifying individuals who might benefit from their services. The data base contains claims information on a network's enrollees, such as diagnosis, cost, procedure/drug information, and quarterly utilization.

Each case, once identified, is intended to have a clear illustration of problems, interventions, goals and cost savings which are recorded in the CCNC Care Management Information System (CMIS) or a similar database. CCNC staff retrieves all medical and utilization outcomes data for that individual from CMIS and the Medicaid claims database. Data are then analyzed for meaningful trends in quality and cost of care. Case managers look for implementation of best practice guidelines, achievement of clinical outcomes (such as reduction in HbA1c in patients with diabetes), and changes in utilization patterns (such as a reduction in number of visits to the hospital emergency room).<sup>24</sup>

### **Demonstrated Cost Savings**

There have been two major evaluations of the CCNC and Carolina Access programs that reveal considerable cost savings and quality improvement. A study performed by Mercer Government Human Services Consulting found the Carolina Access program, when compared to historical fee-for-service program benchmarks, saved the state \$195 to \$215 million in 2003 and between \$230 and \$260 million in 2004. In comparison to what the Carolina Access program would have cost with any concerted effort to control costs, Mercer also found the program saved between \$50 and \$70 million in 2003 and between \$118 and \$130 million in 2004.<sup>25</sup>

Moreover, an evaluation of CCNC disease management initiatives performed by the University of North Carolina found the costs to CCNC of caring for Medicaid patients with asthma and diabetes to be much less than for those Medicaid patients served in the Access program, resulting in estimated savings in 2002 of over \$1.5 million for asthma patients (especially individuals 45 years of age and older) and \$306,000 for patients with diabetes associated with significant changes in utilization and other practice measures (i.e., reduction in hospital emergency room visits). Over three years (2000-2002), the study concluded the state would have saved about \$3.3 million for CCNC enrollees with asthma and approximately \$2.1 million for CCNC patients needing diabetes care. *Summaries of these evaluations are found in Appendix A of this report.*

### **Future Program Enhancements and Expansions**

In 2006-2007, CCNC plans to implement additional programs and services, including:

*Chronic disease management.* A plan to manage enrollees with congestive heart failure and chronic pulmonary disease is being driven in part by a 2005 directive from the state legislature to the North Carolina Department of Health and Human Services "to expand the scope of Community Care of

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<sup>23</sup> Interview with John J. Bristol, Vice President for Finance and Operations, AccessCare, Inc., April 25, 2006.

<sup>24</sup> Ibid., CCNC website.

<sup>25</sup> These estimated savings take into account the additional expenditure of the \$2.50 PMPM fee.



North Carolina care management model to recipients of Medicaid and dually eligible individuals with a chronic condition and long-term care needs...”.<sup>26</sup>

*Behavioral health management.* In response to a growing presence in several CCNC primary care practices of Medicaid enrollees with both behavioral and physical health care needs, four networks in 2005 began piloting a collaborative care management approach for these patients. This mental health integration pilot is a state-level collaboration between the Division of Mental Health; the Division of Medical Assistance, The Office of Research, Demonstrations and Rural Health Development (CCNC Program Office) and the North Carolina Foundation for Advanced Health Programs. Strategies and plan design models developed and implemented in these pilots will support the replication and expansion efforts in other networks and communities.<sup>27</sup>

*Electronic health records.* Local networks cite the need for an electronic health record to enable them to provide more timely and coordinated care with improved quality and adherence to practice guidelines. While it is widely recognized that such technology can greatly improve overall patient care and reduce unnecessary duplication of services, such a system is costly and will involve a major financial commitment from CCNC and the networks. It is hoped that future cost savings will be invested in the development and operation of an electronic health record system.

## Conclusion

The following elements have been critical to the success of Carolina Access and Community Care of North Carolina:

- *A statewide visionary leader(s) who can articulate a redesign of the health care system that incorporates innovations in clinical care and public health to lower costs and improve quality, access and health outcomes for Medicaid beneficiaries.*
- *Local and statewide physician leadership and support.*
- *Recognition that the best source for enabling long-term reform and sustainability must be local.*
- *Financial and technical support from state government and private sources.*

The CCNC program demonstrates that when physicians formally share responsibility for a patient population—with the assistance of case managers and cooperation of staff and patients—positive behavior change will occur. CCNC physicians interviewed for this study felt their Medicaid patients received overall better care and in more appropriate settings, and that caring for Medicaid patients was more desirable, particularly because of the:

- Added services of case managers;
- Added PMPM care management fee and enhanced Medicaid fee-for-service payment (95% of the Medicare fee schedule); and
- Opportunity to participate in the development and application of evidence-based clinical guidelines.

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<sup>26</sup> Ibid.

<sup>27</sup> “Piloting Mental Health Integration in the Community Care of North Carolina Program.” North Carolina Medical Journal, January/February 2006, Vol. 67, No. 1.



Family medicine is in a unique position to improve the quality and lower the cost of care delivered to Medicaid patients by advocating that states re-design their Medicaid care management programs based on this proven CCNC model. There is sufficient evidence now to demonstrate that by developing local care networks with strong physician leadership, applying evidence-based practice guidelines, integrating the concepts of case management and care management, and paying additional fees will result in improved care, reduced costs and increased access for Medicaid patients. States continue to struggle to find ways to improve their Medicaid programs, and state legislatures are demanding greater accountability and a reduction in spending for high cost programs such as Medicaid. Family physicians must provide the guidance and leadership to states to design successful programs to accomplish these goals.



## Appendix A: Program Evaluations

### Evaluation of Program Cost Savings

The North Carolina Division of Medical Assistance contracted with Mercer Government Human Services Consulting to evaluate cost savings in the Carolina Access program for specified services provided to Medicaid patients for state fiscal years 2003 and 2004.<sup>28</sup> Statewide Medicaid claims experience and eligibility data for dates of service in state fiscal years 2000, 2001 and 2002 were used as a program benchmark against which to compare costs and savings, and included all categories of service.

The Mercer Consulting evaluation found considerable Medicaid cost savings in 2003 and 2004 attributable to the Carolina Access program. When compared to statewide historical fee-for-service benchmarks, the study found Carolina Access saved the state between \$195 and \$215 million in 2003, and between \$230 and 260 million in 2004. In comparison to what the Carolina Access program would have cost with any concerted effort to control costs, Mercer also found the program saved between \$50 and \$70 million in 2003 and between \$118 and \$130 million in 2004.

Inpatient services continue to cost significantly less under the Access program (when compared to fee-for-service), and emerging cost savings are indicated for outpatient services as well.

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<sup>28</sup> "Access Cost Savings-State Fiscal Year 2003 Analysis", Letter to Jeffrey Simms from Mercer Government Human Services Consulting, June 25, 2004. "Access Cost Savings-State Fiscal Year 2004 Analysis", Letter to Jeffrey Simms from Mercer Government Human Services Consulting, March 24, 2005.



## Disease Management Study

The state also contracted with the Sheps Center for Health Service Research of the University of North Carolina<sup>29</sup> to assess the effectiveness of North Carolina's Medicaid disease management programs. Understanding the effects of a primary care case management and disease management initiative in a statewide Medicaid program is challenging for several reasons.<sup>30</sup> Using Medicaid claims and enrollment data, the Sheps study compared the costs and utilization of Medicaid beneficiaries diagnosed with asthma or diabetes who were enrolled in Carolina Access and participated in CCNC (CCNC participation) versus those enrolled in Carolina Access without CCNC participation (Access only).

### Asthma Costs

In 2002, the average per member per month (PMPM) costs for people with asthma in 'Access only' was \$534 compared to \$378 for CCNC-participating Access patients. These estimates include all Medicaid costs, including the physician case management fee and the additional CCNC network fee. The data were further adjusted to reflect the age-cohort differences in savings.<sup>31</sup> The greatest cost savings for CCNC participants were concentrated among individuals 45 years of age and older. 'CCNC care' was more expensive than 'Access only' care for 6-20 year olds (7.1%) and slightly greater for 21-44 year olds (.7%). These two more costly groups comprised 62 percent of the enrolled populations of CCNC. Assuming a constant population for all 12 months, the estimated annual cost savings in 2002 for CCNC was \$1,580,040.

### Asthma Utilization

One of the goals of the CCNC program is to better coordinate care to allow disease and its consequences to be prevented or its effects diminished. One indicator of use which has high costs is hospitalization. Medicaid asthma-related hospitalizations on a per-enrollee basis in North Carolina have been historically higher than in the non-Medicaid population. During the three-year study period (state fiscal years 2000-2002), the asthma hospitalization rate among Medicaid enrollees was at least twice that of the non-Medicaid population (except for 2001). Hospitalization rates decreased by 10 percent for all Medicaid patients, but just three percent for the non-Medicaid population.

<sup>29</sup> Ibid., Ricketts et al.

<sup>30</sup> As the Access program was piloted and later implemented more widely, there is little opportunity to identify clear starting and ending points and to isolate specific program effects. Medicaid patients may switch between Medicaid managed care programs while under care for the same episode of disease or even lose Medicaid coverage entirely. Likewise, the training of care managers and practitioners can only be accomplished incrementally. It is widely accepted that disease management programs do not produce immediate improvements in costs and utilization; in fact, better adherence to drug therapies, which lead to long-term decreases in utilization, can actually lead to short-term increases in costs. Further, the research design must carefully select the measurements on which performance comparisons will be made. The primary foci of Medicaid disease management program evaluations are costs and quality. A wide range of indicators may be used to measure quality, including such process measures as number of health education sessions, essential (disease-specific) screenings and provider adherence to clinical practice guidelines. Outcome measures may include improved clinical indicators (e.g. weight, HbA1c levels) or decreased utilization of inpatient or emergency department services). The decision of which measures to include is important to evaluate the state's initiative and each requires different considerations of the methodological issues used.

<sup>31</sup> CCNC had a younger enrolled population than Access. A concerted effort was made to enroll pediatric Medicaid providers in the CCNC networks. Eighty-three percent of the CCNC enrollees are under 21 years of age, compared to only 57 percent of the Access enrollees. The cost data were adjusted by the researchers to reflect the differences in age distribution across the two programs.



In 2000, there were 23 percent fewer hospitalizations per 1,000 CCNC enrollees under age 21 than for Access only enrollees. These differences between CCNC and Access only enrollees widened in 2001 and 2002.

A closely related measure of utilization is the intensity of the hospitalizations that do occur, commonly measured as inpatient days, or days spent in the hospital per 1,000 enrollees. Again, the average number of inpatient days per 1,000 asthmatic enrollees was consistently lower for CCNC participants than Access only participants. Overall, inpatient days per 1,000 declined 28 percent for people with asthma enrolled in Access only, and 30 percent for CCNC enrollees. The greatest improvements over the period were observed in the under age 21 cohort. The trends for asthma-related inpatient days are similar to those observed in admissions. Overall, asthma-related admissions per 1,000 declined 48 percent in Access only and 54 percent in CCNC over the three year period. The decline in utilization by asthmatics of the hospital emergency department (ED) was most significant. Overall, the use of the ED declined most substantially for asthma-related conditions in both CCNC and Access only, and the decline was slightly greater among Access only enrollees.

Another measure of utilization that reflects changes in need and/or the effects of preventive services are the use of prescription drugs. Higher costs for prescription drugs may reflect appropriate long-term and measurable cost-savings if subsequent episodes of illness are prevented. The number of prescriptions per enrollee with a diagnosis of asthma has decreased over time for both Access only and CCNC enrollees.

#### Diabetes Costs

With all age cohorts combined, the average PMPM cost for diabetes in 2002 was \$880 for Access only patients and \$859 for CCNC patients. Based on this difference, the overall savings to CCNC was estimated to be \$306,432 annually or \$2,083,824 over the three years of the study.

#### Diabetes Utilization

When all hospital admissions for diabetics are counted regardless of the discharge diagnosis, the rate for Access only diabetics ranged from 337 to 352 days, while the rate for CCNC ranged from 288 to 318 days. In all three years, the rate of hospitalization was lower in CCNC, which is one of the goals of the disease management approach.

The diabetic population uses the emergency room with high frequency. While the overall rates are high, there is evidence of some decline over the three years of the study. Overall, there were fewer ED visits for CCNC diabetics than for Access only diabetics. Rates are significantly lower when just examining ED visits for the diagnoses of diabetes. These rates were almost half in 2002 what they were in 2000. Fewer ER visits with the primary diagnosis of diabetes indicates that this population has co-morbidities that may be exacerbated by diabetes. The rate of prescription drug use for the diabetic population has increased over the three years for both Access only and CCNC patients, even though each year the rate is lower for CCNC diabetics by about nine percent.



## Conclusion

The Sheps study concludes that the CCNC program has helped reduce overall health care expenditures for individuals with asthma and diabetes, with greater savings for the treatment of individuals diagnosed with asthma than among those with diabetes. Much of the projected savings for people with asthma is due to a reduction in hospital use among enrollees, suggesting that CCNC does a better job helping individuals with chronic illness manage their health care problems. The Medicaid program may have saved approximately \$3.3 million in the three year time period for CCNC enrollees with asthma over what the state would have spent if these individuals were enrolled only in Access. The projected savings for diabetes care for the three year period totals nearly \$2.1 million. The CCNC program appears to have had more impact at reducing costs among older groups than among younger populations. The authors projected a potential savings of an additional \$5.9 million in 2002 if all the Access enrollees had been enrolled in CCNC.<sup>32</sup>

The authors conclude that it may take several years for CCNC to see a real improvement in health status with the related reduction in health care costs. The state may be able to achieve additional cost savings as the program is rolled out across the state and an older population is enrolled. The authors observe that the greatest potential for future cost savings lies in reducing practice variations among network sites toward the patterns of the more effective practices. For example, the average PMPM costs of treating children with asthma varied from a low of \$153 in Wilson County to a high of \$403 in Buncombe County, with a statewide average of \$286.

## Discussion and Further Study

Future savings may be difficult to achieve and sustain. Practice patterns of decision making are not easily changed. The success of the CCNC program is largely dependent on the cooperation of primary care providers willing to follow prescribed practice guidelines and disease management initiatives. The CCNC program has primarily operated in communities where the providers voluntarily chose to participate. These providers have expressed a willingness to follow new treatment guidelines, to work closely with case management staff, and to have their caseloads closely monitored to determine if they are adhering to practice guidelines, and therefore are more likely to "buy in" to the program.

The Sheps Center evaluation focused primarily on the effects of disease management and adherence to practice guidelines on asthma and diabetes. It would be a serious mistake to assume that the positive outcomes and savings are attributed solely to adherence to these criteria. There is no independent evaluation of the effect of the case management services independent of disease management. Disease management is an integral part but only one of the critical components of the CCNC program. The case managers intervene in issues of transportation to get to an appointment for the enrollee, eliminate barriers to services, assist in the coordination of care thereby potentially avoiding duplication and redundancy, provide education, provide information and feedback to the providers and coordinate with other health and social service agencies to arrange for meeting the human service needs of the enrollees. Also, the interagency coordination between the County social services department, health department and mental health services can not be quantified or adequately evaluated.

<sup>32</sup> Since the number of Medicaid beneficiaries was low during the period of these studies and is now substantially larger, there are plans to replicate the study.



The clinical directors of the networks universally indicated that the case managers are a critical component of the overall success of the program and stated that the providers have found their services to be invaluable in meeting the myriad of education, health and social service needs of their patients.

Since initiating the asthma and diabetes disease management initiatives, an independent chart audit demonstrated a 21 percent increase in the number of patients with asthma who have been staged and a 112 percent increase in the number of asthma patients receiving flu vaccines. Early results from the diabetes initiative demonstrate improvement in process measures and implementation of evidence-based best practice guidelines. Randomized chart audits demonstrated a 7 percent increase in referrals for dilated eye exams and a 23 percent increase in foot exams being performed on a bi-annual basis.



## Appendix B: Persons Interviewed for the Case Study

Allen Dobson, MD, Assistant Secretary for Health Policy and Medical Assistance, North Carolina  
Department of Health and Human Services, Raleigh

Jeffrey Simms, MPH, Assistant Director, North Carolina Division of Medical Assistance, Raleigh

Denise Levis, BSN, MSPH, Director of Quality Improvement/Senior Consultant, CCNC Program,  
Raleigh

Torlen Wade, MPH, Director, North Carolina Office of Research, Demonstrations and Rural Health  
Development and Community Care of North Carolina, Raleigh

Rob Sullivan, MD, Medical Director, Community Care of North Carolina, Raleigh

Steve Crane MD, Vice Chair, Access II Care of Western North Carolina and Residency Program  
Director, Hendersonville Family Practice Residency Program, Hendersonville

Susan Mims, MD, Chair, Access II Care of Western North Carolina and Medical Director, Buncombe  
County Health Center, Asheville

Jennifer Wehe, Interim Executive Director, Access II Care of Western North Carolina, Asheville

Claudette Johnson, RN, Executive Director, Partnership for Health Management, Greensboro

Marian Earls, MD, Medical Director, Guilford Child Health, Greensboro

Steve Wegner, MD, JD, President and Medical Director, AccessCare Inc., Morrisville

John Bristol, MBA, Vice President of Operations, AccessCare, Inc., Morrisville

Chuck Wilson, MD, Medical Director, Community Care Plan of Eastern Carolina, Greenville

Michelle Brooks, RN, Executive Director, Community Care Plan of Eastern Carolina, Greenville

Sue Makey, Executive Vice President, North Carolina Academy of Family Physicians, Raleigh

Peyton Maynard, Legislative Consultant, North Carolina Academy of Family Physicians, Raleigh

Sonya Bruton, MS, Executive Director, North Carolina Community Health Center Association,  
Morrisville

E. Benjamin Money, Jr. MPH, Associate Director, North Carolina Community Health Center  
Association, Morrisville

Anne Marie Lester, Healthy Communities Access Program Coordinator, Hendersonville

State Senator Bill Purcell, 25<sup>th</sup> District

Hugh Tilson, Jr. and Jeff Spaid, North Carolina Hospital Association, Raleigh

*With acknowledgement of the support and assistance provided by Rebecca Slivkin, PhD, the Cecil G. Sheps Center for Health Services Research, University of North Carolina at Chapel Hill.*

