

# medicaid and the uninsured

May 2009

## Community Care of North Carolina: Putting Health Reform Ideas into Practice in Medicaid

### SUMMARY

#### **Why is Community Care of North Carolina (CCNC) of Interest?**

As discussion around national health reform continues, state experiences can provide important lessons to help inform national reform efforts. Since 1998, North Carolina has been implementing an enhanced medical home model of care in its Medicaid program called Community Care of North Carolina (CCNC). CCNC puts many of the ideals that have been articulated for broad health reform into practice. Beyond linking individuals with a provider as a medical home, it incorporates a heavy emphasis on care coordination, disease and care management, and quality improvement. Evaluations of the program suggest it has resulted in both improved care and cost savings. As such, CCNC not only provides important lessons for broad reform efforts, but also demonstrates the Medicaid program's ability to incorporate quality improvement strategies that enhance its ability to provide coordinated, cost effective care to low-income individuals with significant health needs.

#### **What is CCNC?**

CCNC is an enhanced medical home model consisting of several key components:

- *Local non-profit community networks* that are comprised of physicians, hospitals, social service agencies, and county health departments provide and manage care.
- Within each network, each enrollee is linked to a primary care provider to serve as a *medical home* that provides acute and preventive care, manages chronic illnesses, coordinates specialty care, and provides 24/7 on-call assistance.
- *Case managers* are integral members of each network who work in concert with physicians to identify and manage care for high-cost, high-risk patients.
- The networks work with primary care providers and case managers to implement a wide array of *disease and care management* initiatives that include providing targeted education and care coordination, implementing best practice guidelines, and monitoring results.
- The program has built-in data monitoring and reporting to facilitate *continuous quality improvement* on a physician, network, and program-wide basis.

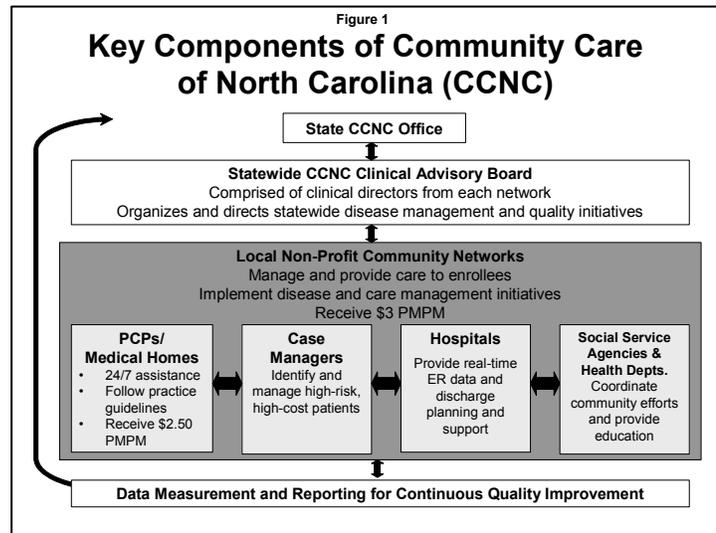
#### **How has CCNC Impacted Costs and Care?**

To date, the state contracted for two external evaluations of the CCNC program:

- Analysis by the Mercer consulting group found that in every year examined (FY2003-FY2006), CCNC achieved savings relative to what the state would have spent under its previous primary care case management (PCCM) program. Estimated savings for FY2006 were \$150-\$170 million.
- The University of North Carolina evaluation of asthma and diabetes patients in CCNC versus the state's PCCM program found the state achieved \$3.3 million in savings for people with asthma and \$2.1 million in savings for people with diabetes between 2000-2002. Further, asthma patients experienced improved care as evidenced by greater reductions in inpatient hospital admissions and emergency room visits. Diabetes patients had fewer hospitalizations and achieved high rates of performance measures, such as primary care visits, blood pressure readings, foot exams, and lipid and A1C tests.

## INTRODUCTION

In 1998, North Carolina began implementing its Community Care of North Carolina (CCNC) program for Medicaid enrollees. With a goal of improving quality while containing costs, under CCNC, the state adopted an enhanced medical home model of care in its Medicaid program that not only connects individuals with a primary care provider to serve as a medical home (and provides enhanced reimbursement to that provider for managing care) but also includes a heavy emphasis on care coordination, disease and care management, and quality improvement. The CCNC program is centered around local networks of community providers that are comprised of physicians, case managers, hospitals, social service agencies, and county health departments (Figure 1).



As debate around potential national health reform continues, it is important to consider North Carolina's experience with CCNC. CCNC has put many of the ideals articulated for broad health reform into practice, and findings suggest that the program has resulted in both improved care and cost savings. Further, the CCNC experience demonstrates the Medicaid program's ability to incorporate quality improvement strategies that enhance its ability to serve the low-income population. It also illustrates how Medicaid can serve as a leader in implementing quality improvement efforts. Several states are incorporating aspects of the medical home model into their Medicaid programs as a first step toward expanding the model more broadly.<sup>1</sup> Following is a summary of CCNC and its impacts on care and costs.

## BACKGROUND<sup>2</sup>

### ***The CCNC grew out of North Carolina's Primary Care Case Management Program (PCCM).***

In 1991, North Carolina transitioned its Medicaid program from a traditional fee-for-service model to a PCCM program, called Carolina Access, which focused on linking enrollees to a medical home. Primary care physicians enrolled in Carolina Access served as a medical home and gatekeeper to specialty services, and, in return, received a modest care coordination fee. In 1998, nine networks (in nine counties) began piloting the CCNC program with a primary focus on incorporating care management and quality improvement efforts into the program. These networks included some of the larger Carolina Access practices, which took the lead in developing the community partnerships and creating the non-profit networks that administer the

<sup>1</sup> Several states, including Iowa, Massachusetts, Minnesota, Washington, and West Virginia, are developing medical home models in Medicaid as a first step to adopting a multi-payer medical home system for all state residents.

<sup>2</sup> Background and program information drawn from CCNC website (<http://www.communitycarenc.com/>); Ricketts T.C., et al, "Evaluation of Community Care of North Carolina Asthma and Diabetes Management Initiatives: January 2000-December 2002," The Cecil G. Sheps Center for Health Services Research, Chapel Hill, NC, April 15, 2004, available at: <http://www.communitycarenc.com>; American Academy of Family Physicians, "Community Care of North Carolina: A Provider-led Strategy for Delivering Cost-Effective Primary Care to Medicaid Beneficiaries," June 2006; and communications with state experts.

CCNC. Designed in close connection with the state's provider groups, under CCNC, the networks developed into teams of community providers that provided broader resources and infrastructure to support providers' ability to manage enrollees' care. Over time, the initial nine networks expanded to include additional counties and new networks formed to expand the program statewide.

***CCNC was adopted as an alternative to capitated managed care that was embraced by physicians and was able to successfully operate in both urban and rural areas.*** The evolution to CCNC occurred at a time when many other states were transitioning their Medicaid programs to capitated arrangements with commercial managed care organizations. North Carolina was also testing a capitated arrangement in its most urban county. However, statewide, physicians viewed the CCNC model as a positive alternative to capitated managed care that allowed them to maintain more control and protect their reimbursement rates. Reflecting this viewpoint, virtually all primary care Medicaid providers agreed to participate in the CCNC networks as they formed.<sup>3</sup> As CCNC expanded, commercial managed care plans left the market, leaving CCNC as the sole managed care arrangement for North Carolina Medicaid enrollees. Commercial plans also likely found operating in the state difficult since the state is predominately rural and, therefore, lacks high patient population and provider density in many areas. CCNC provided a delivery system that could be effectively adopted in both urban and rural areas. While rural areas did face some challenges to coordinating patients' care because of fewer resources, key stakeholders viewed the model as particularly useful and effective for improving care management in rural areas, for example, by having case managers link patients to available services in the surrounding region and arrange transportation services.<sup>4</sup>

## PROGRAM OVERVIEW

***Under CCNC, Medicaid enrollees receive care through non-profit local community networks comprised of physicians, hospitals, social service agencies, and county health departments.*** Each network is responsible for managing its enrollees' care, including linking them to a medical home, providing disease and case management services, and implementing quality improvement initiatives. Because the networks are local, they are able to reflect local and regional needs and resources. The networks receive an enhanced care management fee of \$3 per member per month (or \$5 per member per month for elderly or disabled enrollees). Networks hire local case managers and each network also elects a physician to serve as a clinical director, who is responsible for working with a statewide board of directors to organize and direct disease and care management initiatives across the networks. As of May 2009, the CCNC was comprised of 14 networks that included more than 3,200 physicians and covered over 913,000 Medicaid enrollees, accounting for over 67% of the state's Medicaid population.<sup>5</sup>

***Within each network, each enrollee is linked to a primary care provider to serve as a medical home.*** As network providers, these physicians agree to meet certain requirements, including providing acute, chronic, and preventive care; offering 24/7 on-call assistance; following evidenced-based best practice guidelines; assisting in patient education; and sharing

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<sup>3</sup> American Academy of Family Physicians, op cit.

<sup>4</sup> Silberman, P.; Poley, S.; and R. Slifkin, "Innovative Primary Care Case Management Programs Operating in Rural Communities, Case Studies of Three States," Cecil G. Sheps Center for Health Services Research, Chapel Hill, NC, January 3, 2003.

<sup>5</sup> Enrollment in CCNC is mandatory for most children and parents and disabled and elderly individuals who are not receiving Medicare (non-dual eligibles). Pregnant women, dual eligibles, and foster children can enroll on a voluntary basis. Nursing home residents, individuals receiving refugee assistance, and people who only qualify for limited Medicare savings program are not included in the program.

clinical information and data with the CCNC to support analytic and quality improvement initiatives. Participating physicians receive a \$2.50 per member per month payment (or \$5 per member per month for elderly or disabled enrollees) for serving as a medical home.

***Case managers are integral members of each network who work in concert with physicians to identify and manage care for high-cost, high-risk patients.*** Case managers include social workers, nurses, or other local clinicians. Some networks utilize case managers from local health departments and community health centers, and some case managers are shared across practices. Case managers work with physicians to coordinate care and services, provide disease management education, provide transitional support, and collect and report data on process and outcome measures to assist with ongoing quality improvement efforts. A statewide *Care Management Information System* assists case managers in identifying individuals who would benefit from case management and monitoring their care. The database contains claims information, which case managers can use to examine utilization patterns, implementation of best practice guidelines, and achievement of clinical outcomes.

***CCNC networks are responsible for implementing a variety of disease and care management programs.*** Statewide, in addition to case management for high-cost, high-risk patients, network physicians and case managers implement disease management programs for asthma, diabetes, chronic care, and congestive heart failure as well as programs to manage use of high cost services, including pharmacy and emergency room utilization initiatives. Implementing these initiatives includes providing targeted education and care coordination, utilizing best practice guidelines, and monitoring results. Beyond these initiatives, other programs are being implemented on a pilot basis in some CCNC networks, including initiatives focused on mental health integration, chronic obstructive pulmonary disease, stroke prevention, childhood obesity, and special needs children.

***The CCNC program includes a heavy emphasis on data monitoring and reporting to facilitate continuous quality improvement on a physician, network, and program-wide basis.*** Through the *Quality Measurement and Feedback Initiative* the board of clinical directors identifies performance measures and benchmarks for program-wide quality improvement initiatives against which to evaluate the performance of individual practices and the networks. Performance data are collected through claims databases and chart reviews, compared with national and regional benchmarks, and shared back with participating practices. This enables practices with particularly successful strategies to share information, and practices have indicated that they view data sharing as one of the most significant benefits of belonging to a network.<sup>6</sup> The data also are used at a broader level to evaluate the impacts of the program.

## **IMPACTS ON CARE AND COSTS**

To date, the state has funded two external evaluations of the CCNC program. The Cecil G. Sheps Center at The University of North Carolina at Chapel Hill (UNC-CH) conducted an evaluation of the two longest-operating disease management initiatives in the program, the asthma and diabetes initiatives.<sup>7</sup> Additionally, the state contracted with the Mercer consulting

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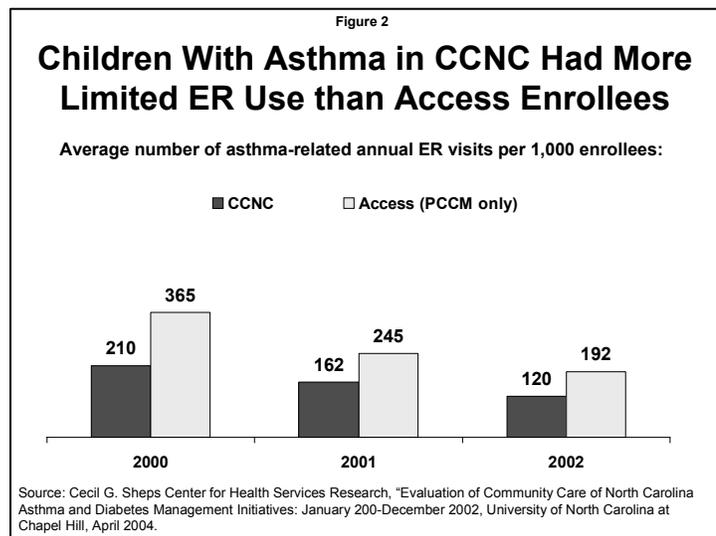
<sup>6</sup> American Academy of Family Physicians, op cit.

<sup>7</sup> Ricketts T.C., et al, "Evaluation of Community Care of North Carolina Asthma and Diabetes Management Initiatives: January 2000-December 2002," The Cecil G. Sheps Center for Health Services Research, Chapel Hill, NC. April 15, 2004, available at: <http://www.communitycarenc.com/PDFDocs/Sheps%20Eval.pdf>.

group to estimate overall cost savings for the program.<sup>8</sup> The evaluations found improvements in care and cost-savings for asthma and diabetes patients as well as overall cost savings for the program. Outside of these evaluations, the state continues to track utilization and care through the CCNC program's built-in data reporting and measurement practices.

**Findings suggest that the asthma and diabetes initiatives resulted in cost savings and improved care.** UNC-CH used claims and enrollment data to examine the impact of the asthma and diabetes disease management initiatives on costs and care between 2000-2002, a period during which CCNC was being implemented while the previous PCCM model, Carolina Access (Access), was still providing care to many enrollees. The UNC-CH compared experiences of CCNC enrollees to those of comparable Access enrollees. It found that:

- The state achieved an estimated \$3.3 million of savings in CCNC for people with asthma between 2000-2002. Average per member per month costs were lower for CCNC enrollees with asthma compared to Access enrollees across the period. After applying these per member per month savings to the number of beneficiaries, CCNC saved an estimated \$3.3 million during the study period for asthma patients compared to what costs would have been if they were enrolled in Access (spending \$79.4 million vs. \$82.7 million).
- Much of the savings for asthma patients appears to be driven by lower rates and a greater reduction in hospital use for CCNC enrollees. In each year, relative to Access enrollees, CCNC enrollees with asthma had lower inpatient hospital admission rates, and, among children, CCNC enrollees also had lower rates of emergency room use (Figure 2). Further, while hospital use declined for both groups over the study period, CCNC enrollees experienced greater declines in both the number of inpatient admissions and emergency room visits per year per 1,000 enrollees compared to Access enrollees.
- The state also achieved an estimated \$2.1 million in savings for diabetes patients in CCNC between 2000-2002. In each year, average per member per month costs for diabetes patients in CCNC were lower compared to those in Access, although the differences were not as large as for asthma patients. Overall, the state saved \$2.1 million for CCNC diabetes patients compared to what it would have spent if these patients were enrolled in Access during the study period (spending \$75.4 million vs. \$77.5 million). Further, although the hospitalization rate did not change significantly over the study period, diabetes patients in CCNC had fewer hospitalizations compared to Access enrollees.
- The study suggests the state would likely experience additional cost savings as the asthma and diabetes initiatives continued to expand across the state. The analysis estimated that



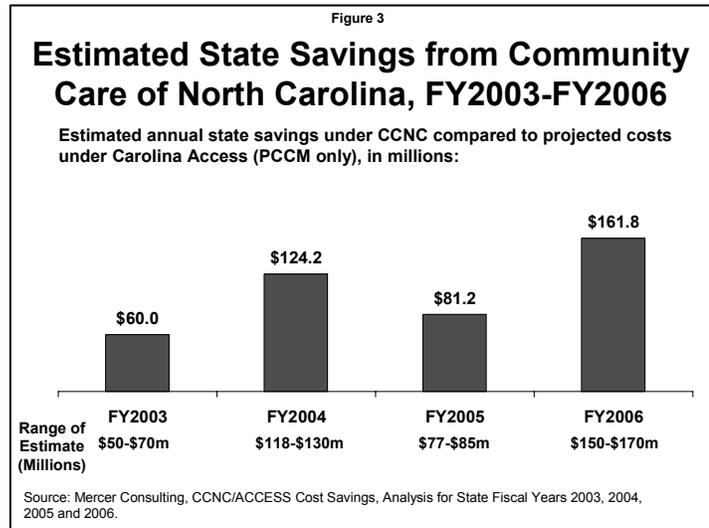
<sup>8</sup> Mercer Consulting, CCNC/ACCESS Cost Savings, Analysis for State Fiscal Years 2003, 2004, 2005 and 2006, available at <http://www.communitycarenc.com>.

the state would have saved an additional \$5.9 million in 2002 alone if all Access enrollees had been in the CCNC and the CCNC patterns of care and cost applied to all enrollees.

**More recent analysis continues to demonstrate improved care and high rates of achievement of performance measures for CCNC enrollees with asthma and diabetes.**

For example, CCNC enrollees experienced a 17% decline in the number of asthma-related emergency room visits between fiscal year 2003 and 2006 and a 40% decrease in the asthma-related inpatient admission rate.<sup>9</sup> Further, among CCNC enrollees with diabetes, 94% had at least two visits during the year to their primary care provider to address their diabetes, 96% had their blood pressure measured at each primary care visit, and about 70% had annual lipid tests and recommended foot exams and A1C tests in 2005.<sup>10</sup>

**Analyses found overall program savings for CCNC.** Mercer estimated overall program savings by comparing state costs under CCNC to projections of what state costs would have been under the Access program for fiscal years 2003 to 2006.<sup>11</sup> In each year, the analyses found savings for CCNC relative to what state costs would have been under the Access program (Figure 3).



**CONCLUSION**

Through CCNC, North Carolina’s Medicaid program has adopted and implemented a number of new quality and cost containment initiatives across the state in both urban and rural areas. CCNC focuses on improving quality while containing costs by linking enrollees to a medical home, reforming the delivery system, providing case and disease management services, implementing continuous quality improvement techniques, and utilizing evidence-based practice guidelines and health information technology. Evaluation findings suggest that the program has led to significant improvements in care as well as cost savings. Overall, the CCNC experience demonstrates the Medicaid program’s ability to incorporate quality improvement strategies that enhance its ability to provide coordinated, cost-effective care to low-income individuals with significant health needs. Further, given that many of the reforms put into practice in CCNC represent ideas being discussed as part of broader national health reform, there is the opportunity to learn important lessons from the state’s experience.

This brief was prepared by Samantha Artiga of the Kaiser Commission on Medicaid and the Uninsured, Kaiser Family Foundation.

<sup>9</sup> Community Care of North Carolina Disease and Care Management Initiatives, 2007, <http://www.communitycarenc.com>.

<sup>10</sup> Ibid.

<sup>11</sup> Mercer analysis also compared CCNC savings relative to a benchmark of projections of what costs would have been including both fee-for-service Medicaid spending and spending under the Access program in the state. Estimated savings based on this benchmark are larger than the levels presented in the brief.

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