

Building Primary Care Medical Homes within the Community Care of North Carolina Program

Charles F. Willson, MD

Community Care of North Carolina (CCNC) is receiving much-deserved attention as our nation struggles to find a higher quality, affordable model for health care. CCNC is a statewide partnership between primary care physicians and the North Carolina Medicaid program that strives to deliver the right care at the right place in the most cost-effective manner. At the heart of the success of CCNC is the primary care medical home.

The medical home concept was first articulated by pediatricians in the late 1960s as a way to centralize health care information about a child and thereby have the ability to coordinate and direct care as needed.¹ Within CCNC, the model has worked best for pediatrics. Most children are well most of the time and need care for acute illnesses and preventive care such as immunizations, developmental screening, and anticipatory guidance. In fact, about 70% of North Carolina Medicaid patients are children. A model that blends fee-for-service at an adequate rate with a small monthly management fee works well for practices that have large numbers of patients who are mostly well. For practices with mostly complex patients, the management fee would need to be considerably larger than the \$3.00 per member per month (pmpm) fee of CCNC. Acknowledging that chronically ill patients will need more intensive care management, CCNC has recently increased the pmpm fee to \$5.00 for the aged, blind, and disabled patients within a practice.

Carolina Access: Basic Medical Homes

The partnership that became CCNC started as Carolina Access in the early 1990s when the cost of North Carolina Medicaid was increasing at double-digit inflationary growth every year. In order to continue to see Medicaid patients and to recruit new practices to take Medicaid patients, pediatricians needed improved reimbursement. The director of North Carolina

Medicaid realized that the fastest growing costs were related to patients using the local emergency department for routine illnesses. She agreed to increase reimbursement to primary care doctors if they would agree to be on-call for their Medicaid patients around the clock. She also agreed to significantly increase reimbursement for preventive services and to provide a monthly incentive payment (\$2.50 pmpm) to encourage more practices to open their doors to more Medicaid patients.

The result was a 10% decrease in emergency room use and decreased hospitalizations due, in part, to the fact that practices could be identified to follow-up on their patients. At this point, over 95% of pediatric practices in North Carolina signed on. While the phone calls from the emergency room

late at night were occasionally irritating, we physicians were gratified to see that our North Carolina Medicaid patients were willing to work with us as a medical home. In fact, in the early writings on the medical home, Sia and colleagues² had proposed just such a partnership between pediatricians and their patients. The physicians would provide:

The basis for the medical home is a continuous healing relationship.

1. A commitment to the individual.
2. Primary care services.
3. Full time accessibility.
4. Service continuity.
5. Comprehensive record keeping.

In return, the parents/patients would agree to:

1. Continued acceptance and contact.
2. Conformance with the recommendations of prevention and promotion.
3. Adequate information flow.
4. Compliance with administrative requirements.

In my own practice, when I would discuss a recent unnecessary emergency room visit with a parent, the parent was usually

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grateful that I wanted to be there when they needed me (preferably not in the emergency room). As the largest pediatric practice in Greenville, North Carolina, a university town and regional commercial hub in the eastern part of the state, we had office hours on Saturdays and Sundays and would often meet patients at our office after hours at night and on holidays. In my opinion, availability is the most important characteristic of a primary care medical home.

As I read *Crossing the Quality Chasm*,³ I was struck by the congruency of our medical home concept with the desired characteristics of the health care system of the future as envisioned by the National Institute of Health (NIH), notably that:

1. Care is based on continuous healing relationships.
2. Care is customized according to patient needs and values.
3. The patient is the source of control.
4. Knowledge is shared and information flows freely.
5. Decision-making is evidence-based.
6. Safety is a system priority.
7. Transparency is necessary.
8. Needs are anticipated.
9. Waste is continuously decreased.
10. Cooperation among clinicians is a priority.

The National Committee on Quality Assurance (NCQA)⁴ has tried to define what the medical home of the future will look like. They have proposed a grading system on such functionalities as:

1. Access and communication
2. Patient tracking and registry functions
3. Care management
4. Patient self-management
5. Electronic prescribing
6. Test tracking
7. Referral tracking
8. Performance reporting and improvement
9. Advanced electronic communications

While these are all characteristics that have the potential to improve the effectiveness and safety of the care that physicians deliver, few practices in North Carolina can meet all the requirements at this time. The development of a primary care medical home has been an evolutionary process within CCNC. At this time, the stakes are high. Governmental and even private payers are offering to substantially increase reimbursement for documentation of improved quality.

Carolina Access II and III: Enhancing the Primary Care Medical Home

By requiring that primary care practices had around the clock availability, Carolina Access had established medical homes for children on Medicaid. The question then became, how do we assure that a patient received high quality care at the medical home? And, once the patient left the office, how

could we track and improve patient compliance with the care plan? Carolina Access II/III provided evidence-based disease management tools for complex patients, and case managers contacted and even visited the patient as needed before or after the visit. The difference between Access II and Access III was that Access III embraced all the Medicaid patients within a county while Access II was more practice-specific. As pilots expanded to more counties, networks were formed, often reflecting tertiary care referral patterns. The medical home could now reach beyond its walls and better meet the needs of the more complex patients.

Another critical asset to enhance the medical home was the practice-specific profile. For the first time, I could compare the Medicaid utilization data from my practice with other similar practices across the state. In my role as medical director for a network, I noticed something remarkable as we presented these practice profiles to outlier practices. Despite complaining that their patients were sicker, more complex, and more likely to be non-compliant than patients in the comparison practices, these doctors over time would address excessive utilization and bring their data more in line with their peers. We physicians are a proud group of high achievers who aren't accustomed to being at the bottom of a peer group. Figure 1 shows a recent profile for a practice in my network (with permission from the practice).

As I explained to the practices, we are concerned about total costs per enrollee per month as well as ED use rates. We drill down on total costs by looking at 10 utilization parameters. Higher costs in the primary care provider (PCP) and specialist categories often parallel decreased ED utilization (especially non-emergent ED). That is the primary care medical home at work—seeing patients and making appropriate referrals. Practices with higher ED utilization often have higher lab and x-ray costs associated with those ED visits. Pharmacy costs often reflect the use of brand name versus generic drugs. While listed, mental health costs are mostly out of the control of the primary care medical home, especially since local mental health services were privatized. In Figure 1, the latest profile for my practice, the increased cost pmpm can be explained by the high costs of community support services for mental health patients. As the state audited some of these providers, you can see the decrease of costs for mental health services. We are proud of our use of generic medications where appropriate, resulting in decreased pharmacy costs for our practice. The after-hours pediatric clinic effect is seen in lower ED costs than our peers. The lesson learned: once armed with credible data, medical homes can bring efficiencies in care without sacrificing quality.

Access II/III was based at the community level, and innovation based on local needs was encouraged. In Greenville, as noted above, the pediatricians banded together to form a community after-hours clinic from 6:00-10:00 pm each evening to decrease non-emergent ED use and, frankly, to make our call nights easier for the practices. Initially, the medical school pediatric practice declined to participate. However, when it was pointed out that ECU pediatrics had four times the ED utilization rate

Figure 1.
A Pediatric Practice Profile

COMMUNITY CARE OF NORTH CAROLINA

IMPORTANT UPDATE

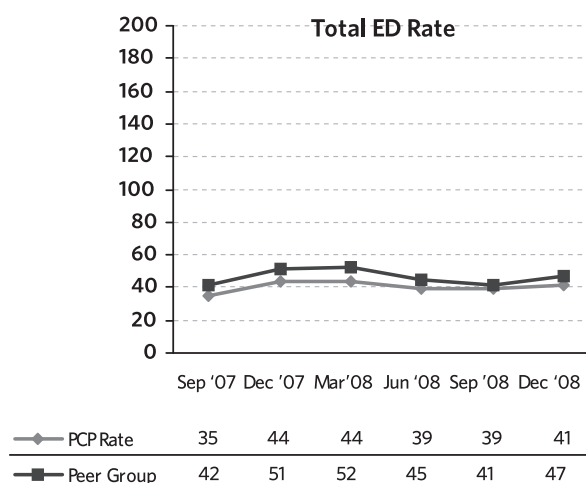
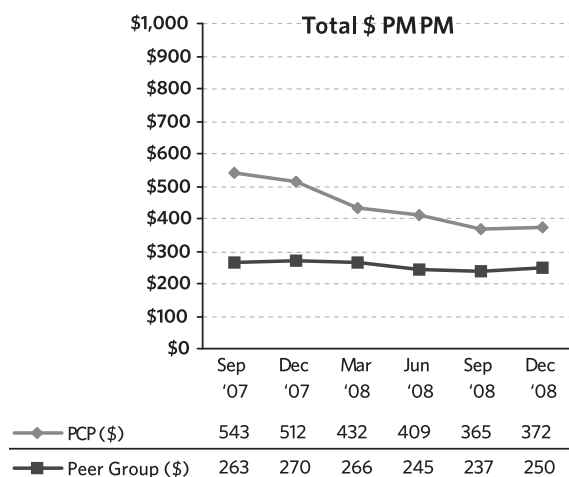
Your Practice Profile

Community Care Peer Review Summary

Name: Ecu Primary Pediatrics C
Managed Care Provider Type: Community Care of North Carolina
Administrative Entity: Community Care Plan of Eastern Carolina
PCP Number: 7907014
Address 1:
Address 2:

Time Period: Quarter ending Dec, 08

Peer Group: PEDIATRICS
Avg. Monthly Enrollment: 6507
Eligibility 0 - 21: 6467
Eligibility > 21: 40



Utilization	PCP Qtr End 6/08		PCP Qtr End 9/08		PCP Qtr End 12/08		Peer	
	Rate	PMPM	Rate	PMPM	Rate	PMPM	Rate	PMPM
PCP	278	\$17	265	\$16	284	\$17	407	\$25
Specialist	76	\$13	77	\$12	72	\$11	109	\$13
Hospital Inpatient	4	\$23	3	\$21	4	\$25	2	\$13
Hospital Outpatient	52	\$13	65	\$17	89	\$20	103	\$21
Pharmacy	366	\$29	361	\$28	395	\$34	586	\$49
ED Total	39	\$10	39	\$10	41	\$13	47	\$13
ED Non emergent	23	\$5	23	\$4	27	\$6	29	\$6
Labs	16	\$1	19	\$1	16	\$1	26	\$1
X-Rays	3	\$1	3	\$1	3	\$1	2	\$1
Out-patient Mental Health	511	\$234	492	\$191	532	\$177	179	\$50

Disease Management	PCP Qtr End 6/08	PCP Qtr End 9/08	PCP Qtr End 12/08	Peer
Asthma				
Case Count	203	193	195	-
Case Rate	3.16%	3.02%	2.97%	-
ED Asthma Visits	7	7	13	N/A
IP Asthma Visits	2	1	1	N/A
Diabetes				
Case Count	12	14	15	-
Case Rate	0.19%	0.22%	0.23%	-
Eye Exam (15 mo reviewed)	50.00%	50.00%	46.67%	46.43%

Questions? Need additional information? Call (919) 715-1453.

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A Generalist's View of Community Care of North Carolina

Rueben N. Rivers, MD

Community Care of North Carolina (CCNC) and the ongoing efforts of the Division of Medical Assistance to provide for the citizens of North Carolina through the system that has evolved to date is the most practical and well thought-out public collaborative that I have been a party to in my almost 27 years of general internal medicine practice. The local, regional, and national acclaim it has received also bears testament to this fact.

The success of the statewide effort is due to the organization's understanding of the essential elements of a patient-centered system for delivering care. This fundamental understanding is what attracted me most to this effort. The limitations of small primary care practices are not a secret. The prohibition of cost makes it all but impossible for a small practice to hire a multidisciplinary team to include a quality improvement officer, practice case manager, social worker, mental health worker, pharmacist, information technology expert, and diversity coach.

CCNC recognized that health care is delivered where patients live and work and therefore focused on a model

that could meet the needs of a patient-centered practice where the patient and the provider are in the community. With the collective will of the state legislature, the input of the providers of primary care, and a strong and responsive central office leadership team, I found an organization that was resourceful, resilient, innovative, and willing to extend itself to community providers. This support includes expertise and resources both technical and financial. Both are much needed.

CCNC's track record for improving quality along with both patient and provider satisfaction has been proven to me. Like so many of us in private practice, CCNC also wrestles with the fiscal constraints and realities encountered in the provision of health care in North Carolina. It has not, however, lost sight of the goal of very good, cost-effective, and value conscious health care. I will continue to participate and encourage others to do so as well.

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of the private practices, the medical school practice joined the night clinic and actually provided space and manpower for the expansion. In its first year, the after hours clinic led to a 17% decrease in pediatric emergency room utilization with a rough estimate of cost-savings to North Carolina Medicaid of \$400,000 per year. In smaller towns with fewer pediatricians, this model will not be easy to replicate.

Telephone triage by trained nurses using evidence-based protocols also helped provide information to our parents when a child became sick or injured. Some networks financially supported these triage lines by funding a portion of the cost for the practice based on the numbers of North Carolina Medicaid patients in the practice.

Our network also looked at ancillary services for our Medicaid patients. North Carolina Medicaid requires that the primary care physician authorize these services, a task that we are not well prepared to do. Requests for payment for physical therapy, occupational therapy, and speech therapy were reviewed by a knowledgeable physician who recommended authorization or discontinuance to the pediatrician in the medical home. While we all felt this was a valuable service, the grant from the state funding this position was not renewed.

As pharmacy costs escalated, we developed a voluntary drug formulary called the prescription advantage list (PAL). For the first time, practicing physicians could know which drugs were more costly for their Medicaid patients. This was especially important for pediatric practices where there are no co-pays for prescriptions.

Carolina Access Becomes Community Care of North Carolina

In the year 2000, a new Governor and a new Secretary of North Carolina's Department of Health and Human Services arrived. By this time, internal audits of Carolina Access could show cost savings in the tens of millions of dollars. The new Secretary mandated that Carolina Access III become a statewide program, now called Community Care of North Carolina.

With CCNC, we realized that we have a truly unique asset in health care: a network of primary care medical homes statewide that can serve as a template for statewide innovation. We also have a strong partnership with our state leaders who are responsible for the North Carolina Medicaid program. The effectiveness of this partnership is exemplified by the over the counter (OTC) prescription program developed within a three month period of time when Prilosec and Claritin became available OTC. The doctor could now write a script for those OTC drugs for a Medicaid patient. Again, the state saved millions. We also exposed a weak link in our primary care based system; some specialists were not informed and continued to prescribe the more costly brand name products.

What about caring for children with special health care needs? These complex kids were a strong driver in the development of the pediatric medical home concept because of the fragmentation of care between PCPs and multiple specialists. A grant funded Improving Pediatric Access through Collaborative Care (IMPACC), a program that used

two strategies to address these children's needs: 1) payment for telephone advice by the pediatric subspecialists; and 2) case managers based at the major pediatric medical centers to coordinate care with the child's primary care medical home. In Greenville, we have used these case managers in the development of the Center for Children with Complex and Chronic Conditions. By improving information flow between the pediatric specialist and the primary care medical home, we are improving the chances that a new illness or complication will be handled in the child's own community by the pediatric medical home rather than needing an emergent trip to the medical center. Each patient receives an updated care plan to carry with them to their many doctor visits. The payment for phone calls by the specialist has been shown to decrease the need for triage to the emergency room or a hospitalization at the medical center. An internal analysis of the program estimated that for every dollar spent on paying for the phone call, \$40 are saved through decreased clinic visits and hospitalizations.^a

What about quality improvement? Two years ago two CCNC networks were invited to participate in a grant from the Robert Wood Johnson Foundation in conjunction with the American Board of Medical Specialties. The Improving Performance in Practice (IPIP) grant looks at the care of chronically ill patients across all payers, leading to larger numbers with improved statistical significance. Physicians care for patients based on their medical needs and diagnoses, not based on payer type. Recognizing that practicing physicians of my generation were not taught how to implement and document quality improvement in their practices, IPIP provides a quality improvement consultant (QIC) to work with willing practices. These consultants analyze patient scheduling and work flow in the office, teach rapid cycle quality improvement techniques, and explain how to develop data registries that will generate reports on quality for payers. One participating physician claims that the scheduling advice alone increased his practice income significantly. Our AHECs (Area Health Education Centers) train and hire the QICs. With support from our previous governor, IPIP is now being extended statewide as the North Carolina Healthcare Quality Alliance. These quality improvement projects at the practice level will also help physicians acquire continuing education credits and maintenance of certification with their professional boards.

Discussion

Community Care of North Carolina is a group of networks of primary care medical homes that improve access to high quality care and bring cost savings to the North Carolina Medicaid program. In my opinion, improved access to care is the fundamental building block for a medical home. Physicians and staff must be there for our patients when they need us. In return, our patients must value our services.

Over time, the NIH vision for the future described above will become a reality. The basis for the medical home is a **continuous healing relationship**. As we get to know our patients, we can better **anticipate their needs** and **customize** our care to their **needs and values**. For the medical home to work, the patient must be **in control** and must want to utilize our services. Only by being available, can we **share our knowledge to facilitate optimum care**. The **free flow of information** must await better information technology, and enabling regulations which seem to be a priority of the Obama Administration. While we may say that our **decisions are evidence-based**, in truth, most of what we do everyday has not been thoroughly studied. The new movement toward comparative effectiveness research (CER) should be very helpful. Through CER we should also be able to better **eliminate waste** and **improve safety**. Our experience with the practice profiles has shown that physicians will accept more **transparency** if they trust the data. Finally, as the primary care medical home matures, I believe that our specialty colleagues will better appreciate our value and seek our help and **cooperation** in the care of our mutual patients.

Because Carolina Access and Community Care of North Carolina were designed and implemented as a platform for practical solutions to everyday medical care delivery problems, we cannot *prove* that the medical home concept has been responsible for our success. In fact, as Bodenheimer⁵ points out, if Carolina Access and CCNC had been grant funded, they might not have lasted long enough to demonstrate their real value. However we now have over 12 years of experience with few complaints from patients (or physicians) and year after year of documented cost savings.

In a health care environment focused on decreasing costs, the medical home concept with its increased case management payment has many skeptics. Some physician leaders, mostly specialists, point out that the value of the primary care medical home has not been proven. They often point to anecdotal experiences where the primary care practice has dropped the ball or referred a patient unnecessarily. There is fear that the medical home is just another name for a "gatekeeper" that will decrease appropriate referrals. In fact, within CCNC, we believe that an appropriate referral to a specialist often facilitates the best care and have never discouraged such referrals. Indeed, for certain patients with complex medical issues, a specialty practice may be the best place for the medical home.

This is truly a critical time for primary care in America. With stagnant reimbursement from Medicaid and Medicare for the past eight years, it's not surprising that some of our practices have few resources to invest in technology and are struggling to meet the standards of the medical home. The potential for improved reimbursement and systems development will help the primary care practices of the future develop the functionalities envisioned by the NCQA.

Challenges for the future of the primary care medical home concept include financial viability, where payment does

a Steven Wegner MD, president AccessCare Inc. Personal communication.

not cover the expanded functions needed (especially for the Aged, Blind, and Disabled category of Medicaid), increasing medical school debt load causing students to enter more lucrative medical fields leaving too few primary care physicians, and the hospitalist movement that removes the primary care physician from the picture during a patient's most important medical crises, including end-of-life care. All of these issues will have solutions if health care leaders and policymakers understand the value primary care medical homes may provide from cradle to grave.

Our experience with Community Care of North Carolina provides strong evidence that the medical home concept should be a major part of the health care system of the future. As a patient, a parent, and a grandparent, I would like to leave the legacy of a health care system where every patient has a primary care medical home to turn to for routine and complex issues. While the cost savings are impressive, we at CCNC believe that even more important is the improved quality of care and patient (and physician) satisfaction of a true medical home. **NCMJ**

REFERENCES

- 1 Medical Home Initiative for Children with Special Health Care Needs Project Advisory Committee, American Academy of Pediatrics. The medical home. *Pediatrics*. 2002;110(1 pt 1):184-186.
- 2 Sia C, Tonniges T, Osterhus E, Taba S. History of the medical home concept. *Pediatrics*. 2004;113(5supp):1473-1478.
- 3 Committee on Quality of Health Care in America, Institute of Medicine. *Crossing the Quality Chasm: A New Health System for the 21st Century*. Washington, DC: National Academy Press; 2001.
- 4 PPC-PCMH Content and Scoring Summary. National Committee on Quality Assurance website. <http://www.ncqa.org/tabid/631/Default.aspx>. Accessed March 13, 2009.
- 5 Bodenheimer T. North Carolina Medicaid: a fruitful payer-practice collaboration. *Ann Fam Med*. 2008;6(4):292-294.

Health Reform: An Invitation to Contribute to the Discussion

The run up to the November election brought a lot of attention to health reform. Both major candidates presented relatively complete plans for major changes in the way we pay for health care and how we structure our health care delivery system. The appointments by President Obama point to a sustained effort to implement real change. This has prompted many experts and representatives of patients, providers, and payers to propose their own plans for reform. The *North Carolina Medical Journal* will be taking a part in this discussion with a section of the *Journal* devoted to articles and analyses that focus on reform. We would like to invite submissions that help the readership of the *Journal* understand why reform may be necessary, how the system should be changed, and how national reform will affect North Carolina. We invite scholarly discussions and analyses as well as commentaries that help illustrate the benefits as well as the problems that comprehensive change will bring to the costs, quality, and outcomes of health care and to the health of the people of North Carolina. The third installment of this new series starts on page 213 of this issue of the *Journal*.

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