

## Transforming the Workforce to Provide Better Care: The Role of Obstetric Nurse Coordinators in North Carolina

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**This is the second in a series of case studies exploring the evolving role of nurses in delivery system models designed to better meet the needs of consumers with complex health conditions. Each case study provides policy recommendations and showcases the work of a nurse in a new initiative.**

**This study looks at improving care for high-risk pregnant women in North Carolina through its Pregnancy Medical Home program, which involves over 350 OB/GYN practices—over 85 percent of all prenatal care providers that serve Medicaid beneficiaries. It also provides readers with an opportunity to see how the policy decisions that created this initiative influence practice through a “Day in the Life” of the nurse coordinator, beginning on page 3.**

Disparities in birth outcomes, including preterm birth and low birth weight, among women from racial and ethnic minorities across the U.S. have persisted for decades.<sup>1</sup> Eliminating these disparities often requires a fundamental change in the way care is delivered across providers, community-based support services, public health departments, and hospital systems.

North Carolina launched a statewide Medicaid Pregnancy Medical Home (PMH) program in 2011 in response to

persistently poor birth outcome rankings nationally.<sup>2</sup> The goal was to target high-risk pregnant women to resolve inequities in prenatal care and address rising costs through delivery system reform.

The shift to a medical home model, which emphasizes quality, comprehensive, coordinated, and patient- and family-centered primary care<sup>3</sup> is largely new ground for many specialty practices, such as obstetricians.

When developing its PMH program, North Carolina leveraged existing state medical home infrastructure and knowledge to offer care teams, data analytics, and quality improvement and technical assistance resources to support obstetric (OB) practices.

This infrastructure is provided through Community Care of North Carolina (CCNC). Launched in 1998, CCNC is a nonprofit organization consisting of 14 community-based networks that operate programs and provide care management for the Medicaid population in all 100 counties.<sup>4</sup>

CCNC operates the PMH program in partnership with the North Carolina Division of Medical Assistance and the Division of Public Health. The Division of Public Health provides care management services to high-risk pregnant women through their local health departments in each county. The Division of Medical Assistance (Medicaid) provides the financing for

## ***About This Series***

### **Transforming the Workforce to Provide Better Chronic Care: The Role of Registered Nurses**

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This series explores the evolution of primary care systems to better meet the needs of consumers with complex health conditions. It demonstrates that changes in the workforce are required to empower consumers to better manage their health.

The series is a collaboration of the National Academy for State Health Policy and the AARP Public Policy Institute. We recognize that it takes a team of skilled professionals to deliver improved chronic care. In this series, we focus on how registered nurses—who make up the largest segment of the health care workforce—are being deployed in ambulatory delivery systems to take on new roles. Future series will focus on other members of the health care team.

We selected six initiatives that offer replicable policy strategies to develop, implement, and sustain patient-centered approaches to care. Each case study highlights one of these initiatives and provides policy recommendations and an “on-the-ground” look at the work of its nurses.

We conducted site visits to:

- **Rhode Island’s Chronic Care Sustainability Initiative:** a multipayer medical home initiative that supports an embedded nurse care manager in each primary care practice.
- **North Carolina’s Pregnancy Medical Home Program:** a medical home program for high-risk pregnant Medicaid beneficiaries where obstetric nurse coordinators oversee program operation and quality improvement.
- **Minnesota’s Health Care Homes:** a multipayer medical home initiative where nurses play a crucial role ensuring that primary care practices meet state standards.
- **Hennepin Health (MN):** an accountable care organization where a behavioral health nurse care coordinator orchestrates care among primary care, behavioral health, and social service agencies.
- **Yamhill (OR) Community Care Organization’s Community HUB:** an accountable care organization where a nurse leads a program to improve care for super-utilizer patients.
- **CareFirst’s (MD) Patient-Centered Medical Home Program:** a commercial medical home program using nurse care coordinators to help consumers better manage their chronic conditions. CareFirst is also piloting this program with Medicare consumers through an Affordable Care Act “Health Care Innovation Award.”

These six initiatives offer replicable opportunities and lessons for other states and/or payers that are developing or considering patient-centered models of primary care delivery. All of these initiatives support consumer navigation of complex care systems, understanding of illnesses, and learning self-management skills.

Additionally, all of these initiatives have policies in place that facilitate roles where nurses are supporting practices to be more responsive to consumer needs. The final paper of this series will synthesize lessons learned across all cases studies and offer recommendations for states, policy makers, and educators.

For more information please visit our websites: <http://www.aarp.org/health/health-insurance/info-2014/role-of-nurse-care-managers-ri-AARP-ppi-health.html> or <http://www.NASHP.org>.

the program through a combination of monthly payments to local health departments as well as enhanced and incentive payments to PMH practices.

The PMH program has found that deploying a community-based OB team, consisting of an OB nurse coordinator and an OB “physician champion” through each local CCNC network, has become a key component of its strategy to improve birth outcomes while also decreasing costs. The physician champion is the lead educator about the PMH program and resource for other area obstetricians.

The OB nurse coordinators work with all the PMHs, local health departments, and CCNC to ensure that all players in this program are collaborating in a concerted effort to improve perinatal outcomes within each local network.

Kate Berrien, PMH Project Manager at CCNC, notes that the OB nurse coordinators’ nursing training hits the “right combination of educational background and clinical competency to carry out all facets of this role.” The role includes recruiting new OB practices into the program, disseminating CCNC’s clinical recommendations to PMHs, helping practices develop and implement appropriate quality improvement initiatives, and working with practices and hospitals on educational initiatives.

CCNC’s analytics team generates data on a variety of measures through its Informatics Center, including rate of low birth weight among Medicaid patients and cesarean section rate. These measures are designed to capture each PMH’s performance over time toward improving birth outcomes and reducing costs for the pregnant Medicaid population.

### **A Day in the Life of an Obstetric Nurse Coordinator in North Carolina’s Lower Cape Fear Network**

Changing care delivery at the practice level is hard. It requires offering providers the right mix of incentives including payment, staff, and technical resources, such as data analytics. Engaging providers to take part in a new delivery system reform initiative is also difficult. North Carolina’s Pregnancy Medical Home (PMH) program provides an example of offering the right balance of incentives and outreach efforts. In a short period of time, more than 85 percent of obstetric (OB) practices in North Carolina that accept Medicaid have been engaged.

Central to the PMH program’s success is the deployment of seasoned, locally-based nurse-physician teams that work with obstetricians to enroll and engage them in the program. In addition, the PMH program leverages the resources of local health departments and existing medical home infrastructure. It relies on OB nurse coordinators, like Doris Robinson, to not only serve on the nurse-physician teams, but also connect local obstetricians and their high-risk patients to community-based resources.

#### **Meeting with Rural Practices**

One of Doris’s daily charges is to engage and support OB practices in Community Care of North Carolina’s (CCNC) Lower Cape Fear network to participate in the state’s PMH program. The Lower Cape Fear network encompasses six counties in the most southeastern region of the state.

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## A Day in the Life...

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On a day in February, OB nurse coordinator Doris Robinson walks into a rural, two-physician OB practice armed with compelling data, opportunities for additional financial incentives, and other resources. Doris meets with the practice's two physicians and shares recent data that shows that the practice is lagging in its efforts to complete risk screenings for pregnant Medicaid women.

She explains that CCNC's *Pregnancy Home Risk Screening Form*<sup>i</sup> is the patient's gateway into the PMH program. It identifies not only clinical risk factors for poor birth outcomes, but also psychosocial risk factors, such as physical violence and food insecurity. Scoring on one or more significant risk factors (e.g., cervical insufficiency or drug use) qualifies the patient to receive care management services from the local health department.

Doris shows the practice manager how to locate and use the practice's data dashboard within CCNC's Informatics Center and run a report that identifies the practice's Medicaid patients. Doris explains if the practice were to conduct a risk screening on all pregnant Medicaid women—with a \$50 incentive from Medicaid for every form completed—it would add a significant new source of revenue for the practice. Doris visits each OB practice (15 total) in the Lower Cape Fear network once per quarter to provide resources and assistance, help review data, and trouble shoot care management problems.

### Checking in with County Health Departments

Mid-morning, Doris's next stop is at neighboring Columbus County's local

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<sup>i</sup> PDF of the Risk Screening Form is available at: <https://www.communitycarenc.org/population-management/pregnancy-home/>.

## Lessons Learned and Remaining Challenges in North Carolina

Participants in North Carolina's PMH program offer the following recommendations for developing a PMH program.

### Lessons Learned

- **Leverage existing infrastructure.** Medicaid took advantage of a well-developed infrastructure in the state, CCNC, which had the capacity to take on administrative oversight of the PMH program, supported by a robust data informatics system. The OB nurse coordinator in each CCNC local network works to ensure functionality of the program across agencies of government—Medicaid and the Division of Public Health—and PMH practices. Other states may also be able to leverage existing infrastructure, such as managed care organizations or county-based organizations.
- **Pair physicians and nurses to champion and engage practices in a new initiative.** CCNC added an OB team to each of its local networks. The pairing of nurses and physicians has been extremely effective when engaging new practices since their combination of perspectives ensures that they can relate to a wide range of PMH providers and staff. This has helped the PMH program successfully enroll and engage more than 85 percent of OB practices that accept Medicaid as PMHs since the program's launch—an outcome with policy implications for other Medicaid agencies and payers seeking to roll out new delivery system reform initiatives.
- **Invest in actionable data.** CCNC's robust Informatics Center and Case Management Information System (CMIS) provide invaluable resources to OB nurse coordinators, allowing them to give PMHs and local health

departments reports on how they are performing compared to other practices or statewide benchmarks. Performance data for individual PMHs, local health departments, and network-wide help nurse coordinators target areas for quality improvement.

program to a population-based pregnancy care management program. This transition required care managers to switch from providing services to all pregnant women to targeting high-risk pregnant women only.

**Remaining Challenges**

- **Public health transition to a high-risk PMH model.** Medicaid partnered with the Division of Public Health, which transitioned its previously fee-for-service perinatal case management

**Role of State Policy**

North Carolina has adopted policies that have shaped the development of the PMH program. The table below highlights these policies and guidelines and notes persisting challenges as they relate to the OB nurse coordinator.

**Table 1**  
**OB Nurse Coordinator Role – State Policy Facilitators and Challenges**

	<b>Facilitators</b>	<b>Challenges</b>
<b>Model</b>	At least one OB nurse coordinator in each CCNC network; coordinates between PMHs and local health departments to work with high-risk pregnant women; recruits practices to become PMH; and provides data and quality improvement support.	OB nurse coordinator must interact with many stakeholders, including PMHs, the Division of Public Health, CCNC, and Medicaid, which has the potential to draw them in many directions and stretch their resources.
<b>Education &amp; Qualifications</b>	Must be a registered nurse; licensed in NC and at least 2–3 years of experience working in OB nursing; public health background and strong communication and analytic skills preferred.	Some nurses do not have strong data analytics backgrounds and require additional training by CCNC.
<b>Training &amp; Resource Supports</b>	CCNC facilitates quarterly OB nurse coordinator meetings and biweekly calls across all CCNC networks; CCNC facilitates statewide and regional trainings, held occasionally with Division of Public Health; CCNC provides individual training and consultation to new OB nurse coordinators.	Training must be tailored based on the specific skill set of the OB nurse coordinator and the specific needs of the region.
<b>Physician Acceptance</b>	CCNC facilitates quarterly OB nurse coordinator meetings to share strategies to better engage and collaborate with OB providers; majority of OB providers in the state have joined the PMH program.	When a practice initially joins as a PMH, OB providers may not have experience participating in an outcomes-based initiative and having to focus quality improvement activities to meet those outcomes; not all PMH practices are engaged with pregnancy care managers. OB nurse coordinators often introduce care managers to PMHs on-site and have worked to embed them in larger PMHs.

**Table 1 (continued)**

	<b>Facilitators</b>	<b>Challenges</b>
<b>Financing &amp; Payment</b>	Medicaid contracts with CCNC to administer overall program, but each OB nurse coordinator is employed directly by his or her local CCNC network; Medicaid pays incentive payments to PMHs and enhanced fee-for-service (FFS) rates for specific services;* Medicaid pays local health departments a monthly payment based on the total population of women, ages 14–44, residing within each county, for care management services.	Previously, local health departments could bill Medicaid on an FFS basis for care management provided to any Medicaid-enrolled pregnant women. Now, local health departments are paid a monthly payment per patient and are expected to manage the entire pregnant Medicaid population focusing on patients at risk for poor birth outcomes.
<b>Access to Data</b>	CCNC’s Case Management Information System (CMIS), accessible to OB nurse coordinators and pregnancy care managers, can generate reports on the utilization of various services, caseload, and performance metrics; CCNC Informatics Center and analytics team develops and updates PMH performance metrics and analyzes birth outcomes by matching Medicaid claims data to birth certificates.	North Carolina Medicaid’s 2013 transition to new Medicaid Management Information resulted in interruption of the flow of Medicaid claims data needed to calculate performance on PMH metrics; some local health department staff has been challenged to use data to target and focus on the high-risk pregnant population and OB nurse coordinators continue to assist local health departments in this effort.
<b>Consumer Input on Model Development</b>	Currently utilize patient surveys and other similar tools to solicit feedback.	Limited consumer input on model development.

\*For specific payment structure, please see <http://commonwealth.communitycarenc.org/toolkit/15/default.aspx>.

**A Day in the Life...**

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health department. Columbus County ranked last among the 100 North Carolina counties for health outcomes in 2013.<sup>ii</sup> Each county in North Carolina has a local health department that participates in the PMH program; each local health department receives a population-based per member per month (PMPM) payment for every female Medicaid beneficiary between

the ages of 14 and 44 residing within the county. The local health departments use this funding to provide care management to Medicaid high-risk pregnant women identified through the risk-screening tool, referred by a provider, or identified through other sources.

The PMH program resulted in a significant cultural change for some local health departments. Switching from a fee-for-service maternity care management payment model to population-based payment with emphasis on high-risk patients has been a challenge for some local health

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<sup>ii</sup> County Health Rankings and Roadmaps, “North Carolina–2013.” Accessed on August 8, 2014, at <http://www.countyhealthrankings.org/app/north-carolina/2013/rankings/outcomes/overall>.

## **A Day in the Life...**

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departments. The pregnancy care management model also requires direct collaboration between local health departments and the PMHs.

Doris meets with one of the care managers (some are social workers, while others are registered nurses). Together, they look at the care manager's dashboard within CCNC's Case Management Information System (CMIS) that shows a wide array of data. They review admission, discharge, and transfer data for the care manager's patient panel. They discuss ways to improve communication with one of the PMHs.

Doris makes a plan to introduce the care manager to the physician leader and staff of this newly enrolled PMH practice next week. Each PMH is required to name a physician leader. Doris has found that these face-to-face introductions go a long way in paving the way for better collaboration and helping practices (and thus their patients) better avail themselves of the care management services. The care managers are often grateful to have the OB nurse coordinators make these introductions since many are not used to interacting directly with the OB practices.

On her way down the hallway, Doris takes a call from a care manager in Pender County who needs help with a patient who has been discharged from the hospital with diabetes and has had difficulty obtaining Medicaid approval. Doris calls the hospital to get more information and identifies a resource that could temporarily fill the prescription while Medicaid approval is pending.

She meets with the pregnancy care management supervisor at the local health department to review where the care managers are spending their time and to compare data from a neighboring local health department. She recommends that care managers plan a day away from the office to make face-to-face practice and home visits. Back in the car, Doris heads toward Wilmington.

### **Consulting with the Network Physician Champion**

In the afternoon, Doris meets with Dr. Lydia Wright, the OB physician champion for the CCNC Lower Cape Fear network. The two collaborate to work with PMHs in their network to improve pregnancy outcomes in the network.

In this bi-weekly meeting, Dr. Wright and Doris discuss progress engaging a potential new PMH. A joint site visit conducted previously with the practice allowed Dr. Wright and Doris to present the practice with its performance data on perinatal outcomes, how the PMH program will enable better care for the practice's high-risk patients, and the benefits of joining, including financial and educational support.

"These visits foster relationships with practices to get them comfortable in calling us, so that we can work together as a team," notes Dr. Wright. Once she makes the initial visit, it is up to Doris to work with the practice on achieving PMH goals. Dr. Wright and Doris also discuss quality improvement topics for the next regional trainings for both the PMH physicians and care managers. They decide on "39 Weeks," a March of Dimes initiative that helps educate women on the benefits of letting labor begin on its own.

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### A Day in the Life...

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Midafternoon, Doris answers emails back at her office at the Lower Cape Fear network. One of them was from a PMH asking for help in getting one of its patients access to behavioral health services.

Doris calls the local health department's pregnancy care management supervisor to talk about embedding a care manager on site in an OB practice with a burgeoning Medicaid population. They agree that this is a good approach and make plans for the transition.

She returns a phone call to an OB physician in her network. One of his patients was discharged without any medications and he asked if she could follow up.

She hangs up and begins to track down where the gap in care occurred. "Transitions in care are where a lot of errors occur," Doris explains. In general, she has found that the PMHs are grateful to have a team now to rely on and help improve care—a luxury few practices could afford before this program.

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### Endnotes

<sup>1</sup>U.S. Department of Health and Human Services Office of Minority Health, "Infant Mortality Disparities Fact Sheets." Accessed on August 7, 2014, at <http://minorityhealth.hhs.gov/templates/content.aspx?ID=6907>.

<sup>2</sup>T.J. Mathews and Marian F. MacDorman, "National Vital Statistics Report: Infant Mortality Statistics From the 2009 Period Linked Birth/Infant Death Data Set," Vol. 61, No. 8, 2013. Accessed at [http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61\\_08.pdf](http://www.cdc.gov/nchs/data/nvsr/nvsr61/nvsr61_08.pdf).

<sup>3</sup>American Academy of Family Physicians, American Academy of Pediatrics, American College of Physicians, and American Osteopathic Association, "Joint Principles of the Patient-Centered Medical Home," 2007. Accessed at [http://www.aafp.org/dam/AAFP/documents/practice\\_management/pcmh/initiatives/PCMHJoint.pdf](http://www.aafp.org/dam/AAFP/documents/practice_management/pcmh/initiatives/PCMHJoint.pdf).

<sup>4</sup>Community Care of North Carolina, "A History of CCNC: The Evolution of Community Care of North Carolina." Accessed on August 7, 2014, at <http://www.communitycarenc.com/about-us/history-ccnc-rev/>.

Spotlight 13, September 2014

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