EXAMINING THE IMPACT OF THE PATIENT PROTECTION AND AFFORDABLE CARE ACT IN NORTH CAROLINA

CHAPTER 7: QUALITY

The Affordable Care Act (ACA) has many provisions aimed at improving quality and patient safety. This is an important goal for the health of the country and for the health of North Carolinians. In 1999, the Institute of Medicine of the National Academies released its seminal report, *To Err is Human*, which estimated that preventable medical errors led to between 44,000-98,000 deaths per year.[1] A more recent study suggests that adverse events occur in one-third of all hospital admissions.[2] In addition to medical errors which can affect patient safety in and outside of hospitals, there are also studies which show that people, on average, only receive about half of all recommended ambulatory care treatments.[3,4]

North Carolina has been a leader in trying to improve patient safety and quality within a hospital setting. The North Carolina Center for Hospital Quality and Patient Safety (NCCHQPS) is run through the North Carolina Hospital Association.[5] NCCHQPS captures quality measures from North Carolina hospitals and makes these data available to the public. In addition, NCCHQPS has several different initiatives designed to improve hospital quality and patient safety.

Community Care of North Carolina (CCNC)[6] has led to significant improvements in quality of care provided to Medicaid recipients with chronic health problems. Using the Healthcare Effectiveness Data and Information Set (HEDIS)[a] performance measures, CCNC out-performs most Medicaid managed care plans in cardiovascular disease care, and ranks in the top ten percent nationally for diabetes and asthma.

The North Carolina Healthcare Quality Alliance (NCHQA)[7] provides leadership for the improvement of health care delivery in North Carolina; promotes and facilitates transparency and public accountability; and fosters innovative and sustainable activities that improve the quality and value of health care. NCHQA is currently pursuing projects related to coordinated care for patients regardless of payer; improving transitions and quality of care across providers; and increasing transparency and accessibility of quality of care information.

High quality care, especially for the chronically ill, cannot occur in a vacuum. Technology tools, and practice systems that maximally use them, are required to achieve the goals of the ACA. To this end, the North Carolina Area Health Education Centers (AHEC),[8] in partnership with CCNC and NCHQA, has provided AHEC practice-based services throughout the state. Using this practice-based consultation to intertwine data systems with quality improvement, practices responsible for the care of 113,000 diabetic patients have experienced absolute improvements of 11%-23% in blood pressure control, cholesterol reduction, and blood sugar control for these patients. Future plans call for expansion of these services to another 300,000 patients with

[a] HEDIS is a tool consisting of 75 measures across eight domains of care. It is used by more than 90% of America's health plans to measure and compare performance and to identify areas where improvement is needed.

diabetes, to patients affected by cardiovascular disease and chronic lung disease, and to those with complex care situations such as transitions between multiple types of care.

However, there is still room for improvement. The Commonwealth Fund does a ranking of health system performance, which includes 63 measures across five domains including access, prevention and treatment, avoidable hospital use and costs, equity, and healthy lives. Overall, North Carolina ranked 41 out of 50 states and the District of Columbia.[9] The analysis suggested that 131,627 more adults with diabetes in North Carolina would have received recommended clinical services to prevent disease complications if North Carolina performed as well as the best state. Similarly, North Carolina would have experienced 23,384 fewer preventable Medicare hospitalizations, saving close to $146 million.

Some experts suggest that our current payment structure incentivizes the volume of care provided, not the quality of care. Most providers are paid on a fee-for-service basis. They are paid on the number of procedures provided, regardless of the quality of care or health outcomes. The ACA attempts to address these issues, focusing on measuring and reporting on quality, and paying based on the value of services provided.

OVERVIEW

The ACA includes many provisions aimed at improving the quality of care provided by different types of health care professionals and providers. The legislation also directs the Secretary of the United States Department of Health and Human Services (USDHHS) to develop a national strategy to improve health care quality.[10] The national strategy for quality improvement in health care initially focused on six priority areas: reducing harm and making care safer, engaging people and families as partners in care, promoting effective communication and coordination of care, promoting effective prevention and treatment practices (starting with cardiovascular disease), working with communities to promote healthy living, and making quality care more affordable by implementing new care delivery models.[11] The USDHHS is working with the National Quality Forum, which solicited feedback from stakeholder groups, to help recommend key measures in each of the six priority areas. In selecting performance measures, USDHHS is trying to align measure across different initiatives (eg, physician quality reporting system and the electronic health record (EHR) meaningful use requirements); select as few measures as possible to achieve the national quality goals, focus more heavily on patient outcomes and patient experience of care, and remove measures that are no longer needed. In its 2012 Report to Congress, the National Quality Strategy included a total of 16 different measures for the six priority areas.[12] The Secretary was also directed to create a plan to collect these data and make the data available to the public.

In addition, the ACA modifies reimbursement methodologies to provide payments to health care professionals and different providers based, in part, on the value of the services provided. The ACA created a new Patient-Centered Outcomes Research Institute to develop research priorities and help fund comparative effectiveness research.[13] Comparative effectiveness research is designed to test different health care interventions (such as drugs, devices, treatment protocols, services, care management, or integrative health practices) against one or more other interventions.[14] The goal is to understand what treatment modalities work best for different populations with different health conditions. Funding for comparative effectiveness research

began through the American Recovery and Reinvestment Act (ARRA) funds. The ACA includes additional sources to support ongoing funding.

The Quality workgroup recognized that most of the requirements of the quality provisions impact providers and the public, resulting primarily in the need for education. No legislative changes were needed for implementation of the quality provisions. The workgroup also focused on transitions of patient care between providers, since these transitions are critical to ensuring continuity of care and preventing unnecessary hospital and emergency department admissions.

ACA PROVISIONS

Quality Measure Reporting

In order to participate in Medicare, certain types of health care providers have been required to report data to the Center Medicare and Medicaid Services (CMS) on quality of care measures. For example, hospitals already report on patient hospital experiences, surgical process of care, 30-day mortality, use of medical imaging, and complications and deaths for certain conditions. Nursing facilities are inspected at least annually. These data are available to the public.[15] Physicians, while not currently required to report quality data, are provided a financial incentive to do so. The Physician Quality Reporting System collects data on quality measures for covered professional services furnished to Medicare beneficiaries. For 2012, these measures evaluate specific aspects of care for many illnesses, including diabetes mellitus, heart disease, depression, stroke, glaucoma, macular degeneration, perioperative care, osteoporosis, medication reconciliation, preventive care, and respiratory illness. More information on these measures is available on the CMS website.[16] However, data comparing physicians on quality measures is not currently available.

The ACA includes new provisions that require the development of quality measure reporting systems for hospice and long-term care, and for a prospective payment system (PPS)-exempt cancer and inpatient rehabilitation hospitals.[17] Quality measures for these new reporting systems, as well as existing systems for acute care hospitals, skilled nursing facilities, and physicians, will be developed and updated by the Secretary, in consultation with the Agency for Healthcare Research and Quality (AHRQ) and CMS.[18]

The Secretary also is charged with developing a set of quality measures for Medicaid-eligible adults that is similar to the quality measurement program for children enacted in the Children's Health Insurance Program Reauthorization Act of 2009. States will report these quality measures on a regular basis.[19] The initial set of measures was published in the *Federal Register* in January 2012.[20] Fifty-one measures were identified in the areas of maternal/reproductive health, overall adult health, complex healthcare needs, and mental health/substance abuse. Funding for the development, testing, and validation of additional measures was provided through the Medicaid Quality Measurement Program in January 2012. A standardized reporting system has been developed and voluntary reporting by states is encouraged. By September 2014, states will be required to submit these measures, and the results of the analysis will be made available to the public.

Medicare's physician feedback program will be expanded to include the development of confidential individualized reports. These reports will compare the per capita utilization of

resources and services for an episode of care for physicians (or groups of physicians) to other physicians who see similar patients. Reports will be risk-adjusted and standardized to take into account local health care costs.[21] The Physician Compare website began providing data to the public on quality and patient experience measures for physicians enrolled in the Medicare program in January 2013. Under a final rule released in December 2011, Medicare data will also be available to qualified entities to combine with data from other payers and to create public reports on the performance of providers[22]. The workgroup discussion centered on concerns as to how efficiency would be assessed, the need for legal protections for providers who follow evidence-based care, and the need for education of providers and the public on how to use these data. In response to this discussion the NCIOM recommended:

RECOMMENDATION 7.1: EDUCATE PRIMARY AND SPECIALTY CARE PROVIDERS ON QUALITY MEASURE REPORTING REQUIREMENTS
The North Carolina Division of Medical Assistance should partner with the Area Health Education Centers program, Community Care of North Carolina, North Carolina Chapter of American College of Physicians, and the North Carolina Academy of Family Physicians to assume responsibility for educating primary care physicians, and with the North Carolina Medical Society to assume responsibility for educating specialty physicians, on the requirement to report adult health quality measures on all Medicaid eligible adults.[23]

A concern addressed by the workgroup was the impact on providers of multiple requests or demands for quality indicator data, since the state and federal governments and private insurers are all requesting data. The observation also was made that, if providers submit data directly and only to specific requestors, then the state loses access to the wealth of information provided in these data that could be utilized for state-level research and quality improvement initiatives. To reduce this reporting burden on providers, while providing data to the state for state level quality improvement initiatives, the NCIOM recommended:

RECOMMENDATION 7. 2: EXPLORE CENTRALIZED REPORTING
The North Carolina Health Information Exchange (NC HIE) Board should facilitate mechanisms to reduce the administrative burden of the Medicaid eligible adult quality reporting requirement through centralized reporting through the NC HIE and alignment of North Carolina quality measures with Federal requirements.[24]

RECOMMENDATION 7.3: INVESTIGATE OPTIONS FOR DATA STORAGE
The North Carolina Department of Health and Human Services, working with the North Carolina Health Information Exchange and other stakeholder groups, should examine options to capture federally reported quality data at the state level, including options for capturing the required quality data automatically from electronic health records, and then coordinate submission of data to the appropriate entities. Data should be made available at the state level for research and quality and readmission reduction initiatives. These data should contain unique identifiers to foster linkage of datasets across provider types and time.

Further reduction in the reporting burden could be achieved through alignment of the state quality measure requirements (e.g., CCNC, DMA) with the federal measures.

Value-Based Purchasing

Another new initiative of the ACA is value-based purchasing, which ties a percentage of Medicare payments to performance based on quality measures. The resulting pay-for-performance mode, a shift from the current pay-for-care-volume mode, is intended to improve health outcomes and lead to savings over time. Value-based purchasing will affect physicians, hospitals, home health, hospice, and skilled nursing facilities.[25] For example, in FFY 2013, Medicare will reduce hospital payments across the board by 1%.[26] [27] This is expected to generate $850 million, which will be used to provide incentive payments to hospitals that score well on certain performance measures. Hospitals may qualify for incentive payments based on their performance compared to other similar hospitals, or based on their improvement over time.

For physicians, Medicare payments under value-based purchasing will be based on risk-adjusted performance data. The performance data will include measures of quality of care that reflect health outcomes, as well as resource use or costs of care. Feedback reports will contain primarily comparisons of performance among similar physicians. The goal is to provide Medicare patients with high quality, efficient care. Medicare will begin adjusting payments to some physicians based on their performance in 2015.[28] The performance based payment will apply to all physicians participating in Medicare beginning in 2017.

In response to the volume of quality reporting required, the implementation of new payment systems, and other new requirements for physicians, the NCIOM recommended:

RECOMMENDATION 7.4: EDUCATE PROVIDERS ON ACA ISSUES

The North Carolina Area Health Education Centers program, North Carolina Medical Society, North Carolina Academy of Family Physicians, North Carolina Chapter of American College of Physicians, North Carolina Pediatric Society, Community Care of North Carolina, the Carolinas Center for Medical Excellence, and the North Carolina Healthcare Quality Alliance should partner to educate physicians on the following issues related to ACA:

- **a) Impact of the use of quality, efficiency, and resource use data by the public and Medicare.**[29]
- **b) Opportunities to provide input into the development of quality measures.**[30]
- **c) Penalties for not reporting quality data, and the advantages of integrating reporting and EHR.**[31]
- **d) Value-based purchasing.**[32]
- **e) Requirement for providers to have a system to improve healthcare quality to allow Health Benefits Exchange providers to contract with them.**[33]
- **f) Medical diagnostic equipment requirements.**[34]
- **g) Care coordination and other important follow-up factors to reduce hospital readmissions.**

For hospitals, the quality measures used for value-based purchasing are related to common and high-cost conditions, and include efficiency and consumer satisfaction measures. CMS plans to

align these measures with the meaningful use standards, so that collection of performance data is a natural part of care delivery. For FY 2011, 45 measures were adopted that evaluate process of care, mortality and readmission rates, patient safety measures, patient experience of care, and participation in cardiac surgery, stroke care, and nursing sensitive care databases.[35] The new payment policy is applicable for discharges occurring on or after 1 Oct 2011 for acute care and long-term care hospitals. In response to the volume of quality reporting and other information for hospitals provided by the ACA, the NCIOM recommended:

RECOMMENDATION 7.5 : EDUCATE HOSPITALS ON ACA ISSUES
The North Carolina Hospital Association should provide education to hospitals on the following issues related to ACA:

a) **Importance of using the "present on admission indicator" and the meaning and implications of the quartiles.[36]**
b) **Quality reporting requirements.[37]**
c) **Value-based purchasing.[38]**
d) **Importance of having a safety evaluation system to allow Health Benefits Exchange providers to contract with hospitals with more than 50 beds.[39]**
e) **Medical diagnostic equipment requirements.[40]**

Quality standards and reporting requirements also are defined for inpatient rehabilitation hospitals, certain cancer hospitals, ambulatory surgery centers,[41] and hospice. Value-based purchasing will be tested for these institutions, and, if implemented, providers who do not successfully participate in the quality reporting program would be subject to a reduction in their annual inflationary payment increase (called the annual market basket payment update).[42] The NCIOM also recommended education for other providers of care on the quality issues in the ACA that affect them.

RECOMMENDATION 7.6: EDUCATE HOME AND HOSPICE CARE PROVIDERS ON ACA ISSUES
The Association for Home and Hospice Care of North Carolina and the Carolinas Center for Hospice and End of Life Care should provide education to North Carolina hospice providers on quality reporting requirements, pay for performance, and the implications of the ACA value-based purchasing provisions.[43]

RECOMMENDATION 7.7: EDUCATE FACILITY PERSONNEL ON ACA ISSUES
The North Carolina Division of Health Service Regulation, Association for Home and Hospice Care of North Carolina, and North Carolina Health Care Facilities Association should provide education to their respective constituencies (ambulatory surgery centers, home health, and skilled nursing facilities) on the implications of value based purchasing.[44]

Public Availability of Quality Data
Data acquired through the quality reporting systems will be made available to the public. Information on quality of care provided by some hospitals and nursing homes is already available to the public. The Hospital Compare[45] and Nursing Home Compare[46] websites allow the public to compare the quality of care provided based on data provided by the institutions on

specific measures. The Hospital Compare website categories include surgical process of care, mortality rates, use of medical imaging, hospital experience, and patient safety. The Nursing Home Compare website provides information on staffing, quality measures, and fire safety and health inspections.

The ACA expands the types of facilities and providers for which quality data will be publically available, to include long-term care, inpatient rehabilitation, and PPS-exempt hospitals, and hospices.[47] The Secretary is required to establish a process by which hospitals can review their data prior to posting on the Hospital Compare website.

The Secretary was also required to develop a similar Physician Compare website that allows Medicare enrollees to compare scientifically sound measures of physician quality and patient experience measures.[48] This quality reporting system covers physicians enrolled in the Medicare programs, as well as other professionals who participate in the Physician Quality Reporting System, such as therapists (physical, occupational, or speech language), audiologists, physician assistants, nurse practitioners, clinical nurse specialists, certified registered nurse anesthetists, certified nurse midwives, clinical social workers, clinical psychologists, registered dieticians, and nutrition professionals.

The workgroup felt that physicians and other practitioners would benefit from education to ensure that they were aware of the reporting requirements and the public availability of their data. (See previous recommendations 7.4 and 7.5.) Connecting the quality measures to long-term outcomes will help providers realize the importance of participating in reporting of these measures and using the information meaningfully.

The workgroup also recognized that education for consumer decision-making will be a key element in quality improvement and cost savings through implementation of the ACA. There is currently no group with the breadth to reach all necessary constituents that also has the resources to execute this large undertaking. Therefore, the NCIOM recommended:

> **RECOMMENDATION 7.8: EDUCATE CONSUMERS ON AVAILABILITY AND INTERPRETATION OF PROVIDER QUALITY MEASURES**
> **The North Carolina Healthcare Quality Alliance, North Carolina Area Health Education Centers program, Community Care of North Carolina and the North Carolina Health Information Exchange should convene a broad representation of consumer stakeholders in an effort to construct an initial effort to affect consumer participation as these new resources become available.**

Health Care Acquired Conditions

As a result of the ACA, Medicaid now is prohibited from paying for services related to a health care-acquired condition. A similar policy already exists for Medicare.[49] The Secretary maintains a list of health care-acquired conditions for Medicaid (effective July 2011).[50] These conditions must be high cost and/or high volume, and must be reasonably preventable using evidence-based guidelines. For FY2011, the list of hospital-acquired conditions includes retention of a foreign object following surgery, air embolism, blood incompatibility, stage III and IV pressure ulcers, manifestations of poor glycemic control, falls, trauma, urinary tract or venous catheter associated

infections, and deep vein thrombosis after specific surgeries. Hospitals will not lose reimbursement if the condition was already present when the person was first admitted to the hospital, so education of hospitals on the use of the "present on admission" indicator is important.

Hospitals also will be subject to a Medicare payment penalty starting in FFY2015 if they are in the top 25th percentile of rates of hospital-acquired conditions. The financial penalty would apply to hospital-acquired conditions for certain high-cost and common conditions. This policy also may be applied to other providers participating in Medicare, including nursing homes, inpatient rehabilitation facilities, long-term care hospitals, outpatient hospital departments, ambulatory surgical centers, and health clinics.[51] The workgroup identified provider education as the primary gap regarding these policies.

In December 2011, the Center for Medicare and Medicaid Innovation announced it had contracted with 26 hospital engagement networks to offer technical assistance and create learning collaborative involving other hospitals to help reduce hospital acquired conditions and to improve transition care.[52] The North Carolina Hospital Association and Carolinas Healthcare System have both been given grants to serve as hospital engagement networks.

Readmission Reduction and Transitions in Care

The ACA includes provisions to reduce payments to hospitals paid under the Medicare inpatient prospective payment system for certain preventable Medicare readmissions. Specifically, beginning in October 2012, hospitals could be subject to Medicare rate reductions if they had excess readmissions for three conditions: heart attacks, heart failure, and pneumonia.[53] To be considered eligible for the penalty, the hospital must have had at least 25 admissions per condition. CMS also applied a risk adjustment mechanism, endorsed by the National Quality Forum, which adjusted for patient characteristics, comorbidities, and patient frailty.[54] In North Carolina, 59 hospitals were subject to the penalty with an average penalty of .28% per eligible hospital.[55] Three hospitals received the maximum penalty of 1.00%.[56] The Secretary has the authority to expand the policy to additional conditions in future years. The Secretary also was directed to calculate all patient hospital readmission rates for certain conditions and make this information publicly available.

The goal of this focus on preventable readmissions is to improve quality and efficiency of care by improving transitions in care. Transitions in care refer to movement of patients between health care providers and health care settings, for example, transfer between a nursing home and an emergency department; return to the care of a primary care physician following discharge from a hospital; or multiple providers providing care within a hospital. Problems with transition can occur when information about a patient's care or situation is not communicated adequately to other providers or to the patient. For example, a patient may receive conflicting medication lists on discharge from a hospital due to multiple medication lists stored in the hospital's medical record system, or a follow-up with a primary care physician following discharge from a hospital may not occur due to lack of communication by the patient and hospital regarding the patient's hospitalization. These coordination failures can result in hospital readmissions and/or poor outcomes. North Carolina ranked 18th in the percentage of Medicare 30-day hospital readmissions as a percent of all readmissions in 2006/2007, and 21st in the percent of short-stay

nursing home residents with a hospital readmission within 30 days in 2006.[57] The Commonwealth Fund analysis suggests that 5,042 fewer hospital readmissions would have occurred among Medicare beneficiaries if North Carolina performed as well as the best state, saving approximately $60,262,008.

The Quality Workgroup identified potential strategies to reduce preventable readmissions including access to patient-centered medical homes, addressing health literacy, high-risk care and medication management, a shared savings model, information technology support, the forging of relationships between providers of care, and the need to reduce the number of patients transferred from skilled nursing facilities (SNFs) to emergency departments (EDs). The workgroup identified quality initiatives already in place in North Carolina and the provider type and/or transitions between provider types affected by the initiative. This analysis provided the basic information required for the gap analysis, which provided a clear indication of where quality initiatives are needed to improve transitions in care. A subcommittee of the Quality Workgroup, in partnership with a subcommittee of the New Models of Care Workgroup, reviewed models and existing programs that address transitions in care at different points in the health care system, and made recommendations about which models and programs could be used or expanded in North Carolina to reduce preventable readmissions and improve transitions in care. (See Appendix C.) Subsequent to the completion of the work of the Quality workgroup, one Northwest Triad Care Transitions Community Program received a grant from the Center for Medicare and Medicaid Innovations to partner with community based organizations and seven local and regional hospitals to improve care transitions.[58]

In order to improve transitions of care, the NCIOM recommended:

RECOMMENDATION 7.9: IMPROVE TRANSITIONS OF CARE

a) The North Carolina Healthcare Quality Alliance should partner with the North Carolina Hospital Association, provider groups, and Community Care of North Carolina (CCNC) to improve transition in care, including forging of relationships between providers of care, developing mechanisms of communication including a uniform transition form, identifying and working with the North Carolina Health Information Exchange Board to facilitate information technology requirements, and developing mechanisms for evaluating outcomes. Partner organizations should also work to:

- **i) Improve patient (or responsible family member) discharge education at hospitals, with a focus on the health literacy checklist and teach-back methodology.**
- **ii) Improve discussions of goals of care and education of patients prior to hospital admission on their health status, treatment options, advance directives, and symptom management. Re-address goals of care as appropriate after hospital discharge.**
- **iii) Establish a crisis plan for each individual that addresses prevention as well as triggers and appropriate interventions.**
- **iv) Align existing initiatives that address care transitions at state and local levels.**

v) **Define essential elements for outpatient intake after hospital discharge (specific to particular conditions where relevant), and encourage adoption by physicians and other healthcare providers. Elements may include open access scheduling for recently hospitalized patients, enhanced after-hours access, medication reconciliation, and emphasis on self-management.**
vi) **Encourage collaboration and contracts between hospitals, local management entities/managed care organizations, critical access behavioral health agencies, and other community providers (e.g., pharmacists) to the extent legally allowed in order to better manage recently hospitalized patients.**
vii) **Encourage formal development of medical home models that include the use of non-physician extenders to work with some patients (e.g., stable diabetics), with physicians focusing on higher-need patients.**

b) **In each community, stakeholder alliances including provider groups, CCNC, home health representatives and hospitals should discuss leveraging appropriate local resources to apply the principles of excellent transition care to the extent possible. These alliances will become even more important with pending improvements in telemonitoring and home use of health information technologies.**
c) **Individuals should be provided their own personal health records after hospital discharge, pending the availability of a more robust Health Information Exchange.**
d) **Solutions utilizing transition principles should be applied to all patients regardless of payer.**

Hospitalizations and re-hospitalizations of patients in long-term care settings can result in discomfort, secondary injury or illness, and excessive costs. A CMS-funded study in Georgia evaluated the proportion of hospitalizations that were avoidable and the reasons for these hospitalizations. Of the 200 hospitalizations evaluated in this study, 67% were flagged as potentially avoidable. Reasons for these hospitalizations included lack of on-site availability of clinicians, inability to access needed testing or treatment, and difficulty in assessment of acute changes.[59] A quality improvement study using clinical practice tools and support by advanced-practice nurses resulted in a reduction in the potentially avoidable hospitalizations of 36%.[60] One of the difficulties in implementing the use of advanced practice nurses in long-term care and skilled nursing facilities is reimbursement for their services. These nurses can provide support for transitions from hospital to nursing facilities, provide consistent routine and follow-up care, improve communication with physicians, and, thus, improve the quality and reduce the cost of care of nursing home patients. In order to use advance practice nurses to improve care in skilled nursing facilities, the NCIOM recommended;

RECOMMENDATION 7.10: REIMBURSE NURSE PRACTITIONERS IN SKILLED NURSING FACILITIES

The North Carolina Health Care Facilities Association and Community Care of North Carolina should collaborate with the Division of Medical Assistance to provide reimbursement for nurse practitioner services in skilled nursing facilities.

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