Ambulatory Care Nurse-Sensitive Indicator Industry Report

Meaningful Measurement of Nursing in the Ambulatory Patient Care Environment

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Many settings. Multiple roles. One unifying specialty.

Ambulatory Care Nurse-Sensitive Indicator Industry Report: Meaningful Measurement of Nursing in the Ambulatory Patient Care Environment

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The authors, editors, and publishers of this report have made serious efforts to ensure that practices, procedures, and treatments are accurate and conform to standards accepted at the time of publication. Due to constant changes in information resulting from continuous research and clinical experience, reasonable differences in opinions among authorities, unique aspects of individual clinical situations, and the possibility of human error in preparing such a publication, the reader should exercise individual judgment when making a clinical decision, and if necessary, consult and compare information from other authorities, professionals, or sources.

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What nursing brings to the future of health care is a steadfast commitment to patient care, improved safety and quality, and better outcomes. Most of the near-term challenges identified in the health care reform legislation speak to traditional and current strengths of the nursing profession in such areas as care coordination, health promotion, and quality improvement. How well nurses are trained and do their jobs is inextricably tied to most health care quality measures that have been targeted for improvement over the past few years. Thus for nursing, health care reform provides an opportunity for the profession to meet the demand for safe, high-quality, patient-centered, and equitable health care services. We believe nurses have key roles to play as team members and leaders for a reformed and better-integrated, patient-centered healthcare system (Institute of Medicine, 2010, pp. xi-xii).

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FOREWORD

The current health care quality improvement infrastructure is the result of a century-long experience of cumulative efforts. It began with an acknowledgement of the role of quality in health care, and gradually evolved to encompass the prioritization of quality improvement and the development of organizational and technological systems to monitor, quantify, and incentivize quality improvement in health care.

Still evolving today, quality focuses on performance improvement and outcome measurement that documents improved health care processes and patient outcomes. Major national and organizational efforts have focused on quantifying, standardizing, routinely measuring, and reporting health care processes and outcomes (Marjoua & Bozic, 2012). Each of the health professions must endeavor to establish the important elements that will improve the way we deliver health care in the future.

It became evident to professional nurses in outpatient settings that identifying, defining, and measuring the elements of their practice related to patient care and outcomes was critical. A measureable value of the ambulatory care registered nurse (RN) role in improving health has not been documented to date. Many RNs in the ambulatory care setting have not been professionally socialized with an organizational emphasis on structural empowerment, autonomy, leadership, and practice management. They are, in many settings, unprepared to take up this mantle of health care delivery leadership. Furthermore, they have been under-supported as a professional group because they have yet to quantify their value with metrics that differentiate them as a specialty. However, as the outpatient setting increasingly connects patients and families to care coordination, transition management, health promotion, and community resources, the role of the RN as a leader in this setting is increasingly vital.

The American Academy of Ambulatory Care Nursing (AAACN) energized the quality activities of nurses in ambulatory care settings. In spring 2013, the AAACN Board of Directors commissioned a task force to identify and define nurse-sensitive indicators (NSIs) specific to the ambulatory setting.

Members of the task force represent all geographic regions of the United States and a broad range of practice settings. Members include development experts from the Collaborative Alliance for Nursing Outcomes (CALNOC) and the Press Ganey National Database for Nursing Quality Indicators (NDNQI)/Press Ganey Inc., as well as a past president of AAACN who was part of the original work done in the late 1990's via the American Nurses Association (ANA) to determine indicators sensitive to non-acute settings.

As experts in the specialty of ambulatory care nursing, we advocate for the measurement and benchmarking of RN-sensitive indicators that reflect the full contribution and value of the RN to the health care system and include the entire lifespan of our patients and families. We provide our expertise in the development of

indicators that best reflect the impact of the RN in this setting. We comprehend the many facets of health care dysfunction that continue to persist due to immature performance improvement infrastructures in the ambulatory environment. We strive to be the premier voice and endorser of any entity that identifies, develops, and benchmarks nurse-sensitive indicators in the ambulatory arena.

As this work continues to evolve, AAACN strives to continue to support the tenants of the Institute of Medicine's report *The Future of Nursing: Leading Change, Advancing Health* (IOM, 2010) and its follow-up report (IOM, 2015) to ensure that in all settings the transformation of health care is led by nurses. As recommended in the *Future of Nursing* follow-up report, nurses are encouraged to lead reforms to the health care system and improve data infrastructure through the collaboration of organizations and associations (IOM, 2015). In August 2015 as this report was being completed, AAACN and CALNOC entered into a collaborative partnership to explore the development and pilot testing of ambulatory care nurse-sensitive indicators. For more than 20 years, CALNOC has developed nurse-sensitive indicators and is the leading provider of actionable information and research on nurse-sensitive indicators. Its mission is to advance global patient care safety, outcomes, and performance measurement efforts. Through this collaborative partnership a steering committee was formed that is taking the proposed indicators in this report and further developing them for eventual piloting and benchmarking.

The work of this task force is critical as the transformation of health care is moving at a rapid pace and is increasingly focused on the outpatient realm. As inpatient admissions and overall length of stay are decreasing, ambulatory visits are increasing. As the focus of health care is transitioning from inpatient episodes of care to community and outpatient settings, ambulatory care nurses have been called upon to lead in multiple areas and practice to the full extent of their education and training. Their ability to utilize, develop, and measure role-specific data that is meaningful and participate as partners in every step of the transition of this paradigm is crucial. This work is an ongoing journey best led under the auspices of AAACN, the professional organization that represents and understands the value and role of the ambulatory care registered nurse.

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AMERICAN ACADEMY OF AMBULATORY CARE NURSING

The American Academy of Ambulatory Care Nursing (AAACN) is a welcoming, unifying community for registered nurses in all ambulatory care settings. The association offers:

- Connections with others in similar roles
- Help in advancing practice and leadership skills
- Advocacy that promotes greater appreciation for the specialty of ambulatory care nursing.

AAACN evolved from the American Academy of Ambulatory Nursing Administration, founded in 1978 as a not-for-profit educational forum. In 1993, the organization's name was changed to the American Academy of Ambulatory Care Nursing (AAACN). Membership was broadened to include nurses in direct practice, education, and research roles as well as those in management and administration. Today, membership is open to nurses and other professionals interested in ambulatory care, care coordination and transition management, and telehealth nursing. Corporations and individual corporate representatives are also welcomed as members. AAACN is the only specialty nursing association that focuses on excellence in ambulatory care.

AAACN serves as a voice for ambulatory care nurses across the continuum of health care delivery.

EXECUTIVE SUMMARY

The purpose of this report is to identify, define, and propose nurse-sensitive measures that reflect the work and value of registered nurses (RNs) in ambulatory care settings. The measures proposed in this report reflect the activities and outcomes of the AAACN Nurse-Sensitive Indicator (NSI) Task Force from spring 2013 through fall 2015. Section 2 details measures that are currently endorsed as ambulatory care nurse-sensitive indicators, while sections 3 and 4 describe measures proposed by the NSI Task Force for development. The report incorporates a review of current literature, health care quality measures, and best practices in ambulatory nursing care, as well as the opinions, expertise, and experience of AAACN members.

Section 1 provides a brief history of nurse quality evaluation and the development of nurse-sensitive indicators. This section reviews the role of the ambulatory care nurse and the urgent need for ambulatory care nursing leaders to demonstrate the value of the role of the RN in ambulatory care. Additional indicator topic areas for development discussed at the 2014 American Nurses Association Ambulatory Measurement Summit are also included.

Section 2 reviews existing and endorsed ambulatory care nurse-sensitive indicators from the Collaborative Alliance for Nursing Outcomes (CALNOC) and the Press Ganey National Database for Nursing Quality Indicators (NDNQI)/Press Ganey, Inc. These indicators are ready to be used by any organization that wishes to benchmark against other organizations within each respective database.

Section 3 identifies and describes nine indicators recommended for development, endorsement, and pilot testing. These measures are adapted from already existent, non-nursing specific, health care endorsed measures. These measures are well understood by the health care community at large, and with AAACN NSI Task Force recommendations for adaptation to the ambulatory care nurse role, have good potential for meaningful measurement of the RN in the ambulatory care setting.

Section 4 identifies and describes four new, original measures recommended for development, endorsement, and pilot testing. These four measures have the potential to uniquely reflect the role of the RN in the ambulatory care setting as well as promote enhanced nursing practice. Each measure represents a cumulative effort of evidence and best practice review.

Section 5 describes several current exemplars in ambulatory care nurse-sensitive indicator measurement at the microsystem level. These exemplars reflect the efforts of many organizations and highlight work being done to collect metrics that assist in quantifying and continuously improving the work of the ambulatory care RN. These exemplars and the lessons learned have informed the work presented in this report.

This report reflects the beginning of a journey to develop and endorse measures that meaningfully reflect the value of the RN in ambulatory care. The work should continue to be seen for what it is: highly complex, arduous, and constantly evolving. Members of this AAACN NSI Task Force are committed to a long journey of development, and we will continue to provide input and expertise to help shape measures that will best assign value to the role of the RN in ambulatory care.

INTRODUCTION AND BACKGROUND INFORMATION

Over the past 20 years, concerns have grown about health care delivery processes and the less-than-optimal outcomes many patients experience. There has been considerable work conducted to identify these issues and examine how to improve health care.

A recent report by the Commonwealth Fund stated, "Despite having the most expensive health care system, the United States ranks last overall among 11 industrialized countries on measures of health system quality, efficiency, access to care, equity, and healthy lives" (Davis, Stemkis, Squires, & Schoen, 2014, p. 6). The National Quality Strategy and the Patient Protection and Affordable Care Act (PPACA) aim to fix these dysfunctions by supporting innovative processes that provide patients with better care, develop structures that support health in both people and communities, and create systems that are more affordable and accessible to all (Berwick, Nolan, & Whittington, 2008; U.S. Department of Health and Human Services, 2011; Institute of Medicine [IOM], 2001).

In its landmark report, *The Future of Nursing: Leading Change, Advancing Health*, the IOM states:

> The United States has the opportunity to transform its health care system to provide seamless, affordable, quality care that is accessible to all, patient centered, and evidence based and leads to improved health outcomes. Achieving this transformation will require remodeling many aspects of the health care system (2010, p. 1).

Impetus for Change: Paradigm Shift, Care Delivery, and Performance Improvement

Over the past two decades the delivery of health care has shifted from the inpatient to the ambulatory care setting. According to the American Hospital Association (AHA, 2015), inpatient admissions have decreased from 11.93% in 1993 to 10.63% in 2013, and the average length of stay has reduced from 7.0 days in 1993 to 5.4 days in 2013. Meanwhile, outpatient visits averaged 14.22% in 1993 and increased to 21.45% in 2013 (AHA, 2015), while the registered nurse (RN) workforce in the outpatient setting, particularly in primary care, has declined (IOM, 2010).

The National Association of Community Health Centers (NACHC) estimates 56 million people have inadequate access to a primary care medical provider and that with the rise in outpatient visits, health centers need to increase the number of patients served from 16 million to 30 million (IOM, 2010). With the dramatic increase of Americans with health insurance, there is an expectation that there will be a need for more RNs due to this policy change, requiring 16,000 to 20,000 more RNs in the workforce (IOM, 2010). Currently the percent of RNs employed in ambulatory care remained unchanged between 2004 and 2008 at 12% (IOM, 2010).

The PPACA of 2010 supports rebuilding the primary care workforce, increasing reimbursement for primary care, strengthening community health centers, and providing free preventive care for seniors. One such program is Community Care Transitions, established to help high-risk older adults who are hospitalized avoid unnecessary re-admissions through care coordination and connection of patients to services in their communities (Patient Protection, 2010). Evidence supports RNs as critical to delivery of these preventive services, as well as care coordination activities to avoid re-hospitalizations. The Accountable Care Organizations (ACOs) supported by the PPACA are centered on delivering coordinated, efficient, and effective care (Swan & Haas, 2011).

In the late 1990s, the American Nurses Association (ANA) Congress of Nursing Practice convened an advisory committee to "identify indicators sensitive to the impact of nursing practice in community-based non-acute settings" (ANA, 2000, p. viii). These settings were identified as long-term care, home health, school health, and ambulatory care (Swan, 2008). The framework used to organize these indicators were built on the following categories of care: utilization of services, patient satisfaction, risk reduction, increased protective factors, level of functioning, psychosocial functioning, changes in symptom severity, and strength of therapeutic alliance (Montalvo, 2007; Sawyer et al., 2002; Swan, 2008).

In its requirements for the Magnet Recognition Program®, the American Nurses Credentialing Center (ANCC) states, "nurses at all levels analyze data and use national benchmarks to gain a comparative perspective about their performance and the care patients receive…Action plans are developed that lead to systematic improvements over time…Magnet® organization data demonstrate outcome measures that generally outperform the benchmark statistic of the national database used in patient and nurse sensitive indicators" (ANCC, 2014, p.42). The key data elements required by application to this program are nurse-related patient satisfaction, nursing sensitive quality, nurse satisfaction, nurse staffing, nurse turnover and vacancy, among others, for every RN in every setting of the applicant organization (ANCC, 2014).

The Nursing Mandate and Importance of the Ambulatory Care RN Role in Health Care Transformation

The IOM stated:
>By virtue of its numbers and adaptive capacity, the nursing profession has the potential to effect wide-reaching changes in the health care system. Nurses' regular, close proximity to patient and scientific understanding of care processes across the continuum of care give them a unique ability to act as partners with other health professionals and to lead in the improvement and redesign of the healthcare system and its many practice environments, including hospitals, schools, homes, retail health clinics, long term care facilities, battlefield and community and public health centers.

Nurses thus are poised to help bridge the gap between coverage and access, to coordinate increasingly complex care for a wide range of patients, to fulfill their potential as primary care providers to the full extent of their education and training and to enable the full economic value of their contributions across practice settings to be realized. In addition a promising field of evidence links nursing care to high quality of care for patient, including protecting their safety. Nurses are crucial in preventing medication errors, reducing rates of infection and even facilitating patients' transition from hospital to home (IOM, 2010, pp. 2-3).

These statements and the associated recommendations were not specific to any one environment in which nurses practice, rather they were all encompassing to every sector, including ambulatory care.

In order to bridge the gaps that exist in our health care system, the IOM recommends RNs in every setting:
1.   Practice to the full extent of their education and training,
2.   Achieve higher levels of education and training,
3.   Be full partners with physicians and other health professionals in redesigning healthcare in the United States.
4.   Seek more effective workforce planning and policy making that requires better data collection and improved information infrastructures (IOM, 2010).

In its evaluation of the progress made by its original *Future of Nursing* report, the IOM stated:
Baccalaureate prepared nurses are not fully utilized across all practice settings; in particular in ambulatory care settings where they are needed to provide population health, health promotion, disease prevention, and chronic disease management … In some areas local credentialing requirements and practice policies can limit nursing practice even though state regulations permit a broader legal scope (Breslin, 2015. p. 2).

In its position statement on the role of the registered nurse in ambulatory care, AAACN states:
The transition of health care from the inpatient to ambulatory setting has created challenges related to accessing care and coordinating services, and escalated the complexity of care delivered outside the hospital. This shift has dramatically increased the need for professional nursing services, as patients and their families require increased depth and breadth of care. Ambulatory RNs facilitate patient care services by managing and individualizing care for patients and their families, who increasingly require assistance navigating the complex health care system. With provision of complex procedural care, ambulatory care RNs provide

support with decision making, patient education, and coordination of services (AAACN, 2010, p. 1).

Pay for performance initiatives are changing the quality environment (Swan, 2008). Nurse-sensitive indicators in acute care have been established and widely accepted nationally (Swan, 2008). Leaders in ambulatory care nursing must seek to describe the value of nurses' contributions, as has been accomplished through the development of indicators of quality patient care and nurse-sensitive outcomes in other environments where nurse care is delivered (Swan, 2008). According to Swan and Haas (2011), ambulatory care RNs are well positioned to fully participate in health care reform initiatives.

Ambulatory care RNs must be engaged in documenting and measuring the impact of nursing in care coordination and transition management related to patient outcomes as well as to cost effectiveness and improvements in the patient's and family's well-being (Swan & Haas, 2011). Many sectors are already working on interventions that improve the gaps in the health care system. Hamner (2005) summarized 16 studies that showed RN-led interventions in outpatient heart failure clinics (10 studies) and telephone- or technology-based interventions (six studies) that showed reduced hospital readmissions, reduced emergency room visits, decreased mortality, and improved self-care and quality of life, as well as improved patient satisfaction (Hamner, 2005; Swan, Conway-Phillips & Griffin, 2006).

With so many instances of dysfunction in the current health care system, a mandate exists for nurses, representative of all settings, to lead problem solving and transformational change. As preventive and population health continue to grow in their importance toward this transformational change, nurses in the community, outpatient setting, and ambulatory care arenas must assume these leadership roles to transform health throughout the continuum for patients and families.

SECTION 1
Overview of Information Affecting Quality Measurement in Ambulatory Care Nursing

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SECTION 1
OVERVIEW OF INFORMATION AFFECTING QUALITY MEASUREMENT IN AMBULATORY CARE NURSING

AAACN Nurse-Sensitive Indicator (NSI) Task Force members reviewed past and present information about ambulatory care nursing and quality efforts. This review includes a definition of ambulatory care nursing, defining characteristics of the professional registered nurse (RN), a short overview of the history of nursing quality, and the task force's work to develop a set of nursing metrics.

A.   Definition of Ambulatory Care Nursing

According to the American Academy of Ambulatory Care Nursing (AAACN, 2011):

Professional ambulatory care nursing is a complex, multi-faceted specialty that encompasses independent and collaborative practice. The comprehensive practice of ambulatory care nursing is built on a broad knowledge base of nursing and health sciences, and applies clinical expertise rooted in the nursing process. Nurses use evidence-based information across a variety of outpatient health care settings to achieve and ensure patient safety and quality of care while improving patient outcomes.

Ambulatory care includes those clinical, organizational, and professional activities engaged in by registered nurses with and for individuals, groups, and populations who seek assistance with improving health and/or seek care for health-related problems. Registered nurses promote optimal wellness, participate in the management of acute illness, assist the patient to manage the effects of chronic disease and disability, and provide support in end-of-life care. The ambulatory care registered nurse is accountable for the provision of nursing care in accordance with relevant federal requirements, state laws and nurse practice acts, regulatory standards, the standards of professional ambulatory care nursing practice, other relevant professional standards, and organizational policies (p. 3).

B.   Defining Characteristics of Ambulatory Care Nursing

1. Ambulatory nursing care requires critical reasoning and astute clinical judgment in order to expedite appropriate care and treatment, especially given that the patient may present with complex problems or potentially life threatening conditions.
2. Ambulatory care registered nurses provide care across the life span to individuals, families, caregivers, groups, populations, and communities.
3. Ambulatory care nursing occurs across the continuum of care in a variety of settings, which include but are not limited to hospital-based clinic/centers, solo or group medical practices, ambulatory surgery & diagnostic procedure centers, telehealth service environments, university and community hospital clinics, military and veterans administration settings, nurse-managed clinics,

managed care organizations, colleges and educational institutions, free-standing community facilities, care coordination organizations, and patient homes.

4. Ambulatory care registered nurses interact with patients during face-to-face encounters or through a variety of telecommunication strategies, often establishing long-term relationships.

5. Telehealth nursing is an integral component of professional ambulatory care nursing that utilizes a variety of telecommunications' technologies during encounters to assess, triage, provide nursing consultation, and perform follow up and surveillance of patients' status and outcomes.

6. During each encounter, the ambulatory care registered nurse focuses on patient safety and the quality of nursing care by applying appropriate nursing interventions, such as identifying and clarifying patient needs, performing procedures, conducting health education, promoting patient advocacy, coordinating nursing and other health services, assisting the patient to navigate the health care system, and evaluating patient outcomes.

7. Nurse-patient encounters can occur once or as a series of occurrences, are usually less than 24 hours in length at any one time, and occur singly or in group settings.

8. Ambulatory care registered nurses, acting as partners and advisors, assist and support patients and families to optimally manage their health care, respecting their culture and values, individual needs, health goals and treatment preferences.

9. Ambulatory care registered nurses facilitate improved care delivery and outcomes using the precepts of care coordination and transition management (CCTM) when applying the nursing process, participating in multidisciplinary collaboration and utilizing appropriate health care services and resources across the care continuum.

10. Ambulatory care registered nurses are knowledgeable about and provide leadership in the clinical and managerial operations of the organization.

11. Ambulatory care registered nurses design, administer, and evaluate nursing services within the organization in accord with relevant federal requirements, state laws and nurse practice acts, regulatory standards, and institutional policies and procedures.

12. Ambulatory care registered nurses provide operational accountability for and coordination of nursing services, including the appropriate skill mix and delegation of roles and responsibilities for licensed and unlicensed nursing personnel.

13. Ambulatory care registered nurses apply the provisions of the American Nurses Association Code of Ethics for Nurses to their own professional obligations and for the patients entrusted to their care.

14. Ambulatory care registered nurses pursue lifelong learning that updates and expands their clinical, organizational, and professional roles and responsibilities (AAACN, 2011).

C.   History of Evaluating Nursing Quality

Evaluating the quality of nursing practice started when Florence Nightingale identified nursing's role in health care quality and began to measure patient outcomes (Montalvo, 2007). Nightingale used statistical methods to follow trends correlating patient outcomes to environmental conditions (Dossey, Selanders, Beck, & Attewell, 2005; Nightingale, 1859).

Evolution of Modern Quality Measurement

Quality measurement in health care evolved in the latter part of the 20th century. The American Nurses Association (ANA) began work on nursing practice quality measurement in the 1970s. There was wide dissemination of the Quality Assurance (QA) model (Rantz, 1995), and Donabedian (1988) introduced the structure, process, and outcome model that has offered a comprehensive method for evaluating health care quality (Montalvo, 2007). In the early 1990s a need existed nationally to evaluate nurse staffing and identify linkages between nurse staffing and patient outcomes (Montalvo, 2007).

Evolution in the 21st Century

More recently, organizations such as the Collaborative Alliance for Nursing Outcomes (CALNOC) and the Press Ganey National Database of Nursing Quality Indicators (NDNQI)/Press Ganey Inc. conducted a series of pilot studies across the United States. These metrics were endorsed by the National Quality Forum (2004) in the initial set of nurse-sensitive measures that were reflective of the inpatient setting (Brown, Donaldson, Burnes Bolton, & Aydin, 2010; Brown & Wolosin, 2013; Montalvo, 2007). These indicators include the following:
1. Nursing Hours per Patient Day
2. Patient Falls
3. Patient Falls with Injury
4. Pediatric Pain Assessment, Intervention, Reassessment (AIR) Cycle
5. Pediatric Peripheral Intravenous Infiltration Rate
6. Pressure Ulcer Prevalence
7. Psychiatric Physical/Sexual Assault Rate
8. Restraint Prevalence
9. RN Education/Certification
10. RN Satisfaction Survey Options
11. Staff Skill Mix
12. Voluntary Nurse Turnover
13. Nurse Vacancy Rate
14. Nosocomial Infections
      o Urinary Catheter-Associated Urinary Tract Infection
      o Central Line Catheter-Associated Blood Stream Infection
      o Ventilator-Associated Pneumonia (Montalvo, 2007)

D.   Building a Culture of Safety

The landmark IOM report regarding the study of medical errors in hospitals further supported the need to assess and constantly improve metrics related to patient safety (Brown & Wolosin, 2013; IOM, 2001). This report, along with a subsequent IOM call to action (IOM, 2001) and the PPACA of 2010, in concert with the Centers for Medicaid & Medicare Services, have made it essential that organizations create cultures of safety (Brown & Wolosin, 2013).

Safety and quality are intrinsically linked to such factors as skill mix, turnover, and workload intensity (Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Brown & Wolosin, 2013). As such, the work of developing nurse-sensitive indicators in the ambulatory setting requires simultaneous measurement of RN staffing and demographics to effectively link to quality that is nursing sensitive. Additionally, the benchmarking of both quality and RN demographics across like size and type environments must be done to continue to advance and improve the quality of care RNs provide in these settings (Brown et al., 2010).

E.   Definition of Nurse-Sensitive Measure

A Nurse-Sensitive Measure is an indicator that is sensitive to the input of nursing care, reflecting structure, process, and outcomes (NQF, 2004). ANA and CALNOC define Nurse-Sensitive Indicators as those indictors that capture care or its outcomes most affected by nursing care (ANA, 1996; CALNOC, 2015). NQF further defines a nursing-sensitive performance measure as processes and outcomes, and structural proxies such as skill mix and nurse staffing hours for these processes and outcomes, that are affected, provided, and/or influenced by nursing personnel but for which nursing is not exclusively responsible (NQF, 2004).

Nurse-sensitive indicators are often subdivided into three subcategories: structural terms, process terms, and outcome terms (Heslop & Lu, 2014). Structure refers to indicators that seek to measure the nursing impact on patients, nursing, and setting (Heslop & Lu, 2014). Process refers to indicators that seek to measure the nursing intervention and/or nursing practice (McCloskey & Bulechek, 2000). Outcome indicators relate to patient safety, perceptions, use of health care, functional status, and clinical management related to nursing care (Doran, 2011).

F.   Quality Indicator Development and Pilot Testing Processes

Table 1. Indicator Development Process

1. Review scientific literature for: (a) evidence that some aspect of nursing care has an effect on a patient outcome; (b) specific definitions of the indicators; and (c) evidence that the indicators can be validly and reliably measured.
2. Collect information from researchers in the field on threats to reliability and validity.
3. Conduct expert review of draft indicator definitions, data collection guidelines, and data collection forms.
4. Distribute revised definitions, guidelines, and forms to clinical experts for comments on face validity and feasibility of reliable data collection.
5. Incorporate clinical expert feedback and develop revised versions of definitions, guidelines, and forms.
6. Conduct a pilot study (Table 2) using the draft data collection materials and review data; also interview hospital study coordinators to identify additional threats to reliability and validity.
7. Finalize definitions, data collection guidelines, and forms.
8. Train database participants in standardized data collection practices.

Source: Montalvo, 2007. Used with permission.

Table 2. Pilot Testing Process

1. Develop the indicator with draft guidelines and data collection instruments.
2. Recruit pilot testers via email and phone.
3. Select pilot sites from those interested. Sites are selected for hospital/unit diversity.
4. Guide pilot sites in collecting data according to the draft guidelines.
5. Analyze data submitted by pilot sites.
6. Collect written and telephone evaluations to assess for clarity, feasibility, and assessment of threats to validity and reliability.
7. Analyze pilot data for indicator refinement.
8. Finalize guidelines and instruments for dissemination.

Source: Montalvo, 2007. Used with permission.

G.   American Nurses Association Proposed Measure Topic Areas from ANA Ambulatory Summit

In January 2014, ANA held the Ambulatory Measurement Summit. Members of the AAACN NSI Task Force and other ambulatory care leaders provided valuable input to this multi-organizational effort to identify important topic areas for ambulatory care nurse-sensitive indicators. The group reached consensus on five indicator topic areas:
- Pain Assessment and Follow Up
- Depression Screening
- Medication Reconciliation
- Readmissions
- Hypertension (Lewis, 2014)

The ANA Ambulatory Measurement Summit included 45 experts from across the nursing care continuum, including 10 from the AAACN NSI Task Force and AAACN leadership. Prior to the summit, preliminary work was done to evaluate existing ambulatory quality measures from the NQF and the National Committee for Quality Assurance (NCQA) that might serve as useful nursing quality measures. Special emphasis was put on measures in which nursing care or input is necessary or expected. As the American Nurses Credentialing Center's (ANCC) Magnet Recognition Program®, a subsidiary of ANA, requires the submission of eight quarters of data for all indicators in its 2014 Manual, the timeline was very tight to identify, test, and validate the selected measures for hospitals planning to apply for ANCC Magnet Recognition® in 2016 (Martinez, Battaglia, Start, Mastal & Matlock, 2015).

A definition of ambulatory care nursing was provided by AAACN members in attendance. AAACN NSI Task Force members as well as AAACN leaders advocated for indicators that were reflective of the lifespan as well as applicable to telephonic management of patients, with consideration of the variety of ambulatory care settings.

There has been no additional citation or communication related to the development of four of these indicators. Press Ganey NDNQI published *Care Coordination: Medication Reconciliation* in August 2014, reflective of the medication reconciliation measure topic area discussed at this summit.

H.   AAACN Nurse-Sensitive Indicator Task Force Journey

The AAACN NSI Task Force has been working on many activities to ascertain both short- and long-term opportunities to meaningfully measure the role of the nurse in the ambulatory care setting. This was accomplished using a variety of methods:
- Reviewed historical efforts to measure nursing quality of care and outcomes.
- Conducted a literature review of quality metrics and best practices in ambulatory care.
- Elicited expert opinion.

- Reviewed current standards, scope, definitions, and dimensions of ambulatory care registered nurses.
- Reviewed all current endorsed measures in the ambulatory care and acute health care settings.
- Collaborated in identifying ambulatory care nursing measure topic areas at the ANA Summit in January 2015.
- Shared AAACN member opinions and feedback of quality activities at national meetings and through online surveys (Martinez et al., 2015; Mastal et al., 2012).
- Utilized an evidence-based practice approach to identify and develop multiple indicators for use in the ambulatory care environment. Those indicators are summarized in this report with suggestions for short-term and long-term development.
- Specified the process for developing appropriate indicators.
- Outlined the pilot testing process.
- Advocated for and supported the collaboration with CALNOC to assist in the development of proposed indicators.

These activities and strategies have led the task force to propose indicators that reflect the practice of ambulatory care RNs as well as measure key elements of the national quality strategy. Proposed measures may act as catalysts to assist in assigning value to key ambulatory care nursing role dimensions that have great value and potential for positive patient outcomes, yet have been inadequate and or inconsistently measured. The task force and AAACN are fully aware that nursing quality metrics will be an ongoing process as future changes occur in ambulatory care settings.

SECTION 2
Review of Existent Endorsed Ambulatory Care Nurse-Sensitive Indicator Measures

2.1 Press Ganey National Database of Nursing Quality Indicators (NDNQI)/ Press Ganey, Inc.

A. Care Coordination: Medication Reconciliation

B. Care Coordination: Pending Diagnostic Test Results

2.2 Collaborative Alliance for Nursing Outcomes (CALNOC)

A. Ambulatory Site Demographics

B. Ambulatory Volume Measures (Denominators)

C. Ambulatory Staffing, Skill Mix, and Patient Care Hours

D. Ambulatory Surgery Adverse Outcomes of Care: Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant

E. Ambulatory Surgery Patient Burns

F. Ambulatory Surgery Patient Falls

G. Ambulatory Surgery Patient Injury Falls

H. Ambulatory Surgery Hospital Transfer/Admission

SECTION 2
REVIEW OF EXISTENT ENDORSED AMBULATORY CARE NURSE-SENSITIVE INDICATOR MEASURES

Currently, there are existing, endorsed ambulatory care nurse-sensitive indicators from the Press Ganey National Database of Nursing Quality Indicators (NDNQI)/Press Ganey, Inc. and the Collaborative Alliance for Nursing Outcomes (CALNOC). These indicators are reviewed in this section and are ready to be used by any organization that wishes to benchmark against other organizations within each respective database. The format for these indicators was replicated largely from the format displayed in each respective citation, and as such, differs from the format in the remainder of this report.

2.1   Press Ganey National Database of Nursing Quality Indicators (NDNQI)/ Press Ganey, Inc.

Measures displayed in this section are included with the permission of the Press Ganey National Database of Nursing Quality Indicators (NDNQI)/Press Ganey, Inc.

A.   Care Coordination: Medication Reconciliation

Measure Source: Press Ganey NDNQI Guidelines for Data Collection and Submission on Care Coordination in Ambulatory Settings (NDNQI, 2014).

Measure Description: Explore relationship of nurse staffing to improving patient outcomes related to reducing potential for adverse events by providing patients with a Reconciled Medication List.
- Percent of patients who received a Reconciled Medication List.
- Percent of patients who received education about their Reconciled Medication List.

Numerator Statement:
- # of visits in which patient received a Reconciled Medication List for the reporting period.
- # of visits in which patient received education about their Reconciled Medication List for the reporting period.

Denominator Statement: # of Patient visits for the reporting period.
- **Inclusions:** Patient visits include any visit by an eligible patient during the reporting period. Patients are counted on the day of arrival.
- **Exclusions:** Patients with acute emergencies that warranted transfer to a higher level of care/setting (urgent care/emergency room/hospital admission). Patients who experience death. Patients who leave without being seen, leave before treatment is complete, or leave against medical advice.

Rationale: The purpose of the care coordination indicator is to explore the relationship of nurse staffing to improving patient outcomes related to:

- Reducing potential for adverse events by providing patients with a Reconciled Medication List.

AAACN NSI Task Force Recommendations and Advocacy Statements

1. Population included must attempt to take into account all ages of patients across the lifespan.
2. AAACN NSI Task Force and AAACN members strongly believe that the term "Medication Reconciliation" is reflective of the acute care setting and that the more appropriate term and measure would be "Medication Review and/or Education."
3. Practice reality in the ambulatory care setting related to medication reconciliation incorporates many staff members, both licensed and unlicensed, and both provider and non-provider as participants in this activity, which lends to its weakness as an indicator of nursing specifically.
4. The reality in many ambulatory care settings is that the review may be completed by the registered nurse, but discontinuation of medications does not fall under the nurse role or license in most states. Therefore the list may be reviewed but not reconciled.
5. Organizations measure medication reconciliation with the printing of the After Visit Summary (AVS) at the end of the visit. The AVS is not an accurate measure of a correct, reviewed, and reconciled medication list.

B.   Care Coordination: Pending Diagnostic Test Results

Measure Source: Press Ganey NDNQI Guidelines for Data Collection and Submission on Care Coordination in Ambulatory Settings (NDNQI, 2014).

Measure Description: Explore relationship of nurse staffing to improving patient outcomes related to reducing potential for adverse events by providing patients with a list of pending test results and follow-up instructions for receipt of results.
- Percent of patients who received a list of pending results and follow-up instructions for receipt of results.
- Percent of patients who received education about their list of pending results and follow-up instructions for receipt of results.

Numerator Statement:
- # of visits in which patient received a list of pending results and follow-up instructions for receipt of results.
- # of visits in which patient received education about list of pending results and follow-up instructions for receipt of results.

Denominator Statement: # of visits by patients for the reporting period.
- **Inclusions:** Patient visits include any visit by an eligible patient during the reporting period. Patients are counted on the day of arrival.
- **Exclusions:** Patients who did not have any testing performed or planned tests. Patients with acute emergencies that warranted transfer to a higher level of care/setting (urgent care/emergency room/hospital admission). Patients who experience death. Patients who leave without being seen, leave before treatment is complete, or leave against medical advice.

Rationale: The purpose of the care coordination indicator is to explore the relationship of nurse staffing to improving patient outcomes related to:
- Reducing potential for adverse events by providing patients with a list of pending test results and follow-up instructions for receipt of results.

AAACN NSI Task Force Recommendations and Advocacy Statements
1. Population included must attempt to take into account all ages of patients across the lifespan.
2. Normal results, reviewed by a provider may be called to the patient or family by any clinical staff, so the indicator may not be nurse sensitive in the ambulatory care environment.

2.2 Collaborative Alliance for Nursing Outcomes (CALNOC)

Measures displayed in this section were contributed and included with the permission of the Collaborative Alliance for Nursing Outcomes (CALNOC) as part of the collaborative agreement between CALNOC and AAACN. As part of this collaborative relationship, members of the AAACN NSI Task Force were offered the opportunity to participate in the CALNOC ambulatory surgery measures pilot in summer 2015. Because of this opportunity and the feedback given to the AAACN NSI Task Force throughout the development of these indicators, advocacy for key concepts such as measurement of lifespan, outcome and meaningful connection to the ambulatory care environment were expressed throughout their development.

A.   Ambulatory Site Demographics

Measure Source: CALNOC (2015)

The ultimate goal of quality measurement is the ability to benchmark performance against other organizations. Measuring performance of an individual unit or units within an organization or system allows nurses to understand performance trends. However, without external comparison groups, it is not possible to understand an individual unit's performance in reference to benchmarks to understand performance within the context of the industry. For example, performance may be improving gradually – a very good outcome of performance measurement. However, the performance may be an outlier and far off from where the rest of the industry performs. Performance may also be very good compared to the industry, and prioritization of improvement efforts could be shifted to other areas of practice. Without external benchmarking, an organization only has anecdotal information to put performance in context.

Measure Description: In order to benchmark with "like" organizations or unit types, data are required to stratify by type of unit. For the initial ambulatory care measures selected in ambulatory surgery centers or procedure units, the following demographics were chosen.

Measure Demographic Collected: Unit/Center Affiliation – Hospital-Based or Freestanding

Hospital-based clinics, ambulatory surgery, and procedure centers generally describe ambulatory care settings with direct access to emergency response teams (not a 911 call) and higher levels of care. Freestanding would not be under the license or billing of a hospital. Reimbursement may also be a driver for the distinction. Provider-based billing differentiates a center that is freestanding, versus hospital billing for a hospital-based center. A freestanding facility would not be on the hospital tax ID and would have billing associated with the practice that owns and operates the site. Freestanding would be Primary Care Network Clinics, Ambulatory Surgery Center (ASC), unlicensed clinics,

not billed as part of a licensed hospital's Centers for Medicare & Medicaid Services (CMS) billing number as an outpatient department of the hospital.

Measure Demographic Collected: Predominant Age Group Served – Pediatric, Adult, Mixed

- Pediatric centers/units are defined as having a predominate population of under 18 years.
- Adult units are defined as having a predominate population over the age of 18.
- Mixed units would be units that include general patient population not defined as pediatric or adult.

B. Ambulatory Volume Measures (Denominators)

Measure Source: CALNOC (2015)

Measure Description: Ambulatory care settings vary widely in size, staff required to provide care, and volume of patients served on a given day. Measures are reported for benchmarking as raw numbers – the counted number of X measures – which are then summarized over a standardized period of time such as a shift, a day, a week, a month, or a year. To be meaningful across settings, the data must also be standardized by creating rates using denominators. For the initial CALNOC measures for ambulatory surgery centers and procedure centers, the following volumes have been selected:

Total Patient Visits: Patient visits may be called by different names (e.g., registrations, admissions, encounters). Our general definition for one visit will be a bundled patient encounter: The patient crosses the threshold, registers, several things may happen to him/her while in the visit (including being sent to lab or x-ray, having one or more procedure/surgery), and then he/she is discharged and leaves the unit/center. This is considered one visit. Total patient visits will be used as a calculation for each participating ambulatory care unit and for each individual calendar month to calculate staffing rates and outcome measures such as fall or adverse events per 1,000 patient visits.

No Shows/Cancellations: Patients who cancel visits/appointments at the last minute or do not show up for their scheduled appointment, not permitting replacement, are included in this total count for the month. This total can be used as a benchmark by facilities interested in overall efficiency of center/unit operations.

Total Surgeries/Procedures: The total number of surgeries/procedures is an "unbundled" count of procedures/surgeries performed in the center/unit for the entire month. There may be more than one procedure in a patient visit. The method for obtaining the total count may vary facility to facility. Some may have standard reports that provide the monthly sum, some may have reports that provide the total by patient, and some may be calculating the total from billing records.

Total OR/Procedure Room Minutes for Surgeries/Procedures: This measure tracks the total amount of time patients spent in the OR/Procedure Room over the entire month. It is the summed amount of time in minutes the patients were actually in the OR or Procedure Suite – using the elapsed time between the time recorded for patient "in room" and "out of room." When a patient has more than one procedure in a visit, add up the cumulative time for all procedures during the visit. "Time in/time out" is a standard measurement in most ORs and procedure suites (e.g., CV lab, Interventional Radiology).

C. Ambulatory Staffing, Skill Mix, and Patient Care Hours

Measure Source: CALNOC (2015)

Measure Description: Direct hours are those related to employees providing face-to-face patient care (back office). Indirect hours are those related to front office employees (registration, IUR-surgery, scheduling, billing). Exclusions include managers, unit billing and registration clerks, medical records staff, monitor techs, and others with no direct patient care responsibilities. Other exclusions include front office staff from the counts of nursing care providers.

Registered Nurse (RN) Nursing Care Hours: Total number of productive hours worked by all registered nurses with direct patient care responsibilities.

Licensed Vocational Nurse (LVN) Nursing Care Hours: Total number of productive hours worked by all licensed vocational nurses (known in some states as Licensed Practical Nurses) with direct patient care responsibilities.

Non-RN/LVN Caregiver Care Hours: Total number of productive hours worked by other Unlicensed Assistants (e.g., Certified Medical Assistant, Patient Care Technician, Nurses Aide). Exclude unit clerks, monitor techs, and others with no direct patient care responsibilities.

Advanced Practice Registered Nurse (APRN) Care Hours: Total number of productive hours worked by advanced practice registered nurses employed by the unit/center. Include Certified Nurse Anesthetists, Clinical Nurse Specialists, Nurse Midwives, and Nurse Practitioners in this category. Exclude APRNs that work as providers for the medical staff as physician extenders.

Other Licensed Professional Hours: Total number of productive hours worked by other licensed professionals employed by the unit/center. Examples of other licensed professionals include physical/occupational therapists, neuropsychologists, physician assistants, licensed radiologic technologists, registered dieticians, medical social workers, and licensed clinical social workers.

D.   Ambulatory Surgery Adverse Outcomes of Care: Wrong Site, Wrong Side, Wrong Patient, Wrong Procedure, Wrong Implant

Measure Source: NQF 0267 (NQF, 2015a) and CMS-ASC 3 (CMS, 2015a), included in CALNOC Ambulatory Surgery Measures Set (CALNOC, 2015).

Measure Description: Percentage of Ambulatory Surgery Center (ASC) admissions or procedures experiencing a wrong site, wrong side, wrong patient, wrong procedure, or wrong implant event. Wrong is defined as not in accordance with intended site, side, patient, procedure, or implant.

Numerator Statement: ASC admissions or procedure patients experiencing a wrong site, wrong side, wrong patient, wrong procedure, or wrong implant.

Denominator Statement: All ASC admissions or procedure patients.

Rationale/Supportive Measures:
- CMS for ASC: CY 2014, 2015, 2016 payment
- CMS Ambulatory Surgical Center Quality Reporting Program

E.   Ambulatory Surgery Patient Burns

Measure Source: NQF 0263 (NQF, 2015b) and CMS-ASC 1 (CMS, 2015b), included in CALNOC Ambulatory Surgery Measures Set (CALNOC, 2015).

Measure Description: Percentage of Ambulatory Surgery Center (ASC) admissions or procedure patients experiencing a burn prior to discharge.

Numerator Statement: ASC admissions or procedure patients experiencing a burn prior to discharge. Burn is defined as an unintended tissue injury caused by any of the six recognized mechanisms: scalds, contact, fire, chemical, electrical, or radiation (e.g. warming devices, prep solutions, electrosurgical unit or laser).

Denominator Statement: All ASC admissions (procedures).

Rationale/Supportive Measures:
- CMS for ASC: CY 2014, 2015, 2016 payment
- CMS Ambulatory Surgical Center Quality Reporting Program

F.   Ambulatory Surgery Patient Falls

Measure Source: NQF 0266 (NQF, 2014a) and CMS-ASC 2 (CMS, 2015c), included in CALNOC Ambulatory Surgery Measures Set (CALNOC, 2015).

Measure Description: Percentage of Ambulatory Surgery Center (ASC) admissions or procedure patients experiencing a fall. Fall is defined as a sudden, uncontrolled, unintentional, downward displacement of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions.

Numerator: ASC admissions or procedure patients experiencing a fall within the confines of the ASC or procedure unit.

Denominator: All ASC admissions or procedure patients.

Numerator Inclusion: ASC admissions or procedure patients experiencing a fall within the confines of the ASC.

Exclusion: ASC admissions or procedure patients experiencing a fall outside the ASC.

Rationale/Supportive Measures:
- CMS for ASC: CY 2014, 2015, 2016 payment

G.   Ambulatory Surgery Patient Injury Falls

Measure Source: CALNOC (CALNOC, 2015)

Measure Description: Percentage of Ambulatory Surgery Center (ASC) admissions or procedure unit visit patients experiencing a fall with injury. Fall is defined as a sudden, uncontrolled, unintentional, downward displacement of the body to the ground or other object, excluding falls resulting from violent blows or other purposeful actions. Injury is defined with the following Level of Injury Scale:

- 1=None. No injury as a result of fall.
- 2=Mild/Minor. Resulted in bruise or abrasion, and/or required application of a dressing, ice, cleaning of a wound, limb elevation, or topical medication (band aid pediatric patients).
- 3=Moderate. Resulted in muscle or joint strain, and/or required suturing, application of steristrips/skin/glue, or splinting.
- 4=Major. Resulted in surgery, casting, traction, fracture, or required consultation for neurological or internal injury.
- 5=Death. Fall determined to be cause of death.
- Note: Determine injury level at the time of discharge. X-ray, CT scan or other radiological evaluation resulting in a finding of no injury, with no treatment and no signs or symptoms of injury, select "None." Patients with coagulopathy who receive blood products as a result of a fall, select "4 Major."

Numerator Statement: Total number of patient falls of injury level minor or greater (whether or not assisted by a staff member) by eligible unit during the calendar month X 1,000.

Denominator Statement: Patient visits by Type of Unit during the calendar month.

H.   Ambulatory Surgery Hospital Transfer/Admission

Measure Source: NQF 0265 (NQF, 2015c) and CMS-ASC 4 (CMS, 2015d), included in CALNOC Ambulatory Surgery Measures Set (CALNOC, 2015).

Measure Description: Rate of Ambulatory Surgery Center (ASC)/Procedure Unit admissions or visits requiring a hospital transfer or hospital admission upon discharge. Modified to include all procedure units.

Numerator Statement: ASC or Procedure Unit admissions requiring a hospital transfer or hospital admission upon discharge.

Denominator Statement: All ASC or Procedure Unit admissions.

Exclusions: None.

Rational/Supportive Measures:
- CMS for ASC: CY 2014, 2015, 2016 payment

SECTION 3
AAACN NSI Task Force Proposed Indicators for Development and Endorsement: Existent Health Care Measures Adapted and Recommended as Ambulatory Care Nurse-Sensitive Indicator Measures

A. Ambulatory Care Nurse Readmission Across the Lifespan
B. Ambulatory Care Nurse Pain Assessment and Follow Up
C. Ambulatory Care Nurse Screening for High Blood Pressure and Follow-up Care
D. Ambulatory Care Nurse Screening and Follow-Up Documentation for Depression
E. Ambulatory Care Nurse Patient Falls in the Institution
F. Ambulatory Care Nurse Screening for Future Falls Risk
G. Ambulatory Care Nurse Screening for Body Mass Index (BMI)
H. Ambulatory Care Nurse RN Demographics
    1. Diploma RN
    2. Associate's Degree in Nursing RN
    3. Bachelor's of Science in Nursing RN
    4. Master's of Science in Nursing RN
    5. Doctorate in Nursing RN
    6. Certification RN
    7. Certification RN in Field of Specialty
    8. Turnover by Full-Time Equivalent
    9. Vacancy by Full-Time Equivalent
I. Ambulatory Care Nurse Patient Satisfaction

SECTION 3
AAACN NSI TASK FORCE PROPOSED INDICATORS FOR DEVELOPMENT AND ENDORSEMENT: EXISTENT HEALTH CARE MEASURES ADAPTED AND RECOMMENDED AS AMBULATORY CARE NURSE-SENSITIVE INDICATOR MEASURES

Indicators in this section were found through a thorough analysis of existent, endorsed measures in health care. Most of them are non-specific to nursing in their original endorsed format. The AAACN NSI Task Force reviewed and proposed the following adaptations to utilize them as sensitive to the nurse in the ambulatory care setting.

A.	**AAACN Ambulatory Care Nurse-Sensitive Adapted Proposed Measure: Ambulatory Care Nurse Readmission Across the Lifespan**

Introduction to the Measure

"Readmission following an acute care hospitalization is a costly and often preventable event" (Horwitz et al., 2011, p. 7). Between 2003 and 2004, approximately one-fifth of Medicare beneficiaries were readmitted within 30 days of discharge (Jencks, Williams, & Coleman, 2009). Hospital readmission is disruptive to patients and caregivers, putting patients at additional risk of hospital-acquired infections and complications (Horwitz et al., 2011). CMS (2015e) cites that the Commonwealth Fund estimates that Medicare could save $1.9 billion annually if national readmission rates were lowered to the levels achieved by top-performing regions.

A lot of evidence suggests that readmissions are linked to decreased quality of care, lack of care coordination, or other factors within the control of health care clinicians (Horwitz et al., 2011). As such, entities such as CMS and the National Quality Forum (NQF) have implemented measures related to patient readmissions. Initially, readmissions were focused on certain high-risk populations, but CMS now focuses on all condition 30-day readmissions as a quality measure (CMS, 2015e; Horwitz et al., 2011). The ACO risk-standardized all condition readmission quality measure adapted in this report was originally developed as a hospital risk-standardized all condition readmission measure from Yale for CMS (Horwitz et al., 2011; RTI International & Telligen, 2013). The initial readmission measure was created by Yale University and CMS, and then endorsed by NQF. NQF measure #1789 is specific to patients aged 18 years and older and estimates the hospital-level, risk- standardized rate of unplanned, all cause readmissions for any eligible

NQF has also endorsed a pediatric all condition readmission measure that was developed from the Center of Excellence for Pediatric Quality Measurement and is newly commissioned and developed as part of the Agency for Healthcare Research and Quality (AHRQ) and CMS Pediatric Quality Measures Program. NQF notes there are

several challenges in measuring the pediatric population related to the fact that it is highly dependent on case volume and required risk adjustment for socio-demographic factors, however, because there is a shortage of measures related to the pediatric population, NQF voted to recommend the measure (NQF, 2014b). In 2009-2010, an analysis of data submitted to the National Association of Children's Hospitals and Related Institutions (NACHRI) was performed. The NACHRI Case Mix is the largest data set of children's hospitals. The 30-day readmission rate for children was 6.5% (*n*= 36, 734) where 39% (*n*=14,325) were readmitted within 7 days and 61.6% (*n*=22.628) were readmitted within 14 days (Berry et al., 2013).

Repeat admission for children felt to be amenable to high-quality outpatient care (asthma and seizure-related admissions, for example, or conditions related to the same medical problem, such as repeat admission for sickle cell crisis) may be considered potentially avoidable (Berry et al., 2011).

CMS ACO 8, NQF 1789, and NQF 2393, as cited below, are the respective names of currently endorsed measures related to readmission. These endorsed measures are described as the risk-adjusted percentage of ACO-assigned beneficiaries who were hospitalized who were readmitted to a hospital within 30 days following discharge from the hospital for the index admission. The numerator is reflective of non-Federal, short-stay, acute care or critical access hospitals, within 30 days of discharge from the index admission included in the denominator, and excluding planned readmissions. The denominator is related to all hospitalizations with the exception of the following: medical treatment of cancer, primary psychiatric disease, rehabilitation care, or fitting of prostheses and adjustment devices for ACO-assigned beneficiaries at non-Federal, short-stay acute care or critical access hospitals, where the beneficiary was aged 65 years or older, was continuously enrolled in fee-for-service Medicare Part A for at least one month after discharge, was not discharged to another acute care hospital, was not discharged against medical advice, and was alive upon discharge and for 30 days post-discharge. All patients not readmitted to a hospital within 30 days following discharge from the hospital are excluded from the measure as currently endorsed.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

The AAACN NSI Task Force strongly believes that the role of the nurse in the ambulatory care setting is meaningful to patients throughout the lifespan, critical to care coordination, and can have an impact on the promotion of health, including, after discharge home from the inpatient setting, through various interventions enacted from the ambulatory care setting.

Ambulatory care nurses follow patient cohorts for many years of their lives and become uniquely acquainted with the specific socio-economic, behavioral, environmental, and patient-specific needs that their patients have. It is the belief of the AAACN NSI Task Force that ambulatory care nurses, with this knowledge, can have an impact on readmission rates.

It is anticipated that the nurse in the ambulatory care setting, when measured by these adaptive recommendations, will prove to have a significant impact in reducing use of the emergency department by specific diagnosis populations and in the achievement of several diagnosis-specific care measures per population such as quarterly pulmonary function tests in the asthma patient or quarterly Hemoglobin A1C measurement in the diabetic patient.

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse Readmission Across the Lifespan

Adapted by the AAACN NSI Task Force as an ambulatory care nurse-sensitive measure from the following entities: CMS ACO 8 (CMS, 2015e; RTI International & Telligen, 2012a), NQF 1789 (NQF, 2015d), NQF 2393 (NQF, 2014b).

Measure Description: Risk-adjusted percentage of Accountable Care Organization (ACO) assigned beneficiaries who were hospitalized who were readmitted to a hospital within 30 days following discharge from the hospital for the index admission.
- Percentage of patients in one of below identified populations that receive a post-discharge call within 48 hours of emergency department visit after an inpatient stay from an ambulatory care nurse responsible for care coordination of that patient.
- Percentage of patients in one of below identified populations from the ambulatory care nurse cohort that are readmitted within 30 days of discharge from inpatient setting.

Numerator Statement: Risk-adjusted readmissions at a non-Federal, short-stay, acute-care or critical access hospital, within 30 days of discharge from the index admission included in the denominator, and excluding planned readmissions.

Those patients, with the outlined specific diagnoses and delineated by age, seen in the Emergency Department (ED) more than one time per year, within 30 days of discharge from the inpatient setting.

Numerator Inclusions:
- Pediatric Populations
  - Respiratory
    - Asthma
    - Respiratory Syncytial Virus (RSV)
    - Pneumonia
  - Cardiac
    - Congenital Heart Disease
    - Congestive Heart Failure
  - Diabetes
  - Sickle Cell

- o   Seizure Disorder

- Adult Populations:
  - o   Respiratory:
    - ▪   Chronic Obstructive Pulmonary Disorder
    - ▪   Pneumonia
  - o   Cardiac:
    - ▪   Congestive Heart Failure
  - o   Diabetes
  - o   Sickle Cell
  - o   Stroke

Denominator Statement: Patient visits include any visit by an eligible patient, of any age, during the reporting period. Patients are counted on the day of arrival.

Denominator Inclusions: Patient visits include any visit by an eligible patient during the reporting period. Patients are counted on the day of arrival.

Denominator Exclusions: All hospitalizations not related to medical treatment of cancer, primary psychiatric disease, diagnoses not identified in numerator section of measure, rehabilitation care, or fitting of prostheses and adjustment devices for ACO assigned beneficiaries at non-Federal, short-stay acute care or critical access hospitals, where the beneficiary was aged 65 or older, was continuously enrolled in fee-for-service Medicare Part A for at least one month after discharge, was not discharged to another acute care hospital, was not discharged against medical advice, and was alive upon discharge and for 30 days post-discharge.

Methodology and Next Steps Recommendations

From the comprehensive literature review completed on this measure, several process recommendations for the development and piloting of this measure are outlined here. In Section 5 of this report, two exemplars are described related to the pediatric seizure disorder and asthma populations as well as several others related to the role of the care manager for any population. It is recommended that there be a nurse responsible for care coordination, care facilitation, and navigation of the health system. If this role is not possible, then the following activities are recommended to elicit low readmission rates of cohorts of patients managed by ambulatory care settings:

1.   Registered nurse (RN) screening of patient with identification of barriers and services needed.
    a.   Follow-up appointment to specialist
    b.   Clinic visit
    c.   Use of afterhours care instead of ED
    d.   Provision of care instructions or medication follow up that may have prevented need for additional ED visit

2.   Documented use of teach-back.
3.   Specific care instructions or written action plan reviewed by RN.
4.   Post-discharge call by RN lead to:
       a.   Follow-up appointment to specialist
       b.   Clinic visit
       c.   Use of afterhours care instead of ED
       d.   Provision of care instructions or medication follow up that may have prevented need for additional ED visit
5.   Use of evidence-based practice (specific to diagnosis).
       a.   For example: Asthma patient seen in ED referred to pulmonologist within 48 hours.
       b.   For example: Newly diagnosed diabetic seen in ED or admitted seen in specialty clinic within one week.

References: See Section 7.

B.   AAACN Ambulatory Care Nurse-Sensitive Adapted Proposed Measure: Ambulatory Care Nurse Pain Assessment and Follow Up

Introduction to the Measure

The Physician Quality Reporting System (PQRS) 2015 Manual notes "several provisions from the National Pain Care Policy Act (H.R. 756/S. 660) have been included in the PPACA to improve pain care" (Centers for Medicare & Medicaid Services [CMS], 2015f, p. 209). This legislation mandated an IOM conference on pain to address key medical and policy issues affecting the delivery of quality pain care, the establishment of a training program to improve the skills of health care professionals to assess and treat pain, and the enhancement of pain research for the National Institute of Health (CMS, 2015f).

It is estimated that approximately 76.5 million Americans suffer from pain and that pain is the number one reason Americans pursue health care. Uncontrolled or undertreated pain is the leading cause of disability, diminishing quality of life and driving up health care costs (CMS, 2015f). Additionally, there are significant disparities related to pain perception, assessment, and treatment among racial and ethnic minorities (CMS, 2015f).

The Institute of Medicine (IOM) published the report, *Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education and Research* (2011) that suggested chronic pain rates will continue to increase due many factors including: an increase in chronic diseases that cause pain; an increase in obesity that is associated with chronic conditions causing pain; progress in lifesaving techniques for catastrophic injuries for people who should have previously died and now are at risk for lifelong pain; increased surgical related pain and an increasingly better understanding by the public of chronic pain syndromes and associated new treatments for those syndromes (IOM, 2011).

The Institute for Clinical Systems Improvement suggests chronic pain assessment should include determination of the mechanisms of pain through documentation of pain location, intensity, quality, onset, and duration, as well as functional ability and goals, as well as psychological and social factors such as depression or substance abuse (Hooten et al., 2013). The description of PQRS Measure #131 also states that the endorsed measures described here "may be reported by eligible professionals who perform the quality actions described in the measure based on the services provided" (CMS, 2015f). The AAACN NSI Task Force believes registered nurses (RNs) to be qualified for reporting of this measure.

National Quality Forum (NQF) 0420 (NQF, 2013a) and PQRS 131 (CMS, 2015f), as cited below, are the respective names for current existent endorsed measures related to pain assessment and follow up. They are described as the percentage of patients aged 18 years and older with documentation of a pain assessment through discussion with the patient including the use of a standardized tool(s) on each visit and documentation of a follow-up plan when pain is present. Their numerator is described by capturing the patient's pain assessment in documentation of a discussion with the patient using a standardized tool as well as a follow-up plan when pain is present. Their denominator captures patients aged 18 years and older on the date of the encounter. Exclusions that apply to these endorsed measures are for: severe mental and/or physical incapacity where the person in unable to express himself/herself in a manner understood by others and or when the patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse Pain Assessment and Follow Up

Adapted by the AAACN NSI Task Force as an ambulatory care nurse-sensitive measure from the following entities: NQF 0420 (NQF, 2013a) and PQRS 131 (CMS, 2015f).

Measure Description: Percentage of patients of all ages with documentation of a pain assessment through discussion with the patient including the use of a standardized tool(s) on each visit AND documentation of a follow-up plan when pain is present.

Numerator Statement: Patient's pain assessment is documented through discussion with the patient including the use of a standardized tool(s) and a follow-up plan is documented when pain is present.

Denominator Statement: Patients of all ages on the date of the encounter.

Denominator Exclusions:
- Severe mental and/or physical incapacity where the person is unable to express himself/herself in a manner understood by others.
- Patient is in an urgent or emergent situation where time is of the essence and to delay treatment would jeopardize the patient's health status.

Methodology and Next Steps Recommendations

The AAACN NSI Task Force believes the assessment of pain and the resultant care planning associated with relief of pain to be highly linked to patient care from the ambulatory care nurse. As such, wherever possible, the AAACN NSI Task Force

recommends adoption of this measure and integration of its processes for data collection into electronic medical records.

References: See Section 7.

Introduction to the Measure

"Hypertension is a chronic condition that can lead to heart disease, stroke, and other diseases that can result in premature death" (Kung and Xu, 2015, p. 1). One of the objectives of Healthy People 2020 is to reduce the number of persons in the population with hypertension (Office of Disease Prevention and Health Promotion [ODPHP 2015). Approximately 1 in 3 U.S. adults have high blood pressure, and of those, only about half (52%) have their high blood pressure under control. This common condition increases the risk for heart disease and stroke, and both are leading causes of death for Americans (Farley, Dalal, Mostashari, & Frieden, 2010; Kung & Xu, 2015).

Despite considerable improvements in increasing awareness, treatment, and control of hypertension, in 2007-2008, approximately half of adults with hypertension did not have their blood pressure under control. Because of the fundamental role of hypertension in cardiovascular health, *Healthy People 2010* included national objectives to reduce the proportion of adults aged ≥20 years with hypertension to 14% from a baseline of 26%, and to increase the proportion of adults aged ≥18 years with hypertension whose blood pressure is under control to 68% from a baseline of 25% (ODPHP, 2015). Americans increase their risk for heart disease, stroke, or kidney disease at a potential cost of $76.6 billion a year in health care services, medications, and missed days of work. The number of deaths from essential hypertension and hypertensive renal disease is 30,770 per 100,000 population (Nwankwo, Yoon, Burt, & Gu, 2013; NCQA, 2014).

The National Committee for Quality Assurance (NCQA, 2014) added age- and condition-specific treatment goals to its Healthcare Effectiveness and Data Information Set measures that align with the eighth Joint National Committee hypertension guidelines for controlling high blood pressure:
- 18–59 years (<140/90 mm Hg)
- 60–85 years with diabetes (<140/90 mm Hg)
- 60–85 years without diabetes (<150/90 mm Hg).

Although hypertension is very common in adults, approximately 1 to 5 out of every 100 children and adolescents also have hypertension. Unlike in adults, where blood pressure above 130/80 suggests further monitoring or evaluation, normal values for children's blood pressure are determined by age, gender, and height. The skill of the person obtaining the blood pressure affects accuracy (Battaglia, 2006). According to the National High Blood Pressure Education Program Working Group (NHBPEP, 2004),

children aged 3 years and older should have a BP evaluated in a medical setting at least once a year. Children younger than 3 years should have a BP measured under the following special circumstances: history of prematurity, neonatal complications requiring intensive care, congenital heart disease, and treatment with drugs known to raise blood pressure (NHBPEP, 2004). The strongest risk factor for hypertension in children and adolescents is being overweight. Finding and treating hypertension early in young people could lower their risk for complications during adulthood. To help clinicians decide whether to screen, it is necessary to know whether early detection actually improves health outcomes. It is also important to consider the potential harms of starting blood pressure medications and other treatments in young people (Moyer & U.S. Preventive Services Task Force [USPSTF], 2013).

With an estimated prevalence of between 1% and 5%, hypertension is a common chronic disease in children (Moyer & USPSTF, 2013). Pediatric hypertension may be secondary to another disease process or it may be essential hypertension. Secondary hypertension is more common in children than in adults, and common causes of hypertension in children include renal disease, coarctation of the aorta, and endocrine disease. However, as with adults, the majority of children and adolescents with mild to moderate hypertension have primary hypertension in which a cause is not identifiable (Moyer & USPSTF, 2013). Hypertension in children has been shown to correlate with family history of hypertension, low birth weight, and excess weight. With the increasing prevalence of childhood weight problems, increased attention to weight-related health conditions including hypertension is warranted. Several lines of evidence suggest that blood pressure in US children and adolescents is increasing in parallel with weight (Moyer & USPSTF, 2013).

In addition, the NHBHEP (2004) has published standards for addressing pre-hypertension and hypertension in children and adolescents. Blood pressure evaluation is within the scope of the RN. Many pre-hypertension interventions may be completed by an RN. Blood pressure monitoring and evaluations are frequently accomplished during a nurse-only visit in the outpatient setting.

The USPSTF concludes that current evidence is insufficient to assess the balance of benefits and harms of screening for primary hypertension in asymptomatic children and adolescents to prevent subsequent cardiovascular disease in childhood or adulthood (Moyer & USPSTF, 2013). There was no direct evidence demonstrating that screening children and adolescents for hypertension is effective in delaying onset of or reducing risk for adverse cardiovascular health outcomes related to hypertension, either in childhood or adulthood (Moyer & USPSTF, 2013; USPSTF, 2007).

ACO #21 (RTI International & Telligen, 2012b), NQF 0018 (NQF, 2013b), and GPRO PREV #11 (CMS, 2014a) are the respective names of currently endorsed measures related to screening and follow up documentation of high blood pressure.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

The AAACN NSI Task Force believes the role of the nurse in the ambulatory care setting is meaningful throughout the lifespan of the patient. Hypertension is a prevalent condition that contributes to important adverse health outcomes, including premature death, heart attack, renal insufficiency, and stroke. The USPSTF (2007) found good evidence that blood pressure measurement can identify adults at increased risk for cardiovascular disease from high blood pressure (RTI International & Telligen, 2012b).

This measure takes into consideration the already endorsed measures from CMS ACO #21, NQF 0018, and GPRO PREV #11 as cited below. Pediatric patients between 1 and 18 years of age are included in the measure, as hypertension in children has been shown to correlate with family history of hypertension, low birth weight, and excess weight. With the increasing prevalence of childhood weight problems, increased attention to weight-related health conditions including hypertension is warranted (Moyer & USPSTF, 2013), even though the USPSTF concludes that the current evidence insufficient to link screening and preventative activities in children with prevention of subsequent cardiovascular disease in childhood or adulthood (Moyer & USPSTF, 2013). AAACN believes there is benefit to screen pediatric patients with elevated BMI and family history of hypertension.

Determination of standardized method of data extraction: Electronic Medical Record, (EMR), screening tool used, and documentation process for follow-up care.

Note: ACO 28 also talks about hypertension (HTN): Controlling high blood pressure (NQF 0018 as it relates to patients with a known diagnosis of HTN; measure 21 is a screening measure).

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse Screening for High Blood Pressure and Follow-up Care

Adapted by the AAACN NSI Task Force as an ambulatory care nurse-sensitive measure from the following entities: ACO #21 (RTI International & Telligen, 2012b), NQF 0018 (NQF, 2013b), and GPRO PREV #11 (CMS, 2014a).

Measure Description: Percentage of patients at all ages seen during the measurement period who were screened for high blood pressure (BP) and a recommended follow-up plan is documented based on the current blood pressure reading as indicated.

- Percentage of patients in one of the identified populations that received a blood pressure screening during a visit encounter.
- Percentage of patients in one of the identified populations who have a follow-up plan of care for hypertension.

Numerator Statement: Patients greater than 1 year of age who were screened for high blood pressure and a recommended follow-up plan is documented as indicated if the blood pressure is pre-hypertensive or hypertensive.

Numerator Inclusions: Number of patients screened for hypertension between 1 or greater years of age at time of encounter.
- Age, gender, and height are required to evaluate blood pressure in children. Blood pressure cuff size ranges may also be a factor in accurate measurement.

Denominator Statement: All patients aged 1 year and older at the beginning of the measurement period.

Denominator Inclusions: All patients aged 1 year and older at the beginning of the measurement period.

Denominator Exclusions:
- Individuals with an active diagnosis of HTN at the first blood pressure screening during the measurement year.
- All patients aged 1 year to less than 18 years with a diagnosis of renal disease, congenital heart disease, endocrine disease, prematurity, neonatal complications resulting in intensive care, or under treatment with a medication causing high blood pressure.

Methodology and Next Steps Recommendations

From the comprehensive literature review completed on this measure, several process recommendations for the development and piloting of this measure are outlined here. It is recommended that there be a nurse responsible for hypertension screening and documentation of a follow-up plan of care.
- RN screening of patient with hypertension for identification of barriers and services needed.
- Follow-up appointment with Primary Care Provider (PCP).
- Referral to weight-loss/nutrition specialist.
- Instruction on diet, activity, and medications (if applicable).
- Documented use of teach-back.
- Specific care instructions or written action plan reviewed by RN.
- Use of evidence-based practice.

References: See Section 7.

Introduction to the Measure

In the United States, depression affects approximately 9% of patients and accounts for more than $43 billion in medical care costs and $17 billion in lost productivity annually. Depression is projected to become the second largest cause of disability by 2020 (Maurer, 2012).

Depression is under treated. Even when treated appropriately, more than 75% of patients with depression have recurrent episodes and up to 30% have residual symptoms (Maurer, 2012). Depression has been associated with worsened outcomes in patients with a variety of medical conditions, such as coronary artery disease, diabetes mellitus, and stroke (Ciechanowski, Katon, & Russo, 2000; Ford et al., 1998; Robinson, Bolduc, & Price 1987). The Centers for Disease Control and Prevention (CDC) recognizes the mental health of workers is an area of increasing concern to organizations, as depression causes disability, absenteeism, and loss of productivity among working-age adults (CDC 2013). In a three-month period, patients with depression miss an average of 4.8 workdays and suffer 11.5 days of reduced productivity. Being able to identify major depression in the workplace is complicated as there are a number of issues which may cause workers to avoid screening such as their concerns about confidentiality or the impact it may have on their job (CDC, 2013; Maurer, 2012; NQF, 2015e).

Treatment of depression may reduce mortality from these conditions, as well as help prevent suicide. Therefore, accurately identifying patients who have depression is important so that appropriate treatment can be initiated (CDC, 2013; Gibbons, Hur, Bhaumik, & Mann, 2005; Jorge, Robinson, Arndt, & Starkstein, 2003; Maurer, 2012; Taylor et al., 2005).

The U.S. Preventive Services Task Force (USPSTF) recommends screening adolescents and adults in clinical practices that have systems in place to ensure accurate diagnosis, effective treatment, and follow-up care. It does not recommend for or against screening for depression in children seven to 11 years of age or screening for suicide risk in the general population (Maurer, 2012; USPSTF, 2009).

The USPSTF found evidence that treatment with antidepressants, psychotherapy, or both decreases clinical morbidity and improves outcomes in adults with depression, as identified through screening in primary care settings. Screening adults for depression is recommended for practices that have systems in place to ensure accurate diagnosis,

effective treatment, and follow-up care. Additionally, the USPSTF found no evidence of harms of screening for depression in adults (Maurer, 2012; USPSTF, 2009).

The USPSTF (2007) found insufficient evidence to recommend for or against screening for suicide risk in the general population, compared with screening only those with depression .

The USPSTF recommends screening adolescents 12 to 18 years of age for depression in clinical practices that have systems in place to ensure accurate diagnosis, psychotherapy, and follow-up care. There is insufficient evidence to balance the benefits and harms of depression screening in children seven to 11 years of age (Richardson et al., 2010; USPSTF, 2007).

Many instruments have been developed for depression screening and yet none have been supported as superior (Maurer, 2012; USPSTF, 2007). Positive results on a depression screening test should trigger a follow-up process that incorporates full diagnostic interviews that use standard diagnostic criteria from the *Diagnostic and Statistical Manual of Mental Disorders*, 4th ed. (DSM-IV) (Kroenke, Spitzer, Williams, & Löwe: 2010; USPSTF, 2007, 2009).

Succinct screening instruments, such as the Patient Health Questionnaire-2 (PHQ-2) may rule out, but not definitively diagnose, depression (Mitchell & Coyne, 2007). The PHQ-2 is as effective as such longer screening instruments as the Beck Depression Inventory or Zung Depression Scale (Arroll, Khin, & Kerse, 2003; Gilbody, House, & Sheldon, 2005; Whooley, Avins, Miranda, & Browner, 1997). The PHQ-2 and PHQ-9 are commonly used and validated screening tools. The PHQ-2, which asks two simple questions about mood and anhedonia, has a 97% sensitivity and 67% specificity in adults, whereas the PHQ-9 has a 61% sensitivity and 94% specificity in adults. The PHQ-2 is reported to have a 74% sensitivity and 75% specificity in adolescents (PHQ-A) (Arroll et al., 2010; Löwe, Kroenke, & Gräfe, 2005; Richardson et al., 2010).

The PHQ-2 performed reliably to a standard diagnostic interview as well as established depression scales and proved sensitive to change (Lowe et al., 2005) Thus, the PHQ-2 can be used as a brief multipurpose measure for detecting depression, grading its severity, and monitoring outcomes over time. If the PHQ-2 is positive for depression, the PHQ-9 should be administered. If these screening tests are positive for depression, further evaluation is needed to confirm that the patient's symptoms meet the *Diagnostic and Statistical Manual of Mental Disorders'* criteria for diagnosis. The PHQ offer clinicians concise, self-administered screening and diagnostic tools for mental health disorders that have been field-tested in the office practice setting. The screenings are quick and user-friendly, improving the recognition rate of depression and anxiety and facilitating diagnosis and treatment (Arroll et al., 2010).

The PHQ-9 is one of the most common instruments used for depression screening (Maurer, 2012). Although it can be used on its own as a screening test or to monitor treatment, it is often administered for confirmation of a positive PHQ-2 result. The PHQ-9 has been validated, takes under five minutes to complete, and has demonstrated 61% sensitivity and 94% specificity for mood disorders in adults, and 89.5% sensitivity and 77.5% specificity in adolescents (Arroll et al., 2010; Maurer, 2012; Richardson et al., 2010).

CMS 2v3 (CMI, 2014), ACO #18 (RTI International & Telligen, 2012c), GPRO PREV-12 (CMS, 2014b), and NQF #0418 (NQF, 2014c) are the respective names of currently endorsed measures related to screening and follow-up documentation of depression.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

The AAACN NSI Task Force believes the role of the nurse in the ambulatory care setting is meaningful throughout the lifespan of the patient. The World Health Organization, as seen in Pratt & Brody (2008), found that major depression was the leading cause of disability worldwide (Lopez & Murray, 1998). Depression causes suffering, decreased quality of life, and impairment with social and/or occupational functioning (Wells et al., 1989). Depression is associated with increased health care costs as well as higher rates of many chronic medical conditions (Katon, 2003). The negative outcomes associated with early onset depression make it crucial to identify and treat depression in its early stages. Major depressive disorder (MDD) is a debilitating condition that has been increasingly recognized among youth, particularly in adolescents. The economic burden of depression is substantial for individuals as well as society. Costs to an individual may include suffering, possible side effects from treatment, fees for mental health and medical visits and medications, time away from work and lost wages, transportation, and reduced quality of personal relationships (CMS 2v3, ACO # 18).

The nurse specificity is not certain as the screening can be done by the RN using a standardized tool and place for documentation, though the follow-up plan must be made by the patient's provider. The measure is a process and not an outcomes measure, and could be used for patients of all ages as the literature doesn't recommend for or against screening for patients < 12 years of age. The AAACN NSI Task Force advises the use of PHQ-2 and PHQ-9, and PHQ-A (for adolescents).

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse Screening and Follow-Up Documentation for Depression

Adapted by the AAACN NSI Task Force as an ambulatory care nurse-sensitive measure from the following entities: CMS 2v3 (CMI, 2014), ACO #18 (RTI International & Telligen, 2012c), GPRO PREV-12 (CMS, 2014b), NQF #0418 (NQF, 2014c).

Measure Description: Ambulatory Care Nurse Screening and Follow-Up Documentation for Depression

- Percentage of patients in one of the identified populations that received a depression screening during a visit encounter.
- Percentage of patients in one of the identified populations who screened positive and have a follow-up plan of care for depression,

Numerator Statement: Percentage of patients aged 12 years and older screened for clinical depression during the measurement period using an age appropriate standardized depression screening tool and if positive, a follow-up plan is documented on the date of the positive screen.

Numerator Inclusions:
- Patients aged 12 years to less than 18 years who screened positive for depression using PHQ-A AND have a follow-up plan documented on date of positive screen.
- Patients 18 years of age or older who screened positive for depression using PHQ-2 and PHQ-9 AND have a follow-up plan documented on date of positive screen.

Denominator Statement: All patients aged 12 years and older before the beginning of the measurement period with at least one eligible encounter during the measurement period.

Denominator Inclusions: All patients aged 12 years and older at the beginning of an eligible encounter.

Denominator Exclusions: All patients aged 12 years and older at the beginning of a measurement period who have already screened positive for depression and/or are being treated for depression prior to eligible encounter.
- Any patient unable to be screened due to physical or cognitive issues during an eligible encounter.

Methodology and Next Steps Recommendations

From the comprehensive literature review completed on this measure, several process recommendations for the development and piloting of this measure are outlined here:
- Registered Nurse (RN) screening of patient, using PHQ-2 and PHQ-9, or PHQ-A, with identification of barriers and services needed.
- Follow-up appointment with primary care provider (PCP).
- Referral to specialist or appropriate community services.
- Instruction on diet, activity, and medications (if applicable).
- Documented use of teach-back.
- Specific care instructions or written action plan reviewed by RN.
- Use of evidence-based practices.

- There is a need to determine a standardized method of data extraction. The Electronic Medical Record (EMR), PHQ-2 and PHQ-9, documentation process for follow-up plan of care for positive depression screening may be underdeveloped.

References: See Section 7.

E.   AAACN Ambulatory Care Nurse-Sensitive Adapted Proposed Measure: Ambulatory Care Nurse Patient Falls in the Institution

Introduction to the Measure

Falls are defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force. Unintentional falls are significant sources of morbidity and mortality, especially in people over 65 years of age for whom falls are the leading cause of accidental death (Rubenstein, 2006). Up to one third of falls are preventable. The Centers for Medicare & Medicaid Services (CMS) does not routinely reimburse hospitals for fall-related injuries. With a cost of up to $36 billion and consequences such as fractures, internal bleeding, and death, patient falls are a significant safety concern across settings. A robust body of evidence targeting prevention and toolkits is available from such organizations as the Agency for Healthcare Research and Quality (AHRQ) and the American Nurses Association (ANA). Fall prevention requires targeted multidisciplinary vigilance, individualized for the patient and is 2015 National Patient Safety (The Joint Commission, 2015)

CALNOC Falls Measure (2014), Press Ganey NDNQI Falls Measure (Press Ganey, 2015a), and NQF 0141 (NQF, 2015f) are the respective names of currently endorsed measures related to falls in the institution.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

The AAACN NSI Task Force and AAACN membership at large believe this measure is reflective of the institution as a whole and the related safety plan for entry from the outside environment to the point of care. When falls occur in the ambulatory care area (clinic, Emergency Department, surgery center, etc.) they should be considered a unit/clinic event, however, when falls occur outside of the clinic environment, they should be considered an environmental event. The registered nurse plays a role in surveying the clinic environment and identifying possible falls risk areas. Because of its widespread use in inpatient as well as in some outpatient settings, however, the following measure descriptions are provided as recommendations.

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse Patient Falls in the Institution

Adapted by the AAACN NSI Task Force as an ambulatory care nurse-sensitive measure from the following entities: CALNOC Falls Measure (2015), Press Ganey/NDNQI Falls Measure (Press Ganey, 2015a), and NQF 0141 (NQF, 2015f).

Measure Description: All documented falls, with or without injury, experienced by patients on eligible unit types in a calendar quarter. Reported as Total Falls per 1,000 Patient visits and Unassisted Falls per 1,000 Patient visits.

Numerator Statement: Total number of patient falls (with or without injury to the patient and whether or not assisted by a staff member) within the ambulatory care site of service per calendar month X 1,000.

Denominator Statement: Total number of patient visits in ambulatory care service site during the calendar month.

Methodology and Next Steps Recommendations

It is recommended that further validation of this measure and its applicability to the ambulatory care setting be conducted. Evidence that falls occur from a lack of nursing care in the ambulatory care setting needs to be collected and documented so that an emphasis on measuring this patient outcome in a setting that is not similar to the inpatient setting where falls are concerned may be disseminated.

References: See Section 7.

F. AAACN Ambulatory Care Nurse-Sensitive Adapted Proposed Measure: Ambulatory Care Nurse Screening for Future Falls Risk

Introduction to the Measure

Falls are defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force. The standard for future falls risk screening is that all older persons who are under the care of a heath professional (or their caregivers) should be asked at least once a year about falls (American Geriatrics Society [AGS], British Geriatrics Society [BGS], & American Academy of Orthopaedic Surgeons Panel on Falls Prevention [AAOSPFP], 2001). Any older persons who present for medical attention because of a fall, report recurrent falls in the past year, or demonstrate abnormalities of gait and/or balance should receive a fall evaluation performed by a clinician with appropriate skills and experience. This screening may necessitate referral to a specialist (e.g., geriatrician) (AGS, BGS, & AAOSPFP, 2001). Older patients in contact with health care professionals should be asked routinely whether they have fallen in the past year and about the frequency, context, and characteristics of the falls (RTI International & Telligen, 2011a). Older people reporting a fall or considered at risk of falling should be observed for balance and gait deficits and considered for their ability to benefit from interventions to improve strength and balance (RTI International & Telligen, 2011a).

ACO 13 (RTI International & Telligen, 2011a), GPRO CARE 2 (CMS, 2014c), NQF #0101 (NQF, 2015g), and PQRS 154 (CMS, 2014d) are the respective names of currently endorsed measures related to screening for future falls risk.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse Screening for Future Falls Risk

Adapted by the AAACN NSI Task Force as an ambulatory care nurse-sensitive measure from the following entities: ACO 13 (RTI International & Telligen, 2011a), GPRO CARE 2 (CMS, 2014c), NQF #0101 (NQF, 2015g), and PQRS 154 (CMS, 2014d).

Measure Description: Percentage of patients who were screened for future fall risk at least once within 12 months.

Numerator Statement: Patients who were screened for future fall risk at least once within 12 months.

- **Fall** - Is defined as a sudden, unintentional change in position causing an individual to land at a lower level, on an object, the floor, or the ground, other than as a consequence of a sudden onset of paralysis, epileptic seizure, or overwhelming external force.
- **NOTE:** Patients are considered at risk for future falls if they have had two or more falls in the past year or any fall with injury in the past year.

Denominator Statement: All patients seen in a defined period of time in the ambulatory care setting.

Denominator Exclusions: (Exclusion only applied if patient was not screened for future fall risk) Documentation of medical reason(s) for not screening for future fall risk (e.g., patient is not ambulatory).

Methodology and Next Steps Recommendation
- Referral to home health nurse for evaluation of living conditions.
- Teaching of medication side effects.
- Referral for evaluation of muscle and body strength and endurance.
- Educate about falls risks and prevention.
- Review medication and make recommendations to provider for alteration of current regimens to promote enhanced safety where falls are concerned.
- Assess vision and refer to optimize vision.
- Assess for foot problems and refer as needed.

References: See Section 7.

G. AAACN Ambulatory Care Nurse-Sensitive Adapted Proposed Measure: Ambulatory Care Nurse Screening for Body Mass Index (BMI)

Introduction to the Measure

Obesity is a public health concern in the United States and throughout the world. In the United States, obesity prevalence doubled among adults between 1980 and 2004 (Flegal, Carroll, Ogden, & Johnson, 2002; Ogden et al., 2006). Obesity is linked with an increased risk of a number of conditions, including diabetes mellitus, cardiovascular disease, hypertension, and certain cancers, as well as increased risk of disability and a modestly elevated risk of all-cause mortality (Adams et al., 2006; RTI International & Telligen, 2011b). Body Mass Index (BMI) is also related to an increased risk of death, particularly in adults younger than 65 years of age. Obesity has been shown to reduce life expectancy by 6 to 20 years depending on age and race. Ischemic heart disease, diabetes, cancer (especially liver, kidney, breast, endometrial, prostate and colon), and respiratory diseases are the leading causes of death in persons who are obese (Adams et al., 2006; RTI International & Telligen, 2011b).

BMI is expressed as weight/height and BMI parameters for adults are expressed as (RTI International & Telligen, 2011b):
- Overweight: BMI 25.0-29.9
- Obesity: BMI greater than or equal to 30.0
- Extreme Obesity: BMI Greater than or equal to 40

Thirty-one percent of children 2-19 years of age are overweight, defined as above the 85th percentile for BMI, and 16.9% are obese, defined as BMI above the 95th percentile (Ogden, Carroll, Curtin, Lamb, & Flegal, 2006). Diseases previously seen primarily in adults such as diabetes, hypertension, heart disease, hyperlipidemia, reproductive problems, asthma, and sleep disorders are now being observed in overweight children (Lobstein, Baur, & Uauy, 2004).

ACO #16 (RTI International & Telligen, 2011b), GPRO PREV-9 (CMS, 2014e) and NQF #0421 (NQF, 2014d) are the respective names of currently endorsed measures related to screening for future falls risk.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse Screening for Body Mass Index (BMI)

Adapted by the AAACN NSI Task Force as an ambulatory care nurse-sensitive measure from the following entities: ACO #16 (RTI International & Telligen, 2011b), GPRO PREV-9 (CMS, 2014e), and NQF #0421 (NQF, 2014d).

Measure Description: Percentage of patients with a calculated BMI in the past six months or during the current visit documented in the medical record and if the most recent BMI is outside of normal parameters, a follow-up plan is documented within the past six months or during the current visit.

Numerator Statement: Patients, aged 2 years and older with BMI calculated within the past six months or during the current visit and a follow-up plan is documented within the last six months or during the current visit if the BMI is outside of normal parameters.

Denominator Statement: All patient visits during the defined measurement period.

Denominator Exclusions:
- Documentation of medical reason(s) for not having a BMI measurement performed during the measurement period (e.g., patient is receiving palliative care, patient is pregnant or patient is in an urgent or emergent medical situation where time is of the essence and to delay treatment would jeopardize the patient's health status).
- Documentation of patient reason(s) for not having a BMI measurement performed during the measurement period (e.g., patient refuses BMI measurement or if there is any other reason documented in the medical record by the provider explaining why BMI measurement was not appropriate).

Methodology and Next Steps Recommendations
- Provide education to patients and parents of pediatric patients regarding BMI measurement.
- Provide education/referral to a nutritionist to patients and parents of pediatric patients with a high BMI.
- Provide education to patients and parents of pediatric patients regarding need for weight control.
- Review diet and eating habits, along with exercise, during visits with patients.
- Assess adults for signs of diseases associated with elevated BMI.
- Assess need for laboratory studies (blood and urine) based on history of patient and when previous testing was performed.

References: See Section 7.

H.   AAACN Ambulatory Care Nurse-Sensitive Adapted Proposed Measure: Ambulatory Care Nurse RN Demographics

Introduction to the Measure

The following acute care nurse-sensitive indicators are thought to be conceptually important but require further development to apply to the ambulatory care setting. To encourage advancement of education and certification and improvement of nurse practice environment through initiatives that promote retention and reduced RN vacancy, close measurement of these metrics and associated implementation of performance improvement initiatives are required in the ambulatory care environment.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse RN Demographics

Adapted from Collaborative Alliance for Nursing Outcomes (CALNOC) inpatient demographic measures (CALNOC, 2014).

1.   **Diploma RN**

   Measure Source: CALNOC
   Measure Description: % RN Full-Time Equivalent (FTE) with a Diploma in Nursing in specified ambulatory care setting
   Numerator Statement: # RN FTE with a Diploma in Nursing specified ambulatory care setting
   Denominator Statement: Total # RN FTE in specified ambulatory care setting

2.   **Associate's Degree in Nursing RN**

   Measure Source: CALNOC
   Measure Description: % RN FTE with ADN in specified ambulatory care setting
   Numerator Statement: # RN FTE with ADN in specified ambulatory care setting
   Denominator Statement: Total # FTE in specified ambulatory care setting

3.   **Bachelor's of Science in Nursing RN**

      Measure Source: CALNOC
      Measure Description: % RN FTE with BSN in specified ambulatory care setting
      Numerator Statement: # RN FTE with BSN in specified ambulatory care setting
      Denominator Statement: Total # FTE in specified ambulatory care setting

4.   **Master's of Science in Nursing RN**

      Measure Source: CALNOC
      Measure Description: % RN FTE with MSN in specified ambulatory care setting
      Numerator Statement: # RN FTE with MSN in specified ambulatory care setting
      Denominator Statement: Total # FTE in specified ambulatory care setting

5.   **Doctorate in Nursing RN**

      Measure Source: CALNOC
      Measure Description: % RN FTE with Doctorate in nursing in specified ambulatory care setting
      Numerator Statement: # RN FTE with Doctorate in nursing in specified ambulatory care setting
      Denominator Statement: Total # RN FTE in specified ambulatory care setting

6.   **Certification RN**

      Measure Source: CALNOC
      Measure Description: % RN FTE with any approved nursing certification working in specified ambulatory care setting (approved certifications list per CALNOC code book)
      Numerator Statement: # RN FTE with any approved nursing certification working in specified ambulatory care setting (approved certifications list per CALNOC code book)
      Denominator Statement: Total # RN FTE in specified ambulatory care setting

7. **Certification RN in Field of Specialty**

    Measure Source: CALNOC
    Measure Description: % RN FTE with nursing certification in field of specialty working in specified ambulatory care setting (approved certifications list per CALNOC code book)
    Numerator Statement: # RN FTE with nursing certification in field of specialty working in specified ambulatory care setting (approved certifications list per CALNOC code book)
    Denominator Statement: Total # RN FTE in specified ambulatory care setting

8. **Turnover by Full-Time Equivalent**

    Measure Source: CALNOC
    Measure Description: % RN FTE turnover per CALNOC specified definition in specified ambulatory care setting
    Numerator Statement: # RN FTE that turned over within specified time period in specified ambulatory care setting
    Denominator Statement: Total # RN FTE in specified ambulatory care setting

9. **Vacancy by Full-Time Equivalent**

    Measure Source: CALNOC
    Measure Description: % RN FTE Vacancy per CALNOC specified definition in specified ambulatory care setting
    Numerator Statement: # RN FTE that are vacant per CALNOC specified definition in specified ambulatory care setting
    Denominator Statement: Total # RN FTE in specified ambulatory care setting

I. AAACN Ambulatory Care Nurse-Sensitive Adapted Proposed Measure: Ambulatory Care Nurse Patient Satisfaction

Introduction to the Measure

Satisfaction with the health care experience is linked to better outcomes for both patients and organizations and is a reportable metric required or recommended by such agencies as The Joint Commission, Agency for Healthcare Research and Quality, and Health Resources and Services Administration. In addition, the Patient Portability and Accountable Care Act (PPACA) linked Medicare payment to satisfaction rates. Generally, patient "satisfaction" is somewhat more subjective, focused on care received, while "patient experience" measures objective elements related to the overall interaction. In patient-centered medical home models of care, the CG-CAHPS is utilized to evaluate patient experience with accessible, coordinated, and patient-centered care (Burnet et al., 2014).

Very few patient satisfaction surveys for ambulatory care nursing were identified in the literature. The majority of articles focused on the advanced practice nursing role or target a specific area such as oncology, long-term care, adult day care, palliative care, or surgical centers. For example, the HCAHPS ambulatory survey directions state nurse practitioner can be substituted for "provider." Communication, medications, and technical/professional skills of nurses were mentioned in some articles that included survey questions about nurses. However, questions are not specific enough to evaluate the registered nurse (RN) professional role in facilitating patient satisfaction/experience in ambulatory care. An outpatient survey available from the Human Resources and Services Administration asks whether or not nurses and medical assistants were friendly and helpful (Michael, Schaffer, Egan, Little, & Pritchard, 2013). The National Research Corporation's Picker Patient Satisfaction tool offers nurse-specific questions, but in the ambulatory setting does not yet have benchmarking capability.

The AAACN NSI Task Force would like to pursue at least 1-2 questions that are applicable if an RN cared for the patient. We are aware that many settings do not have an RN and that if an RN is employed in that facility, patients often do not know the difference between RNs, medical assistants (MAs), and other staff.

Measure Source: AAACN Adapted Proposed Measure: Ambulatory Care Nurse Patient Satisfaction

Adapted by AAACN NSI Task Force from the following entities: Press Ganey (Press Ganey, 2015b), CMS (CMS, 2015g), CG-CAHPS (AHRQ, 2015), PSQ-18 (RAND, 2015), and Risser Patient Satisfaction Survey (Risser, 1975), PPE-15 (Picker Survey) (Jenkinson, Coulter, & Bruster, 2002).

Measure Description: The percentage of surveys that were returned within a defined period and of questions that are nursing specific and answered by the patient as "ALWAYS".

Numerator Statement: The number of patient surveys that were returned within a defined period that answered "ALWAYS" to defined nurse-sensitive questions.

Denominator Statement: The total number of surveys received back within a defined period of time.

AAACN NSI Task Force Recommendations for Adaptation to Ambulatory Care RN

Methodology and Next Steps Recommendations

Overall outpatient satisfaction involves many factors outside the nurse's control. Some ambulatory care settings across the country focus patient satisfaction performance improvement initiatives related to the RN on the following:

- Access to care: Family is able to get an appointment in a time they feel is reasonable, usually in 3-14 days.
- Moving through the visit: How the patient perceives the speed in which they are seen in the clinic and whether or not that meets their expectation.
- Response time to phone calls: The patient usually wants their call returned before the end of the day.
- Nurse assessment of pain and follow through.
- Nurse assessment of safety and preparation for home care.

References: See Section 7.

SECTION 4
AAACN NSI Task Force Proposed Indicators for Development and Endorsement: Original Measures Recommended as Ambulatory Care Nurse-Sensitive Indicator Measures

A.   Ambulatory Care Nurse Care Coordination: Appropriate Referral
B.   Ambulatory Care Nurse Patient Engagement: Measurement of Patient Activation
C.   Ambulatory Care Nurse Administration of Vaccine Per Non-Patient Specific Protocol
D.   Ambulatory Care Nurse Clean Urine Specimen

SECTION 4
AAACN NSI TASK FORCE PROPOSED INDICATORS FOR DEVELOPMENT AND ENDORSEMENT: ORIGINAL MEASURES RECOMMENDED AS AMBULATORY CARE NURSE-SENSITIVE INDICATOR MEASURES

The AAACN NSI Task Force identifies and describes four new measures recommended for development, endorsement, and pilot testing. These four measures have the potential to uniquely reflect the role of the registered nurse (RN) in the ambulatory care setting as well as promote enhanced nursing practice. Each measure represents a cumulative effort of evidence and best practice review.

> **A.   AAACN Ambulatory Care Nurse-Sensitive Proposed Original Measure: Ambulatory Care Nurse Care Coordination: Appropriate Referral**

Introduction of New Proposed Indicator

The American Nurses Association (ANA) along with the American Academy of Ambulatory Care Nursing (AAACN) and other professional organizations recognize telehealth nursing, including telephone triage, as a sub-specialty within the larger specialty of ambulatory care nursing. It is supported by a unique body of knowledge outlined in the AAACN *Scope and Standards for Professional Telehealth Nursing* (2011). In recent years there has been an increase in the use of telephone triage. This growth has been international and includes systems in Australia, Netherlands, Canada, New Zealand, Denmark, Sweden, Dominican Republic, United Kingdom, Ecuador, Venezuela, and Greece.

Callers access the telephone triage system for advice and direction related to health care concerns. This is different than the Emergency Management System (EMS), which is accessed by callers who are in life-threatening or emergency situations. Although a caller to a telephone triage program may be directed to call EMS (911), industry standards report this occurs in approximately 1% or less of calls.

Many telephone triage calls are managed after hours (also referred to as out of hours) through centralized call centers using evidence-based guidelines, or protocols, embedded into clinical decision support software. Although the exact number of nurse-led telephone triage calls done annually in the US is not known, Sabin (1998) states that as of 2001, 100 million people had access to telephone triage advice and that growth of 25% per year is expected.

Although telephone triage is generally accepted to be a safe method of providing care (Bunn, Byrne, & Kendall, 2004), studies continue to surface that question the safety of telephone triage. A systematic review by Huibers, Smits, Renaud, Giesen, & Wensing

(2011) concluded that on average 10% of telephone triage contacts were unsafe, although these findings were not associated with any serious safety events. This is a worrisome estimate, as the number of telephone triage encounters annually is estimated in the tens of millions. The authors found many of the studies evaluating safety were old (greater than 10 years). They suggest new studies on the safety of telephone triage are needed to inform practice and health policy decisions.

Studies of telephone triage often focus on under referral, failing to recognize a medical emergency or signs and symptoms of significant illness, or over referral, determining the patient requires a higher level of service than necessary. Under referral may jeopardize patient safety, whereas over referral places increased stress on an overburdened emergency care system and results in unnecessary costs. Few, if any, studies have attempted a comprehensive evaluation of nurse triage dispositions to evaluate the rate of "appropriate disposition." Studies on telephone triage lack consensus on what level of intervention constitutes an appropriate referral. There is even disagreement on a definition for "appropriate."

Appropriate referral (AR) is defined as directing the right patient to the right level of service at the right time. This decision is made by evaluating the patient at the time of the call and assessing the severity of symptoms. The nurse assigns a level of urgency or an acuity level based on assessment of symptoms and assigns a triage disposition. Although there is no universal guide for triage dispositions, in general they fall into the following categories:

Table 1. Triage Disposition Categories

911	Urgent
See in Emergency Department/Urgent Care /Office Immediately	Urgent
See in Emergency Department/Urgent Care /Office in 4 hours	Non-urgent
See within 24 hours	Non-urgent
See in greater than 24 hours	Non-urgent

Source: Agency for Healthcare Research and Quality, 2014.

Many call centers and triage programs perform rigorous quality assurance to ensure nurses are complying with established evidence-based guidelines and sending patients to the appropriate level of care. There are also industry standards specific to certain software and patient populations that benchmark referral rates for the triage dispositions listed above. The problem is that these are internal measures and as a result subject to bias.

In contrast, nurse-sensitive indicators (NSI) are objective, consistent, and easily benchmarked across all settings. The goal is to determine a measure that is objective, can be extracted from the patient electronic medical record (EMR) and can be compared across multiple settings and patient populations. Ideally, an NSI in telephone triage would compare the patient disposition assigned by the triage nurse to the findings

of the provider who first examines the patient during the telephone encounter. Since patient status is rarely static, we hypothesize that the sooner the patient is seen following telephone triage, the more likely that the two assessments will align. In order to limit bias, it is preferable that the patient's status upon arrival at the appropriate facility be determined without prior knowledge of the assigned triage disposition level.

A universal patient assessment tool used to assign acuity in emergency departments (ED) is the emergency severity index (ESI) (Gilboy, Tanabe, Travers, & Rosenau, 2011). The ESI is a five-level system (See Table 2) that can be used with adults and children to accurately assign a level of acuity and urgency to patients in the ED by predicting which patients require admission, have an increased length of stay (LOS) in the ED, or require a higher number of resources to arrive at a final disposition (Green et al., 2012).

Table 2. Emergency Severity Index

Level 1: Patient requires immediate life saving interventions	High acuity
Level 2: Patient is unstable or in severe distress	High acuity
Level 3: Resources required: many	High acuity
Level 4: Resources required: one	Low acuity
Level 5: Resources required: none	Low acuity

Source: Gilboy et al., 2011.

Consequently, the question is posed: for patients who contact a nurse-led telephone triage line and are referred to be seen within 24 hours, is it possible to compare the telephone triage disposition with the ESI to determine an appropriate referral rate (ARR)?

Since it has already been established that the intent of telephone triage programs differ from EMS programs such as 911 (accidents, sudden cardiac arrest, SIDS), Level 1 of ESI ("is the patient dying?") would seldom be expected to map to a telephone triage disposition. Additionally, since ESI is not influenced by patients' mode of arrival, the presence or absence of emergency transport should not impact ESI score. Therefore, we would anticipate that the following telephone triage dispositions and ESI would align.

Table 3. Proposed Appropriate Referral Measure

Telephone Triage Disposition	ESI	Acuity
Does not map/ Do not routinely receive this level of call	1	High
911	2	High
See in ED immediately	3	High
See in 4 hours	4	Low
See in 24 hours	5	Low

Measure Source: AAACN New Proposed Measure: Ambulatory Care Nurse Care Coordination: Appropriate Referral Rate

Measure Description: The percentage of patients whose acuity measurement on triage disposition is equal or within 1 point of the ESI acuity measurement given of that same patient in the Emergency Department on arrival.
- Triage disposition determined by nurse during telephone encounter. ESI assigned by triage nurse in Emergency Department (ED).

Numerator Statement: Number of calls where the triage disposition is equal to or within 1 (higher or lower) of the ESI.

Denominator Statement: All patients who receive a triage disposition from a call center nurse and are then seen in ED.

Exclusion: Patients who receive a triage disposition but are not seen in a facility where the EMR can be accessed.

Inclusion: Patients who call a telephone nurse triage center after hours and are directed to an ED with a disposition of 911, See in ED/urgent care Immediately, See in ED in 4 hours, See in 24 hours.
- We propose the measure is limited to After Hour Call Centers with access to:
  - Triage disposition data
  - Patient EMR information

Methodology and Next Steps Recommendations
- Expand trial to include a statistically significant *n* and publish data.
- An initial pilot was completed that compared triage disposition with ESI for 25 pediatric after hours calls, and 24 of the 25 reviewed were equal to or within one of the ESI. Considering that patient conditions can vary considerably in a 24-hour period, this seemed like a reasonable result.
- This measure has limitations. Currently, there is little in place in EMR that captures nurse actions during daytime triage in an office or clinic or care coordination efforts in a clinic. Therefore, this measure would be limited to areas that have access to disposition data from telephone triage phone calls and access to EMR of patients who present in the ED within 24 hours. Most large Call Centers and After Hours Programs utilize software that provides this information. Many are associated with large hospital networks and can access patient visit information.

References: See Section 7.

B.   AAACN Ambulatory Care Nurse-Sensitive Proposed Original Measure: Ambulatory Care Nurse Patient Engagement: Measurement of Patient Activation

Introduction of New Proposed Indicator

Background

Patient engagement is an increasingly important part of a national strategy to improve health outcomes and enhance health care quality. Recognized as a component of "*accountable*" health care, patient engagement was conceptualized from a recognized need for reform in the United States health care delivery system to include a more patient-centered approach capable of recognizing and responding to patient and family needs and preferences (Carman et al., 2013; IOM, 2001).

Patient engagement encompasses active participation by individuals (i.e., consumers, patients, and family members) in their health and health care. Examples of patient engagement behaviors include using electronic health portals for two-way communication with health care providers, setting wellness goals for weight management and physical activity with health care team members, or discussing advanced directives such as health care proxy with family members and actively communicating end-of-life care decisions to a primary care provider. Despite a multitude of patient engagement definitions, approaches, and evolving strategies, evidence supports that when patients are engaged and actively involved in their health care, it can bring about measurable improvements in health outcomes, safety, and quality of care (Hibbard & Greene, 2013; Maurer, Dardess, Carman, Frazier, & Smeeding, 2012).

Current Patient Engagement Strategies

Numerous national organizations such as The Joint Commission (TJC), Agency for Healthcare Research and Quality (AHRQ), Patient-Centered Outcomes Research Institute (PCORI), American Institutes for Research (AIR), American Hospital Association (AHA), and the Health Research and Educational Trust (HRET) have embraced and advocated for patient engagement. Consequently, several strategies have emerged to address how health care providers, hospitals, and health systems can engage patients and consumers at the individual, health care team, organizational, and community levels. Most recently, AIR (2014) identified eight strategies for change around patient engagement. These included: (1) patient and family preparation; (2) clinician and leadership preparation; (3) care and system redesign; (4) organization partnership; (5) measurement and research; (6) transparency and accountability; (7) legislation and regulation; and (8) partnership in public policy. Patient and family engagement resources and tools have also been developed to facilitate national

widespread adoption (AHA, 2013; HRET, 2013; Scholle, Torda, Peikes, Han, & Genevro, 2010).

These efforts are augmented by strategic, planned individual/organizational partnerships and research endeavors to increase patient engagement resources and to provide evidence to health care providers, hospitals, and health systems aimed toward improved health outcomes and reduced harm in health care (AHA, 2013; AIR, 2014; HRET, 2013).

The Nursing Alliance for Quality Care (NAQC), currently under the auspices of the American Nurses Association (ANA), defines patient engagement as "the involvement in their care by individuals (and others they designate on their own behalf), with the goal that they make competent, well-informed decisions about their health and health care and take action to support those decisions" (Sofaer & Schumann, 2013, p. 5). Their framework describes the development and outcomes of patient engagement as being closely related to patient activation.

Patient engagement was more recently defined by Maurer et al. (2012, p.10) as "a set of behaviors by patients, family members, and health professionals and a set of organizational policies and procedures that foster both the inclusion of patients and family members as active members of the health care team and collaborative partnerships with providers and provider organizations."

The multidimensional framework described by Carman et al. (2013) advances patient engagement concepts, recognizes its structural intricacies, and illustrates the various levels at which it is realized. This conceptual model serves as a roadmap for further patient engagement program development across every level and establishes a foundation for a broad-based patient engagement research agenda.

Patient Engagement and Activation

Patient activation is closely related to patient engagement. Activation encompasses the degree to which patients are motivated and possess the knowledge, skills and confidence to effectively manage their health (Bandura, 2004; Hibbard et al., 2008; Hibbard, Mahoney, Stockard & Tusler, 2005; Hibbard, Stockard, Mahoney, & Tusler, 2004). Activation includes the underlying construct of self-efficacy and is closely associated with the degree of individual engagement in health management.

Patient activation can be measured using the quantitative tool, PAM (Patient Activation Measure). The tool, developed by Judith Hibbard and currently licensed by Insignia Health, is a well-researched, reliable, validated instrument that has demonstrated applicability across different languages, cultures, demographic groups, and populations of people with varying health status (Hibbard & Mahoney, 2010; Hibbard et al., 2005; Hibbard, Mahoney, Stock, & Tusler, 2006; Hibbard, et al., 2004).

The PAM is a one-dimensional, probabilistic Guttman-like scale that reflects a developmental model of activation that appears to involve four levels: (1) believing the patient role is important; (2) having the confidence and knowledge necessary to take action; (3) actually taking action to maintain and improve one's health; and (4) staying the course even under stress. An individual's PAM score and respective activation level is determined through administration of a standardized PAM tool. The 13-question PAM is highly predictive of varied health behaviors and can used to tailor health care interventions and assess changes (Hibbard et al., 2004).

Patients who score high on the PAM and are determined to have a higher level of activation can be managed with supporting education and counseling. Patients who score low on the PAM and have a high disease burden, such as with chronic diseases, would be matched with a registered nurse and provider in a team-based care model (Hibbard & Greene, 2013). Evidence consistently demonstrates patients with higher levels of activation are more likely to engage in positive self-management behaviors and have improved outcomes (Hibbard, 2009; Hibbard & Greene, 2013; Hibbard, Greene, & Overton, 2013; Hibbard et al., 2008; Hibbard et al., 2006; Marshall et al., 2013; Sacks, Greene, Hibbard, & Overton, 2014; Skolasky et al., 2011).

John Wasson, professor at Dartmouth, and colleagues created a tool for patients to self-assess their confidence in managing and understanding their overall health and disease (Wasson & Coleman, 2014). The instrument is a simplistic visual scale, does not require answering multiple questions, and is presented in a familiar red, yellow, and green scale complemented by smiling and frowning faces at the end points. A single question prompts the reader to answer what it would take for them to become more confident in their self-care abilities. This tool is not presented as a robust, predictive tool like the PAM, but as a patient-reported outcome. It is intended to open the conversation to patient engagement strategies. Patients are invited to complete a more comprehensive health profile on a free web site (www.howsyourhealth.org). The self-assessment can be completed in advance of a healthcare appointment, shared with providers, and used to guide patients (Chase, 2011).

The National Quality Forum's (NQF) guidance in *Patient Reported Outcomes (PROs) in Performance Measurement* offers principles and a defined approach to the relationship among structure, process, and outcome in health care. PROs are defined as "any report of the status of the patient's (or person's) health condition, health behavior, or experience with health care that comes directly from the patient, without interpretation of the patient's response by a clinician or anyone else" (NQF, 2013c, abstract). Key domains include health-related quality of life (including quality of life), symptoms and symptom burden, experience with care, and health behaviors (NQF, 2013c).

The Role of Nursing in Patient Engagement

Nursing's role is fundamental in advancing evidence-based practice. Ambulatory care nurses and advanced practice primary care nurses have already begun to incorporate engagement strategies into care systems and will be instrumental in furthering the effort (Haas & Swan, 2014; Rutherford, 2014). Such strategies include use of motivational interviewing and creation of patient self-determined goals. The ambulatory care registered professional nurse and advanced practice nurses are uniquely positioned to further patient engagement interventions and program development.

Patient engagement underpinnings are detailed by Sofaer and Schumann (2013), authors of the NAQC white paper *Fostering Successful Patient and Family Engagement: Nursing's Critical Role.* This includes the development of patient engagement strategies, associated behaviors, outcomes, and the underlying orientation to patient activation. Engagement strategies include chronic disease self-management, motivational interviewing, family rounding, and health coaching, and are designed to promote and foster self-efficacy and confidence over time (See Figure 1). These strategies should result in engagement behaviors and ultimately effect changes in health behaviors and improved outcomes such as functional status and quality of life (Sofaer & Schumann, 2013). The NAQC logic model (See Figure 2) for maximizing the contributions of nursing to patient engagement includes strategy domains, changes in awareness, and behaviors of nurses, as well as proximal, intermediate, and longer-term outcomes (Sofaer & Schuman, 2013) (See Figure 3).

Figure 1.
Guiding Principles for Patient Engagement

Patient engagement is a critical cornerstone of patient safety and quality. NAQC has grounded its approach to this topic by recognizing the primary importance of *relationships* between engaged patients and families and their clinicians, including but not limited to nurses. The following are principal assumptions that guide NAQC in addressing care that is patient centered.

1   There must be an active partnership among patients, their families, and the providers of their health care.

2.   Patients are the best and ultimate source of information about their health status and retain the right to make their own decisions about care.

3.   In this relationship, there are shared responsibilities and accountabilities among the patient, the family, and clinicians that make it effective.

4.   While embracing partnerships, clinicians must nevertheless respect the boundaries of privacy, competent decision-making, and ethical behavior in all their encounters and transactions with patients and families. These boundaries protect recipients as well as providers of care. This relationship is grounded in confidentiality, where the patient defines the scope of the confidentiality.

5.   This relationship is grounded in an appreciation of patient's rights and expands on the rights to include mutuality. Mutuality includes sharing of information, creation of consensus, and shared decision-making.

6.   Clinicians must recognize that the extent to which patients and family members are able to engage or choose to engage may vary greatly based on individual circumstances, cultural beliefs and other factors.

7.   Advocacy for patients who are unable to participate fully is a fundamental nursing role. Patient advocacy is the demonstration of how all of the components of the relationship fit together.

8.   Acknowledgment and appreciation of culturally, racially or ethnically diverse backgrounds is an essential part of the engagement process.

9.   Health care literacy and linguistically appropriate interactions are essential for patient, family, and clinicians to understand the components of patient engagement. Providers must maintain awareness of the language needs and health care literacy level of the patient and family and respond accordingly.

Source: Sofaer & Schumann, 2013. Used with permission.

Figure 2.
Maximizing the Contributions of Nurses to Patient Engagement: A Logic Model

Domains of Strategy	Changes in Awareness of Nurses	Changes in Behaviors Among Nurses	Outcomes
Ensuring that all nursing education emphasizes patient engagement. Amplifying the professional standing of nurses as champions of patient engagement. Strengthening support for nurses as advocates in the care environment of patients. Aligning incentives to encourage patient engagement. Elevating regulatory expectations and standards that support patient engagement principles in practice. Intensifying efforts to conduct and disseminate research on patient engagement.	All nurses respect patient/consumer place at the center of health care decision-making and in accordance with principles of patient centered care. All nurses embrace the belief that patients and families are or can become competent to engage fully in making informed health care decisions. All nurses recognize their own important role in supporting patients who are encountering obstacles in the health care system. **Nurses at front lines:** • Recognize that patient goals, values, preferences, cultural context, and particular circumstances must be incorporated into the care plan. • Recognize that when the patient perspective is not being honored, they will need to be active as an advocate, preferably with rather than for the patient/family. **Nurses in managerial roles:** • Recognize the impact of organizational structure and culture on the likelihood that engagement will be easy and well supported. • Recognize the role of rewards and incentives in shaping an organization moving in the direction of fuller engagement. **Nurses in executive/policy roles:** • Recognize the relationship of patient engagement to achieving Goals of National Quality Strategy. • Recognize that they may need to lead transformation to achieve full engagement.	**At the front lines:** • Listening. • Speaking in the language of the patient/family (plain English, Spanish, etc.). • Using motivational interviewing and other methods of eliciting patient goals/values. • Seeing the world from the "shoes" of the patient. • Using key engagement strategies such as bedside and family rounds, bedside change of shift, shared decision making. • Incorporating patients into advisory committees and QI teams. • Ensuring patient friendliness of information and technology; facilitating their use by patients. • Ensuring authenticity of informed consent. • Advocating effectively whenever necessary for the patient and family. **In managerial, executive, and policy roles:** • Becoming a "champion" for patient engagement and shared decision making. • Building small "p" political support for engagement, including use of "business cases." • Analyzing barriers and facilitators of engagement from the nursing and patient perspectives. • Advocating for needed reforms and research.	**Proximate** • Increases in scores of nurses on the Clinical Support for Patient Activation Measure. • Higher nurse work satisfaction, better assessments of work environment, nurse retention. • Higher scores on Patient Activation Measure. • Higher prevalence of CFAH "engagement behaviors" among patients/family. • More self-management of chronic conditions. • Greater use of evidence in treatment decision making. **Intermediate** • Improved patient experiences of care scores. • Increased professional standing of nursing. • Supportive care environments where nurses advocate for patients. **Longer Term** • Improved quality and safety. • Decreased/Eliminated disparities in care and health across age, gender, race, ethnicity, etc. • Reduced overuse of unneeded tests and treatments. • Increased use of evidence-based services. • Lower costs. • Improved population health.

Source: Sofaer & Schumann, 2013. Used with permission.

Figure 3.
Development and Outcomes of Patient Engagement

Engagement Strategies	Underlying Orientation to Engagement	Engagement Behaviors	Outcomes
Tailoring treatment plans to patient's level of activation Chronic disease self-management Shared decision making Motivational interviewing Health coaching Family rounding Bedside change of shift Redesigned discharge protocols Information exchanges Decision aids Public reporting of comparative performance information	Measured by the Patient Activation Measure (PAM) Patient at the center of the decision-making process for his/her health care	Frameworks for observing behaviors Center for Advancing Health Framework - 40+ behaviors in ten areas such as: • Find safe, decent care • Communicate with health professionals • Organize health care • Pay for health care • Make good treatment decisions • Participate in treatment • Promote health • Get preventive health care • Plan for the end of life • Seek health knowledge Reduction of health risk behaviors Self-management of preventive health strategies Self-management of episodic illness	• Absence of harm as a result of care received • Improvements in health for patients/consumers of care • Improved biometrics • Improved functional status • Improved quality of life • Improved population health • Improved health risk behavior profile • Improved and safe work environments for health care professionals

Source: Sofaer & Schumann, 2013. Used with permission.

Patient Engagement Measurement and Next Steps

Patient engagement measurement is in early stages of development and exploration of engagement measures should be considered at multiple levels (i.e., policy, organizational, systems, individual). Sufficient attention must be given to quantitative, qualitative, and mixed-method measurement approaches.

Patient engagement measures in ambulatory care nursing may reflect team-based approaches, particularly in primary care, and care and attention must be given to teasing out nursing's influence. As the scope of ambulatory care nursing continues to evolve amidst emerging team-based care models and electronic health record interoperability, opportunities may exist to define "nursing-centric" patient engagement measures. More studies are needed to determine the influence of the nurse on patient engagement and patient activation.

Measure Source: AAACN New Proposed Measure: Ambulatory Care Nurse Patient Engagement: Measurement of Patient Activation

Measure Description: Change in patient activation measurement in patients with chronic disease following education and coaching by a registered nurse.
- Use of the PAM tool to assess and document the patient's level or stage of engagement and readiness to manage their health.

Numerator Description: Number of patients whose PAM score moved one or more stages higher from baseline to repeat score at 6 months.

Denominator Description: Number of patients who received chronic disease management education and coaching from an RN at least once during the measurement period.
- Stage 1: Does not yet understand that an active role is important (score <=47).
- Stage 2: Lacks knowledge and confidence to take action (>=47.1 to <=55.1).
- Stage 3: Beginning to take action (>=55.2 to <=67.0).
- Stage 4: Maintains positive health behaviors over time (>=67.1) (Mosen et al., 2007).

Measure Exclusions:
- Patients under 18 years of age.
- Patients with a baseline PAM of Stage 4.

Methodology and Next Steps Recommendations
- Determine baseline by administering PAM to patients with one or more chronic diseases.
- The RN provides education and coaching using motivational interviewing techniques and supports the patient in creating self-determined goals.
- The PAM is re-administered to the patient at 6 months.

References: See Section 7.

C. AAACN Ambulatory Care Nurse-Sensitive Proposed Original Measure: Ambulatory Care Nurse Administration of Vaccine Per Non-Patient Specific Protocol

Introduction of New Proposed Indicator

In order to prevent infectious diseases and their sequelae, immunizations are recommended throughout life (Centers for Disease Control and Prevention [CDC], 2012). For most routinely recommended vaccines, adult coverage remains low (CDC, 2012). Vaccination against influenza and pneumococcus should occur annually for specific age groups (McLaughlin, McGinnis, Tan, Mercatante & Fortuna, 2015). The shingles vaccine should be provided to adults aged 60 years and older, and the Tdap booster should be administered to all adults once (McLaughlin et al., 2015). Some vaccines can be administered via standing health care personnel (where permitted by state) to assess the immunization status of a patient and administer the vaccine according to a protocol (Office of Disease Prevention and Health Promotion, 2015b). A systematic review performed in 1997 and completed in 2009 found strong evidence for effectiveness for standing orders in adults and children (Guide to Community Preventative Services, 2015).

The law and regulations on the administration of non-patient specific orders for certain immunizations, anti-anaphylactic agents, and PPD mantoux skin tests standardize practice across all service delivery systems. Registered nurses may administer certain vaccines to patients without the use of a patient-specific order to improve the health of the population as identified in the applicable state's Nurse Practice Act. Examples of this include influenza and pneumococcal vaccination.

Measure Source: AAACN New Proposed Measure: Ambulatory Care Nurse Administration of Vaccine Per Non-Patient Specific Protocol

Measure Description: Percentage of patients eligible for influenza or pneumococcal vaccination under non-patient specific protocols for RNs who receive the vaccination by the RN in the specified measure period.

Numerator Statement: # of patients who receive the influenza or pneumococcal vaccination by the RN under non-patient specific protocol in the specified measure period.

Denominator Statement: # of patients seen by the RN who are eligible to receive the influenza or pneumococcal vaccine under non-patient specific protocol in the specified measurement period.

Inclusions: Only patients who are seen by the RN.
- Influenza vaccine: patients aged 2 years and older.
- Pneumococcal vaccine: Patients aged 65 years and older.

Exclusions: Patients not seen, screened, or assessed by a RN.

Methodology and Next Steps Recommendations

As this measure is developed, seek to replicate with immunizations given throughout the lifespan such as older adult immunizations and childhood immunizations.

References: See Section 7.

D.   AAACN Ambulatory Care Nurse-Sensitive Proposed Original Measure: Ambulatory Care Nurse Clean Urine Specimen

Introduction of New Proposed Indicator

A urinary tract infection (UTI) is one of the most common patient infections (Shrestha, Gyawali, Gurung, Amatya, & Kumar-Bhattacharaya, 2013). Urine cultures are the gold standard for diagnosing UTIs (Gibly, 1998). Improper collection, however, may lead to contaminated specimens (Shrestha et al., 2013). Patients who are provided with instructions regarding the proper cleaning procedures prior to obtaining a clean urine specimen have a lower contamination rate, thus reducing the need to repeat the sample (Bekeris, Jones, Walsh, & Wagar, 2008). Urinalysis is necessary for outpatients who have recurrent UTIs, experience treatment failures, or have more complicated UTIs (Wilson & Gaido, 2004).

It is estimated that UTIs represent approximately 7 million visits to outpatient clinics (Wilson & Gaido, 2004). Correct processing and handling of urine specimens is dependent on the method of collection and as such represents an important practice improvement for clinicians (Wilson & Gaido, 2004). Urine cultures are one of the most common point of care tests performed by nurses in the ambulatory care setting and as such, this is an activity with potential to reflect quality of nursing care in that setting.

Measure Source: AAACN New Proposed Measure: Ambulatory Care Nurse Clean Urine Specimen

Measure Description: % of urine specimens that are contaminated.

Numerator Statement: # of contaminated samples per specified time period.

Exclusions: Non-toilet trained children, patients with Foley catheters or other urinary diversion devices.

Denominator Statement: # of total urine samples sent per specified time period.

Methodology and Next Steps Recommendations

This is a measure that can be pilot tested in the ambulatory care setting that has a high incidence of contaminated specimens. Patients, when provided with the proper education regarding the collection of a specimen, will be better able to collect the specimen without contamination. Additional considerations are:
- No standard for cleaning the genitourinary area exists.

- Variability will exist with this dependent on patient self-collection of specimen. The quality of patient education performed by the RN may be reflected as a process component of this measure, and seen in comparison groups based on the quality of specimens.

References: See Section 7.

SECTION 5
Current Exemplars in Ambulatory Care Nurse-Sensitive Indicator Measurement

A. Care Coordination: RN Care Manager Reduction of Readmissions

B. Care Coordination: Population Health Management Through Advanced Care Planning of High Risk Populations

C. Care Coordination: Decreasing Pediatric Emergency Room Visits

D. Wound Care Healing Rate Through RN Case Managed Cohorts of Patients

E. Opioid Use Monitoring and Safety at Pain Center

F. Reduction of Readmissions Via a Follow-Up Phone Call Process

G. Team BMI: Management of Pediatric Overweight and Obesity in Pediatric Primary Care

SECTION 5
CURRENT EXEMPLARS IN AMBULATORY CARE NURSE-SENSITIVE INDICATOR MEASUREMENT

Many innovative processes are being developed to elicit positive outcomes for patients in the ambulatory care setting. In many cases, the only comparative benchmarks are either current literature or institutional goals. However, as listed in a few of the below examples, some organizations are finding unique ways to benchmark quality that are nurse sensitive and create better outcomes for patients. Many of the members of the AAACN NSI Task Force joined the task force because they were starting to pilot various nurse-sensitive processes in their home organizations.

A.   Care Coordination: RN Care Manager Reduction of Readmissions

Measure Source: Sentara Medical Group, Sentara Health System

Measure Description: RN Care Managers in the Medical Group follow every medical discharge for at least 30 days. Percentage of patient medical readmissions in every RN Care Manager's cohort of patients.

Numerator Statement: # Medical Group patient medical readmissions (YTD).

Denominator Statement: Total number of medical group discharges (YTD).

B.   Care Coordination: Population Health Management Through Advanced Care Planning of High Risk Populations

Measure Source: Sentara Medical Group, Sentara Health System

Measure Description: Advanced Care Planning in High Risk Patient Populations: % of patients in a high risk patient population with a documented facilitated Advanced Care Plan. Advanced Care Plans are assigned, facilitated, and documented by specialized RN Care Managers trained in Advanced Care Planning of complex populations.

Numerator Statement: # patients with a documented, facilitated Advanced Care Plan assigned to an Advanced Care Planning (ACP) RN Care Manager in Sentara Medical Group.

Denominator Statement: # patients in a given high risk population assigned to an RN Care Manager.

C. Care Coordination: Decreasing Pediatric Emergency Room Visits

Measure Source: Medical University of South Carolina. Hospital billing data, Medicare/Medicaid billing data. This data will capture patients admitted to ERs around the state. Data can be tracked by MRN/DX and for children can be associated with point of care.

Measure Description: # of ambulatory care patients with chronic health condition (asthma, epilepsy, diabetes, etc.) seen in clinic or doctor's office with documentation of specific education/care coordination activity provided by registered nurse.

Numerator Statement: # of patients seen in clinic/office with specified diagnosis and subsequently seen in the emergency department.

Denominator Statement: Total # of patients seen with specified diagnosis matching that of the numerator group, with documentation of specific education or care coordination activity provided by registered nurse.

Exclusions: Patients who received an after-visit summary AVS or teaching sheet, but not specific RN education. Patients who received visit instruction by the provider.

Comments:
- Seizure patient intervention/RN instruction: Asthma action plan and magnet for first aid for seizure.
- Baclofen pump care coordination/RN intervention: Instructions on pump refill timeline, giving family the medication dose and rate along with date pump will be empty. Tracking by RN staff for on-time visits and intense follow up for no-show appointments.
- Asthma patient intervention/RN instruction: Asthma action plan.
- Synagsis patient intervention/RN instruction and care management: Synagsis education by video, magnet given with appointment dates and dose due. EMR flagged so if patient is seen in another clinic there are no missed opportunities and dose can be given with an extra visit. Tracking by RN staff for on-time visits and intense follow up for no-show appointments.

D. Wound Care Center Healing Rate Through RN Case Managed Cohorts of Patients

Measure Source: Rush Oak Park Hospital Wound Care Clinic

Measure Description: % of patients with complete wound healing after 14 weeks, once weekly visits to RN case managed wound care clinic.

Numerator Statement: # patients with complete wound healing after 14 weeks, once weekly visits to RN case managed wound care clinic.

Denominator Statement: # all patients seen in RN case managed wound care clinic.

Exclusions: Patients that choose to abort treatment before 14 weeks.

Rationale: Nurse-sensitive related to role of nurse as case manager and care coordinator.

E.   Opioid Use Monitoring and Safety at Pain Center

Overview of Exemplar:
- The organizational exemplar is from the number of calls for opioid prescription refills and the number of clinic appointments for opioid prescription refills.
- A significant number of patients seen at the clinic are on long-term opioids. Based on the July 2013 FDA approval of a risk evaluation and mitigation strategy (REMS) for extended-release (ER) and long-acting (LA) opioid medications, the clinic changed prescribing practices. Prior to implementation, the mean number of calls to nurses was 16.85 calls per day. Post implementation the mean volume of calls decreased to 2.23, an 86 percent reduction. As the number of phone calls decreased, the number of clinic visits increased by 26 percent. As a result of counseling and education from nursing, many patients were able to reduce their opioid usage.
- The organization utilized a data collection tool to track the number of phone calls and the electronic health record for clinical and appointment related information.
- The organization presented this event to all staff as a quality improvement initiative as well as presented the information to the Midwest Pain Society and the American Academy of Physical Medicine and Rehabilitation General Assembly.

Measure Source: Rehabilitation Institution of Chicago

Measure Description: Number of phone calls per day was monitored from December 2012 through May 2013. Number of office visits was monitored during the same period.

Numerator Statement: Number of phone calls and number of clinic appointments.

Denominator Statement: Total number of patient visits for a defined period of time.

Exclusions: Non-opioid patients.

F.   Reduction of Readmissions Via a Follow-Up Phone Call Process

Measure Source: University of California, Davis Health System

Measure Description: Percentage of patients that received a follow-up phone call within 3 days and the percentage of patients in that same cohort who were readmitted to the hospital within 30 days.

Numerator Statement: Number of patients that received a follow-up phone call within 3 days and the number of patients in that same cohort who were readmitted to the hospital within 30 days.

Denominator Statement: Total number of patients discharged from the hospital, as cared for by an ambulatory care setting within a defined period of time.

G.   Team BMI: Management of Pediatric Overweight and Obesity in Pediatric Primary Care (Allen et al., 2014)

Measure Source: Medical University of South Carolina, Center for Evidence Based Practice

Measure Description: Percentage of patients, ages 2-17 years with overweight or obese Body Mass Index (BMI).

Numerator Statement: Number of patients, ages 2-17 years with overweight (over 85th percentile) BMI and obese (over 95th percentile) BMI, as seen in defined period of time.

Denominator Statement: Total number of patient visits for a defined period of time.

Special Comments or Considerations
- Application of 5-2-1-0 patient and family education. Obesity counseling has been a long-standing component of well-child anticipatory guidance; however, more clear, consistent, and consolidated recommendations are needed to make clinical counseling more useful. In response, the Main Youth Overweight Collaborative initiated a 5-2-1-0 campaign applying this pneumonic: 5 or more servings of fruits and vegetables, <2 hours of screen time (TV, computer, video games), at least 1 hour of physical activity and no (0) sugar-sweetened beverages (Foltz et al., 2011).

SECTION 6
Glossary of Definitions and Supportive Statements

A. AAACN Definition of the Role of the Nurse in Ambulatory
B. Dimensions of the Ambulatory Care Nurse Role
C. Definition of Care Coordination
D. Definition of Transition Management
E. Definition of the Role Dimensions of Nurse Care Coordination and Transition Management
F. Nursing Alliance for Quality Care Definition of Patient Engagement

SECTION 6
GLOSSARY OF DEFINITIONS AND SUPPORTIVE STATEMENTS

A.   AAACN Definition of the Role of the Nurse in Ambulatory

Background

Ambulatory care nursing is a unique realm of specialized nursing practice. Ambulatory nurses are leaders in their practice settings and across the continuum of care. They are uniquely qualified to influence organizational standards related to patient safety and care delivery in the outpatient setting. Ambulatory care nurses are knowledge workers who function in a multidisciplinary, collaborative practice environment, where they utilize critical thinking skills to interpret complex information and guide patients and families to health and well being (Swan, Conway-Phillips, & Griffin, 2006).

"Historically, the outpatient setting was the 'professional home' of physicians. They saw the majority of their patients in their offices and referred them for other services or levels of care, as needed. Registered nurses were few, as the system was physician driven. However, fiscal caps for hospital care and technological advances moved patients from inpatient venues into the ambulatory care setting. Patients required higher levels of care than in the traditional outpatient settings, and the ambulatory venue saw a growth in the number of professional nurses" (Mastal, 2010, p. 267).

The transition of health care from the inpatient to the outpatient setting has led to challenges with access to care and coordination of services, and has increased the complexity of care delivered outside the hospital walls. This shift has dramatically increased the need for professional nursing services, as patients and their families require increased depth and breadth of care. Ambulatory RNs facilitate patient care services by managing and individualizing care for patients and their families, who increasingly require assistance navigating the complex health care system. In addition to the provision of complex procedural care, professional nursing services provide support with decision-making, patient education and coordination of services.

"Many characteristics differentiate ambulatory care nursing from other specialty practices, including the settings, the characteristics of the patient encounters and focus on groups, communities and populations, as well as individual patients and their families" (Mastal, 2010, p. 267). The current ambulatory care setting is diverse and multifaceted, requiring nurses highly skilled in patient assessment and with the ability to implement a broad range of nursing interventions in a variety of settings. RNs in ambulatory care must possess strong clinical, education and advocacy skills and demonstrate the ability to manage care in complex organizational systems. Registered nurses are uniquely qualified, autonomous providers of patient/family-centered care that is ethical, evidence-based, safe, expert, innovative, healing, compassionate and universally accessible.

Efforts to conserve financial and nursing resources, along with a lack of understanding of differing roles, has led many organizations to under-utilize RNs in ambulatory settings. The economic benefit of care delivered by RNs has been demonstrated by their impact on patient satisfaction, quality patient outcomes, patient safety, reduced adverse events, and reductions in hospital/emergency department admissions (Haas, 2008; Institute of Medicine, 2011; O'Connell, Johnson, Stallmeyer, & Cokingtin, 2001). The future of the American health care system depends upon our ability to utilize registered nurses to the maximum of their expertise, licensure and certification.

Position Statement

It is the position of the American Academy of Ambulatory Care Nursing that:

- RNs enhance patient safety and the quality and effectiveness of care delivery and are thus essential and irreplaceable in the provision of patient care service in the ambulatory setting.
- RNs are responsible for the design, administration and evaluation of professional nursing services within the organization in accordance with the framework established by state nurse practice acts, nursing scope of practice and organizational standards of care.
- RNs provide the leadership necessary for collaboration and coordination of services, which includes defining the appropriate skill mix and delegation of tasks among licensed and unlicensed health care workers.
- RNs are fully accountable in all ambulatory care settings for all nursing services and associated patient outcomes provided under their direction.

Source: AAACN, 2010. Used with permission.

B.   Dimensions of the Ambulatory Care Nurse Role

AAACN defined nine core dimensions of the staff nurse clinical practice role and three core dimensions of the quality improvement/research role in ambulatory care (Haas & Hackbarth, 1995).

Clinical Practice Role

Factor 1: Enabling Operations
Factor 2: Technical Procedures
Factor 3: Nursing Process
Factor 4: Telephone Communication
Factor 5: Advocacy
Factor 6: Client Teaching
Factor 7: High-Tech Procedures
Factor 8: Care Coordination
Factor 9: Expert Practice/Community Outreach

Quality Improvement/ Research Role

Factor 1: Quality Improvement
Factor 2: Research
Factor 3: Continuing Education

C.   Definition of Care Coordination

McDonald et al. (2007 & 2014) state:
> Care Coordination is the deliberate organization of patient care activities between two or more participants (including the patient) involved in a patient's care to facilitate the appropriate delivery of health care services. Organizing care involves the marshalling of personnel and other resources needed to carry out all required patient care activities and is often managed by the exchange of information among participants responsible for different aspects of care (p. 4).

The care coordination process requires:
- The professional assessment of risk stratified patient/population needs and preferences,
- The identification, planning and organizing of appropriate organizational and community resources through the use of the nursing process,
- Communication and knowledge sharing among a multidisciplinary team and the patient/family/population resulting in full patient activation in his or her care,
- Evaluation of the outcomes of health care received.

This approach operates through an integrated multidisciplinary health care team inclusive of a professional care coordinator, who optimally is a registered nurse."

Source: AAACN, 2016. Used with permission.

D.   Definition of Transition Management

Haas, Swan, and Haynes (2014) state:
> A critical element inherent in care coordination is Transition Management which is the ongoing support of patients and their families over time as they navigate care and relationships among more than one provider and/or more than one health care setting and/or more than one health service. The need for transition management is not determined by age, time, place, or health care condition, but rather by patients' and/or families' needs for support for ongoing, longitudinal individualized plans of care and follow-up plans of care within the context of health care delivery (p. 3).

This process necessitates professional assessment, risk identification, stratification of group and individual patient needs and preferences that require:
- Multidisciplinary collaboration
- Evidence-based care delivery
- Patient and/ or caregiver activation and empowerment
- Utilization of quality and safety standards
- Ability to work independently in the domain of nursing to identify and access community resources which meet individual or group needs."

Source: AAACN 2016. Used with permission.

E. Definition of the Role Dimensions of Nurse Care Coordination and Transition Management

- Support for Self-Management
- Advocacy
- Education and Engagement of Patient and Family
- Cross Setting Communication and Transition
- Coaching and Counseling of Patients and Families
- Nursing Process
- Population Health Management
- Teamwork and Collaboration
- Patient Centered Care Planning

Source: Haas & Swan, 2014.

F.   Nursing Alliance for Quality Care Definition of Patient Engagement

The Nursing Alliance for Quality Care (NAQC) is a partnership among the nation's leading nursing organizations, consumers, and other key stakeholders to advance the highest quality, safety, and value of consumer-centered health care for all individuals, their families, and their communities (NAQC, 2016). AAACN provides a representative to sit on this committee and various members from NAQC served as content experts in the development of the Patient Engagement: Measurement of Patient Activation Measure proposed Nurse-Sensitive Indicator described in Section 4B of this report. NAQC has permitted the use of the documents and statements included here as well as in the aforementioned text.

"Patient engagement is the involvement in their own care by individuals (and others they designate to engage on their behalf), with the goal that they make competent, well-informed decisions about their health and health care and take action to support those decisions" (Sofaer & Schumann, 2013, p. 5).

Introduction & Definition

According to Sofaer and Schumann (2013):

> Patient engagement is a key element and even a necessary condition for the achievement of patient-centered care (Gerteis, Edgman-Levitan, Daley, & Delbanco, 1993; Institute of Medicine, 2001). In 2008, the National Priorities Partnership (NPP) of the National Quality Forum (NQF) identified patient-centered care that encompasses full engagement of patients and their families in shared decision-making processes as one of its six key priorities (NPP, 2008). NPP recommended its inclusion as a priority of the National Quality Strategy (NQS) (U.S. Department of Health and Human Services, 2011). The Center for Medicare & Medicaid Innovation (CMMI) has created a national Partnership for Patients (P4P) that places a strong emphasis on patient engagement and along with the NPP drives implementation of the priority. The American Academy of Nursing (AAN), as part of its efforts to identify the need to measure the impact of nursing, has published an Action Brief on measurement of patient engagement (Pelletier and Stichler, 2013). RN daily experiences include working with patients and families who have often fared poorly because patients' concerns, preferences and knowledge have not been valued (p. 5).
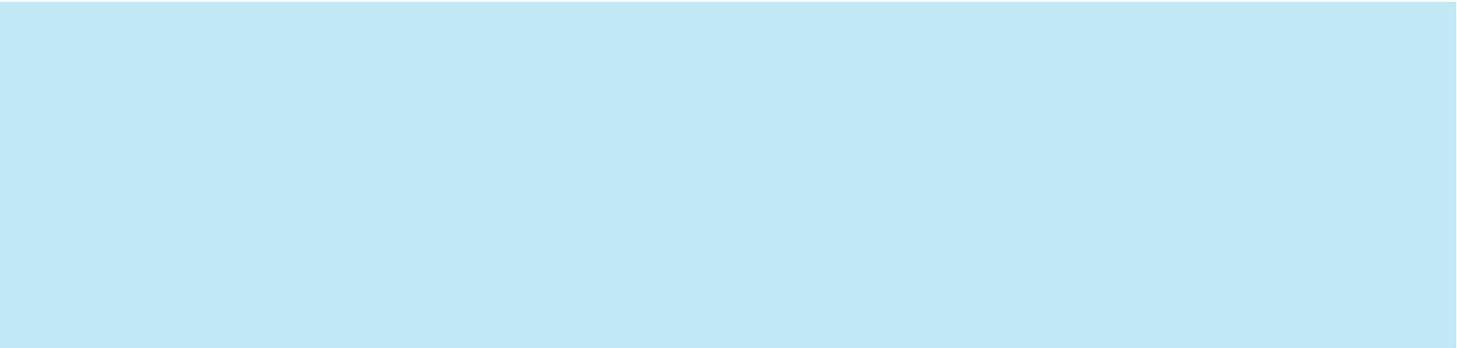
NAQC Guiding Principles for Patient Engagement

Figure 1.
Guiding Principles for Patient Engagement

Patient engagement is a critical cornerstone of patient safety and quality. NAQC has grounded its approach to this topic by recognizing the primary importance of *relationships* between engaged patients and families and their clinicians, including but not limited to nurses. The following are principal assumptions that guide NAQC in addressing care that is patient centered.

1   There must be an active partnership among patients, their families, and the providers of their health care.

2. Patients are the best and ultimate source of information about their health status and retain the right to make their own decisions about care.

3. In this relationship, there are shared responsibilities and accountabilities among the patient, the family, and clinicians that make it effective.

4. While embracing partnerships, clinicians must nevertheless respect the boundaries of privacy, competent decision-making, and ethical behavior in all their encounters and transactions with patients and families. These boundaries protect recipients as well as providers of care. This relationship is grounded in confidentiality, where the patient defines the scope of the confidentiality.

5. This relationship is grounded in an appreciation of patient's rights and expands on the rights to include mutuality. Mutuality includes sharing of information, creation of consensus, and shared decision-making.

6. Clinicians must recognize that the extent to which patients and family members are able to engage or choose to engage may vary greatly based on individual circumstances, cultural beliefs and other factors.

7. Advocacy for patients who are unable to participate fully is a fundamental nursing role. Patient advocacy is the demonstration of how all of the components of the relationship fit together.

8. Acknowledgment and appreciation of culturally, racially or ethnically diverse backgrounds is an essential part of the engagement process.

9. Health care literacy and linguistically appropriate interactions are essential for patient, family, and clinicians to understand the components of patient engagement. Providers must maintain awareness of the language needs and health care literacy level of the patient and family and respond accordingly.

Source: Sofaer & Schumann, 2013. Used with permission.

SECTION 7
References and Additional Readings

SECTION 7
REFERENCES AND ADDITIONAL READINGS

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C.   Acronym List

Organization/Phrase	Acronym
Accountable Care Organization	ACO
After Visit Summary	AVS
Agency for Healthcare Research and Quality	AHRQ
Ambulatory Surgery Center	ASC
American Academy of Ambulatory Care Nursing	AAACN
American Academy of Nursing	AAN
American Academy of Orthopaedic Surgeons	AAOS
American Hospital Association	AHA
American Institutes for Research	AIR
American Nurses Association	ANA
American Nurses Credentialing Center	ANCC
Appropriate Disposition	AD
Appropriate Referral	AR
Care Coordination and Transition Management	CCTM
Center for Advancing Health	CFAH
Centers for Disease Control and Prevention	CDC
Centers for Medicare and Medicaid Services	CMS
Clinician and Group Consumer Assessment of Healthcare Providers and Systems	CG-CAHPS
Collaborative Alliance for Nursing Outcomes	CALNOC
Electronic Medical Record	EMR
Emergency Department	ED
Emergency Medical System	EMS
Emergency Severity Index	ESI
Extended Release	ER
Food and Drug Administration	FDA
Full Time Equivalent	FTE
Group Practice Reporting Option, Care Measure	GPRO CARE
Group Practice Reporting Option, Preventative Measure	GPRO PREV
Health Research and Educational Trust	HRET
Hospital Consumer Assessment of Healthcare Providers and Systems	HCAHPS
Institute of Medicine	IOM
National Association of Children's Hospitals and Related Institutions	NACHRI
National Association of Community Health Centers	NACHC
National Committee for Quality Assurance	NCQA
National Database of Nursing Quality Indicators	NDNQI
National High Blood Pressure Education Program	NHBPEP
National Priorities Partnership	NPP
National Quality Forum	NQF
National Quality Strategy	NQS
Nurse-Sensitive Indicator	NSI
Nursing Alliance for Quality Care	NAQC
Office of Disease Prevention and Health Promotion	ODPHP
Patient Activation Measure	PAM
Patient-Centered Outcomes Research Institute	PCORI

Organization/Phrase	Acronym
Patient Health Questionnaire #2	PHQ-2
Patient Health Questionnaire #9	PHQ-9
Patient Health Questionnaire #9 Adapted for Adolescents	PHQ-A
Patient Protection and Affordable Care Act	PPACA
Patient Satisfaction Questionnaire Short Form, 18 items	PSQ-18
Physician Quality Reporting System	PQRS
Primary Care Provider	PCP
Quality Assurance	QA
The Joint Commission	TJC
United States Preventative Services Task Force	USPSTF
Urgent Care	UC