

DRAFT
The Essentials of Master's Education in Nursing
February 17, 2010

Introduction

The complexities of health and nursing care in today's world make expanded nursing knowledge a necessity in contemporary healthcare settings. Graduates of master's degree programs in nursing are prepared with additional broad knowledge and clinical expertise that builds and expands upon baccalaureate or entry-level nursing practice. Master's level preparation is broader than the practice specialization achieved at the Doctor of Nursing Practice (DNP) level or the research preparation in a more focused area of nursing at the PhD level. The ten Essentials addressed in this document delineate the knowledge and skills that all nurses prepared in master's nursing programs acquire. The Essentials will guide the preparation of graduates for all healthcare settings who ultimately assume a variety of roles where the nurse can lead and mentor other nurses and healthcare workers to promote quality, evidence-based care, and collaboration with the entire interprofessional healthcare team.

With mastery in nursing practice, graduates will pursue a variety of roles. Some graduates will pursue direct care clinical roles as advanced generalists or Clinical Nurse Leaders. Others may choose various indirect care roles including nursing manager at the microsystem level, informatician, public health nurse, clinical research manager, or clinical nursing educator as examples. In addition to developing competence in the ten Essential areas delineated in this document, each graduate may have more in-depth development or additional coursework in a variety of areas or practice. These may include more in-depth preparation in one or two of the Essentials. For example, more concentrated coursework or further development of the knowledge and skills embedded in Essential IV, Translational Scholarship for Evidence-Based Practice, will prepare the nurse to manage research projects for nurse scientists, other healthcare researchers, and especially multi-professional research projects. More in-depth preparation in Essential II, Organizational and System Leadership, will provide knowledge useful for nursing management roles at the microsystem level. The master's nursing graduate prepared for a direct care role will have in-depth knowledge in Essential III, Quality Improvement and Safety, and Essential X, Master's-Level Nursing Practice.

Individuals who seek a role as a clinical nurse educator are prepared to teach patients, staff, and/or students in the practice or other setting, as well as serve as a mentor to staff or students. However, the basic master's degree curriculum does not prepare the graduate for a faculty teaching role. Thus, as recommended by the Carnegie Foundation for the Advancement of Teaching report *Educating Nurses: A Call for Radical Transformation*

(2009), these clinical nurse educators will have preparation across all ten Essential areas, including graduate-level direct clinical practice content and experiences, and preparation in curriculum design and development, teaching methodologies, educational-needs assessment, and learner-centered theories and methods. Additionally, all master's prepared nurses should have exposure to teaching strategies and learning principles as a fundamental part of patient care interventions, and these should be incorporated into the master's curriculum as it relates to patient education.

Context for Nursing Practice

Health care in the United States and globally is changing dramatically. Interest in reforming health care has prompted greater focus on health promotion and illness prevention, along with cost-effective approaches to high acuity and long-term care. Public concerns about the cost of health care, fiscal sustainability, healthcare quality, and development of sustainable solutions to healthcare problems are driving reform efforts. Attention to affordability and access to health care, maintaining healthful environments, and promoting personal and community responsibility for health is growing among the public and policy makers.

In addition to broad public mandates for a reformed and responsive healthcare system, a number of groups are calling for changes in the ways health professionals are educated to meet current and projected needs for contemporary care delivery. To improve quality and safety of healthcare, the Institute of Medicine (IOM, 1999, 2001, 2003) recommended strong and focused efforts to advance interprofessional education. This theme continued in the IOM work on building the nursing workforce (2004), preparing the healthcare workforce to care for older adults (2008), and health professionals' lifelong learning (2009). Current work addressing integrated planning for future needs in nursing education and practice is being done by a Robert Wood Johnson Foundation funded project of the Institute of Medicine (RWJF, 2010).

Academic nursing must look to the future and anticipate the healthcare needs for which nurses must be prepared. Several recent developments in academic nursing are preparing the field for the future. The *Essentials of Baccalaureate Education for Professional Nursing Practice* (AACN, 2008) responds to the need for a highly educated nursing workforce resulting from changes in health care and projections for the future and establishes the foundation for all baccalaureate nursing education. These include responses to concerns about quality of care, ethics, changes in science, potential for better meeting the needs of diverse populations, and increases in care and information technology.

Given the work to transform basic entry-level education for professional nursing practice and the work to design a new model of education for advanced practice in nursing, a new conceptualization of master's level nursing education is needed that includes a wide breadth of preparation, building on a baccalaureate generalist base, an expanded understanding of health and nursing needs, and a focus on improving care outcomes. Such a conceptualization should allow for seamless movement to doctoral education, either for research or advanced nursing practice, for those nurses desiring to enter doctoral programs.

Given the ongoing public trust in nursing (Gallup, 2009), and the desire for fundamental reorganization of relationships between individuals, the public, healthcare organizations, and healthcare professionals, graduate education for nurses is needed that is wide in scope and breadth, emphasizes systems-level care (particularly at the microsystem level), and includes advanced practice knowledge and skills. Such preparation is not specialty preparation, but reflects mastery of higher level thinking and conceptualization skills than at the baccalaureate level, and an understanding of the interrelationships between practice, ethical and legal issues, financial issues and comparative effectiveness, and interprofessional teamwork.

Model of Nursing Education

Education for nursing practice prepares the clinician for generalist, mastery in nursing practice, and advanced specialty nursing practice. Generalist nursing education occurs at a *minimum* in baccalaureate-degree programs. Master's degree programs in nursing build on the competencies of the generalist nurse and prepares the graduate for mastery in nursing practice and may include a functional area of nursing practice. Advanced specialty education occurs at the doctoral level in Doctor of Nursing Practice (DNP) or research-focused degree programs (PhD, DNS, or DNSc). DNP programs prepare experts in nursing for practice within a specialty. Research-focused programs prepare nurses for roles as nurse scientists and scholars. Master's education builds on the foundational learning in baccalaureate education and can be a part of the pathway to the terminal practice degree – the Doctor of Nursing Practice – or the research-focused nursing doctoral degree.

Given the complexity of contemporary health care, nursing interventions influence patients directly or indirectly by changing the conditions of practice or the context within which nursing practice occurs. Nursing practice includes a wide range of interventions designed to improve health outcomes of individuals, families, groups, and communities, and practice occurs in both direct and indirect roles.

The AACN *Position Statement on the Practice Doctorate in Nursing* (AACN 2004), defines nursing practice as ... “any form of nursing intervention that influences

healthcare outcomes for individuals or populations, including the direct care of individual patients, management of care for individuals and populations, administration of nursing and healthcare organizations, and the development and implementation of health policy (AACN, 2004, p.3).” This definition defines the bifurcation in practice which exists between nurses focusing on direct care of individuals and indirect care of systems, organizations, or populations. Direct care is provided to individuals and focuses on diagnostic, therapeutic, educational, or quality interventions. At the master’s level, direct care is provided by the advanced generalist, who may be a Clinical Nurse Leader, although other roles for advanced generalist practice may evolve over time. Master’s prepared nurses may also practice in indirect care roles such as informatician, clinical educator, or nurse manager at the microsystem level which may include a clinical unit, a clinic, a neighborhood, or other circumscribed point-of-care level of analysis. While master’s prepared nurses practice predominately at the microsystem level, they also have a need to understand and account for larger system effects on care delivery at the point-of-care.

This bifurcation in direct and indirect practice occurs at the practice doctoral level as well. Direct care at the Doctoral level (DNP) is provided by Advanced Practice Registered Nurses (APRNs) which includes certified registered nurse anesthetists, certified nurse-midwives, certified nurse practitioners, and clinical nurse specialists. At the doctoral level, indirect care is provided by nurse executives who function at organizational and system levels, nurse policy makers whose influence is multi-institutional, (e.g., at the local, state, regional, national, or international level), and nurse informaticians at organizational or system levels.

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Essential I: Scientific Underpinnings for Practice

Rationale

Master's prepared nurses build on the competencies gained in baccalaureate nursing programs by developing a deeper understanding of nursing and the related sciences needed to fully analyze, design, implement, and evaluate nursing care. These programs are broad in nature, while providing students with opportunities to prepare for a range of practice roles following graduation. Graduates are prepared to provide care for diverse populations and cohorts of patients in clinical and community-based microsystems. The master's prepared nurse integrates scientific findings from nursing, biopsychosocial fields, genetics, public health, quality improvement, and organizational sciences for the continual improvement of nursing care at the unit, clinic, home, or program level. Nursing care reflects a more sophisticated understanding of assessment, problem

identification, design of interventions, and evaluation of aggregate outcomes than the baccalaureate-prepared generalist. Nurses at this level base care delivery upon advanced knowledge in health assessment, pathophysiology, and pharmacology, and on advances in genetics and genomics.

Master's prepared nurses understand the intersection between systems science and organizational science in order to coordinate care across microsystems. Care coordination is based on systems science, particularly on the impact of microsystem, mesosystem, and macrosystems on health outcomes (Nelson et al., 2008). Care management incorporates an understanding of the clinical and community context, and the research relevant to the needs of the population. Nurses at this level use advanced clinical and systems reasoning to account for ambiguous and uncertain clinical presentations, and incorporates concerns of family, significant others, and communities into the design and delivery of care. Master's prepared nurses use ethical theories in the analysis of clinical problems, illness prevention, and health promotion strategies. Knowledge from information sciences, health communication, and health literacy are used to provide care to multiple populations. Master's prepared nurses are able to address complex cultural issues and design care that responds to the needs of multiple populations, who may have potentially conflicting cultural needs and preferences. As healthcare technology becomes more sophisticated and its use more widespread, master's level nurses are able to evaluate when its use is appropriate for diagnostic, educational, and therapeutic interventions. Master's prepared nurses use quality improvement sciences to evaluate outcomes of the aggregate of patients or community members under their care, monitor trends in clinical data, and understand the implications of trends for changing nursing care needs.

The master's level program prepares the graduate to:

1. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations.
2. Use advanced health assessment, pathophysiology, and pharmacology in making nursing diagnoses and decisions about educational and therapeutic interventions.
3. Incorporate knowledge about genetics and genomics in providing advanced nursing care to individuals, families, and communities.
4. Design nursing care for a clinical or community-based population based on biopsychosocial, public health, and organizational sciences.
5. Apply ethical analysis and clinical reasoning to assess, intervene, and evaluate advanced nursing care delivery.

6. Synthesize knowledge from information sciences, health communication, and literacy to provide nursing care to culturally diverse populations.
7. Use quality improvement science to ensure patient safety and the highest quality nursing care.

Sample Content

- Advanced nursing science, including the major streams of nursing scientific development
- Advanced health assessment content
- Advanced pathophysiology content
- Advanced pharmacology content
- Advanced clinical nutrition and exercise science
- Advanced behavioral science
- Bioethics
- Genetics and genomics
- Public health science, such as basic epidemiology, surveillance, environmental science, and population health analysis and program planning
- Statistics
- Organizational behavior
- Organizational theory
- Microsystems
- Lateral integration
- Chaos theory
- Leadership science
- Theories of bioethics
- Information science
- Quality improvement science
- Technology assessment
- Vulnerability and risk

Examples of Integrative Learning Strategies

- Analyze a clinical case from the perspectives of two or more scientific foundations, such as nursing science and quality improvement science.
- Debate with a group of student colleagues from multiple health professions how the ethical issues related to genetic counseling influence your perspectives on clinical practice.
- Discuss with colleagues working in a similar role to the one for which you are preparing what they see as the key ethical dilemmas inherent in role and analyze your role as a patient advocate.
- Discuss with your classmates the major scientific advances in nursing that relate most closely with the clinical care you are delivering.

- Conduct a concept analysis of lateral integration and explain how a full understanding of the concept will help you engage in lateral integration of care delivery most effectively.
- Engage in a panel discussion with your classmates about the similarities and differences between master's level, community-based nursing practice and acute care-based nursing practice.
- Collect data from your clinical unit about incidence trends in a particular clinical problem (e.g., falls, medication errors, STD rates) and recommend changes in practice based on scientific findings from nursing or other fields.

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Essential II: Organizational and Systems Leadership

Rationale

Organizational and systems leadership are critical to the promotion of high quality and safe patient care. Leadership skills are needed that emphasize ethical and critical decision making. The master's-prepared nurse's knowledge and skills in these areas are consistent with nursing and healthcare goals to eliminate health disparities and to promote excellence in practice. Master's-level practice includes not only direct care but also a focus on the systems that provide care and needs of a panel of patients, a target population, a set of populations, or a broad community.

To be effective, graduates must be able to demonstrate leadership at the microsystem level by initiating and maintaining effective working relationships by using mutually respectful communication and collaboration within interprofessional teams, care coordination, delegation, and initiating conflict resolution strategies. The master's-prepared nurse provides and coordinates comprehensive care for patients - individuals, families, groups, and communities - in multiple and varied settings. Using information from numerous sources, the master's-prepared nurse guides the patient through the healthcare system. Skills essential to this role development include communication, collaboration, negotiation, delegation, and coordination.

Master's-prepared nurses are members and leaders of healthcare teams that deliver a variety of treatments and services. These clinicians bring a unique blend of knowledge, judgment, skills, and caring to the healthcare team. As a leader and partner with other health professionals, master's-prepared nurses seek collaboration and consultation with other providers as necessary in the design, coordination, and evaluation of patient care outcomes.

In an environment with ongoing changes in the organization and financing of health care, it is imperative that all master's-prepared nurses have a keen understanding of healthcare policy, organization, and financing. The purpose of this content is to prepare a graduate to provide quality cost-effective care, to participate in the implementation of care, and to assume a leadership role in the management of human, fiscal, and physical healthcare resources at the microsystem level. The master's-prepared nurse understands the economies of care, business principles, and how to work within and affect change in systems.

At the macrosystem level, the master's-prepared nurse must be able to analyze the impact of systems on patient outcomes, including analyzing error rates. These nurses should be prepared with knowledge and expertise in assessing organizations, identifying systems' issues, and facilitating organization-wide changes in practice delivery. At the mesosystems level, master's prepared nurses must be able to use effective interdisciplinary communication skills to work across departments identifying opportunities and designing and testing systems and programs to improve care. In addition, master's-level nurse practice requires an understanding of complexity theory and systems thinking, as well as the business and financial acumen needed for the analysis of practice quality and costs.

The master's-level program prepares the graduate to:

1. Apply leadership skills and decision making in the provision of high quality nursing care, healthcare team coordination, and the oversight and accountability for care delivery at the micro-systems level.
2. Assume a leadership role in effectively implementing patient safety and quality improvement initiatives within the context of the interprofessional team using effective communication skills.

3. Develop an understanding of how healthcare delivery systems are organized and financed and how this affects patient care, and identify the economic, legal, and political factors that influence health care.
4. Demonstrate the ability to use complexity science and systems theory in the design, delivery, and evaluation of health care at the micro- and mesosystems levels.
5. Apply business and economic principles and practices, including budgeting, cost/benefit analysis, and marketing to develop a business plan.
6. Design and implement successful systems change strategies at the patient care level.

Sample Content

- Leadership, including theory, leadership styles, contemporary approaches, and strategies (organizing, managing, delegating, supervising, collaborating, coordinating)
- Decision making based on an ethical framework to promote quality patient care in a variety of settings, including creative and imaginative strategies in problem solving
- Communication, both interpersonal and organizational, including elements and channels, models, and barriers
- Conflict, including conflict resolution, mediation, negotiation, and managing conflict
- Change theory and social change theories
- Systems theory and complexity science
- Healthcare systems (organizational structure and finance) and organizational structures and relationships (e.g., finance, organizational structure, and delivery of care, particularly at the microsystem level, including mission/vision/philosophy and values)
- Healthcare finance, including budgeting, cost/benefit /analysis, variance analysis, and marketing
- Operations research, queuing theory, and systems designs in health care
- Teams and team work, including team leadership, building effective teams, and nurturing teams

Examples of Integrative Learning Strategies

- Conduct an organizational assessment at the microsystems level describing the relationship between organizational structure, leadership, and decision making.
- Analyze an integrative case study describing an organizational problem addressing communication and conflict within healthcare teams.
- Engage in a formal debate and present to the class a contemporary issue in health-care leadership.

- Conduct a literature critique including a comprehensive summary and a critical analysis of contemporary healthcare leadership at the micro- and mesosystems levels.
- Analyze an organizational conflict and present a strategy to deal with the conflict.
- Develop a business plan including a budget.
- Present to an interdisciplinary team a cost saving idea that improves patient outcomes and improves efficiency.
- Analyze unit resources and set priorities for maximizing outcomes.

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Essential III: Quality Improvement and Safety

Rationale

Continuous quality improvement involves every level of the healthcare organization. A master’s-prepared nurse must be articulate in the methods, tools, performance measures, culture of safety principles, and standards related to quality, as well as prepared to apply quality principles within an organization to be an effective leader and change agent.

The Institute of Medicine report (1998) *To Err is Human* noted that as many as 98,000 patients die annually due to medical errors. The IOM defined patient safety as “freedom from accidental injury” and stated that patients should not be at greater risk for accidental injury in a hospital or healthcare setting than they are in their own home. Improvement in patient safety along with reducing and ultimately eliminating harm to patients is

fundamental to quality care. Skills are needed that assist in identifying failures in processes and systems that lead to breakdowns and errors and then redesigning processes to make patients safe.

Knowledge and skills in human factors and basic safety design principles that affect unsafe practices are essential. Graduates of master's-level programs must be able to analyze systems and create a just culture of safety in which personnel feel comfortable disclosing errors—including their own—while maintaining professional accountability. Learning how to evaluate, calculate, and improve the overall reliability of processes are core skills needed by master's-prepared nurses.

Knowledge of both the potential and the actual impact of national patient safety resources, initiatives, and regulations and the use of national benchmarks are required. Changes in healthcare reimbursement with the introduction of Medicare's list of "never events" and the regulatory push for more transparency on quality outcomes require graduates to be able to determine if the outcomes of standards of practice, performance, and competence have been met and maintained.

The master's-prepared nurse provides leadership at the point of care in diverse settings and across the continuum. The use of data to monitor outcomes and care processes, and the use of quality improvement and high reliability techniques will allow the master's prepared nurse to improve the quality and safety of patient care.

The master's-level program prepares the graduate to:

1. Actively seeks information about quality initiatives recognizing the value of what individuals and interprofessional healthcare teams can do to improve patient outcomes across the continuum of care.
2. Implement evidence-based plans based on the analysis and interpretation of data to impact safety and quality.
3. Analyze errors and design systems to sustain improvements using high reliability principles.
4. Select several appropriate quality improvement models and distinguish between structure, process, and outcome performance measures.
5. Role model the use of evidence-based practice and root cause analysis/just culture when analyzing possible or actual events.
6. Promote a professional environment that includes high level communication skills when involved in peer review, advocacy for patients and families, reporting of errors, and professional writing.

7. Contributes to the integration of healthcare services within systems to affect safety and quality of care to improve patient outcomes and reduce fragmentation of care.
8. Direct quality improvement methods to promote safe, timely, effective, efficient, equitable, and patient-centered care.
9. Identify factors to mitigate risks in at least one practice setting.
10. Utilize risk management claims data to quantify cost of “errors” and develop an action plan to prevent this error from happening again.

Sample Content

- Structure, process, and outcome indicators
- Just culture
- Quality improvement methods and tools: Brainstorming, cause and effect diagram, flow chart, PDSA, PTCA, HCA FOCUS-PDCA, Six Sigma, Lean
- High reliability techniques
- National patient safety goals
- Organizational safety plan; chain of command
- CMS core measures
- Pay for Performance
- Nurse-sensitive indicators
- Never events
- Data collection tools; data display techniques
- Trend analysis
- Analysis of statistics and control charts
- Root cause analysis (RCA)
- FMEA
- Chronic Care Model
- Communication/Hand off communication
- Dialogue with patient and/or family that has been impacted by an error
- Participate in executive patient safety rounds
- Disaster-preparedness
- Simulation training
- Disclosure of errors
- Role of redundancy
- RN fit for duty/impact of fatigue on patient safety

Examples of Integrative Learning Strategies

- Participate in an interprofessional team that is performing a root cause analysis on a failure-to-rescue patient scenario when the chain of command was not utilized.
- Participate in an interprofessional team that is performing an FMEA for the administration of heparin.
- Write part of the organization's patient safety plan related to just culture.
- Mentor/Coach a new graduate who has made a medication error that resulted in an adverse patient outcome.
- Participate in an interprofessional team that is trying to improve processes related to the CMS core measure for heart failure.
- Participate in analysis of associate safety related events (i.e.) back injuries, needle sticks.
- Explore other industries (airline) and apply learnings to proactive healthcare system changes.
- Interview patient and/or family members impacted by a patient safety error.
- Explore transitional care strategies to home or other setting to prevent avoidable re-admissions.

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Essential IV: Translational Scholarship for Evidence-Based Practice and Innovation

Rationale

Professional nursing practice at all levels is grounded in the translation of current evidence into practice. Fundamentally, nurses need a questioning/inquiring attitude toward their practice, the practice environment, and the world in general. The master's-prepared nurse questions policies and seeks evidence for every aspect of practice, thereby translating current evidence and identifying gaps where evidence is lacking. The master's-prepared nurse applies research outcomes within the practice setting, resolves practice problems (individually or as a member of the healthcare team), and disseminates results both within the setting and in wider venues in order to advance clinical practice. Changing practice locally as well as more broadly demands that the master's-prepared nurse is skilled at questioning current practices, procedures, and policies. These nurses, therefore, must be prepared to evaluate outcomes, to implement change deemed appropriate given outcome analysis, and to assist others in efforts to improve outcomes. Evidence-based practice models provide a systematic process for the evaluation and application of scientific evidence surrounding practice issues (IOM, 2003b).

Dissemination is a critical element of scholarly practice. Graduates of master's programs are prepared to share evidence of best practices within their setting and as appropriate, either individually or in collaboration with other members of the healthcare team, in external professional venues. These nurses are also prepared to participate on research teams, having more knowledge of the research process, more clinical expertise, and more team skills important to conducting and applying research. The cyclical process in which these nurses are engaged includes identifying questions needing answers, searching or creating the evidence for a potential solution, evaluating the outcomes of that solution,

and identifying additional questions. The cycle is a key aspect of continuous improvement at both the individual practice and the system level of practice.

While master's-prepared nurses direct and oversee care, they also are leaders providing for the development of other nursing personnel in translational scholarship. Development may include mentoring personnel in the translation of journal articles and in maximizing professional conference experiences. The role may also include dissemination of knowledge gained from one's own ongoing learning. The master's-prepared nurse supports staff in lifelong learning to improve care decisions, serving as a role model and mentor for evidence-based decision making. These nurses must possess the skills necessary to bring evidenced-based practice to both individual patients for whom they directly care and to those patients for whom they are indirectly responsible. Those skills include:

- knowledge acquisition,
- working in groups,
- management of change, and
- dissemination of new knowledge to other healthcare professionals.

In all healthcare settings, ethical and legal precepts guide research conduct to protect the rights of patients participating in investigations. Data collection and/or analysis that are beyond that needed to provide care to the individual patient requires review for the protection of human subject concerns. The master's-prepared nurse is responsible for serving as a safeguard for the rights of patients, including the most vulnerable, in situations where an actual or potential conflict of interest, misconduct, or harm are identified. These concerns are equally relevant when "projects" are categorized as quality initiatives, outcomes assessment, or other informal research formats.

The master's-level program prepares the graduate to:

1. Integrate theory, practice, and research to advance practice for groups of patients under his/her care.

2. Employ translational models for applying evidence to nursing practice.
3. Advocate for the ethical conduct of research and translational scholarship.
4. Articulate to a variety of audiences the evidence base for practice decisions, including the credibility of sources of information, and the relevance to the practice problem confronted.
5. Lead in the process of retrieval, appraisal, and synthesis of evidence in collaboration with other members of the healthcare team to improve patient outcomes.
6. Integrate evidence, clinical judgment, and interprofessional perspectives in planning, implementing, and evaluating outcomes of care for patient aggregates.
7. Articulate as needed to the healthcare team the process for how nursing and related healthcare quality and safety measures are developed, validated, and endorsed.
8. Select mechanisms to resolve identified practice discrepancies between identified standards and practice that may adversely impact patient outcomes.
9. Apply practice guidelines to improve practice and the care environment.
10. Use information technology and research methods appropriately to:
 - collect appropriate and accurate data to generate evidence for nursing practice
 - inform and guide the design of databases that generate meaningful evidence for nursing practice
 - analyze data from practice
 - design evidence-based interventions
 - predict and analyze outcomes
 - examine patterns of behavior and outcomes
 - identify gaps in evidence for practice (AACN, 2006)
11. Participate in collaborative team(s) to generate knowledge that improves practice and supports policy change.
12. Disseminate innovative outcomes and findings from evidence-based practice to improve healthcare outcomes

Sample Content:

- Research process

- Implementation science
- Evidence-based practice:
 - Clinical decision making
 - Critical thinking
 - Problem Identification
 - Outcome measurement
- Translational research:
 - Data collection in nursing practice
 - Design of databases that generate meaningful evidence for nursing practice
 - Data analysis in practice
 - Evidence-based interventions
 - Prediction and analysis of outcomes
 - Patterns of behavior and outcomes
 - Gaps in evidence for practice
 - Importance of cultural relevance
- Scholarship:
 - Application of research to the clinical setting
 - Resolution of clinical problems
 - Appreciative inquiry
 - Dissemination of results
- Advocacy in research
- Research ethics
- Knowledge acquisition
- Group process
- Management of change
- Evidence-based policy development in practice
- Quality improvement models/methodologies
- Safety issues in practice

Examples of Integrative Learning Strategies

- Investigate and apply evidence that challenges current policies and procedures in a practice environment and incorporates evidence into practice situations.
- Create an educational experience for health team members using sample data and data mining techniques focused on a clinical issue that has evidence-based guidelines.
- Disseminate clinical knowledge in grand rounds, case presentations, and journal clubs.
- Help a patient population access and interpret the meaning and validity of health information available through multiple and varied sources and formats.
- Manage a group process to meet care objectives and complete healthcare team responsibilities.
- Use an existing database to evaluate aggregate care outcomes for designated microsystems with focus on specific nursing interventions.
- Contribute to an interdisciplinary plan of care based on best practice guidelines and evidence-based practice.
- Coordinate care for a group of patients based on desired outcomes consistent with evidence-based guidelines and quality care standards.
- Revise patient care based on an analysis of outcomes and evidence-based knowledge.
- Conduct a patient care team research review seminar.
- Use a research article as the basis for explicating the many potential ethical concerns, from conceptualizing the research problem through initiating the project, and even in the reporting of the outcomes.

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Essential V: Information Systems/Technology and Patient Care Technology for the Improvement of Health Care.

Rationale

Information and patient care technology encompasses four broad areas:

- Use of patient care and other technologies to deliver and enhance care;
- Communication technologies to integrate and coordinate care;
- Data management to analyze and improve outcomes of care; and
- Health information management for evidence-based care and health education.

Knowledge and skills in information and healthcare technology are critical to the delivery of quality patient care in a variety of settings (IOM, 2003a). The use of technologies to deliver, enhance, and document care is changing rapidly. In addition, information technology systems, including decision-support systems, are essential to gathering evidence to impact practice. Improvement in cost effectiveness and safety depend on evidence-based practice, outcomes research, interprofessional care coordination, and electronic health records, all of which involve information management and technology (McNeil et al., 2006). As nursing and healthcare practices evolve to better meet patient

needs, the application of these technologies will change as well.

Graduates of master's-level nurse programs should have competence in integrating current and emerging technologies and determining the appropriate use of technologies to deliver or enhance care. In addition, the master's-prepared nurse should be able to educate other health professionals, staff, patients, and caregivers about principles related to the safe and effective use of care and information technologies in the delivery of quality patient care.

Technological advances in communication have made it possible for more sustained and ongoing contact with patients, families, and other health team members. The ability to develop and sustain therapeutic relationships, monitor the course of illness and health events on a continuous basis, and provide care using varied and distance technologies is a necessary component of master's-prepared nurse education. Students must have the opportunity to assess patients, educate patients and other members of the health professional team, treat, and evaluate the care of patients using distance and varied technology. Communication includes the range of interactions from face-to-face to electronic exchanges with individuals and groups, as well as with the media, policy makers, and public. As the use of technology expands and care is delivered not only across multiple settings but in virtual settings as well, the master's-prepared nurse must have the knowledge and skills to deliver and coordinate care across settings using up-to-date technology. Integral to these skills is an attitude of openness to innovation and continual learning, as information systems and patient care technologies are constantly changing.

Graduates ethically manage data, information, knowledge, and technology to communicate effectively with healthcare team, patients, and caregivers to laterally integrate safe and effective care within and across settings. Master's-prepared nurses use research and clinical evidence to inform practice decisions within the microsystem of care. In addition, these nurses provide guidance and oversight for the implementation of evidence-based guidelines and patient care by members of the interdisciplinary care team.

As outcomes manager, the master's-prepared nurse synthesizes data, information, and knowledge to evaluate and achieve optimal patient outcomes. The implementation of standardized terminologies is foundational to the development of effective clinical information systems (CIS). Integration of standardized terminologies into the CIS not only supports day-to-day nursing practice but also the capacity to enhance interprofessional communication and generate standardized data to continuously evaluate and improve practice (American Nurses Association, 2008). Master's level graduates are prepared to gather, document, and analyze care data that serve as a foundation for decision making and the implementation of interventions or strategies to reduce cohort risks and improve care outcomes.

Health information is growing exponentially. Health literacy is a powerful tool in health promotion, disease prevention, management of chronic illnesses, and quality of life - all of which are hallmarks of excellence in nursing practice. Master's-educated nurses serve as information managers, patient advocates, and educators by assisting patients and other caregivers in accessing, understanding, evaluating, and applying health-related information. To maximize wellness, health promotion, and risk reduction, the master's-level nurse designs and implements education programs using information and communication technologies for cohorts of patients and other healthcare providers, with a particular emphasis on health promotion and management of chronic illnesses.

The master's-level program prepares the graduate to:

1. Analyze current and emerging technologies to optimize patient safety, cost-effectiveness, and outcomes of care.
2. Provide oversight and guidance in the integration of technologies and information systems to promote quality outcomes and support safe practice environments.
3. Implement the use of telecommunication technologies to coordinate and integrate patient care and transitions of care across settings and among healthcare providers.
4. Use information and communication technologies to document patient care and improve access to care services.
5. Evaluate outcome data, using technologies and information systems to make recommendations and develop strategies to reduce risks and improve patient care outcomes for a cohort of patients.
6. Demonstrate the use of data sets to identify and anticipate patient risks, including failure mode effects analysis, root cause analysis, and quality improvement methodologies.
7. Use information and communication technologies, resources, and principles of learning to educate patients and other healthcare team members.
8. Utilize health information and technology and research findings in the delivery of patient-centered care.
9. Demonstrate skills in using information technologies to support lifelong learning for self and others.
10. Promote the use of ethical principles and legal policies in the integration and use of patient care and information technologies into care delivery.

Sample Content

- Use of technology and information management systems
- Use of standardized terminologies to document and analyze nursing care outcomes
- TIGER initiative and nursing informatics sections of American Medical Informatics Association
- Regulatory requirements for electronic data monitoring systems
- Ethical and legal issues related to the use of information technology, including copyright, privacy, and confidentiality issues
- Retrieval information systems, including access, evaluation of data, and application of relevant data to patient care
- Statistical principles and analyses of outcome data
- Online review and resources for evidence-based practice
- Use and implementation of technology for virtual care delivery and monitoring
- Electronic health record, including policies related to the implementation of and use to impact care outcomes
- How the role of nurse informaticist, quality officers, and others complement the master's-prepared nurse role
- Use of data set analysis to evaluate patient care outcomes
- Use an analysis of data sets to identify patient cohort risks and implement quality improvement strategies

Examples of Integrated Learning Strategies

- Complete a cost-benefit analysis for a proposed implementation of a new patient care technology, including the impact on staff and patients. Develop and present to the interdisciplinary care team a proposal regarding the recommendation or not to implement such a patient care technology.
- Prepare a written report on an identified patient care risk for a cohort of patients using aggregate data sets.
- Using an existing database, evaluate aggregate care outcomes for a designated microsystem or clinical population with a focus on specific nursing interventions.
- Using an existing aggregate data set, prepare a report for management to justify the need for an identified care improvement.
- Identify a real or virtual patient care error, perform an analysis of the causes of the error, and identify quality improvement strategies to address the identified

- cause(s). Develop a plan to implement quality improvement strategies, including targeted audience, all relevant stakeholders, needed resources, and processes for implementation.
- Conduct a trend analysis of incident reports that have occurred over a designated period of time within a care setting. Incorporate an analysis of outcome data for the setting. Analyze barriers and facilitators within the setting or organization to improving the care outcomes. Write an action plan related to the analysis. Present or disseminate the plan to an appropriate audience.
 - Identify a gap in patient care on an identified microsystem or in a care setting; conduct an electronic review of current evidence to address the gap in care; evaluate the appropriateness and impact of implementing current recommendations; develop a policy to address the gap in care; and develop a plan for implementing the change in policy within the microsystem but targeting relevant stakeholders within the larger meso- and macrosystems.

Essential VI: Health Policy and Advocacy

Rationale

The healthcare environment is ever evolving and influenced by technological, economic, political, and social factors locally and globally. Graduates of master's degree nursing programs have requisite knowledge and skills to promote health, help shape the health delivery system, and advance values like social justice through policy processes and advocacy. Nursing's call to political activism and policy advocacy arises from several directions. As more evidence links the broad psychosocial, economic, and cultural factors to health status, nurses are compelled to incorporate these factors into their approach to care. Most often, policy processes and system-level strategies yield the strongest influence on these broad determinants of health. Being accountable for improving the quality of healthcare delivery, nurses must understand the legal and political determinants of the system and the requisite skills to partner for an improved system. Nurses' involvement in policy debates brings our professional values to bear on the process (Warner, 2003). Master's-prepared nurses will use their political efficacy and competence to improve the health outcomes of populations and improve the quality of the healthcare delivery system.

Health Policy

Despite incremental efforts at reform, the number of uninsured continues to grow, the cost of care continues to rise, and the safety and quality of care are questioned

(American Nurses Association, 2008). Policy shapes healthcare systems and helps determine accessibility, accountability, and affordability.

Implementing strategies that address health disparities serves as a prelude to influencing policy formation. In order to influence policy, there needs to be an understanding of how to work within and affect change in systems.

Financing of Health Care

To effectively collaborate with stakeholders, the master's prepared nurse must understand the fiscal context in which they are practicing and make the linkages among policy, financing, and access to health care. Healthcare financing is an essential foundation for the delivery of healthcare service, and while a complete background of healthcare economics and accounting is not deemed essential, the graduate must understand the principles of finance, the language to collaborate with other healthcare leaders, and the relationships between policy and financial matters.

Advocacy

Nurses are in the unique position to understand the dynamic personal experience of health. Giving voice and persuasion to needs and preferred direction at the individual, system, societal and global levels is integral to the master's prepared nurses' role. Advocacy for patients, the profession, and health-promoting policies is operationalized in divergent ways. Attributes of advocacy include safeguarding autonomy, defending social justice, informing, and empowering (Grace, 2001; Hanks, 2007; Xiaoyan & Jezewski, 2006). Giving voice and persuasion to needs and preferred direction at the individual, institution, or policy level is integral to most roles for the master's-prepared nurse.

The master's-level program prepares the graduate to:

1. Analyze how policies influence the structure and financing of health care, practice, and health outcomes.
2. Influence the development and implementation of institutional, local, and state policy, as well as those processes to the federal and international policy environments.
3. Examine the effect of legal and regulatory processes on nursing practice, healthcare delivery, and outcomes.
4. Participate in creation and implementation of policies that regulate quality control.
5. Interpret research for policy makers and stakeholders who are shaping policy.

6. Advocate for policies that improve the health of the public and the profession of nursing.
7. Bring the nursing perspective to policy development.

Sample Content

- Policy process: development, implementation, and evaluation
- Structure of healthcare delivery systems
- Theories and models of policy making
- Policy making environments: values, economies, politics, social
- Policy-making process at various levels of government
- Ethical and value-based frameworks guiding policy making
- General principles of microeconomics and macroeconomics, accounting, and marketing strategies.
- Globalization and global health
- Interaction between regulatory processes and quality control

Examples of Integrative Learning Strategies

- Conduct an environmental scan of the prevalent issues affecting your practice by obtaining input from patients, staff, interprofessional colleagues, media, and policy makers.
- Create a position paper on a policy issue that advocates for a policy solution that is politically feasible and economically viable.
- Develop a resolution on a health issue that can be presented to the local or state policy body. Include a timeline and specific strategies on submitting the resolution.
- Participate in a coalition of advocates who are supporting a current policy solution or senate/house bill.
- Discuss the roles, empowerment, and values clarification needed to be an effective nurse advocate and policy player.

Frame a health issue so it can have traction in the contentious and controversial policy contexts.

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Essential VII: Inter-professional Collaboration for Improving Patient and Population Health Outcomes

Rationale

Interprofessional collaboration is critical for achieving clinical prevention and health promotion goals in order to improve patient and population health outcomes (APTR, 2008; 2009). In 2003, the Institute of Medicine (IOM) identified that in a redesigned health system a greater emphasis should be placed on high-level coordination, communication, and collaboration among all health professionals. The IOM described a set of core competencies that all health professionals regardless of discipline should demonstrate: 1) the provision of patient-centered care, 2) working in interdisciplinary teams, 3) employing evidence-based practice, 4) applying quality improvement approaches, and 5) utilizing informatics (IOM, 2003).

The IOM also recognized the need for care providers to demonstrate a greater awareness to “patient values, preferences, and cultural values,” consistent with the Healthy People 2010 goal of achieving health equity through interprofessional approaches (USHHS, 2000). In this context, knowledge of broad determinants of health will enable the master’s graduate to succeed as a patient advocate, cultural and systems broker, and to lead and coordinate interprofessional teams across care environments in order to reduce barriers, facilitate access to care, and improve health outcomes. Successfully leading

these teams is achieved through skill development and demonstrating effective communication, planning, and implementation of care directly with other healthcare professionals (AACN, 2007).

Improving patient and population health outcomes is contingent on both horizontal and vertical health delivery systems that integrate research and clinical expertise to provide patient-centered care. Inherently the systems must include patients' expressed values, needs, and preferences for shared decision-making and management of their care. As members and leaders of interprofessional teams, the master's-prepared nurse should actively communicate, collaborate and consult with other health professionals to manage and coordinate care across systems.

The master's-level program prepares the graduate to:

1. Understand other health profession's scopes of practice and contributions to patient care in order to work effectively in healthcare teams.
2. Utilize collaborative strategies in the design, coordination, and evaluation of patient-centered care and patient outcomes.
3. Demonstrate strategies to improve communication among team members, patients, and healthcare professionals.
4. Demonstrate skill and knowledge to develop, participate, and lead interprofessional teams and partnerships.
5. Interact effectively with all members of the interprofessional healthcare team to improve systems of care.
6. Articulate the value and role of the professional nurse as a participant on inter-professional healthcare teams.

Sample Content

- scopes of practice
- differing world views among professionals
- concepts of communication, collaboration, and coordination
- conflict resolution strategies and principled negotiation
- organizational processes to enhance communication
- types of teams and team roles
- stages of team development
- diversity of teams

Examples of Integrative Learning Strategies

- Participate in an interprofessional graduate student group to discuss and distinguish the unique contributions of one's own and other disciplines to patient-centered care.
- Identify a patient care or system intervention and develop a process improvement plan using an interprofessional team approach.
- Participate in an interprofessional team practicum in a community setting that examines the barriers to health services for an underserved, vulnerable patient group or population with a chronic care condition, and identifies strategies to overcome those barriers.

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Essential VIII: Clinical Prevention and Population Health for Improving Health

Rationale

Globally, the burden of illness, communicable-disease, chronic disease conditions, and subsequent health inequity and disparity, is borne by those living in poverty and living in low-income and middle-income countries (Beaglehole et al., 2007; Gaziano et al., 2007; WHO, 2008). Similarly, in the US population health disparities continue to affect disproportionately low-income communities, people of color, and other vulnerable populations (USHHS, 2006).

The implementation of clinical prevention and population health activities is central to achieving the national goal of improving the health status of the population of the United States. Unhealthy lifestyle behaviors continue to account for over 50 percent of preventable deaths in the U.S., yet prevention interventions remain under-utilized in healthcare settings. In an effort to address this national goal, *Healthy People 2010* supported the transformation of clinical education by creating an objective to increase the proportion of schools of medicine, nursing, and other health professionals that have a basic curriculum that includes the core competencies in health promotion and disease prevention (Allan et al., 2004; USHHS, 2000). In the *Health People 2010 Midcourse Review*, health disparities are not declining overall, reiterating the necessity to implement and evaluate the effectiveness of disease prevention and health promotion efforts (USHHS, 2006). Cognizant of these trends and successive health outcome data, it will be necessary to re-evaluate these data and for nursing to re-assess our leadership role and responsibility toward improving the population's health.

The Health People Curriculum Task Force convened by the Association for Prevention Teaching and Research (APTR) developed the *Clinical Prevention and Population Health Curriculum Framework* that identifies four focal areas that include individual and population-oriented preventive interventions. This curriculum guides the development and evaluation of educational competencies expected of health professionals in clinical prevention and population health, and endorsed by clinical professional associations including the AACN (Allan, 2004; APTR, 2009).

As the diversity of the US population increases, it is crucial that the health system provides care and services that are equitable and is responsive to the unique cultural and ethnic identity, socio-economic condition, emotional and spiritual needs, and values of patients and the population (IOM, 2001; IOM, 2003). Nursing leadership within health systems is required to design and deliver clinical prevention interventions and population-based care that promotes health, reduces the risk of chronic illness, and prevents disease. Acquiring the skills and knowledge necessary to meet this demand is essential for nursing practice (Allan et al., 2004; Allan et al., 2005).

The master's-prepared nurse applies and integrates broad, organizational, patient-centered, and culturally responsive concepts in the delivery (planning, management, and evaluation) of evidence-based clinical prevention and population-based care and services to individuals, families, communities, and aggregates/clinical populations.

The master's-level program prepares the graduate to:

1. Synthesize broad ecological, global and social determinants of health, principles of genetics and genomics, and appropriate data sources to design and deliver evidence-based, culturally relevant clinical prevention interventions and strategies.
2. Use health information technology and data sources to evaluate the effectiveness of clinical prevention interventions and affect population-based health outcomes.
3. Design patient-centered and culturally responsive strategies in the delivery of clinical prevention and health promotion interventions and/or services to individuals, families, communities, and aggregates/clinical populations.
4. Advance equitable and efficient prevention services, and promote effective population-based health policy through the application of concepts, including but not limited to the organization of clinical and public health systems, health economics, genetics and genomics, health information management, inter-professional collaboration, workforce development, and ethical frameworks.
5. Integrate clinical prevention and population health concepts in the development of culturally relevant and linguistically appropriate health education and communication strategies and interventions for individuals, families, communities, and aggregates/clinical populations.
6. Apply appropriate concepts, principles and strategies to develop culturally relevant clinical prevention or health promotion education for patients, clinical populations, or other health professionals.

Sample Content

- Principles of environmental health
- Principles of epidemiology
- Principles of biostatistical methods and analysis
- Emerging science of complementary and alternative medicine and therapeutics
- Ecological model of the social determinants of health
- Principles of adult learning
- Principles of health equity and social justice
- Principles of program planning, design, and evaluation
- Principles of quality improvement and change management
- Principles of health promotion and disease prevention

- Principles and application of health behavior modification
- Principles of health services financing
- Theories and applications of health literacy and health communication
- Relationship of genetics and genomics in clinical prevention and health promotion
- Organization of clinical, public health, and global systems
- Frameworks for community and political engagement, advocacy, and empowerment
- Frameworks for addressing global health and emerging health issues

Examples of Integrative Learning Strategies

- Conduct community asset mapping to determine risk factors that would compromise meeting health outcomes for patients with a chronic health condition.
- Conduct a literature review of health promotion and illness prevention and develop an individual leadership framework to address the health promotion and illness prevention needs of an identified clinical patient group or aggregate/population.
- Examine the ecological model of human health and apply this to an identified health outcome at the individual, family, community, and/or system levels.
- Conduct a critical analysis of chronic disease interventions for a vulnerable population using a genetics/genomic framework.
- Analyze a system management practice from socio-economic, environmental political and cultural contexts, and assess the impact on the health outcomes of a vulnerable patient population.
- Engage in a practicum experience with a complementary and alternative medicine provider.
- Work as a team in partnership with a community-based organization serving a limited-English speaking population to evaluate their pandemic flu response and communication plan.
- Identify a clinical prevention education issue and illustrate ways that an interprofessional team may work together to address that need.

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Essential IX: Advancing Professionalism and Professional Values

Rationale

Master's prepared nurses deepen their commitment to professional values and their use of values-based professional practice and behavior. Building on a foundation of baccalaureate generalist nursing practice, these nurses understand the complexities of clinical practice and the difficult, often very subtle professional challenges that may arise. Master's level nurses base their practice on the *Essentials of Baccalaureate Education for Professional Nursing Practice* (AACN, 2008) and build upon the professional values espoused in that document. The professional values of altruism, autonomy, human dignity, integrity, and social justice epitomize the caring, professional nurse (AACN, 2008). Nurses, guided by these values, demonstrate ethical behavior in patient care.

Master's level nursing education provides systematic methods for reflection about one's own professional philosophy and the intersection between that philosophy and actualizing professional nursing standards. Concepts such as nursing's metaparadigm, social justice, and a nursing approach to healthcare issues and problems underlie the master's prepared nurse's approach to creating mental models for practice. Nurses at this level advocate for the needs of individuals, families, and communities aiming to influence organizational and health policies that promote better health. Master's prepared nurses accept the responsibility for analyzing trends in data at the microsystem level, take action to improve care delivery, and design methods to evaluate aggregate interventions. They collaborate with others to provide equitable health care and focus on creating environments in which disparities in access, quality, and outcomes are eliminated. They express confidence in their interactions within healthcare teams and in the community,

while staying open to critique and new ideas, and exhibiting a willingness to work as a member of an interprofessional team to improve health outcomes. Master's prepared nurses possess excellent written and verbal communication skills, and are adept at building persuasive, data-driven arguments. They use active listening skills and encourage others to contribute to team-based problem-solving and innovations. Master's prepared nurses have developed their own plans for lifelong learning and continued growth in a rapidly evolving healthcare system, and are skilled mentors and coaches for nursing students and new nurses. Through ongoing reflective practice, they take responsibility for helping newer nurses gain confidence and skill, for improving the care in their microsystems, and for working collaboratively with interprofessional teams. They value the use of coaching and mentoring skills with students, new graduates, and colleagues to help others grow and develop and to advance the profession.

The master's level nursing program prepares the graduate to:

1. Articulate and actualize a personal philosophy of nursing that incorporates nursing's code of ethics, one's own values, and professional nursing standards for moral, ethical, and legal conduct.
2. Develop a personal plan for lifelong learning and continued professional development in nursing and for facilitating the growth of nurses newer to the profession.
3. Defend opinions and arguments in a logical, data-driven, and persuasive manner.
4. Demonstrate initiative and self-direction in seeking ways to improve health and health care, and in working with interprofessional colleagues and the public to do so.
5. Use mentoring and coaching strategies to facilitate the development of nursing students, new graduate nurses, and coworkers.
6. Facilitate healthy work environments and healthy communities using collaborative, collegial approaches to communication, problem solving, conflict resolution, advocacy, and innovation.

Sample Content

- Philosophy of nursing care
- Communication strategies including team communication, conflict resolution, creativity and brainstorming, and communicating sensitive information
- Professional standards for moral, ethical, and legal conduct
- Risk management and risk mitigation
- Managing errors
- Principles of leadership and responsibilities for taking initiative
- Principles of self mastery and lifelong learning
- Self care
- Coaching and mentoring

- Social justice
- Advocacy
- History, philosophy, and responsibilities of the nursing profession (AACN, 2007, p. 26)

Examples of Integrative Learning Strategies

- Write one's own personal philosophy as a master's prepared nurse and explain it to classmates.
- Develop an electronic portfolio documenting goals, accomplishments, and scholarly clinical products such as manuscripts, clinical guidelines, and quality improvement projects. Critically reflect on what you have learned and what your learning means to you in terms of your values, goals, and ethical standards. Explain how your new learning will influence how you practice in the future.
- Keep a journal during one's master's program, documenting professional goals and plans for achieving them, identifying strengths, and how one will build upon them, and articulating areas of growth for self-mastery and how one plans to achieve that growth.
- Select a vulnerable population and analyze policies that could yield increases in social justice and elimination of health disparities for that population. Explain strategies that could be used to advocate for the needs of the population.
- Identify with the preceptors with whom one is working the most common healthcare errors in that microsystem; explain how errors might be managed in the most professional manner and with the greatest potential for error elimination in the future.
- Talk with staff nurses about the kinds of news they must communicate to patients, families, and communities, and how they do so in sensitive, ethical, and legally responsible ways.
- Develop a personal plan for mentoring and coaching newer nurses, whether in one's own workplace or via professional organizations.
- Develop a lifelong learning plan for self. Speak at a public forum.
- Participate in a professional organization and/or agency-wide committee.

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Essential X: Master's-Level Nursing Practice

Rationale

Essential X describes master's-level nursing practice at the completion of the master's program in nursing. Nursing practice at the master's level is broadly defined as any form of nursing intervention that influences healthcare outcomes for individuals, populations, or systems. Master's-level nursing graduates must have an advanced level of understanding of nursing and related sciences. Nursing practice interventions include both direct and indirect care components. As a practice discipline, clinical care is the core business of nursing practice whether the graduate is focused on the provision of direct care, administration, research, education, or health policy. Master's nursing education prepares graduates as practice experts to impact safe, quality care in a variety of settings and functions.

This Essential includes the *practice-focused* outcomes of the master's-prepared nurse. Master's-level nursing practice builds upon the practice competencies delineated in the *Essentials of Baccalaureate Education for Professional Nursing Practice* (AACN, 2008). Master's prepared nurses possess a mastery level of understanding of nursing practice. Recent and evolving trends in health care require integration of key concepts into all master's prepared nursing practice. This includes concepts related to quality improvement, patient safety, systems, economics, environmental science, epidemiology, genetics, gerontology, global perspectives, health policy, informatics, negotiation, organizations and systems, communication, advocacy, and interprofessional practice.

Master's nursing education prepares graduates to influence the delivery of safe, quality care to diverse populations in a variety of settings and roles. The realities of a global society, expanding technologies, and an increasingly diverse population require these nurses to master complex information, to coordinate a variety of care experiences, to use technology for healthcare information and evaluation of nursing outcomes, and to assist diverse patients with managing an increasingly complex system of care. As master's prepared nurses practicing in any setting or role, graduates must understand the

foundations of care and the art and science of nursing practice as it relates to individuals, families, and populations within an increasingly complex healthcare system. Also, patients seeking care or services will present with increasing chronicity and complexity of illnesses and problems. With the increasing availability of information technology, consumers' knowledge is increasing as well as their expectations of all healthcare providers to maintain a current and expanded knowledge base. The master's prepared nurse must be positioned to assist others to use and assess information and technology to their benefit as each engage in care partnerships and individual decision making. The extraordinary explosion of knowledge in the field also requires an increased emphasis on lifelong learning.

Essential X specifies the foundational practice competencies that cut across all areas of practice and are seen as requisite for master's-level nursing practice. Master's in Nursing programs provide learning experiences that are based in a variety of settings. These learning experiences should be integrated throughout the master's program of study, to provide additional practice experiences beyond those acquired in a baccalaureate nursing program.

The master's nursing program prepares the graduate to:

1. Conduct an assessment of the care environment.
2. Conduct a comprehensive and systematic assessment of health and illness parameters in complex situations, incorporating diverse and culturally sensitive approaches.
3. Identify actual and anticipated risks to individuals across the lifespan and in diverse populations.
4. Apply research-based knowledge from nursing and the sciences as the foundation for evidence-based practice.
5. Advocate for patients, families, caregivers, and members of the healthcare team.
6. Use information and communication technologies to advance patient education, enhance accessibility of care, analyze practice patterns, and improve nurse sensitive outcomes.
7. Use leadership skills to teach, coach, and mentor other members of the healthcare team.
8. Use epidemiological, social, and environmental data in drawing inferences regarding the health status of patient populations and interventions to promote and preserve health and healthy lifestyles.

9. Use knowledge of illness and disease management to provide evidence-based care to populations, perform risk assessments, and design plans of care.
10. Incorporate core scientific and ethical principles in identifying potential and actual ethical issues arising from practice and the use of technologies and in assisting patients and other healthcare providers to address such issues.
12. Apply advanced knowledge of the effects of age, developmental stage, culture, ethnicity, socioeconomics, linguistic, religion, and lifestyle variations on health status and response to healthcare delivery to the design, evaluation, and implementation of patient care.
13. Adapt or seek consultation to adapt care delivery in response to global environmental factors, e.g. international law, public health, geopolitics, and geoeconomics.
14. Employ knowledge and skills in economics of care, business principles, and micro-, meso-, and macrosystems of care in the design, delivery, and evaluation of care.
15. Apply theory and evidence-based knowledge in leading, as appropriate, the interdisciplinary care team to design, coordinate, and evaluate the delivery of patient care.
16. Design strategies that promote lifelong learning of self and peers and that achieve the incorporation of professional nursing standards and accountability into practice.
17. Understand one's role and those of others within the healthcare system in a state of emergency or natural disaster.
18. Coordinate comprehensive care for patients within and across settings and among care providers.

All master's degree nursing graduates will have additional *graduate-level* content that builds upon an undergraduate foundation in health assessment, pharmacology, and pathophysiology. Although not required, it is recommended that the curriculum preparing graduates for any direct care practice in any setting include three separate graduate-level courses in these three content areas. Having master's prepared nurses, at the point of care, with a strong background in these three areas is seen as imperative from the practice perspective. In addition, the inclusion of these three separate courses facilitates the transition of these master's program graduates into the DNP specialty programs.

Sample Content

- Principles of leadership

- Horizontal leadership
- Effective use of self
- Advocacy for patients, families, and the discipline
- Conceptual analysis of the master's prepared nurse's role(s)
- Principles of lateral integration of care
- Clinical Outcomes Management:
 - Illness/disease/health management
 - Care management
 - Measurement and analysis of patient outcomes
- Epidemiology
- Biostatistics
- Health promotion and disease reduction/ prevention management for patients and clinical populations
- Risk assessment
- Health literacy
- Principles of mentoring, coaching and counseling
- Principles of adult learning
- Evidence-based practice:
 - Clinical decision making and judgment
 - Critical thinking
 - Problem Identification
 - Outcome measurement
- Care environment management
- Team coordination, including delegation, coaching, interdisciplinary care, and group process
- Negotiation, understanding group dynamics, and conflict resolution
- Healthcare reimbursement and reform and how it impacts practice
- Resource allocation
- Use of healthcare technologies to improve patient care delivery and outcomes
- Healthcare finance and socioeconomic principles
- Principles of quality management/risk reduction/patient safety
- Informatics principles and use of standardized language to document care and outcomes of care
- Educational strategies
- Learning styles
- Cultural competence/awareness

Examples of Integrated Learning Strategies

- Use unfolding case studies that occur over time and address complex patients, populations, or systems.
- Select a gap observed in one's practice setting and develop a practice protocol that is evidence-based.

- Identify clinical and cost outcomes that improve safety, effectiveness, timeliness, efficiency, quality, and patient-centered care.
- Review and evaluate a patient care guideline/protocol and implement a guideline to address an identified patient care issue like pain management or readiness for discharge; follow-up to evaluate the impact on the issue.
- Participate in the development of or change in a policy within the healthcare organization.
- Analyze interdisciplinary patterns of communication and chain of command both internal and external to the unit that impact care.
- After an interprofessional interaction, complete a process analysis of the interaction to determine areas of effectiveness and areas for improvement.
- Design, coordinate, and evaluate plans of care for a cohort of patients incorporating patient/family input and team member input.
- Perform a fiscal analysis, including human and physical resources, needed to support a microsystem of care.
- Complete a cost-benefit analysis of a proposed change, which may include introduction of new patient care technology or a change in practice protocol and present to the multidisciplinary team.
- Evaluate the impact of a new technology on nursing staff, patients, and families.
- Conduct a microsystem analysis by:
 - Identifying a clinical issue with a focus on a population
 - Conducting a trend analysis of incident reports
 - Evaluating a sentinel event and conducting a root cause analysis (RCA)
 - Incorporating analysis of outcome data
 - Analyzing barriers and facilitators within the organization related to the identified issue
 - Writing an action plan related to the analysis
 - Presenting/disseminating to appropriate audience.
- Using an existing database, evaluate aggregate care outcomes for a designated microsystem with a focus on specific nursing interventions.
- Work with a quality improvement team and engage in designing and implementing a process for improving patient safety.
- Create or review an education module directed at patients and staff; develop a self-management guide for patients and families.
- Develop and implement a professional development session for other professional nursing and ancillary staff.

- Design, implement, and evaluate a health education plan, evaluating the role of the team, the teaching learning methods used, the patient interactions, and the expected and actual outcomes, including health status changes.

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Clinical Expectations for a Master's-Prepared Nurse

All graduates of a master's nursing program must have supervised clinical experiences as an integral component of the learning experience that are sufficient to demonstrate mastery of the Essentials. The term "supervised" is used broadly and can include precepted experiences and site visits that may be done through the use of technology. A primary goal of the clinical learning experience is the opportunity to design and implement nursing interventions that will assess, evaluate, and modify practice to enhance the translation of evidence as well as the appropriateness, quality, and safety of the care delivered to the patient. Additionally, a fundamental element of learning in a master's program is the development of the ability to assess and evaluate the achievement of the goals or outcomes for which care is designed and the ability to modify approaches based upon a systematic approach to evaluation and assessment.

Mastery in nursing practice is acquired by the student through a series of clinical experiences designed to allow the learner to apply cognitive learning to the affective and psychomotor aspects of nursing practice. The clinical experience allows the learner to experiment and acquire competence with new knowledge and skills as a part of the new mastery expectations. The clinical experience provides the opportunity for delivery of services or programs of wide diversity and focus and may occur in multiple settings, including hospitals, community settings, public health departments, primary care practice offices, integrated healthcare systems, and an array of other settings where nursing and health care are delivered.

The clinical experience is an opportunity to promote innovative thinking and test new potential solutions to practice or system issues. Therefore, the development of new skills and practice expectations can be facilitated through the use of creative learning opportunities in settings other than healthcare facilities. These could include experiences in business or industries that are recognized as innovators in safety, quality, finance, management, or technology. Through these nontraditional experiences, the student may

learn to integrate the knowledge or evidence developed in other industries in their nursing practice.

These learning experiences can also occur in part in simulation laboratories that are designed to use simulation as a mechanism for verifying early mastery of new levels of practice or which are designed to create access to data or healthcare situations not readily accessible to the student. These experiences may include simulated mass casualty events, database problems, interpersonal communication scenarios, and others. The simulation is an adjunct to the learning that will occur with direct human interface or human experience learning.

Development of mastery also is facilitated through the use of intense and prolonged clinical experiences in a single setting. This extended exposure to a particular setting provides the learner with the opportunity to master the patient care delivery skills as well as the system assessment and intervention skills which require an understanding of organizational dynamics. These immersion experiences afford the student an opportunity to focus on a population of interest and a specific role. Most often, the immersion experience occurs towards the end of the program as a culminating synthesis experience for the program. In some instances, the master's student may engage in a clinical experience at the student's employing agency. This arrangement requires a systematic assessment of that setting's ability to allow the student to engage in new practice activities, framed by the learning objectives of the program, and overseen or supervised by a mentor or faculty member. This type of learning experience must avoid the potential for the learner to re-enter the role for which he or she is employed absent the application of the newly acquired learning or role expectations.

Supervised clinical experiences should be verified and documented. An example of such documentation is the use of a professional portfolio. This portfolio may also provide a foundation or template for the graduate's future professional career trajectory and experiences.

Glossary

Advanced Nursing Practice: Any form of nursing intervention that influences health care outcomes for individuals or populations, including the direct care of individual patients, management of care for individuals and populations, administration of nursing and health care organizations, and the development and implementation of health policy (AACN, 2004, p. ##).

Advocacy: Defending or maintaining a cause or proposal on behalf of the patient, client, or profession to achieve societal or other goals (IPPMG, 2007)

Aggregate(s): A community or a group of individuals defined by shared characteristics such as, age, culture, diagnosis, gender, geography, or values (Adapted from Allan et al, 2004).

Altruism: A concern for the welfare and well being of others. In professional practice, altruism is reflected by the nurse's concern and advocacy for the welfare of patients, other nurses, and other healthcare providers (AACN, 2008, p. ##).

Autonomy: The right to self-determination. Professional practice reflects autonomy when the nurse respects patients' rights to make decisions about their health care (AACN, 2008, p. ##).

Care Coordination: Ensures patients receive well-coordinated care across all healthcare organizations, settings, and levels of care (National Priorities Partnership, 2008).

Clinical: The environment or setting in which preventive services or programs are delivered, including but not limited to private office practices, clinics, hospitals, community settings, or healthcare systems (Adapted from CDC, 2009).

Clinical Practice: The direct care of individuals or families, irrespective of setting.

Clinical Prevention: Health promotion and risk reduction/illness prevention for individuals, families, aggregates, or clinical populations (Allan et al, 2004).

Clinical Preventive Services: Screening, vaccination, counseling, or other preventive service delivered to one patient at a time by a healthcare practitioner in an office, clinic, healthcare system, or other practice environment (Adapted from CDC, 2009). See also Community Preventive Services.

Community Preventive Services: Interventions that provide or increase the provision of preventive services such as screening, education, counseling, or other programs to groups of people, in community settings, healthcare systems, or other practice environments (Adapted from CDC, 2009). See also Clinical Preventive Services.

Delivery: The planning, management, and evaluation of evidence-based practice and clinical care across healthcare settings.

Ethics: The rules or principles that govern right conduct (Kozier & Erb, 2007).

Evidenced-based Practice: The integration of best research evidence, clinical research, and patient values in making decisions about the care of individual patients (IOM, 2003).

Genetics: Study of individual genes and their impact on relatively rare single gene disorders (Guttmacher & Collins, 2002).

Genomics: Study of all the genes in the human genome, together including their interactions with each other, the environment, and the influence of other psychosocial and cultural factors (Guttmacher & Collins, 2002).

Health Disparities: Health disparities are differences in the incidence, prevalence, mortality, and burden of disease and other adverse health conditions that exist among specific population groups in the United States (NIH, 2002-2006). The definition of health disparities assumes not only a difference in health but a difference in which disadvantaged social groups—who have persistently experienced social disadvantage or discrimination—systematically experience worse health or greater health risks than more advantaged social groups (Braveman, 2006). Consideration of who is considered to be within a health disparity population has policy and resource implications (AACN, 2009).

Health Equity: A basic principle in public health is that all people have a right to health. Health equity concerns those differences in population health that can be traced to unequal economic and social conditions and are systemic and avoidable and thus inherently unjust and unfair (Brennan, Baker, & Meltzer, 2008).

Health Literacy: The degree to which individuals have the capacity to obtain, process, and understand basic health information and services needed to make appropriate health decisions (U.S. Department of Health and Human Services, 2000b).

High Reliability Organizations (HRO): Organizations or systems that operate in hazardous conditions but have fewer than their fair share of adverse events (Weick, 2001; Reason, 2001). Commonly discussed examples include air traffic control systems, nuclear power plants, and naval aircraft carriers (LaPorte, 1988; Roberts, 1990). It is worth noting that, in the patient safety literature, HROs are considered to operate with nearly failure-free performance records, not simply better than average ones. These organizations achieve consistently safe and effective performance records despite unpredictable operating environments or intrinsically hazardous endeavors. Some common features of HROs include:

- *Preoccupation with failure*—the acknowledgment of the high-risk, error-prone nature of an organization’s activities and the determination to achieve consistently safe operations.
- *Commitment to resilience*—the development of capacities to detect unexpected threats and contain them before they cause harm, or bounce back when they do.
- *Sensitivity to operations*—an attentiveness to the issues facing workers at the frontline. This feature comes into play when conducting analyses of specific events but also in connection with organizational decision making. Management units at the frontline are given some autonomy in identifying and responding to threats, rather than adopting a rigid top-down approach.
- *A culture of safety*, the atmosphere in which individuals feel comfortable drawing attention to potential hazards or actual failures without fear of censure from management (AHRQ, 2009).

Human Dignity: Respect for the inherent worth and uniqueness of individuals and populations. In professional practice, concern for human dignity is reflected when the nurse values and respects all patients and colleagues (AACN, 2008, p. ##).

Integrity: Acting in accordance with an appropriate code of ethics and accepted standards of practice. Integrity is reflected in professional practice when the nurse is honest and provides care based on an ethical framework that is accepted within the profession (AACN, 2008, p. ##).

Interprofessional: Working across healthcare professions to cooperate, collaborate, communicate, and integrate care in teams to ensure that care is continuous and reliable. The team consists of the patient, the nurse, and other healthcare providers as appropriate (IOM, 2003)

Just Culture: This phrase was popularized in the patient safety lexicon by a report (Marx, 2001) that outlined principles for achieving a culture in which frontline personnel feel comfortable disclosing errors—including their own—while maintaining professional accountability. The examples in the report relate to transfusion safety, but the principles clearly generalize across domains within health care organizations.

Traditionally, healthcare’s culture has held individuals accountable for all errors or mishaps that befall patients under their care. By contrast, a just culture recognizes that individual practitioners should not be held accountable for system failings over which they have no control. A just culture also recognizes many individual or “active” errors represent predictable interactions between human operators and the systems in which they work. However, in contrast to a culture that touts “no blame” as its governing principle, a just culture does not tolerate conscious disregard of clear risks to patients or gross misconduct.

In summary, a just culture recognizes that competent professionals make mistakes and acknowledges that even competent professionals will develop unhealthy norms but has zero tolerance for reckless behavior (AHRQ, 2009).

Liberal Education: a comprehensive sets of aims and outcomes that are essential for all students because they are important to all fields of endeavor (AAC&U, 2007)

Metaparadigm: Represents the worldview of a discipline (the most global perspective that subsumes more specific views and approaches to the central concepts with which it is concerned). There is considerable agreement that Nursing's metaparadigm consists of the central concepts of person, environment, health, and nursing (Powers & Knapp, 1990, p. 87).

Macrosystem: Actions taken by senior leaders who are responsible for organization-wide performance (Nelson et al, 2007, p.205)

Mesosystem: Actions taken by the midlevel leaders who are responsible for large clinical programs, clinical support services, and administrative services (Nelson et al, 2007, p.205)

Microsystem: Clinical Microsystems are the small, functional frontline units that provide most health care to most people (Nelson et al, 2007, p.3).

Nursing Science: A basic science that is the substantive, discipline-specific knowledge that focuses on the human-universe-health process articulated in nursing frameworks and theories. The discipline-specific knowledge resides within schools of thought that reflect differing philosophical perspectives that give rise to ontological, epistemological, and methodological processes for the development and use of knowledge concerning nursing's unique phenomenon of concern (Parse et al., 2000).

Organizational Science: An interdisciplinary field of inquiry focusing on employee and organizational health, well-being, and effectiveness. Organizational Science is both a science and a practice, founded on the notion that enhanced understanding leads to applications and interventions that benefit the individual, work groups, the organization, the customer, the community, and the larger society in which the organization operates (UNC, 2009).

Patient: The term refers to the recipient of a healthcare service or intervention at the individual, family, community, aggregate/population level. Further, patients may function in independent, interdependent, or dependent roles, and may seek or receive nursing interventions related to disease prevention, health promotion, or health maintenance, as well as illness and end-of-life care. Depending on the context or setting, patients may, at times, more appropriately be termed clients, *consumers*, or clients of nursing services (AACN, 1998, p. 2).

Population: Refers to a set of persons having a common personal or environmental characteristic. The common characteristic might be anything thought to relate to health, such as age, race, sex, social class, medical diagnosis, level of disability, exposure to a

toxin, or participation in a health-seeking behavior, such as smoking cessation. It is the researcher or health practitioner who identifies the characteristic and set of persons that make up this population (Maurer & Smith, 2004).

Population-based Health: Inclusive of aggregates, community, and/or clinical populations that consider the environmental, occupational, and cultural, socio-economic and other dimensions of health (Allan et al, 2004), and derives evidence from population level data and statistics (Starfield, Hyde, Gervas & Heath, 2007).

Professionalism: The consistent demonstration of core values evidenced by nurses working with other professionals to achieve optimal health and wellness outcomes in patients, families, and communities by wisely applying principles of altruism, excellence, caring, ethics, respect, communication, and accountability (Interprofessional Professionalism Measurement Group, 2008). Professionalism involves accountability for one's self and nursing practice, including continuous professional engagement and lifelong learning. As discussed in the American Nurses Association Code of Ethics for Nursing (2005, p.16), "The nurse is responsible for individual nursing practice and determines the appropriate delegation of tasks consistent with the nurse's obligation to provide optimum patient care." Also, inherent in accountability is responsibility for individual actions and behaviors, including civility. In order to demonstrate professionalism, civility must be present. Civility is a fundamental set of accepted behaviors for a society/culture upon which professional behaviors are based (Hammer, 2003; AACN, 2008).

Quality Improvement (QI): In health care, QI refers to giving patients the appropriate care at the appropriate time and place with the appropriate mix of information and supporting resources. In many cases, healthcare systems are overly cumbersome, fragmented, and indifferent to patients' needs. Quality improvement tools range from those that simply make recommendations but leave decision-making largely in the hands of individual practitioners (e.g., practice guidelines) to those that prescribe patterns of care (e.g., critical pathways). Typically, QI efforts are strongly rooted in evidence-based procedures and rely extensively on data collected about processes and outcomes (RWJ, 2009).

Risk Management/Risk Mitigation: A managed program or effort directed at reducing risk, avoiding accidents, and making effective use of purchased insurance (ANA, 2009).

Self Mastery: The intentional growth and development of physical, emotional, mental, and spiritual being. It allows for flexibility; comfort with chaos, ambiguity, and uncertainty; and the ability to let go of control. The journey of self-mastery increases our capacity to support and move others beyond fear (Viney & Rivers, 2007).

Social Justice: This concept relates to upholding moral, legal, and humanistic principles. This value is reflected in professional practice when assuring equal treatment under the law and equal access to quality health care (AACN, 2007). Social Justice is acting in accordance with fair treatment regardless of economic status, race, ethnicity, age, citizenship, disability, or sexual orientation” (AACN, 2008, p. ##).

Values: Something of worth; a belief held dearly by a person (Kozier & Erb, 2007).

Vulnerable Populations: Refers to social groups with increased relative risk (i.e., exposure to risk factors) or susceptibility to health-related problems. Vulnerability is evidenced in higher comparative mortality rates, lower life expectancy, reduced access to care, and diminished quality of life (UCLA School of Nursing, 2008).

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