

DRAFT
The Essentials of Master's Education in Nursing
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Executive Summary

This *Essentials* document serves to transform nursing education by providing the curricular elements and framework for building master's nursing curriculum for the 21st century. These *Essentials* address stakeholder recommendations and feedback solicited at four regional meetings held in 2009-2010. The new conceptualization of the master's degree emphasizes that program graduates will be able to 1) assume accountability for quality care outcomes; 2) navigate and integrate care services across the healthcare system; 3) lead and mentor healthcare team members; 4) collaborate with and build interprofessional care teams; 5) design innovative nursing practices, and 6) facilitate the translation of evidence into practice. Master's degree nursing programs prepare graduates with enhanced nursing knowledge and skills to address the evolving needs of the healthcare system. The master's degree program may or may not prepare graduates for specific roles.

Essentials I-IX delineate the outcomes expected of all graduates of master's nursing programs. Achievement of these outcomes will enable graduates to lead and practice in complex healthcare systems. Graduates with a master's degree in nursing will pursue a variety of innovative roles or areas of practice that may result from an evolving healthcare system shaped by the more global nature of health, scientific and technologic advances, and healthcare reform. Some graduates will pursue direct care practice roles, e.g. the Clinical Nurse Leader. Others may choose indirect care roles or areas of practice, e.g. nursing or health program management, informatics, community-focused management, clinical research assistant, or clinical nursing educator. The breadth of knowledge, the extent of experiential learning, and therefore the time needed to accomplish each Essential will vary, and each Essential does not require a separate course for achievement of the outcomes.

The nine Essentials are:

- **Essential I: Scientific Background for Practice**
 - Recognizes that 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 across diverse settings.

- **Essential II: Organizational and Systems Leadership**
 - Recognizes that 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, effective working relationships, and a systems-perspective.
- **Essential III: Quality Improvement and Safety**
 - Recognizes that a master's-prepared nurse must be articulate in the methods, tools, performance measures, and standards related to quality, as well as prepared to apply quality principles within an organization.
- **Essential IV: Translating and Integrating Scholarship into Practice**
 - Recognizes that the master's-prepared nurse applies research outcomes within the practice setting, resolves practice problems, works as a change agent, and disseminates results.
- **Essential V: Informatics and Healthcare Technologies**
 - Recognizes that the master's-prepared nurse uses patient-care technologies to deliver and enhance care and uses communication technologies to integrate and coordinate care.
- **Essential VI: Health Policy and Advocacy**
 - Recognizes that the master's-prepared nurse is able to intervene at the system level through the policy development process and to employ advocacy strategies to influence health and health care.
- **Essential VII: Interprofessional Collaboration for Improving Patient and Population Health Outcomes**
 - Recognizes that the master's-prepared nurse, as a member and leader of interprofessional teams, communicates, collaborates, and consults with other health professionals to manage and coordinate care.
- **Essential VIII: Clinical Prevention and Population Health for Improving Health**
 - Recognizes that the master's-prepared nurse applies and integrates broad, organizational, client-centered, and culturally appropriate concepts in the planning, delivery, management, and evaluation of evidence-based clinical prevention and population care and services to individuals, families, and aggregates/identified populations.
- **Essential IX: Master's-Level Nursing Practice**
 - Recognizes that master's-level nursing practice 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 relevant sciences as well as the ability to integrate this knowledge into practice. Nursing practice interventions include both direct and indirect care components.

All graduates of a master's nursing program must have supervised clinical experiences that are sufficient to demonstrate mastery of the Essentials. The term “supervised” is used broadly and can include precepted experiences with faculty site visits. These learning experiences may be accomplished through diverse teaching methods, including face-to-face or simulated methods.

In addition, development of clinical proficiency is facilitated through the use of focused and sustained clinical experiences designed to strengthen patient care delivery skills, as well as system assessment and intervention skills, which will lead to an enhanced 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 toward the end of the program as a culminating synthesis experience.

Introduction

Continuous change and innovation within the healthcare delivery system underscores the need for the nursing profession to look to the future and anticipate the healthcare needs for which nurses must be prepared. The complexities of health and nursing care today make expanded nursing knowledge a necessity in contemporary healthcare settings. The transformation of health care and nursing practice requires a new conceptualization of master's education. Master's education must prepare the graduate to:

- Assume accountability for quality care outcomes,
- Navigate and integrate care services across the healthcare system,
- Lead and mentor healthcare team members,
- Collaborate with and build interprofessional care teams,
- Design innovative nursing practices, and
- Facilitate the translation of evidence into practice.

Graduates of master's degree programs in nursing are prepared with broad knowledge and practice expertise that builds and expands on baccalaureate or entry-level nursing practice. For those nurses seeking a terminal degree, the highest level of preparation within the discipline, the new conceptualization for master's education allows for seamless movement into a research or practice-focused doctoral program.

The nine *Essentials* addressed in this document delineate the knowledge and skills that *all* nurses prepared in master's nursing programs acquire. These *Essentials* guide the preparation of graduates for diverse areas of practice in any healthcare setting.

Master's Education in Nursing and Areas of Practice

Graduates with a master's degree in nursing are prepared for a variety of roles and areas of practice. Graduates may pursue new and innovative roles that result from health reform and changes in an evolving and global healthcare system. Some graduates will pursue direct care practice roles, (e.g. the Clinical Nurse Leader). Others may choose indirect care roles or areas of practice, (e.g. nursing or health program management, informatics, population-focused management, clinical research assistant, or clinical nursing educator). In addition to developing competence in the nine Essential core areas delineated in this document, each graduate may have additional coursework in an area of practice or functional role. This coursework may include more in-depth preparation and competence in one or two of the Essentials or in an additional/supplementary area of practice. The master's degree program in nursing may prepare the graduate for national certification in that area of practice, when available.

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 and other healthcare researchers working in multi-professional research projects. More in-depth preparation in Essential II (Organizational and System Leadership) will provide knowledge useful for nursing management roles.

In some instances, graduates of master's in nursing programs will seek to fill roles as clinical educators. As outlined in Essential IX, all master's-prepared nurses will have exposure to teaching strategies and learning principles as a fundamental part of the master's curriculum to teach patients, staff, and/or students across settings, as well as serve as mentors to staff or students. However, as recommended by the Carnegie Foundation report (2009), *Educating Nurses: A Call for Radical Transformation*, those individuals who choose a clinical nurse educator role require preparation across all nine Essential areas, including graduate-level clinical practice content and experiences as well as additional preparation in curriculum design and development, teaching methodologies, educational needs assessment, and learner-centered theories and methods.

Context for Nursing Practice

Health care in the United States and globally is changing dramatically. Interest in evolving 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 cost of health care, fiscal sustainability, healthcare quality, and development of sustainable solutions to healthcare problems are driving reform efforts. Attention to affordability and accessibility of health care, maintaining healthy

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 all health professionals are educated to meet current and projected needs for contemporary care delivery. The Institute of Medicine (IOM), an interprofessional healthcare panel, described a set of core competencies that all health professionals regardless of discipline will demonstrate: 1) the provision of patient-centered care, 2) working in interprofessional teams, 3) employing evidence-based practice, 4) applying quality improvement approaches, and 5) utilizing informatics (IOM, 2003).

Given the ongoing public trust in nursing (Gallup, 2010), and the desire for fundamental reorganization of relationships among individuals, the public, healthcare organizations and healthcare professionals, graduate education for nurses is needed that is wide in scope and breadth, emphasizes all systems-level care and includes mastery of practice knowledge and skills. Such preparation reflects mastery of higher level thinking and conceptualization skills than at the baccalaureate level, as well as an understanding of the interrelationships among practice, ethical, and legal issues; financial concerns and comparative effectiveness; and interprofessional teamwork.

The Essentials of Master's Education in Nursing

Essential I: Scientific Background for Practice

Rationale

Master's-prepared nurses build on the competencies gained in a baccalaureate nursing program by developing a deeper understanding of nursing and the related sciences needed to fully analyze, design, implement, and evaluate nursing care. These nurses are well prepared to provide care to diverse populations and cohorts of patients in clinical and community-based systems. The master's-prepared nurse integrates scientific findings from nursing, biopsychosocial fields, genetics, public health, quality improvement, health economics, translational science, and organizational sciences for the continual improvement of nursing care at the unit, clinic, home, or program level. Master's-prepared nursing care reflects a more sophisticated understanding of assessment, problem identification, design of interventions, and evaluation of aggregate outcomes than does baccalaureate-prepared nursing care.

Students being prepared for direct care roles will have graduate-level content that builds upon an undergraduate foundation in health assessment, pharmacology, and

pathophysiology. Having master's-prepared graduates with a strong background in these three areas is seen as imperative from the practice perspective. Although not required, it is recommended that the Master's curriculum preparing individuals for direct care roles include three separate graduate-level courses in these three content areas. In addition, the inclusion of these three separate courses facilitates the transition of these master's program graduates into the DNP advanced practice registered nurse programs.

Master's-prepared nurses understand the intersection between systems science and organizational science in order to serve as integrators within and across systems of care. Care coordination is based on systems science (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 reasoning for ambiguous and uncertain clinical presentations, and incorporate 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. These 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-prepared nurses are able to evaluate when its use is appropriate for diagnostic, educational, and therapeutic interventions. Master's-prepared nurses use improvement science and quality processes to evaluate outcomes of the aggregate of patients, community members, or communities under their care, monitor trends in clinical data, and understand the implications of trends for changing nursing care.

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

1. Integrate nursing and related sciences into the delivery of advanced nursing care to diverse populations.
2. Incorporate current and emerging genetic/genomic evidence in providing advanced nursing care to individuals, families, and communities, while accounting for patient values and clinical judgment.
3. Design nursing care for a clinical or community-focused population based on biopsychosocial, public health, nursing, and organizational sciences.
4. Apply ethical analysis and clinical reasoning to assess, intervene, and evaluate advanced nursing care delivery.
5. Synthesize evidence for practice to determine appropriate application of interventions across diverse populations.

6. Use quality processes and improvement science to evaluate care and ensure patient safety for individuals and communities.

7. Integrates organizational science and informatics to make changes in the care environment to improve health outcomes.

Sample Content

- Healthcare economics and finance models
- Advanced nursing science, including the major streams of nursing scientific development
- Scientific bases of illness prevention, health promotion, and wellness
- Genetics, genomics, and pharmacogenomics
- Public health science, such as basic epidemiology, surveillance, environmental science, and population health analysis and program planning
- Organizational sciences
- Systems science and integration, including microsystems, mesosystems, and macro-level systems
- Chaos theory and complexity science
- Leadership science
- Theories of bioethics
- Information science
- Quality processes and improvement science
- Technology assessment

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/genomic information influence one's perspectives on clinical practice.
- Discuss with 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 most effectively in lateral integration of care delivery principles.
- Interview community leader to obtain their perspectives on the major health and socioeconomic disparities in their area and approaches they recommend for eliminating those disparities. Select one of these issues and plan a debate with students in multiple health and social service disciplines about how to modify the social determinants of health with the goal of eliminating this health disparity.
- Engage in a panel discussion with classmates about the similarities and differences between master's-prepared nurse public health nursing practice and acute care nursing practice.
- Collect data from clinical unit or practice setting 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.

- Debate with a group of student colleagues from multiple health professions regarding how ethical issues related to genetic/genomic information and technology influence clinical practice for each discipline. (From ISONG, p. 2)

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 defined population, or community.

To be effective, graduates must be able to demonstrate leadership by initiating and maintaining effective working relationships using mutually respectful communication and collaboration within interprofessional teams, demonstrating skills in 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, these nurses navigate the patient through the healthcare system and assume accountability for quality outcomes. Skills essential to leadership include communication, collaboration, negotiation, delegation, and coordination.

Master's-prepared nurses are members and leaders of healthcare teams that deliver a variety of services. These graduates bring a unique blend of knowledge, judgment, skills, and caring to the team. As a leader and partner with other health professionals, these 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. Program graduates understand the economies of care, business principles, and how to work within and affect change in systems.

The master's-prepared nurse must be able to analyze the impact of systems on patient outcomes, including analyzing error rates. These nurses will be prepared with knowledge and expertise in assessing organizations, identifying systems' issues, and facilitating organization-wide changes in practice delivery. 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, nurse practice at this level 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-degree program prepares the graduate to:

1. Apply leadership skills and decision making in the provision of culturally competent, high quality nursing care, healthcare team coordination, and the oversight and accountability for care delivery and outcomes.
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.
5. Apply business and economic principles and practices, including budgeting, cost/benefit analysis, and marketing, to develop a business plan.
6. Design and implement systems change strategies within that improve the care environment.
7. Participate in the design and implementation of new models of care delivery and coordination.

Sample Content

- Leadership, including theory, leadership styles, contemporary approaches, and strategies (organizing, managing, delegating, supervising, collaborating, coordinating)
- Data-driven decision making based on an ethical framework to promote culturally competent, 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, including mission/vision/philosophy and values)
- Healthcare finance, including budgeting, cost/benefit analysis, variance analysis, and marketing
- Operations research, e.g. queuing theory, supply chain management, and systems designs in health care
- Teams and teamwork, including team leadership, building effective teams, and nurturing teams

Examples of Integrative Learning Strategies

- Conduct an organizational assessment 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 healthcare leadership.
- Conduct a literature critique including a comprehensive summary and a critical analysis of contemporary healthcare leadership.
- 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.

- Design a program proposal including needs assessment, implementation, and evaluation plan.

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* 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 actual or potential 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 work to 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 across the care continuum in diverse settings using knowledge regarding high reliability organizations. These organizations achieve consistently safe and effective performance records despite unpredictable operating environments or intrinsically hazardous endeavors (Weick, 2001). The master's-prepared nurse will be able to monitor, analyze, and prioritize outcomes that need to be improved. Using quality improvement and high reliability organizational

principles, the master's- prepared nurse will be able to quantify the impact of plans of action.

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

1. Analyze information about quality initiatives recognizing the contributions of individuals and inter-professional healthcare teams to improve health outcomes across the continuum of care.
2. Implement evidence-based plans based on trend analysis and quantify the impact on quality and safety.
3. Analyze information and design systems to sustain improvements and promote transparency using high reliability and just culture principles.
4. Compare and contrast several appropriate quality improvement models.
5. Promote a professional environment that includes accountability and high-level communication skills when involved in peer review, advocacy for patients and families, reporting of errors, and professional writing.
6. Contribute to the integration of healthcare services within systems to affect safety and quality of care to improve patient outcomes and reduce fragmentation of care.
7. Direct quality improvement methods to promote culturally competent, safe, timely, effective, efficient, equitable, and patient-centered care.
8. Lead quality improvement initiatives that integrate socio-cultural factors affecting the delivery of nursing and healthcare services.

Sample Content

- Quality improvement models differentiating structure, process, and outcome indicators
- Principles of a just culture and relationship to analyzing errors
- Quality improvement methods and tools: Brainstorming, Fishbone cause and effect diagram, flow chart, Plan, Do Study, Act (PDSA), Plan, Do, Check, Act (PDCA), Find, Organize, Clarify, Understand, Select-Plan, Do, Check, Act (FOCUS-PDCA), Six Sigma, Lean
- High-Reliability Organizations (HROs) / High-reliability techniques
- National patient safety goals and other relevant regulatory standards (e.g., CMS core measures, pay for performance indicators, and never events)

- Nurse-sensitive indicators
- Data management (e.g., collection tools, display techniques, data analysis, trend analysis, control charts)
- Analysis of errors (e.g., Root Cause Analysis [RCA], Failure Mode Effects Analysis [FMEA], serious safety events)
- Communication, (e.g., hand-off communication, chain-of-command, error disclosure)
- Participate in executive patient safety rounds
- Simulation training in a variety of settings (e.g., disasters, codes, and other high-risk clinical areas)
- RN fit for duty/impact of fatigue and distractions in care environment 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, such as 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, such as for heart failure.
- Participate in analysis and plan for improvement for an associate safety related events (e.g.) back injuries, needle sticks.
- Explore other industries (airline) and apply learning 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.

Essential IV: Translating and Integrating Scholarship into Practice

Rationale

Professional nursing practice at all levels is grounded in the ethical translation of current evidence into practice. Fundamentally, nurses need a questioning/inquiring attitude toward their practice and the care environment.

The master's-prepared nurse examines 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 challenging current practices, procedures, and policies. The emerging sciences referred to as implementation or improvement sciences are providing evidence about the processes that are effective when making needed changes where the change processes and context are themselves evidence based (Damschroder et al., 2009; Sobo, Bowman, & Gifford, 2008; van Achterberg, Schoonhoven, & Grol, 2008). Master's-prepared nurses, therefore, must be able to implement change deemed appropriate given context and outcome analysis, and to assist others in efforts to improve outcomes.

Master's-prepared nurses lead continuous improvement processes based on translational research skills. The cyclical processes in which these nurses are engaged includes identifying questions needing answers, searching or creating the evidence for potential solutions/innovations, evaluating the outcomes, and identifying additional questions.

Master's-prepared nurses, when appropriate, lead the healthcare team in the implementation of evidence-based practice. These nurses support staff in lifelong learning to improve care decisions, serving as a role model and mentor for evidence-based decision making. Program graduates must possess the skills necessary to bring evidence-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 and dissemination; working in groups; and change management.

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

1. Integrate theory, evidence, clinical judgment, research, and interprofessional perspectives using translational processes to improve practice and associated health outcomes for patient aggregates.

2. Advocate for the ethical conduct of research and translational scholarship (with particular attention to the protection of patient rights).
3. 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.
4. Participate, leading when appropriate, in collaborative teams to improve care outcomes and support policy changes through knowledge generation, knowledge dissemination, and planning and evaluating knowledge implementation.
5. Apply practice guidelines to improve practice and the care environment.
6. Perform rigorous critique of databases to generate meaningful evidence for nursing practice.

Sample Content:

- Research process
- Implementation/Improvement 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
- Innovation processes

Examples of Integrative Learning Strategies

- Identify practice dilemmas related to cultural values and beliefs that will lead or lend themselves to collaborative research among practitioners and researchers
- 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 clinical 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 care environments 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.

Essential V: Informatics and Healthcare Technologies

Rationale

Informatics and healthcare technologies encompass five 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;
- Health information management for evidence-based care and health education;
and
- Facilitation and use of electronic health records to improve patient care.

Knowledge and skills in each of these four broad areas is essential for all master's-prepared nurses. The extent and focus of each will vary depending upon the nurse's role, setting, and practice focus.

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.

As the use of technology expands, the master's-prepared nurse must have the knowledge and skills to use current technologies to deliver and coordinate care across multiple settings, analyze point of care outcomes, and communicate with individuals and groups, including the media, policymakers, other healthcare professionals, and the public. Integral to these skills is an attitude of openness to innovation and continual learning, as information systems and care technologies are constantly changing, including their use at the point of care.

Graduates of master's-level nursing programs will have competence to determine the appropriate use of technologies and integrate current and emerging technologies into one's practice and the practice of others to enhance care outcomes. In addition, the master's-prepared nurse will be able to educate other health professionals, staff, patients, and caregivers using current technologies and about the principles related to the safe and effective use of care and information technologies.

Graduates ethically manage data, information, knowledge, and technology to communicate effectively with healthcare team, patients, and caregivers to integrate safe and effective care within and across settings. Master's-prepared nurses use research and clinical evidence to inform practice decisions.

Master's-degree graduates are prepared to gather, document, and analyze outcome data that serve as a foundation for decision making and the implementation of interventions or strategies to improve care outcomes. The master's-prepared nurse uses statistical and epidemiological principles to synthesize these data, information, and knowledge to evaluate and achieve optimal health outcomes.

The usefulness of electronic health records and other health information management systems to evaluate care outcomes is improved by standardized terminologies. Integration of standardized terminologies in information systems supports day-to-day nursing practice and also the capacity to enhance interprofessional communication and generate

standardized data to continuously evaluate and improve practice (American Nurses Association, 2008). Master's-prepared nurses use information and communication technologies to provide guidance and oversight for the development and implementation of health education programs, evidence-based policies, and point-of-care practices by members of the interdisciplinary care team.

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-prepared nurses serve as information managers, patient advocates, and educators by assisting others (including patients, caregivers and healthcare professionals) in accessing, understanding, evaluating, and applying health-related information. The master's-prepared nurse designs and implements education programs for cohorts of patients or other healthcare providers using information and communication technologies.

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

1. Analyze current and emerging technologies to support safe practice environments, and to optimize patient safety, cost-effectiveness, and health outcomes.
2. Evaluate outcome data using current communication technologies, information systems, and statistical principles to develop strategies to reduce risks and improve health outcomes.
3. Promote policies that incorporate ethical principles and standards for the use of health and information technologies.
4. Provide oversight and guidance in the integration of technologies to document patient care and improve patient outcomes.
5. Use information and communication technologies, resources, and principles of learning to teach patients and others.
6. Use current and emerging technologies in the care environment to support lifelong learning for self and others.

Sample Content

- Use of technology, information management systems and standardized terminology
- Use of standardized terminologies to document and analyze nursing care outcomes
- Bio-health informatics

- 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
- Complementary roles of the master's-prepared nursing and information technology professionals, including nurse informaticist and quality officer.
- Use of technology to analyze data sets and their use to evaluate patient care outcomes
- Effective use of educational/instructional technology
- Point-of-care information systems and decision support systems

Examples of Integrated Learning Strategies

- Analyze the Electronic Health Record (EHR) at one's practice site in regards to the use of language or standardized terminology that does or does not support nursing practice.
- Analyze one or more data sets to identify patient cohort risks and implement a quality improvement strategy. Participate in or perform a failure mode effects analysis, root cause analysis, or other quality improvement strategy.
- Complete a cost-benefit analysis for a proposed implementation of a new point of care technology, including the impact on staff and patients. Develop and present to the interprofessional care team a proposal regarding the recommendation or not to implement such a patient care technology.
- Prepare a written report, including recommended improvement strategies, 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 in an identified microsystem of care; 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.
- Develop an online health education or staff development module.
- Create and evaluate a simulation or unfolding scenario for patients, families, or healthcare professionals.
- Evaluate an institution's policy regarding the implementation of new point of care technology, including issues related to privacy, patient/provider risks, ethics, and costs.

Essential VI: Health Policy and Advocacy

Rationale

The healthcare environment is ever-evolving and influenced by technological, economic, political, and sociocultural 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 emerges from many different viewpoints. 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 have 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.

Policy shapes healthcare systems, influences social determinants of health, and therefore determines accessibility, accountability, and affordability of health care. Health policy creates conditions that promote or impede equity in access to care and health outcomes. Implementing strategies that address health disparities serves as a prelude to influencing policy formation. In order to influence policy, the master's-prepared nurse needs to work within and affect change in systems. 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 quality health care. The graduate must understand the principles of healthcare economics, finance, payment methods, and the relationships between policy and health economics.

Advocacy for patients, the profession, and health-promoting policies is operationalized in divergent ways. Attributes of advocacy include safeguarding autonomy, promoting social justice, using ethical principles, and empowering self and others (Grace, 2001; Hanks, 2007; Xiaoyan & Jezewski, 2006). Giving voice and persuasion to needs and preferred direction at the individual, institution, state, or federal policy level is integral for the master's-prepared nurse.

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

1. Analyze how policies influence the structure and financing of health care, practice, and health outcomes.
2. Participate in the development and implementation of institutional, local, and state and federal policy.
3. Examine the effect of legal and regulatory processes on nursing practice, healthcare delivery, and outcomes.
4. Interpret research, bringing the nursing perspective, for policy makers and stakeholders.
5. Advocate for policies that improve the health of the public and the profession of nursing.

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
- Health disparities
- Social justice
- Political activism
- Economics of health care

Examples of Integrative Learning Strategies

- Conduct an environmental scan of the prevalent issues affecting one's 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. Analyze the role of the nurse in this process.
- Analyze the roles, empowerment, and values clarification needed to be an effective nurse advocate and policy player.
- Identify, conceptualize, validate a problem and its contributing factors that is amenable to policy intervention and develop a plan to address those problems.
- Work with an elected official on a healthcare policy issue.

Essential VII: Interprofessional Collaboration for Improving Patient and Population Health Outcomes

Rationale

In a redesigned health system a greater emphasis will be placed on cooperation, communication, and collaboration among all health professionals in order to integrate care in teams and assure that care is continuous and reliable. Therefore, the IOM interdisciplinary panel identified working in interdisciplinary teams as one of the five core competencies for all health professionals (IOM, 2003). Interprofessional collaboration is critical for achieving clinical prevention and health promotion goals in order to improve patient and population health outcomes (APTR, 2008; 2009). Interprofessional practice is critical for improving patient care outcomes and, therefore, a key component of health professional education and lifelong learning (American Association of Colleges of Nursing and the Association of American Medical Colleges, 2010).

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 will actively communicate, collaborate and consult with other health professionals to manage and coordinate care across systems.

The master’s-degree program prepares the graduate to:

1. Advocate for the value and role of the professional nurse as member and leader of interprofessional healthcare teams.

2. Understand other health professions' scopes of practice to maximize contributions within the healthcare team.
3. Employ collaborative strategies in the design, coordination, and evaluation of patient-centered care.
4. Use effective communication strategies to develop, participate, and lead interprofessional teams and partnerships.
5. Mentor and coach new and experienced nurses and other members of the healthcare team.
6. Functions as an effective group leader or member based on an in-depth understanding of team dynamics and group processes.

Sample Content

- scopes of practice for nursing and other professions
- differing world views among healthcare team members
- concepts of communication, collaboration, and coordination
- conflict management strategies and principles of negotiation
- organizational processes to enhance communication
- types of teams and team roles
- stages of team development
- diversity of teams
- cultural diversity
- patient-centered care
- change theories
- multiple-intelligence theory
- group dynamics
- power structures
- health-work environments

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.
- Develop a process improvement plan using an interprofessional team approach for a specific patient care or system intervention

- 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.
- Conduct and assessment of group members, using a standardized assessment tool, and discuss how member preferences influence group dynamics.

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 U.S. 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 *Healthy 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 Healthy People Curriculum Task Force developed the *Clinical Prevention and Population Health Curriculum Framework*, which identifies four focal areas, including 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 U.S. population increases, it is crucial that the health system provides care and services that are equitable and responsive to the unique cultural and ethnic identity, socio-economic condition, emotional and spiritual needs, and values of patients and the population (IOM, 2001; 2003). Nursing leadership within health systems is required to design and assure the delivery of 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 into daily practice. Mastery of these concepts is essential in the design and delivery (planning, management, and evaluation) of evidence-based clinical prevention and population care and services to individuals, families, communities, and aggregates/clinical populations nationally and globally.

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

1. Synthesize broad ecological, global and social determinants of health; principles of genetics and genomics; and epidemiologic data to design and deliver evidence-based, culturally relevant clinical prevention interventions and strategies.
2. Evaluate the effectiveness of clinical prevention interventions that affect individual and population-based health outcomes using health information technology and data sources.
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 nursing science and other scientific concepts.
5. Integrate clinical prevention and population health concepts in the development of culturally relevant and linguistically appropriate health education, communication strategies, and interventions.

Sample Content

- Environmental health
- Epidemiology

- Biostatistical methods and analysis
- Disaster preparedness and management
- Emerging science of complementary and alternative medicine and therapeutics
- Ecological model of the social determinants of health
- Teaching and learning theories
- Health disparities, equity and social justice
- Program planning, design, and evaluation
- Quality improvement and change management
- Health promotion and disease prevention
- Application of health behavior modification
- Health services financing
- Health information management
- Ethical frameworks
- Interprofessional collaboration
- Theories and applications of health literacy and health communication
- Genetics/genomic risk assessment for vulnerable populations
- 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

- Compare and contrast risk factors that compromise health outcomes between vulnerable populations living with chronic health conditions, e.g., local to global.
- 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/clinical population.
- Examine the ecological model of human health and apply this to an identified health outcome at the individual, family, community, aggregate/clinical population, 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 in an interprofessional student team in partnership with a community-based organization serving a vulnerable 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.
- Participate in a “Table Top”/simulated disaster response exercise with an interprofessional student group.

Essential IX: Master’s-Level Nursing Practice

Rationale

Essential IX 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 expanded level of understanding of nursing and related sciences built on the *Essentials of Baccalaureate Education for Professional Nursing Practice*. Master’s-prepared nurses have developed a deepening understanding of the nursing profession based on reflective practices and continue to develop their own plans for lifelong learning and professional development.

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 care to individuals, population-focused care, administration, informatics, education or health policy. Master’s nursing education prepares graduates to implement safe, quality care in a variety of settings and roles.

This Essential includes the *practice-focused* outcomes for all master’s-prepared nurses. 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 theory,

science and 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, economics of health care, environmental science, epidemiology, genetics, gerontology, global healthcare environment and perspectives, health policy, informatics, organizations and systems, communication, negotiation, 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. The master's-prepared nurse is accountable for assessing the impact of research and advocates for participants, personnel, and systems integrity. 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 clinical populations within an increasingly complex healthcare system. The extraordinary explosion of knowledge in the field also requires an increased emphasis on lifelong learning.

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

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

1. Conduct a comprehensive and systematic assessment as a foundation for decision making.
2. Apply the best available evidence from nursing and other sciences as the foundation for practice.
3. Advocate for patients, families, caregivers, communities and members of the healthcare team.
4. Use information and communication technologies to advance patient education, enhance accessibility of care, analyze practice patterns, and improve health care outcomes, including nurse sensitive outcomes.
5. Use leadership skills to teach, coach, and mentor other members of the healthcare team.

6. 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.
7. Use knowledge of illness and disease management to provide evidence-based care to populations, perform risk assessments, and design plans or programs of care.
8. Incorporate core scientific and ethical principles in identifying potential and actual ethical issues arising from practice, including the use of technologies, and in assisting patients and other healthcare providers to address such issues.
9. Apply advanced knowledge of the effects of global environmental, individual and population characteristics to the design, implementation, and evaluation of care.
10. Employ knowledge and skills in economics, business principles, and systems in the design, delivery, and evaluation of care.
11. Apply theories and evidence-based knowledge in leading, as appropriate, the healthcare team to design, coordinate, and evaluate the delivery of care.
12. Apply learning, and teaching principles to the design, implementation, and evaluation of health education programs for individuals or groups in a variety of settings.
13. Establish therapeutic relationships to negotiate patient-centered, culturally appropriate, evidence-based goals and modalities of care.
14. Design strategies that promote lifelong learning of self and peers and that incorporate professional nursing standards and accountability for practice.
15. Integrate an evolving personal philosophy of nursing and healthcare into one's nursing practice.

Sample Content

- Principles of leadership, including horizontal and vertical 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, including the 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, group process
- Negotiation, understanding group dynamics, 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
- Global health care environment, international law, geopolitics, and geo-economics
- Nursing and other scientific theories
- Appreciative inquiry
- Reflective practices

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.
- Reflect on one's personal philosophy of nursing, how it has evolved over time, and how it is now operationalized in practice.
- Assess and analyze health risk factors for a vulnerable population or defined community, and evaluate the impact of nursing interventions on health outcomes.

Clinical/Practice Learning Expectations for Master's Programs

All graduates of a master's nursing program must have supervised clinical experiences, which are sufficient to demonstrate mastery of the Essentials. The term “supervised” is used broadly and can include precepted experiences with faculty site visits. These learning experiences may be accomplished through diverse teaching methodologies, including face-to-face or simulated means. The primary goals of clinical learning experiences are the opportunities to:

- Assume accountability for quality care outcomes,
- Navigate and integrate care services across the healthcare system,
- Lead and mentor healthcare team members,
- Collaborate with and build interprofessional care teams,
- Design innovative nursing practices, and
- Facilitate the translation of evidence into practice.

Mastery in nursing practice is acquired by the student through a series of applied learning experiences designed to allow the learner to integrate cognitive learning with the affective and psychomotor domains of nursing practice. The clinical/practice experiences allow the learner to experiment and acquire competence with new knowledge and skills. These experiences provide 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 health care systems, and an array of other settings.

The clinical experience is an opportunity to integrate didactic learning, promote innovative thinking, and test new potential solutions to clinical/practice or system issues. Therefore, the development of new skills and practice expectations can be facilitated through the use of creative learning opportunities in diverse settings. These learning opportunities may include experiences in business, industries, and with disciplines that are recognized as innovators in safety, quality, finance, management, or technology. Through these experiences, the student may develop an appreciation and use the wisdom from other industries and disciplines in nursing practice that can occur through application of knowledge or evidence developed in other industries.

These learning experiences can also occur using simulation designed as a mechanism for verifying early mastery of new levels of practice or designed to create access to data or health care situations that are not readily accessible to the student. These experiences may include simulated mass casualty events, simulated database problems, simulated

interpersonal communication scenarios, and other new emerging learning technologies. 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 focused and sustained clinical experiences which provide 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 toward 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/preceptor or faculty member. This type of learning experience will be designed to assist the learner to acquire master's-degree nursing knowledge and practice master's-degree roles.

Supervised clinical experiences will be verified and documented. One 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.

Summary

The Essentials of Master's Education in Nursing serves to transform nursing education and is critical to the innovations needed in health care. Due to the ever-changing and complex healthcare environment, this document emphasizes that the master's- prepared nurse will be able to 1) assume accountability for quality care outcomes; 2) navigate and integrate care services across the healthcare system; 3) lead and mentor healthcare team members; 4) collaborate with and build interprofessional care teams; 5) design innovative nursing practices, and 6) facilitate the translation of evidence into practice. Master's degree nursing programs prepare graduates with enhanced nursing knowledge and skills to address the evolving needs of the healthcare system. The master's degree program may or may not prepare graduates for specific roles.

Essentials I-IX delineate the outcomes expected of graduates of master's nursing programs. Achievement of these outcomes will enable graduates to lead and practice in complex healthcare systems in a variety of direct and/or indirect care roles. The breadth of knowledge, the extent of experiential learning, and therefore the time needed to accomplish each Essential will vary, and each Essential does not require a separate course for achievement of the outcomes.

Clinical experiences in master's programs are opportunities to integrate didactic learning, promote innovative thinking and test new potential solutions to clinical/practice or system issues. Therefore, the development of new skills and practice expectations can be facilitated through the use of creative learning opportunities in diverse settings. In addition, the extraordinary explosion of knowledge in the healthcare field requires that the master's-prepared nurse has an increased emphasis on lifelong learning and professional development.

Glossary

Administration: Administration comprises working with and through others to achieve the mission, values, and vision of an organization. Administration is an executive function within an organization and has ultimate accountability for defining and achieving the organization's strategic plan. Administration designates responsibility for implementing organizational goals. (Council on Graduate Education for Administration in Nursing, 2010)

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).

Advocacy: Defending or maintaining a cause or proposal on behalf of the patient, client, or profession to achieve societal or other goals (Interprofessional Professionalism Collaborative, 2008)

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 (American Association of Colleges of Nursing, 2008, p. 27).

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. 27).

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

Clinical Practice: The 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 Centers for Disease Control and Prevention, 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 Centers for Disease Control and Prevention, 2009). See also Clinical Preventive Services.

Cultural competence: the attitudes, knowledge, and skills necessary for providing quality care to diverse populations (The California Endowment, 2003). Becoming culturally competent is an ongoing process in which an individual or organization develops along a continuum until diversity is accepted as a norm and the nurse has acquired greater understanding and capacity in a diverse environment (O'Connell, Korner, Rickles, & Sias, 2007; Sias, 2004).

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

Diverse populations: Diversity is an all-inclusive concept, and includes differences in race, color, ethnicity, national origin, immigration status (refugee, sojourner, immigrant, or undocumented), religion, age, gender, gender identity, sexual orientation, ability/disability, political beliefs, social and economic status, education, occupation, spirituality, marital and parental status, urban versus rural residence, enclave identity, and other attributes of groups of people in society (Giger et al., 2007; Purnell & Paulanka, 2008).

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 (National Institutes of Health, 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 (American Association of Colleges of Nursing, 2009).

Health Education Programs: Any program designed to educate individuals, families, groups, communities, health professionals to improve health outcomes.

Health Equity: A basic principle 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 (Agency for Healthcare Research and Quality, 2009).

Horizontal and Vertical Health Delivery Systems: Health systems are comprised of a “horizontal system” focused on integrated resource sharing health services, providing prevention and care for prevailing health problems, and of “vertical systems” focused on disease specific interventions for specific health conditions. (World Health Organization, 2010)

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 (American Association of Colleges of Nursing, 2008, p. 28).

Informatics: The use of information and technology to communicate, manage knowledge, mitigate error, and support decision making. (Quality and Safety Education for Nurses, 2010)

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. 28).

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 are 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 (Agency for Healthcare Research and Quality, 2009).

Leadership: Leadership is the process of influencing others toward the attainment of one or more goals. Leadership comprises two types: formal and informal. Formal leadership occurs through official titular designations within an organization or society. Informal leadership occurs when the perceptions and actions of others are influenced by individuals without such official organizational or societal designations. Leadership is not limited to the accomplishment of organizational goals (Council on Graduate Education for Administration in Nursing, 2010).

Liberal Education: a comprehensive sets of aims and outcomes that are essential both for a globally engaged democracy and for a dynamic, innovation-fueled economy. (American Association of Colleges & Universities, 2007).

Management: Management is the process of aligning resources with needs to attain specific goals. Management includes planning, organizing, motivating, monitoring, and evaluating human and material resources. Although management usually refers to a mid-level formal leadership function within an organization, it is also the process used at any level to align and allocate resources (Council on Graduate Education for Administration in Nursing, 2010).

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 (University of North Carolina, 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 Collaborative, 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; American Association of Colleges of Nursing, 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 (Robert Wood Johnson Foundation, 2009).

Risk Management/Risk Mitigation: A managed program or effort directed at reducing risk, avoiding accidents, and making effective use of purchased insurance (American Nurses Association, 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 (American Association of Colleges of Nursing, 2007). Social Justice is acting in accordance with fair treatment regardless of economic status, race, ethnicity, age, citizenship, disability, or sexual orientation” (American Association of Colleges of Nursing, 2008, p. 28).

Translational research: “Translational research includes two areas of translation. One is the process of applying discoveries generated during research in the laboratory, and in preclinical studies, to the development of trials and studies in humans. The second area of translation concerns research aimed at enhancing the adoption of best practices in the community.”

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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