The Future of Nursing
How HIT Fits in IOM/RWJF Initiative

The Institute of Medicine (IOM) in collaboration with the Robert Wood Johnson Foundation (RWJF) established a major initiative on the Future of Nursing in July 2009. The initiative is a two-year effort to find solutions to the issues that continue to challenge the nursing profession and the patients they serve, and to build upon the solutions that nursing can provide in improving quality and patient care. The cornerstone of the program is an IOM study committee that is examining the capacity of the nursing workforce to meet the demands of a reformed health-care and public health system. The committee will then develop a set of bold national recommendations, including ones that address the delivery of nursing services in a shortage environment and the capacity of the nursing education system.

In its report, the committee will define a clear agenda and blueprint for action including changes in public and institutional policies at the national, state and local levels. Its recommendations will address a range of system changes, including innovative ways to solve the nursing shortage in the United States. The goal will be a transformational report on the future of nursing.

The committee will examine and produce recommendations related to the following issues, with the goal of identifying vital roles for nurses in designing and implementing a more effective and efficient health care system:

- Reconceptualizing the role of nurses within the context of the entire workforce, the shortage, societal issues, and current and future technology.
- Expanding nursing faculty, increasing the capacity of nursing schools, and redesigning nursing education to assure that it can produce an adequate number of well prepared nurses able to meet current and future health care demands.
- Examining innovative solutions related to care delivery and health professional education by focusing on nursing and the delivery of nursing services.
- Attracting and retaining well prepared nurses in multiple care settings, including acute, ambulatory, primary care, long term care, community and public health.

I am hoping that all readers are now doing what I did when I first heard about the initiative ... think about the huge role that HIT can (will) play in the future of nursing! When we consider the goals of this study and creating nursing-based solutions to improve quality and transform the way Americans receive health care, a prominent role for HIT seems a foregone conclusion. Health care reform is not only about determining who pays for health care services, it is also about changing how those services are delivered in order to achieve better patient outcomes at a reduced cost. This premise is, of course, the foundation behind the federal incentives for EHR adoption called out in the American Recovery and Reinvestment Act of 2009. HIT and its corresponding workflow and process redesign can be one of the ways we dramatically change care delivery.

ANI TESTIMONY

This initiative was initially brought to my attention when Joyce Sensmeier, Co-chair Alliance for Nursing Informatics (ANI) and VP of Informatics at HIMSS, asked for input regarding her testimony on behalf of ANI to one of the forums sponsored by the IOM Study Committee in October 2009. I was impressed by the final result, and thought I would spend some time reiterating several of the themes from the powerful testimony here. My thanks goes out to Joyce and ANI for letting me share these excerpts of the testimony with you.
Knowledge at the point of care. Additional enhancements ready access to information and data capture into workflow processes and decision making for nurses that integrates technology and EHR systems should support the future of nursing. The use of technology and EHR systems must be effective, nurses must advocate for improved systems that work effectively, and more likely to recognize workarounds and risks, in order to help ensure that HIT does no harm. These skills highlight the value of informatics nurses’ expertise truly translates into the adoption of more effective, higher quality applications that will help us realize the desired outcomes for patients in healthcare systems.

Nurses are the “glue” of the acute-care system. They are also the caregivers closest to the patient in acute care. As such, nurses must be supported by excellent EHRs and other technologies. It is informaticists who translate and affect EHRs in acute care. ANI recommends that funding be focused on the partnership between nurses and informaticists to determine the future of nursing. The use of technology and EHR systems should support decision making for nurses that integrates data capture into workflow processes and enhances ready access to information and knowledge at the point of care. Additionally, funding should focus on user-centered design principles and usability methods in any technology or information system that impacts nurses. Informatics nurses are integral to affecting these principles and methods.

2. INTEGRATORS OF PATIENT INFORMATION

EHRs must incorporate nursing’s unique body of knowledge with the nursing process at its core. Technology needs to represent the clinical workflow of how nurses think and communicate ongoing patient care needs from admission through post-discharge across all settings. Therefore, in their role as the “central hub” of information, nurses have significant responsibility for integrating that information to ensure the quality and safety of patient care. When information systems are implemented in any healthcare setting, nurses must be involved in decision making about the usefulness, efficiency, and satisfaction with information technologies as many of these involve significant clinical practice changes and not just IT system implementations.

Nurses must advocate for improved system functions such as integrative views of patient data that provide the “big picture” of patient care and also provide synthesis during information intense activities such as handoffs (within and between professions, among facilities and care entities), writing clinical summaries and discharge planning notes. Future systems should cull pertinent information from the patient’s longitudinal record and relate it to the current condition at hand or the management of a chronic condition. Nurses should participate in or lead interdisciplinary teams for improving workflow processes and include user-centered design principles into system development.

3. FULL PARTNERS IN DECISION MAKING

For health information technologies to be effective, nurses must be at the table as full partners through design, implementation, and evaluation. Nurses must be included in committees within their own organizations and be supported and encouraged to participate in state and national policy committees. The future of nursing is dependent on a profession that
will continue to perform an instrumental role in patient safety, change management, quality improvement and usability of systems as evidenced by quality outcomes, enhanced workflow, and user acceptance. These areas highlight the importance of nurses and informatics nurses to the adoption of health information technologies to deliver higher quality clinical applications within and across healthcare organizations.

4. CARE COORDINATORS ACROSS DISCIPLINES

Patient care invariably requires collaborative interactions among multiple clinicians from a broad array of specialties, often located in different locations. Therefore “meaningful use” of EHR systems should strive for nothing less than an integrated healthcare community that is patient-centered and promotes usable, efficient and seamless information flow. Nurses are instrumental in coordinating a patient’s care across the continuum and as such, are often the focal point for connecting acute, ambulatory, long-term, community, home care, and public health based settings. As coordinators, nurses are central to ensuring that data and information necessary for patient care is not only shared but translated into action.

As we consider the future of nursing, ANI recommends taking a broad perspective utilizing documentation from all members of the clinical team; specifically, EHRs must incorporate all disciplines’ plans of care and progress notes into a patient centered EHR. To achieve this, EHR systems should integrate data and information from the patient and all healthcare professionals into a patient summary after each transition of care that can be shared with the patient’s personal health record as well as exchanged with other health care settings across the continuum. It is vital that this summary includes patient education to enable patients and their families to manage their own healthcare. This approach sets the foundation for providing the building blocks of health information exchange between disparate HIT systems while promoting consistency and repetition of the patient care communication during transitions of care.

5. EXPERTS TO IMPROVE QUALITY, SAFETY, EFFICIENCY AND REDUCE HEALTH DISPARITIES

Standardized clinical performance measures that are adapted to consider unique complexities of various environments of care should be collected as a byproduct of care delivery, clinician documentation, and other information systems such as scheduling, acuity systems, and human resource information systems. This will serve two important national goals: a) clinical decision support and trending in patient outcomes for real-time decision making and intervention at the point of care delivery, and b) the ability to aggregate enterprise-wide performance evaluations. ANI recommends that a subset of endorsed National Quality Forum (NQF) measures be adopted in acute and post acute care settings, including nursing-sensitive care performance measures to enhance decision support and clinical measure reporting.

6. ADVOCATES FOR ENGAGING PATIENTS AND FAMILIES

In order to effectively achieve health outcomes improvements, patients and families need access to their health information along with health education services delivered in a patient-appropriate learning environment and format. Nurses have an extensive knowledge base in patient education methods and tools. ANI recommends that this body of knowledge be leveraged to facilitate the definition of achievable objectives in the area of health information literacy. Patients and families should be provided access to data, knowledge, and tools to make informed decisions about their health. This requires the development of resources that address literacy, culture and language levels. EHR systems should provide an integrated view of patient/family learning needs and should provide access to condition-specific, credible education material.

7. CONTRIBUTORS TO STANDARDIZE INFRASTRUCTURE WITHIN THE EHR

ANI endorses the use of recommended standards integrated across systems that record, transmit, collect, and share information that is clear, concise, and unambiguous in all settings of healthcare services. Health information that is usable and universally understood must be available whenever and wherever patients and clinicians need it. Nurses and other healthcare professionals as knowledge workers must have access to information and use of enabling technologies necessary for distilling the information so that it provides value in any clinical setting.

Furthermore, ANI believes that an infrastructure using standardized nursing and other health terminologies supports data sharing, aggregation, identification, use of evidenced-based practices, and development and integration of new evidence derived from clinical research. Standardized terminology is necessary and a prerequisite for decision support, discovery of disparities, outcomes reporting, improving performance, maintaining accurate lists of problems and medications, and the general use and re-use of information needed for quality, safety, and efficiency. Systems must enable the sharing of integrated information while maintaining patient privacy and allowing for de-identification of patients involved in clinical research to generate new knowledge about health and healthcare services.

8. RESEARCHERS FOR SAFE PATIENT CARE

Nurses play a major role in the use of technology that influences patient quality, safety practices and outcomes. For instance, safe medication administration requires patient assessment, reconciliation, medication delivery, and ongoing monitoring. Many technologies are potentially involved including IV pumps, medical devices, laboratory data, automated vital signs, barcodes or radio-frequency identification (RFID), and EHRs. Unless the information is readily available, consistent across technologies, integrated, and matches the workflow of nurses, adverse events can result. Practicing nurses, informatics nurses, and nurse researchers must collaborate to evaluate the effect of technologies on patient quality and safety.

9. PREPARING THE WORKFORCE

Nurses are at the center of patient care and are expected to provide safe, competent, and compassionate care in an increasingly...
technical and digital environment. Evolution to this complexity in the healthcare environment mandates new competencies that in turn necessitate new educational strategies and curricular content to prepare the workforce. These changes are just beginning to emerge in some educational and practice settings.

The TIGER initiative is a national collaborative of nursing organizations, educational institutions, and industry partners who synthesized recommendations to make HIT the stethoscope of the 21st century. While many nursing education programs have focused on computer literacy skills, they are just beginning to incorporate informatics competencies into their curricula. Today more than 70 professional nursing organizations, associations, vendor organizations and governmental entities collaborate through the TIGER initiative, advocating the following goals:
• Develop a U.S. nursing workforce capable of using EHRs to improve the delivery of healthcare.
• Engage more nurses in the development of a nationwide health information technology infrastructure.
• Accelerate the adoption of smart, standards-based, interoperable, patient centered technology that will make healthcare delivery safer, more efficient, timely, accessible, and efficient.

The TIGER Informatics Competency Collaborative developed informatics recommendations for all practicing nurses and graduating nursing students consisting of three parts: basic computer competencies, information literacy, and information management. Hospitals and health systems can ensure that nurses are competent to practice in the technology-rich healthcare environment of the future by implementing these recommendations.

NURSES CLAIM THEIR SEAT AT THE HEALTH REFORM TABLE
ANI’s testimony emphasizes the important role of nurses and informatics nurses in the use of HIT to improve patient safety, quality and efficiency of care delivery. As the largest healthcare profession, and predominately employed in acute care settings, nurses are the integrators for coordinating care and information across healthcare settings. ANI believes that nurses are integral to achieving a vision that will require a nationwide effort to adopt and implement EHR systems in a meaningful way. This is an incredible opportunity to build upon our understanding of effectiveness research, evidence-based practice, innovation and technology to optimize patient care and health outcomes. The future of nursing will rely on this transformation, as well as on the important role of nurses in enabling this digital revolution.

The IOM and RWJF Future of Nursing initiative is an exciting one. The IOM and RWJF are making significant investments in the field of nursing because they believe our nation cannot adequately address the challenges facing our health care system without also addressing the challenges facing the nursing profession. As our nation looks to make fundamental reforms to health care, nurses have a unique opportunity to provide information, insight and guidance on their role in delivering patient care within the future redesigned health care system.

However, in order to achieve the nation’s health reform goals, we need to leverage sources of IT-competence to ensure that our HIT investments are maximally leveraged and effectively utilized. Informatics nurses bring a working knowledge of how information systems can support and improve upon clinical processes. Because of their combined clinical and IT experience, they are able to recognize computer systems and workflow processes that work effectively, and more likely to identify risks to make sure that IT does no harm. Indeed, their expertise translates directly into the adoption of value-driven, high-quality applications that will help realize the desired outcomes in our healthcare system.

Furthermore, many of the policy discussions about health IT are beginning to focus on how computer systems impact nursing and nursing workflow. Although nurses still don’t get as much press time as physicians, informatics nurses are actively taking a seat at the table and participating in federal discussions about best practices, standards and the meaningful use of EHRs. Organizations such as ANI, the National League for Nursing (NLN) and
TIGER (Technology Informatics Guiding Education Reform) have been working
to get nurses on the frontlines of health reform and health IT debates. The Na-
tional Quality Forum (NQF), the National Committee on Vital and Health Statistics
(NCVHS), the Office of the National Coordinator for Health IT (ONC), the Health
IT Policy Committee and the Health IT Standards Committee all have nurses in
their ranks. Through such representa-
tion, nurses have a voice in how health care reform and federal health IT stan-
dards develop. But more importantly, fed-
eral policymakers and hospital leaders are
starting to appreciate the value of bringing
nurses to the table for these discussions.

As I’ve said in several of my columns
over the past year, it is an exciting time to
be a nurse and be in health IT. We are not
only helping to shape the future of nurs-
ing, but we are forever changing the way
our patients receive the high-quality, cost-
effective health care they deserve. This not
only makes me feel empowered, it makes
me smile. JHIM

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REFERENCES
edu/Activities/Workforce/Nursing/ on 12/18/09.
4. Joyce Sensmeier MS, RN-BC, CPHIMS, FHIMSS, Co-chair Alliance for Nursing Informatics and VP of Informatics at HIMSS. Testimony to the Robert Wood
Johnson Foundation Initiative on the Future of Nursing: Acute Care, in Los Angeles, California, on October 19, 2009. Available at http://www.himss.org/handouts/
ANIResponse-RWJ_IONonTheFutureofNursing.pdf?src=winews20091014 on 12/18/09.
pdf on 12/18/09
7. Fortner P. Nurses claim their seat at the health IT decision-making table. iHealthBeat 12/15/09. Available at http://www.ihealthbeat.org/features/2009/nurses-claim-
their-seat-at-the-health-it-decisionmaking-table.aspx on 12/18/09.