Roles, Competencies, Skills, Organizations and Legislative Aspects

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Executive VP & Chief Professional Practice Officer
Elsevier Clinical Decision Support and CPM Resource Center
Objectives

• Describe the history of nursing informatics as an emerging field in the nursing profession

• Discuss evolving roles, competencies and skills impacting nursing informatics practice

• Identify key nursing informatics organizations shaping nursing informatics impact in healthcare

• Identify key nursing reports, journals and books shaping nursing informatics impact in healthcare

• Describe key legislative aspects impacting nursing informatics
Describe the history of nursing informatics as an emerging field in the nursing profession.
Mainframe to Widespread Technology

• 50 years/5 Decades of Evolution (highlights)

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<tbody>
<tr>
<td>Introduced to healthcare Office and financial accounting</td>
<td>Computers in healthcare studied</td>
<td>Computer-based Information Systems (CIS) developed within hospitals</td>
<td>Field of Informatics emerged Nursing</td>
<td>Computer vendors became more focused on point of care</td>
<td>Embedded clinical decision support for nursing &amp; interdisciplinary practice</td>
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<td>Professional Practice grew and desire to represent practice within the computerized patient record</td>
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Nursing Informatics Pioneers

History Project sponsored by the American Medical Informatics Association Nursing Informatics Working Group (AMIA-NIWG)

• AMIA Website: Nursing Workgroup page
  • www.amia.org/niwg-history-page

• Videotaped Interviews
• Use-Cases
**Nursing Informatics Pioneers: Connie Delaney**

Connie White Delaney is Dean & Professor, School of Nursing, University of Minnesota where she also holds an informatics appointment in the School of Medicine. Since 2001 she has held an informatics professorship at the University of Iceland, Faculty of Medicine and Faculty of Nursing. She is the first Fellow in the College of Medical Informatics to serve as a Dean of Nursing. Delaney’s serve on boards includes Lifescience Alley, the American Medical Informatics Association (AMIA), Promedica Quest National Advisory Panel, National Quality Forum (NQF) Steering Committee. She was inaugural co-chair of the Alliance for Nursing Informatics a forum for all USA informatics organizations. Delaney is co-developer of the nationally recognized Nursing Management Minimum Data Set, research related to the USA NMC and co-founder of the international Nursing Minimum Data Set (NMDS), and co-developer of computational modeling and simulation for educational nursing administration.

**Library One: Biographies**

- **Picture**
- **Bio-sketch**
- **Transcript of the Interview**
- **MP3 Audio File**
Pioneers

Theme 8: Pioneer’s Lessons learned that they would like to pass on

<table>
<thead>
<tr>
<th>Name</th>
<th>Title</th>
<th>View her video</th>
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<tbody>
<tr>
<td>Ida M. Andrewich PhD, RNC, FAAN</td>
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<td>Jean M. Arnold, EdD, RN</td>
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<td>Marion Bell, EdD</td>
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<td>Patty Brennan PhD, RN, FAAN, FACMI</td>
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Library Two: Themes

Nursing Informatics
Significant Events
Pioneers path
First considered an informatics nurse
Informatics – Value
Demographics of Pioneer
Aspiration & Accomplishments
Lessons to Pass On
Nursing Informatics

Recognized as a specialty by the ANA in 1992

*Nursing Informatics: Scope and Standards of Practice, ANA 2008*
Nursing informatics (NI) is a specialty that integrates nursing science, computer science, and information science to manage and communicate data, information knowledge and wisdom in nursing practice. NI supports consumer, patients, and other providers in their decision-making in all roles and settings. This support is accomplished through the use of information structures, information processes, and information technology.

*Nursing Informatics: Scope and Standards of Practice, ANA 2008*
Metastructures: Data, Information, Knowledge and Wisdom

Nursing Informatics: Scope and Standards of Practice, ANA 2008
Advancing Practice with Technology

Technology must capture the tasks performed but not limit practice to the *rituals and routines* of traditional practice.

Technology must be designed to enhance *scope of practice* and *evidence-based practice* at the point of care.

Technology is key to embrace and shape so practice is truly *knowledge-driven*.

---


“There is no aspect of our profession that will be untouched by the informatics revolution in progress.”

Angela McBride
Distinguished Professor and University Dean Emeriti
Indiana University School of Nursing
Teaching Methods and Strategies

Lecture
- Provide an overview of history of nursing informatics
- Introduce to *ANA Nursing Informatics: Scope and Standards of Practice*

Discussion Board
- Describe nursing informatics evolution for the past five decades
- Describe the metastructures of data, information, knowledge and wisdom
- Why is advancing practice with technology so critical for the nursing profession?

Activities
- Assign students to view a Nursing Informatics Pioneer on the AMIA History Project website (Pioneer and/or Theme)
  - Write reports
  - Group discussion
- Interview a nurse informatics specialists in geographical area
Discuss the evolving roles, competencies, and skills impacting nursing informatics
Informatics competencies are needed by all nurses whether or not they specialize in informatics. As nurse settings become more ubiquitous computing environments, all nurses must be both information and computer literate.

*Nursing Informatics: Scope and Standards of Practice, ANA 2008*
The Essentials of Baccalaureate Education

Position Statement

Nine Essentials

I. Liberal Education for Baccalaureate Generalist Nursing Practice

II. Basic Organizational and Systems Leadership for Quality Care and Patient Safety

III. Scholarship for Evidence-Based Practice

IV. Information Management and Application of Patient Care Technology

V. Health Care Policy, Finance, and Regulatory Environments

VI. Interprofessional Communication and Collaboration for Improving Patient Health Outcomes

VII. Clinical Prevention and Population Health

VIII. Professionalism and Professional Values

IX. Baccalaureate Generalist Nursing Practice

http://www.aacn.nche.edu/publications/order-form/baccalaureate-essentials
Competencies: Ongoing Evolution

QSEN
- Informatics

ANA
- Computer Literacy
- Information Literacy
- Professional Development and Leadership

TIGER
- Basic Computer
- Information Literacy
- Information Management
Overlap of Core Competencies for Health Professionals

Work in Interdisciplinary Teams

- Employ Evidence-Based Practice
- Provide Patient-Centered Care
- Apply Quality Improvement
- Utilize Informatics
**Definition:** Use information and technology to communicate, manage knowledge, mitigate error, and support decision making.

<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Skills</th>
<th>Attitude</th>
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<tbody>
<tr>
<td>Explain why information and technology skills are essential for safe patient care</td>
<td>Seek education about how information is managed in care settings before providing care</td>
<td>Appreciate the necessity for all health professionals to seek lifelong, continuous learning of information technology skills</td>
</tr>
<tr>
<td>Identify essential information that must be available in a common database to support patient care</td>
<td>Navigate the electronic health record Document and plan patient care in an electronic health record</td>
<td>Value technologies that support clinical decision-making, error prevention, and care coordination</td>
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<td>Contrast benefits and limitations of different communication technologies and their impact on safety and quality</td>
<td>Employ communication technologies to coordinate care for patients</td>
<td>Protect confidentiality of protected health information in electronic health records</td>
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<tr>
<td>Describe examples of how technology and information management are related to the quality and safety of patient care</td>
<td>Respond appropriately to clinical decision-making supports and alerts</td>
<td>Value nurses' involvement in design, selection, implementation, and evaluation of information technologies to support patient care</td>
</tr>
<tr>
<td>Recognize the time, effort, and skill required for computers, databases and other technologies to become reliable and effective tools for patient care</td>
<td>Use information management tools to monitor outcomes of care processes</td>
<td>Use high quality electronic sources of healthcare information</td>
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<td>Use high quality electronic sources of healthcare information</td>
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Table 2. Informatics Competencies by NI Functional Areas

<table>
<thead>
<tr>
<th>Competency Categories</th>
<th>Knowledge and Skills</th>
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<tbody>
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<td>Computer Literacy</td>
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<td>Beginning Nurse</td>
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<td>Experienced Nurse</td>
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<td>Informatics Specialist</td>
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<td>Informatics Admin</td>
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<td>Nursing Informatics</td>
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<td>Generalist in Nursing</td>
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<td>Development</td>
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<td>Policy/Regulatory</td>
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<td>Research</td>
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- Computer Skills—Administration
- Computer Skills—Communication
- Computer Skills—Data Access
- Computer Skills—Documentation
- Computer Skills—Education
- Computer Skills—Monitoring
- Computer Skills—Basic Desktop Software
- Computer Skills—Systems
- Computer Skills—Quality Improvement
- Computer Skills—Research

Nursing Informatics: Scope and Standards of Practice, ANA 2008 (pg 39-39)
TIGER Nursing Informatics Competencies Model consists of three parts:

1. Basic Computer Competencies
2. Information Literacy
3. Information Management

http://www.thetigerinitiative.org/docs/TigerReport_InformaticsCompetencies_001.pdf
## TIGER Informatics Competencies

<table>
<thead>
<tr>
<th>Competency</th>
<th>Resources</th>
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<tbody>
<tr>
<td>Basic Computer Competencies</td>
<td>European Computer Driving License Foundation (ECDL) (<a href="http://www.ecdl.org">www.ecdl.org</a>)</td>
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<td>CPPlacement (Official distributor of ECDL within the US) (<a href="http://www.cpsplacement.com">www.cpsplacement.com</a>)</td>
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<td>Healthcare Information Management System Society (HIMSS) (<a href="http://www.himss.org">www.himss.org</a>)</td>
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<td>Information Literacy</td>
<td>American Library Association (<a href="http://www.ala.org">www.ala.org</a>)</td>
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<td><a href="http://www.ala.org/acrl/standards/informationliteracycompetency">http://www.ala.org/acrl/standards/informationliteracycompetency</a></td>
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<tr>
<td>Information Management</td>
<td>Health Level Seven (HL7) (<a href="http://www.hl7.org">www.hl7.org</a>)</td>
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<td>European Computer Driving License Foundation (ECDL) (<a href="http://www.ecdl.org">www.ecdl.org</a>)</td>
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### Other Competences Impacting Informatics: Interprofessional Education (IPE) Competencies

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<th>United States</th>
<th>Canada</th>
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<tr>
<td>Value/Ethics</td>
<td>• Patient Centered</td>
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<td>Roles Responsibilities</td>
<td>• Role Clarification</td>
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<td>Interprofessional Communication</td>
<td>• Interprofessional Communication</td>
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<td>Teams/Teamwork</td>
<td>• Team Functioning</td>
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<td>• Collaborative Learning</td>
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<td>• Interprofessional Conflict Resolution</td>
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[http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210r.pdf](http://www.cihc.ca/files/CIHC_IPCompetencies_Feb1210r.pdf)
IPEC Core Competencies for Interprofessional Collaborative Practice

• Based on IOM Competencies
• Defined Principles
• Four Competency Domains
• 38 Competencies

http://www.aacn.nche.edu/education-resources/IPECReport.pdf
TIGER Usability and Application Design Report

- Systems Thinking
- Evidence-Based Practice
- Scope of Practice
- Individual & Integrated Competency
- Knowledge Discovery

*Figure: Adapted from the CPM Resource Center with Permission*
## SimChart® Lesson Plan Guide

<table>
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<tr>
<th>Learning Activity</th>
<th>SimChart Application</th>
<th>Activity Objective</th>
<th>Guiding Standards</th>
<th>Instructor Req</th>
<th>Understanding of how to complete a pain assessment in a variety of situations offering safe interventions and teaching plans</th>
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<tbody>
<tr>
<td>Pain Assessment, with Intervention and Teaching</td>
<td>Simulations, Case Studies My Clinicals</td>
<td>Obtain a variety of pain assessments, interventions and teaching in different settings and record in the electronic health record</td>
<td>QSEN: Patient Centered care, Informatics, Safety AACN Essentials: I, IV Giddens' Concept: Caregiving, Care Coordination, Culture, Pain, Meaningful Use Core Objectives: 4</td>
<td>Create a My Clinicals, Case Study or Simulation Assignment using SimChart Setup</td>
<td>Basic understanding of the components of an EHR</td>
</tr>
<tr>
<td>Navigating the Chart Scavenger Hunt</td>
<td>Simulations, Case Studies</td>
<td>Explore the SimChart as an electronic health record</td>
<td>QSEN: Informatics AACN Essentials: I, IV Giddens' Concept: Technology and Informatics Meaningful Use Core Objectives: all</td>
<td>Create a Case Study or Simulation Assignment using SimChart Setup</td>
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Electronic Health Record Vendor Applications

- Movement toward patient-centric and interoperable EHRs
- Back-end to point-of-care
- Professional practice/processes of care
- Clinical Content (Evidence-Based Practice)

- EHR Vendors offerings (3rd party partnerships related to devices, content, analytics, interdisciplinary workflow, etc.)

Nursing Informatics Roles – Wide Variety

Practice

Education

Industry

Government

NI Roles
Nursing Informatics Roles –Survey (2009)

• Informatics nurses are involved in a wide variety of job responsibilities
• Play a significant role in user education
• Widely involved in system implementation, user support, workflow analysis, and gaining buy-in from end users.
• Involved in emerging technologies (medical device integration, remote monitoring, etc.)
• Moving from tactical to strategic
• Translator for American Recovery and Reinvestment Act “Meaningful Use” of EHRs
• Not limited to IT: Instrumental roles with patient safety, change management, and usability of systems, adoption, & quality outcomes

“The United States has the opportunity to transform its healthcare system, and nurses can and should play a fundamental role in this transformation.”

Need for Qualified Nurses

Nurses are effecting change in the development and adoption of interoperable systems across the nation, showing quantifiable impact on national health.

Nurses are responsible for driving implementations for interoperable systems within healthcare delivery organizations.

Combined collaboration between all stakeholders is needed to develop, adopt, and accelerate healthcare transformation.
HIMSS Position Paper & Resources

Download the Position Statement:


Download the Talking Points:


Request hard copies/more information:

informatics@himss.org
Support from American Organization of Nurse Executives

www.aone.org/resources/leadership%20tools/PDFs/AONE_Technology_Committee_CNIO_Position_Paper.pdf

Position Paper: Nursing Informatics Executive Leader

Technology is revolutionizing the manner in which health care is delivered. Clinicians and consumers are incorporating high-speed data networks, wireless solutions, handheld devices, automated exchanges between organizations/clinicians and patients and various forms of social media into their daily interactions. Adapting to these new environments requires a shift in expectations for how care is delivered and communicated. This shift necessitates a greater understanding of the constant evolution of new solutions into practice. Nurses are at the core of these changes and are the care providers with the greatest amount of direct patient contact; therefore the nursing informatics leadership roles provide a significant backdrop towards achieving organizational informatics goals and priorities.
Essential Skills: Managing Projects and Polarities

PROJECT MANAGEMENT
WWW.PMI.ORG

Polarity Management

www.polaritypartnerships.com
www.cpmrc.com/polaritythinking
Project Management

• EHR and clinical transformation projects are large
• Roots are in scientific management process
• Project Management Lifecycle
  • Initiation
  • Planning Strategy
  • Implementation Planning Execution and Control
  • Closeout
• The Project Management Institute (PMI)
  • Provides certification
  • Guide to Project Management Body of Knowledge
Polarity Management

• EHR clinical transformation projects are often unsustainable
• Polarities help manage the value of two poles that appear opposite but are actually *interdependent*
• Rooted in Polarity Management™ (Johnson, B. (1996)

Common Polarities in Healthcare (examples)

  – Participative Decision Making and Directive Decision Making
  – Integrated Competency and Individual Competency
  – Individualized Care and Standardized Care
  – Team and Individual
  – Whole Person Care and Medical Care
  – *Technology and Practice*

• Polarity Maps help visualize and tap the interdependent poles and tension between them
**Action Steps**

*How will we gain or maintain the positive results from focusing on this left pole? What? Who? By When? Measures?*

A. Ensure users understand the design, purpose and functionality of technology tool.

B. Provide time for users to learn the technology tool properly.

**Early Warnings***

*Measurable indicators (things you can count) that will let you know that you are getting into the downside of this left pole.*

A. Timelines for activation are all about technology, not about practice transformation.

B. Modifying or deconstructing evidence-based content integration.

---

**Polarity Management® Map**

**Sustainable Transformation**

- Innovation
  - Standardizes and integrates information
  - Increase efficiency
  - Data retrieval

- EBP and professional practice/workflow
  - Clinical integration across disciplines
  - Caring culture

**Technology**

- Lack of evidence-based information
- Design interferes with integration
- Lack of “humanization”

**Practice**

- Lack of awareness of tech. benefits
- Lack of information impacts quality
- Decrease timely access and retrieval of patient information

---

**Unsustainable Transformation**

**Deeper Fear from lack of balance**

**Polarity map showing the practice and technology poles and ways to balance the tension between them.**

**Action Steps**

*How will we gain or maintain the positive results from focusing on this right pole? What? Who? By When? Measures?*

A. Create and support time for interdisciplinary team to do transformation work needed to integrate evidence-based professional practice.

B. Provide processes and tools to embed into technology: EBP, scopes of practice, & integrated workflow.

**Early Warnings**

*Measurable indicators (things you can count) that will let you know that you are getting into the downside of this right pole.*

A. Users demand that technology not change what is familiar (e.g. documentation practices).

B. Comments about the fear that technology will dehumanize care and dictate practice.
Polarity Thinking About Interoperability

**Practice-Based**
- Professional Practice
- Interdisciplinary
- Evidence-Based Practice
- Scope of Practice
- Clinical Practice Guidelines
- Clinical Documentation
- Critical Thinking/Clinical Reasoning

**Standards-Based**
- Taxonomies
  - Unidisciplinary
  - Taxonomic Structure
- Coded Data Sets
- Minimal Data Sets
- Nursing Diagnosis/Language
- e-Quality Measures

**And/Both**

Source: Elsevier CPM Resource Center
Teaching Methods and Strategies

Lecture
• Informatics competencies and their relevancy to today’s IOM competencies and rapid advancements in health information technology
• Provide examples of informatics competencies available (QSEN, TIGER, ANA)
• Introduce Interprofessional Education (IPE) competencies and relevancy to informatics
• Nursing informatics roles and emergence of informatics executive positions

Discussion
• Describe different types of informatics competencies
• Describe the correlation between informatics and interprofessional competencies
• What are different nursing informatics roles today? The future?
• How can large scale transformational change benefit from project and polarity management skills?
• Describe experiences with living the upsides/downsides of the Technology-Practice polarity?
• What is the correlation between Practice-Based and Standards-Based interoperability?

Activities
• Read and reflect on IOM Report “The Future of Nursing” as it relates to technology (paper/discuss)
• Read and reflect on the HIMSS Position Paper on Transforming Nursing Practice through Technology & Informatics (paper/discuss)
Identify key nursing informatics organizations shaping nursing informatics in healthcare
Nursing Informatics

Empowered Care Through Leadership & Technology

Our online community for Nursing Informatics professionals provides job listings, networking, salary guides, and education.

Join forces with colleagues to establish strategic direction and official positions on key issues! Our NI Toolbox gives you all the resources to promote and support initiatives in the growing field of nursing informatics.

Top Picks
- About Informatics and Nursing
- NI Position Statement
- NI Discussion Forum
- Current Industry News

Leadership
- Public Policy and Legislation
- Nursing Executives
- Clinical Informatics

Career
- Nursing Informatics Jobs
- Nurse Informatics Salary Info
- Certification for Nurses
- NI Competencies

HIMSS Surveys
- NI Workforce Survey
- Impact of Nursing Informatics Survey
- Clinical Transformation Survey
Latest Newsletter Now Available!
2nd Quarter, 2012 – Vol. 27, No. 2
Read it Now
Alliance for Nursing Informatics

Our Vision: Transform health and health care through nursing informatics

Our Mission: To advance nursing informatics practice, education, policy and research through a unified voice of nursing informatics organizations.

We represent thousands of nurses and bring together nursing informatics groups that function separately at local, regional, national and international levels.

ANI Pledge to Support Consumer eHealth

What’s New
August 22, 2012
TEN Steps to Support the ANI eHealth Pledge

August 21, 2012
ANI Responds to AHRQ RFP on
HIE-Enabled Qualitative Measurement

August 7, 2012
Explore Alli Opportunities for
Engagement, Notice of Public Meetings &
Available Funding

Support the ANI eHealth Pledge! Explore our new Consumer Engagement tab and take the ANI Pledge to Support Consumer eHealth on Facebook

Meet the ANI Emerging Leaders - read the ANI press release

Encourage your organization to
join ANI
Member Organizations

Please note the following links will send you to other member organization Web sites:

- American Medical Informatics Association (AMIA)
- American Nursing Informatics Association (ANIA)
- Association of periOperative Registered Nurses (AORN)
- Association of Women’s Health, Obstetric and Neonatal Nurses (AWHONN)
- Center for Nursing Classification and Clinical Effectiveness (CNC)
- Central Savannah River Area Clinical Informatics Network (CSRA - CIN)
- Cerner Nursing Advisory Board
- Connecticut Healthcare Informatics Network (CHIN)
- CPM Resource Center International Consortium
- Croatian Nursing Informatics Association (CroNIA)
- Delaware Valley Nursing Computer Network (DVNCN)
- Health Informatics of New Jersey (HINJ)
- Healthcare Information and Management Systems Society (HIMSS)
- Informatics Nurses From Ohio (INFO)
- MEDITECH Nurse Informatics program
- Midwest Nursing Research Society - NI Research Section (MNRS)
- Minnesota Nursing Informatics Group (MINING)
- NANDA International
- National Association of School Nurses (NASN)
- New England Nursing Informatics Consortium (NENIC)
- North Carolina State Nurses Association Council on NI (NCNA CONI)
- Omaha System
- Puget Sound Nursing Informatics (PSNI)
- SNOMED CT Nursing Working Group
- South Carolina Informatics Nursing Network (SCINN)
- Surgical Information Systems - Clinical Advisory Task Force (SIS)
- Taiwan Nursing Informatics Association (TINIA)
- Utah Nursing Informatics Network (UNIN)

Related Organization

- American Nurses Association
TIGER: Advancing the integration of health informatics
to transform practice, education and consumer engagement

VISION STATEMENT

To enable nurses and interprofessional colleagues to use informatics and emerging technologies to make healthcare safer, more effective, efficient, patient-centered, timely and equitable by interweaving evidence and technology seamlessly into practice, education and research fostering a learning healthcare system.

Approved by TIGER Board of Directors February 2012
3 Phases of a Grass Roots Initiative

I. Define and publish the 10-year vision and 3-year action plan to raise awareness of the need for informatics competencies for all nurses

II. Facilitate collaboration to accelerate progress on action plan and leverage best practices

III. Drive dissemination through professional organizations and embrace an interdisciplinary approach
Improving Informatics Skills for Clinicians, New Foundation Incorporates

July 1, 2001 Technology Informatics Guiding Education Reform - TIGER - focuses on preparing the clinical workforce to use technology and informatics to improve the delivery of patient care.

Focused on better preparing the clinical workforce to use technology and informatics to improve the delivery of patient care, Technology Informatics Guiding Education Reform - or TIGER - becomes the TIGER Initiative Foundation, effective July 1, 2011. With incorporation, this new Foundation becomes a legal entity, a 501(c)(3) organization operating for charitable, educational and scientific purposes, and with new resources, including the necessary infrastructure and staff, plus marketing, web development, TIGER began as a grassroots initiative in 2006, with support from over 70 contributing organizations and a grant from the Robert Wood Johnson Foundation, to engage and prepare the clinical workforce to use technology and informatics to improve the delivery of patient care. Now, five years later, these many volunteer hours and efforts have helped advance the TIGER cause. Leaders from the TIGER Phase III Executive Committee, HIMSS and collaborative partners will help with the process to establish and maintain the TIGER Initiative Foundation.
Foundation Structure

TIGERs (1000s of individuals & 100+ organizations)
Board of Directors
3 standing committees
• Foundation Development
• Education (Virtual Learning Environment & TIGER Institute)
• Interdisciplinary & Community Engagement
Vision Statement (2012)

To enable nurses and interprofessional colleagues to use informatics and emerging technologies to make healthcare safer, more effective, efficient, patient-centered, timely and equitable by interweaving evidence and technology seamlessly into practice, education and research fostering a learning healthcare system.
TIGER Mission

Mission Statement (2012)

Advancing the integration of health informatics to transform practice, education and consumer engagement™
The Tiger Summit – The Beginning

TIGER Summit – October 31, 2006
100 participants representing all stakeholders
Created a collective vision for nursing practice and education within 10 years if nurses were fully enabled with IT resources
Developed a 3-year action plan required to achieve this vision
Summary Report
70 organizations committed to the action plan
TIGER Summit Report

Based on a common “vision” of ideal EHR-enabled nursing practice

Focused on identifying the “gaps” in nursing preparedness to practice in an EHR-enabled environment

Agreed to take actions within the next 3 years that can close these gaps
1. Informatics Competencies
2. Education and Faculty Development
3. Staff/Professional Development
4. Leadership Development
5. Standards & Interoperability
6. National HIT Agenda
7. Usability & Clinical Application Design
8. Virtual Demonstration Center
9. Consumer Empowerment/PHRs

http://www.thetigerinitiative.org/resources.aspx
“As federal initiatives push the adoption of EHRs throughout all healthcare institutions by 2014, it is imperative that key stakeholders within the academic community are fluent in the use of informatics tools.”
Investing in Future Education

American Association
of Colleges of Nursing

NLN
Task Force

State Initiatives
State Boards Of Nursing
National Org For Assoc. Degree Nursing
HRSA Faculty Dev Grants
AACN DNP Task Force
Accrediting Bodies
Other Specialty Education Organizations

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES

Robert Wood Johnson Foundation

The Voice for Nursing Education
National League for Nursing

NLN

QSEN
Nursing Informatics
Deep Dive
TIGER Virtual Learning Environment (VLE)

TIGER VLE Business Plan approved by TIGER Board of Directors 8/23/12
Pilot and Beta-Testing in Progress
Conceptual Design of TIGER Virtual Learning Environment

Evaluation data:
- What modules taken
- Demographics
- Type of profession
- Outcomes
  - Regional
  - National

Learning modules

Virtual communities

- Consumers
- Rural & Minorities
- Faculty/Students
- Nurses & Interdisciplinary Colleagues
- EHR Vendors
- Universities
- Community College Consortia
- Regional Extension Centers

Universities

Regional Extension Centers

Community College Consortia

EHR Vendors

Consumers

Rural & Minorities

Faculty/Students

Nurses & Interdisciplinary Colleagues
Learning Center
Resources
Sponsor Directory
Networking Lounge
Virtual Communities
Visit the TIGER Initiative Booth
Collaborator Directory
and
Sponsor Directory

Join the TIGER Virtual Learning Environment as a sponsor, collaborator and volunteer.
Why does TIGER need Partnerships?

Without access to health IT tools such as EHRs, PHRs, CPOE, and other health IT related technologies to enhance learning, there are distinct challenges for:

- Educators in universities and community colleges cannot prepare the workforce of the future unless they learn new health IT technologies
- Staff development educators in hospitals and other care delivery settings cannot prepare the current interdisciplinary workforce
- Minority populations do not have equal Internet access for learning
- Small rural hospitals cannot afford training materials and educators to teach staff new health IT technologies
- Individual providers in small practices and/or rural settings do not have access enough to know which systems to purchase to meet goals of meaningful use or how to use the systems when purchased

2012 VLE Collaborators

IHM & UPMC - TIGER Server - University of Pittsburgh Center for Connected Medicine
USUHS Learning Resource Center - TIGER Open Door - Uniformed Services University

Initial and historically interested collaborators
TIGERs Across Borders

International TIGERs
Heimar Marin – Brazil/Latin America
Ursula Huebner – Germany
Peter Murray – IMIA
Margaret Kennedy - Canada
Polun Chung - Taiwan
Teaching Methods and Strategies

Lecture
• Key organizations shaping nursing informatics

Discussion
• How do nursing informatics organizations advance the specialty and nursing practice?

Activities
• Compare and contrast the major nursing informatics organizations – discuss/report
• Divide the organizations among students/participants and have them report back
• JOIN an organization!
• Download the TIGER Collaborative Reports and design learning activity all/select ones
• Explore the TIGER VLE – select activities to participate in using VLE content/functionality
• Paper on international aspects of nursing informatics
Identify key nursing reports, journals and books shaping nursing informatics impact in healthcare
Other IOM Reports  [www.nap.edu]

- Digital Infrastructure for the Learning Health System: The Foundation for Continuous Improvement in Health and Health Care (May 2011)
- Learning What Works: Infrastructure Required for Comparative Effectiveness Research (June 2011)
- Health IT and Patient Safety: Building Safer Systems for Better Care (November 2011)
“Although unprecedented levels of information are available, patients and clinicians often lack access to guidance that is relevant, timely, and useful for the circumstances at hand. Overcoming this challenge will require applying computing capabilities and analytic approaches to develop real-time insights from routine patient care, disseminating knowledge using new technological tools and addressing the regulatory challenges that can inhibit progress.”
Concluded that technology can and should:

• Improve access to patient data
• Streamline monitoring of public health patterns and trends
• Expand ability to conduct clinical trials
• Create new high-tech markets and jobs
Key Nursing Informatics Books
Do you think patient care improves or suffers as patient-care and reporting technology increases? Explain.

Do you see a generational divide between nurses who embrace technology vs. nurses who don’t? Explore the topic and way to bridge real or perceived generational gaps related to technology.

Where is technology missing in nursing? Think futuristic: Where could technology really improve your practice or patient care? Go way outside the box!
Key Informatics Journals impacting Nursing
Key Informatics On-Line Journals impacting Nursing

Applied Clinical Informatics www.aci-journal.org

Online Journal of Nursing Informatics
http://ojni.org
Nursing Informatics and Social Media

Tweets

Michelle Troseth @CPMRcmichelle
BREAKING: IOM calls for better use of technology in healthcare
modernhealthcare.com/article/201209...
Expand

TIGER Initiative @AboutTIGER
TIGER: Advancing the integration of health informatics to transform practice, education and consumer engagement.

ONC @CNC_HealthIT
ONC’s mission is to improve health and healthcare for all Americans through use of information technology.

LinkedIn

- AMIA Nursing Informatics Working Group
- ANIA-American Nursing Informatics Professionals in Healthcare IT World
- ANIA-CARING
- American Nurses Association
- American Organization of Nurse Executives (ACNE)
- Clinical Informatics Leadership
- Clinical Informatics Leadership

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Teaching Methods and Strategies

Lecture
• IOM-The Future of Nursing Report and its impact on nursing and technology
• Review current nursing informatics books and journals
• Intro to Social Media as a learning tool for informatics and trends

Discussion
• What implications does the IOM Future of Nursing Report have on nursing practice? Why is technology important for nurses to expand their roles?
• What is the role of health information technology and patient safety?
• How does social media keep nurses current on trends related to informatics and health information technology?

Activities
• Utilize Power of Ten book for group conversation (or other related book)
• Select a social media tool and find resources related to informatics/health information technology
• Select a journal article and provide report on pertinent topic
Describe key legislation aspects impacting nursing informatics
ARRA Funding for Health Information Technology

19 Billion Dollars for Health Information Technology

$2 B to the Office of the National Coordinator for Health IT (ONC) to carry out provisions of the HITECH Act (which include state grants for health IT planning and implementation; a state EHR adoption loan program; and the establishment of regional extension centers)

$17 B in incentive payments for ‘meaningful use’ of qualified EHRs
  • Eligible providers and hospitals
  • Demonstrating Health Information Exchange (HIE) and care coordination for improving quality
  • Reporting on clinical quality measures

HITECH = Health Information Technology for Economic and Clinical Health
Health information technology (health IT) makes it possible for health care providers to better manage patient care through secure use and sharing of health information. Health IT includes the use of electronic health records (EHRs) instead of paper medical records to maintain people's health information.
HHS ONC Website – Key Resource

http://healthit.hhs.gov/portal/server.pt/community/healthit_hhs_gov_home/1204

New certification rules will help ensure that electronic health records meet providers’ needs and that systems are secure.
A Conceptual Approach to Meaningful Use

- Data capture and sharing
- Advanced clinical processes
- Improved outcomes
The Official Web Site for the Medicare and Medicaid Electronic Health Records (EHR) Incentive Programs

The Medicare and Medicaid EHR Incentive Programs provide incentive payments to eligible professionals, eligible hospitals and critical access hospitals (CAHs) as they adopt, implement, upgrade or demonstrate meaningful use of certified EHR technology. Eligible professionals can receive up to $44,000 through the Medicare EHR Incentive Program and up to $63,750 through the Medicaid EHR Incentive Program.
Accountable Care Organizations

ACO

Clinical Integration

Medical Health Homes

Bundled Payments

Population Decision Making

Continuum of Care
CMS Final Rule for ACOs

33 Quality Indicators

Performance Standards

- Prevention
- Pneumococcal Vaccination
- Adult Wt. Screening/Follow-up
- Tobacco Uses Assessment/Cessation Intervention
- Depression Screening
- Colorectal Cancer Screening
- Mammography Screening
- Falls Risk
- Influenza
- Disease Management
- Diabetes
- Hypertension (HTN)
- Ischemic Vascular Disease
- Heart Failure
- Coronary Artery Disease (CAD)
Legislation Implications for Nursing

• Need for engagement at all levels/areas of practice
• Look at Meaningful Use as an opportunity to transform care not just check boxes!
• Provide advocacy to shape Policy – engage nurses in opportunities for comment for proposed rules
• Collaborate with other organizations providing comments toward shaping future rule and policy
• Review all Final Rules– engage in organizational review and determine necessary steps for attestation
• Educate all nurses and clinicians on changes in federal legislation and overall goals
• Stay current on National HIT Initiatives
Teaching Methods and Strategies

Lecture
• Overview of ARRA HITECH Act
• Overview of Accountable Care Organizations (ACOs)
• Review of “current state” of the Meaningful Use journey – and where it is heading

Discussion
• What are legislative implications of HITECH for nursing?
• Describe the stages of Meaningful Use (1-2-3)
• What are ways nursing informatics is engaged with meeting Meaningful Use criteria?
• What are ways to stay current on National IT Initiatives?

Activities
• Select a section on HHS ONC website to review and report content
• Paper on Meaningful Use and EHR Incentive Programs
• Paper on an article written on implications for nurses on HITECH Act
• Poster on Meaningful Use Stage 1’s impact on nursing
• Poster on Meaningful Use Stage 2’s impact on nursing
Thank-You

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www.clinicaldecisionsupport.com
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