



## American Academy of Nursing on Policy

# A call to action: Engage in big data science

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Numerous landmark reports in recent years have described the core problems and challenges of health care access, quality, safety, efficiency, and effectiveness today (Committee on Patient Safety, 2012; Smith, Saunders, Stuckhardt, & McGinnis, 2013). The significance of these problems as measured by the annual cost of medical errors is estimated at \$17.1 billion dollars (Van Den Bos, 2011); 63.1% of these errors were judged preventable (Landrigan et al., 2010). The Affordable Care Act, the anticipated influx of approximately 32 million newly insured Americans in 2014, and the need to show quality and meaningful use require action on these important challenges. To address these issues, new strategies and models have been outlined in a multitude of reports (Grossman, Powers, & McGinnis, 2011). A common theme is to capitalize on technology and informatics to meet the triple aim of improving the patient experience of care, improving the health of populations, and reducing the per capita cost of health care. The American Academy of Nursing has supported these efforts in the past through its Technology Drill Down program, which identified work environment factors that could be improved with the deployment of technology. This research, funded by the Robert Wood Johnson Foundation, found that nurses strongly support the harmonization of standards needed in products enabling the movement of electronic health

information from one entity to another (Burnes Bolton, Gassert, & Cipriano, 2008). Despite these efforts, a lack of standardization and integration within key technologies such as electronic health records (EHRs) and administrative systems persists and prevents information exchange; quality measurement; research; and the expansion of data-based, knowledge driven solutions for the delivery of health care. No more evident is this than in nursing where after decades of implementing EHRs nurses still cannot consistently use electronically collected data to conduct research or report quality and patient safety outcomes.

In response to these ongoing issues, national leaders in nursing, health care, and informatics participated in an invitational conference on August 12 and 13, 2013, at the University of Minnesota School of Nursing to develop an action plan for shaping health policy and informatics initiatives using a national nursing knowledge model. The overall goal of the conference was to bring together a diverse coalition of stakeholders to create an action plan for integrating nursing information into health and health care knowledge systems, optimizing nursing language and health care information, influencing policy, and modifying and standardizing the informatics educational framework. The action plan will organize and present knowledge for clinicians and consumers so together they can make the best decisions about their health and

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health care. Members of the American Academy of Nursing's Expert Panel on Nursing Informatics and Technology attended the conference and participated in developing the following key components of the action plan:

- Develop a strategy/campaign for educating front line nurses, students, and faculty on informatics competencies and the value of standardized nursing data.
- Advocate for the adoption of Systematized Nomenclature of Medicine – Clinical Terminology and Logical Observation Identifiers Names and Codes as national standards for clinical data, and link them with nursing terminologies through mappings.
- Convene a consensus conference with leaders of the major nursing organizations and interprofessional stakeholders to educate them, hear their views, and ultimately speak in one voice.
- Refresh and activate the American Nurses Association's Nursing Information & Data Set Evaluation Center criteria to advance systems that represent and value nursing data.
- Continue bold participation in standards and EHR standards development to ensure a nursing voice.

On August 14, 2013, the Academy Expert Panel on Nursing Informatics and Technology and the Expert Panel on Quality Health Care convened an open forum national teleconference to discuss the action plan developed at the conference. The American Academy of Nursing supports a “call to action” to executive

officers (chief executive officers, chief nursing officers, chief information officers, chief nursing information officers, and others) of health systems, deans of nursing schools, health information system vendors, and leadership in professional nursing associations to actively participate in moving forward with the recommendations developed at the conference.

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