

Appendix B

The 2013 National Action Plan for Big Data & Nursing

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Driven to DiscoverSM

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(This plan was developed at the first Nursing Knowledge: Big Data Research for Transforming Health Care conference on August of 2013 and published shortly thereafter. See page 6 for an update on the progress made on this plan.)

To begin creating a national nursing knowledge model, 2013 conference participants agreed on the need to take action in three key areas: adopting standards, shaping policy and educating nurses. They outlined many priority actions in each of the areas and assigned responsibility for addressing them:

Adopting common terminologies and standards

- Design, build and implement health information systems to comply with regulations and standards. Currently, many computer codes and languages are in use, having evolved in various systems, geographic areas and health fields. While federal agencies designate and maintain certain codes for exchanging health information – RXNorm for medications, LOINC for laboratory data, ICD or SNOMED CT for problems, these codes have not been universally acknowledged or used in nursing.
- Conference participants support building on the existing federal codes for the exchange of health information. Specifically, they recommended nursing’s adoption of the SNOMED CT and LOINC codes as national standards for the exchange of nursing information among disparate information systems. Nurses documenting health information at the point of patient care would continue to use any of the American Nursing Association-recognized terminologies.
- Create a central resource for mapping nursing data – particularly assessments, interventions and outcomes – to terminologies. The National Library of Medicine (NLM) already integrates and distributes key terminologies, including nursing terminologies. The NLM also provides subsets of terms, including a SNOMED-CT nursing problem list and terms federally required for reporting clinical quality measures. It is likely that nursing would adopt standardized terminologies faster if the NLM became a central resource for public access of mappings among nursing terminologies and examples of mapping local terms to standardized terminologies.
- Require that coding in information systems accommodate the Nursing Minimum Data Set and the Nursing Management Minimum Data Set data elements. Minimum data sets identify the essential core data that represent a domain of interest such as nursing. These two American Nurses Association-recognized minimum data sets describe the essential clinical and management or contextual data that describe nursing’s contribution to – and influence on – health outcomes.

- Incorporate criteria such as those outlined by the Nursing Information and Data Set Evaluation Center (NIDSEC) of the American Nurses Association into criteria for meaningful use certification of electronic health records. NIDSEC criteria specify that standardized nursing terminologies should be used on electronic health records to document data associated with the nursing process – from assessments to care planning and actual care provided. The data should be stored in coded format and be retrievable for evaluating population health.
- Work with information technology vendors to include standardized nursing terminologies in their software, eliminating the need for each health system to map local codes to standards.
- Extend criteria from the National Database of Nursing Quality Indicators (NDNQI) to include data across health care settings. Incorporate standardized nursing terminologies and standard nursing minimum data sets in the criteria.
- Share the nursing knowledge model across Clinical and Translational Science Awards (CTSAs) and invite them to join the initiative to include nursing data in CTSA clinical data repositories

Shaping policy

- Participate in ongoing development of standards to ensure that patient-centric values and needs expressed through nursing's voice is heard as technologies are developed and implemented. Technology designed for nursing practice won't work unless practicing nurses help guide its development.
- Develop strategies to educate nursing organizations and interprofessional care stakeholders about the value of nursing information, listen to their views and equip and encourage them to speak with one voice as advocates for nursing information in electronic records.
- Empower nurse informaticians to advocate for the use of standardized nursing terminologies.

Educating nurses, nursing faculty, nurse executives, nurse informaticians and interprofessional care disciplines

- Support strategies to empower nursing faculty to teach nursing informatics across all levels of education.
- Develop a campaign for educating nursing care providers, executives, students and faculty on the value of capturing standardized nursing data – and on gaining information management skills and competency.