# NURSING KNOWLEDGE BIG DATA SCIENCE (NKBDS) INITIATIVE STRATEGIC PLAN FOR 2021-2026

## VISION

Improve health and healthcare by using nursing knowledge empowered by informatics.

## MISSION

Our mission is to:

- Generate and enable nursing insights and evidence to support individuals, families, communities, and populations in the promotion of health and the delivery of health care; and

- Leverage informatics and data to redefine and magnify the value of nursing in all settings.

## HISTORY

- By 2013, big data activities were exploding in all fields, including health care. However, nursing found itself on the outside looking in.
- The University of Minnesota School of Nursing invited nurse leaders to engage in addressing obstacles to achieving sharable and comparable nursing data.
- Over 40 nurse leaders and informaticians attended the inaugural invitational meeting.
- Participants included health system leaders, electronic medical record vendors, educators, researchers, and informaticians.
- Priorities were identified and structured into workgroups with defined goals to be completed by the next annual meeting.
- All participants agreed that nursing data must be codified in universally-accepted, standardized terminologies in order to be included in big data research.
- The leaders decided to align with the professional nursing informatics communities of AMIA and HIMSS and to adopt SNOMED CT and LOINC as standardized terminologies.

## NKBDS FRAMEWORK TO IMPROVE HEALTH AND HEALTHCARE



The NKBDS Framework to Improve Health and Healthcare depicts that all nursing and data aspects are encompassed within the NKBDS initiative. The NKBDS initiative vision "Improved Health and Healthcare" is noted in the center of the framework. The core concepts, informatics, data, and nursing, operationalized by NKBDS workgroups, strategically lead efforts on policy, analytics, leadership, innovation, standards, education, and practice. All these concepts and interconnections generate and enable nursing insights and evidence to support care recipients, including individuals, families, communities, and populations, in all settings.

## CURRENT STATE

Starting in 2014, the conference has been open to those who are committed to learn, partner and transform to advance the NKBDS vision.

### THE INITIATIVE:

- Steering Committee: members represent several institutions and organizations across the US and oversee the Initiative's efforts, including the conference and the eRepository.

### THE CONFERENCE:

- Annual think-tank to gather participants, discuss hot topics in nursing, health, informatics, and convene workgroups to assess achievements and prepare action plans.

- Growth in number of participants and in the breadth and depth of the discussions, topics, and workgroup activities reflects vision, energy, and commitment of the participants and organizations.

- Structure of the annual conference includes pre-conference educational tracks, plenary sessions, workgroup meetings, to set goals, share accomplishments, networking, and relationship building.

### WORKGROUPS:

- Composed of volunteers focused on specific topics aligned with the NKBDS vision and mission.

- Meet virtually throughout the year at a time and frequency convenient for its members in order to achieve their action plans.

- Welcome all interested individuals to join in and participate!

### eREPOSITORY (www.nursingbigdata.org):

- Publically available, providing resources and products generated from the Initiative's efforts.

- Expands capacity through LinkedIn social media

# KEY OVERALL NKBDS PRIORITIES FOR THE NEXT 5 YEARS

- Refine outcome measures congruent with the updated NKBDS vision and framework
- Establish a clear plan around a research agenda or consortium model
- Expand NKBDS partnerships with key stakeholders, e.g., ANOL, ANIA

| | UNIQUE NURSE IDENTIFIER | FUTURE OF NURSING REPORT | AACN ESSENTIALS |
|---|---|---|---|
| **YEAR ONE Goal** | Increase awareness<br><br>Increase engagement to teaching and seminars; present at conferences; speaking to different institutions and informatics groups; podcasts; social media | Make recommendations for informatics nurses that align with the Future of Nursing report<br><br>Build academic practice partnerships (such as with AONL) to disseminate the advantages of using data for decision making | Focus on Domain 8 and the essentials<br><br>Ensure all workgroups align with the Education Workgroup<br><br>Educate nurses to use all of the data available to them and align it with Domain 8 |
| **Outcome measure 1 year** | Document number of attendees, breadth of attendees | Roadmap plan for sharing information | Expand collaboration among NKBDS workgroups and Education workgroup to expand alignment with Domain 8 |
| **FIVE YEARS Goal** | Roadmap plan for implementation —<br><br>Based on people knowing about it, valuing it, and wanting to support it<br><br>Technical pieces needed to make implementation possible<br><br>Time frame dependent on the roadmap plan | To reinforce that EHR/clinical systems infrastructure adds value through creating nursing knowledge models and mapping them to national standards<br><br>Prioritize impact on equity<br><br>Expand value to the current state of the EHR. What would be the infrastructure needed to achieve value? | Roadmap to educate beyond academia<br><br>Educate nurses on the use of data to the full potential, including data literacy aspects<br><br>Collaborate with certification/AACN/educators<br><br>Align this strategy within the NKBDS framework, including the clinical aspect of NKBDS work |
| **Outcome measure 5 years** | Did we get the roadmap plan done?<br><br>Do we have vendors working to implement new informatics elements into their systems?<br><br>Do we see hospital systems adopting the unique nurse identifier? | Milestone identification and achievement<br><br>Knowledge generation and standardization facilitate interoperable systems | Roadmap plan for education beyond academia milestone |