January 7, 2016

Dear National Quality Forum,

The Alliance for Nursing Informatics (ANI) advances nursing informatics leadership, practice, education, policy and research through a unified voice of nursing informatics organizations. ANI has collaborated with American Nurses Association (ANA) to review the National Quality Forum (NQF) HIT and Patient Safety Project draft report: Identification and Prioritization of Health IT Patient Safety Measures. In that spirit we offer our comments for each section, as nursing stakeholders.

ANI is pleased that the project committee includes a diverse representation of multi-stakeholder experts to inform the draft report. We encourage the committee to actively expand their stakeholder representation and engage with patients as stakeholders to define and validate measures that are important to patients.

ANI supports the proposed framework and associated recommendations from the Committee that the report "should be viewed as a living document that will itself continue to evolve as evidence, practices, and technologies mature".

Comments on Environmental Scan

Overall, the environmental scan effectively describes the knowledge in the literature. We have provided specific comments identifying additional salient publications for inclusion. There is a lack of literature on the lack of knowledge transfer occurring across organizations related to EHR system configuration decisions; presentations at the AMIA Annual Conference 2015 emphasized this issue. Organizations procuring and implementing a new HIT system should be supported in full access to lessons learned related to patient safety risks from other organizations that have implemented the same EHR system. The notion of a nationwide HIT-related patient safety surveillance system should be aligned with these types of knowledge transfers.

The three phases of HIT safety outlined are sound. However, we disagree that new or recent adopters should only focus on Phase 1 concerns. Phase 2 - Using HIT Safely - is critical for new or recent adopters of HIT, and health care organizations full support for front line nurses and other clinicians in the safe use of HIT should not be delayed during implementation and adoption phases.

We support the use of the proposed Three-Level HIT Quality and Safety Improvement Model (Table 1) and suggest additional enhancements.

> For Level 1: An essential component of data integrity is the provenance of data within a system, and when imported/exchanged from external systems, including patient generated health data, patient reported outcomes and remote patient monitoring. We propose that Data Integrity includes accessibility to metadata describing the provenance of the data and should be identified as an additional Prioritized Measurement Area.

For Level 2: Add new category, System Interoperability, aligning definition to the HHS/ONC Nationwide Interoperability Roadmap and to Key Areas for Measurement, Section 2

For Level 3. In addition to improving end-user satisfaction, EHR systems should not increase cognitive burden to the users and the distributed care team. In fact, aligned with Level 3, EHRs designed using usability principles and methods should result in decreased cognitive burden and harm composite.

Best practices related to Governance for HIT are emerging. Please see the ANI endorsed project and 2015 JAMIA publication by Collins et al, Nursing domain of CI governance: recommendations for health IT adoption and optimization.

Patient portals should be required to comply with the same principles of each prior level, particularly data completeness. Patient portals that silo data across settings of care increase risk for safety errors within and across encounters.

Comments on Prioritized Measurement Areas

We concur that Clinical Decision Support (CDS) is a high priority area. Yet, the examples used are narrow in scope, ignoring critical nursing and patient decision making. The notion that risk-based CDS applications are "still somewhat aspirational goals" overlooks substantial work related to risk/guideline based CDS such as Dykes et al's Fall-TIPS work and Bowles et al's readmission reduction.

System Interoperability is a major safety concern. The lack of codified data (particularly nursing) results in data silos and redundancy. Learned workarounds to accommodate systems lacking true, bi-directional interoperability are a hindrance to safely using HIT and result in incomplete/inaccurate data driving patient care and CDS. We encourage expanding the scope to receiving data from external systems and data validation. We propose a metric for prevention of inaccurate data transmission to ensure information sent and received is consistently correct.

We applaud the thoughtful discussion on user-centered design and agree accountability should be shared between vendors and organizations. We support focusing on high risk scenarios given the feasibility of simulation/training programs. We strongly recommend user-centered design include patients. We recommend the vendor or organization be measured by the extent of patient involvement in the HIT lifecycle and point to the Medstar Health EHR User-Centered Design Evaluation Framework.

We strongly agree 'lessons learned' be shared across the user community. We agree contract terms should not be broader than reasonably necessary and should align with the idea that sharing patient safety knowledge is necessary for quality improvement. Transparency of such data is needed to further nursing research across the phases of the HIT lifecycle.

Timely and high-quality documentation should measure critical points of interprofessional care planning (e.g., rounds). "Good" clinical documentation should be defined and include a proxy measure (e.g., frequency of note views). Metric implementation must prevent increased documentation requirements that are not based on sound safety evidence. Measures should focus on technical solutions such as full integration of devices to allow nurses to function at their highest level of practice, not performing data entry. We encourage stronger emphasis on medication reconciliation given error rates and lack of maturity of the market place.

We concur that patients' ability to engage in their health and care through technology, is an emerging area for HIT safety and highly prioritized. Patient portals and integration across settings (inpatient, outpatient, retail) is a critical use case. Yet, critical use cases extend beyond the portal, including mHealth, teleHealth, remote monitoring, and clinical trials. Each activity may use separate tools with unique safety and interoperability issues. We encourage review of work by Batalden et.al, 2015 framing a model of healthcare service co-production and HIT safety implications, and the LIBRETTO Consortium exploring best practices for acute care patient portals. We encourage harmonization with measures for Meaningful Use Stage 2 and 3 and the addition of Patient Portals, mHealth, Telemedicine tools as data sources for measurement. The following metrics should also include Patient Portals: a) percent of patients who suggest corrections to EHR information and b) ability to access and annotate the EHR, c) frequency of access and annotation.

Overarching issues and general comments

In regards to the *Overarching Issues* that were identified in the report, ANI offers the following comments pertaining to 1, 2, 4 and 8:

1. HIT quality and safety should be a shared responsibility of clinicians, healthcare organizations, vendors, and in some instances, patients.

According to a recommendation cited in *Mastering Informatics A Healthcare Handbook for Success*, "The culture that we should adopt is one that thinks nationally but acts locally. Our federal government and professional organizations cannot improve health IT safety without the expertise of informatics specialists. It will take each organization working in partnership with the government, health IT vendors, and PSOs to drive improvements in patient safety using health IT" (Sengstack, P., 2015, page 314).

2. Many if not most HIT Safety issues require attention and solutions across the full HIT lifecycle.
ANA Nursing Informatics: Scope and Standards of Practice (2nd Edition) states, "Informatics nurses have multiple opportunities to assist in assuring the safety and security of health-related IT products that support clinicians, as well as patients, families, and other caregivers. The implementation of electronic health records without regard to workflow, analysis and redesign, human-computer interaction, prevention of errors in medication administration, and prevention of possible missed diagnosis have increased the concern for patient safety" (ANA, 2015, page 34).

4. The increased data burden for clinicians and other staff needs to be considered as one of the most important, broad unintended consequences of HIT.

Nurses are the largest users of EHRs and ANI supports the [Big Data in Nursing: Top 10 Recommendations](#) developed by the [HIMSS CNO-CNIO Vendor Roundtable](#), "Healthcare organizations should utilize nurse informaticists who will provide valuable insights into concept representation, design, implementation and optimization of health IT to support evidence-based practice, research and education." The *[Report of the AMIA EHR 2020 Task Force on the Status and Future Direction of EHRs](#)*, also recommends we "simplify and speed documentation" (Payne, T.H., et al., JAMIA, 2015, Page 2).

8. Many HIT safety issues are being addressed in other programs or initiatives and should be considered as measure developers work to develop new metrics in this area.

ANI supports the position statement from American Nursing Informatics Association (ANIA), Addressing the Safety of Electronic Health Records (October, 2015), advocating evidence-based practices to support safe use of EHRs, development of an EHR safety program, and enhancing incident reporting systems with standardized terms, ease of reporting, and follow up for EHRs related events.

ANI appreciates the opportunity to contribute to the conversation on the Identification and Prioritization of Health IT Patient Safety Measures. Please feel free to contact us at any time for further discussion of the comments offered herein.

Sincerely,

Judy Murphy, RN, FACMI, FHIMSS, FAAN
ANI Co-chair
Email: murphyja@us.ibm.com

Charlotte Weaver, PhD, RN, MSPH, FHIMSS
ANI Co-chair
E-mail: caweaver2011@gmail.com