NATIONAL ACADEMY OF MEDICINE

DIGITAL LEARNING COLLABORATIVE (DLC) MEETING

February 18, 2016 Meeting Highlights

Meeting goal: Explore strategies to take advantage of the **data dividend** for evidence generation—a resource derived from the growing reservoir of digitally-embedded data from clinical care, mobile health, patient reports, care payment and related activities.

Objectives

1. *Discuss* ***priority issues*** that must be addressed to enable the use of the data dividend for analysis, continuous improvement, and decision-making.
2. Explore how ***health executives****, charged with decision-making* at the systems-level, can impact the use of the data dividend in health care transformation.
3. Identify how the ***byproducts of big data*** *can be used to improve policy, accelerate research, and increase the value* of health care.

Representative observations

- The REDUCE MRSA study found decolonization reduced all blood stream infections by 44% and MRSA by 37%. (JP)
- PCORnet currently includes the involvement 130 health delivery systems, over 60 data marts, and data on 70 million persons. (JS)
- A study to reduce hospital acquired infections resulted in HAIs reduced by 46%, 50,000 fewer deaths, and $12 B dollars savings. (HB)
- In a study of FL hospitals, adverse drug event rates decreased 52% where physicians saw meaning in the measures. (AG)
- The VHA Corporate Data Warehouse contains 1.5 petabytes, 900+B rows of data, and 1.2 M orders entered daily. (SF)
- Individuals have a right to their health information in 30 days or less, in their requested form/format (if "readily producible"). (DM)
- RxNorm, which standardizes and links names for clinical drugs across drug vocabularies, has ~900 downloads monthly, >1B API queries in 2015, and 30,000 unique users monthly. It was developed, and is used, by stakeholders in both the public and private sectors. (BH)
- Within a health system, stakeholders seek data at various points of the analytics scale (descriptive, diagnostic, predictive, and prescriptive). (SP)
- Eighty-seven percent of hospitals routinely send a summary of care record through secure messaging. (CW)
- While many hospitals are able to use their EHR for some activities that promote interoperability, few are able to do all necessary functions. (CW)

Collaborative activities for consideration

The development of NAM discussion papers **and/or** exploratory meetings on the following topics:

- *Business case*. What are the rewards of devoting more attention and resources to the capacity for real-time learning from clinical and claims data? What are the risks of not doing so? How do they vary from the perspectives of different stakeholders (health care executives, clinicians, patients)?
- *CIO handbook*. What does every health care CIO need to know about the issues, opportunities, challenges, and strategies—and how might this vary from large integrated systems to smaller systems?
- *EHR data*. What additional insights should be recorded, such as the patient care process and social determinants, to better leverage electronic health records data for multiple uses? Who needs to be at the table to inform this discussion?
- *Patient reported data*. What are the major emerging categories and sources of patient generated data? What issues and strategies need to be engaged to improve the likelihood of the strength of their utility?
- *Interoperability standards*. What are the major categories of standards needed to achieve functional interoperability necessary for a continuously learning health system? What are the highest performing existing standards for each category? What decisions are needed, by whom, to ensure full implementation of those standards?
- *Observational data*. What approach might foster the use of *in silico* studies to better understand the circumstances when use of available observational data might have obviated the need for an RCTs?
- *Real-time data scanning*. What might be the possibilities and strategies for a public-private partnership of scientific organizations (e.g. NIH, DARPA, NSF), health care organizations (e.g. VA, DOD, HCA, KP), and technology companies (e.g. Epic, IBM, Google) to work cooperatively to develop approaches to real-time mining of large scale clinical data sets for clinical insights?
- *Training*. What are the training needs for current and future clinicians and researchers within system settings?
- *Learning health system*. What can be done to better identify, link, and enhance the work of health care organizations interested in self-identifying as learning health systems?

Meeting participants

Jonathan Perlin, co-chair (HCA, Inc.); Reed Tuckson, co-chair (Tuckson Health Connections); Aylin Altan (OptumLabs); Holt Anderson (Learning Health Community); Arlene Bierman (AHRQ/DHHS); Paul Bleicher (OptumLabs); Helen Burstin (NQF); Jennifer Christian (Quintiles); James Cimino (University of Alabama); Carolyn Clancy (VA); Sarah Davis (University of Colorado); Christine Dymek (ASPE/DHHS); Stephan Fihn (VA); Sherine Gabriel (Robert Wood Johnson Medical School); Andrew Gettinger (ONC/DHHS); Betsy Humphreys (NIH/DHHS); Martin Kohn (Sentrian); Rebecca Kush (Clinical Data Interchange Standards Consortium); Deven McGraw (OCR/DHHS); Donald Mon (RTI International); Scott Moss (Epic); Chad Mulvany (Healthcare Financial Management Association); Sally Okun (PatientsLikeMe); Alexander Ommaya (AAMC); Steve Peters (Mayo Clinic); Richard Singerman (Johns Hopkins); Joe Selby (PCORI); Jonathan Weiner (Johns Hopkins); Barbara Wells (NIH/DHHS); Jonathan Woodson (DoD); Chantal Worzala (AHA)

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DIGITAL LEARNING COLLABORATIVE

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American Hospital Association
Association of American Medical Colleges
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Children's Hospital of Philadelphia
Cincinnati Children's Hospital Medical Center
Cleveland Clinic
Clinical Data Interchange Standards Consortium
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Geisinger Health System
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U.S. Department of Health & Human Services
– Agency for Healthcare Research and Quality
– Centers for Disease Control and Prevention
– Centers for Medicare & Medicaid Services
– Food and Drug Administration
– Health Resources and Services Administration
– National Institutes of Health
– National Library of Medicine
– Office of the National Coordinator for HIT
U.S. Department of Defense (Health Affairs)
U.S. Department of Veterans Affairs

Distribution to colleagues is encouraged. Additional information at: www.nam.edu/leadershipconsortium.