Digital Learning Collaborative
Advancing the digital infrastructure for the learning health system

**Issue.** With more components—testing, diagnosis, records, and patient-clinician communication—shifting to digital platforms, there exists enormous potential for increasing the efficiency, convenience, and effectiveness of health care. Digitalizing health care processes and information provides the foundation necessary to drive a continuously improving health system in which knowledge from past events is used to guide decisions. A health information technology infrastructure that supports a continuously improving, learning health care system requires consideration of the capabilities, technical and policy approaches, and operating principles needed to allow data from multiple areas of clinical health care, population health, clinical, biomedical, and translational research to be leveraged while protecting patients’ privacy.

In 2010, the IOM, with support from the Office of the National Coordinator for Health Information Technology, held a series of workshops to explore the current efforts and opportunities to accelerate progress in improving health and health care with information technology. The resulting report—*Digital Infrastructure for the Learning Health System: The Foundation for Continuous Improvement in Health and Health Care*—highlighted several areas for follow up activities in developing the digital infrastructure such as data stewardship, quality monitoring, research capabilities, and coordinating requirements around leadership, policies, and sustainability.

**Collaborative.** Formerly the Electronic Health Records Innovation Collaborative (EHRIC), the Digital Learning Collaborative (DLC) is an *ad hoc* convening activity under the auspices of the IOM Roundtable on Value & Science-Driven Health Care. It was created to provide a venue for joint activities that can accelerate progress towards the digital infrastructure necessary for continuous improvement and innovation in health and health care. This includes fostering a new culture of collaborative action among participants in the learning process—e.g. patients, clinicians, researchers, and product developers.
Participants. Participants include experts from public and private organizations with prominent activities and leadership responsibilities related to development and application of digital technology important to continuous improvement in health and health care. The aim is for an inclusive Collaborative—without walls—and participation in individual projects is structured according to interest, need, and practicality.

Activities. Projects completed, under way, or under consideration by the DLC include:

• Workshop series and report on the Digital Infrastructure for the Learning Health System. Cooperative work involving DLC participants with the Office of the National Coordinator and related government agencies to explore strategic considerations in accelerating learning from healthcare delivery.

• PEDSNet. A consortium of 15 leading pediatric care institutions, working together to create an organization providing networked clinical data from electronic health records for use in accelerating clinical research in pediatrics.

• Aligning health reform data needs and priorities. Engaging leaders from key federal health reform initiatives on strategies and opportunities to leverage health IT for program and monitoring alignment, across initiatives and in the support of population health.

• Data quality and learning from the digital health utility. Workshop to explore the data quality issues and strategies central to the increasing capture and use of digital clinical and patient-reported data for knowledge development.

Representative Participants

Organizations
- American Board of Pediatrics
- Children's Hospital Boston
- Children's Hospital of Philadelphia
- Children's Hospital of Wisconsin
- Cincinnati Children's Hospital Medical Center
- Cleveland Clinic
- Duke University Health System
- Geisinger Health System
- Google, Inc.
- Harvard Medical School
- Harvard Pilgrim Health Care
- Hospital Corporation of America, Inc.
- IBM Research
- Intermountain Healthcare
- Johns Hopkins Children's Center
- Kaiser Permanente
- Mayo Clinic
- Microsoft, Inc.
- Nationwide Children's Hospital
- Nemours Children's Healthcare System
- New York Presbyterian/Columbia
- NorthShore University Health System
- Partners HealthCare System
- Primary Children's Medical Center
- Radiological Society of North America
- Seattle Children's Hospital
- Stanford University
- Texas Children's Hospital
- The Children's Hospital-Denver
- UC Davis Health System
- UCLA School of Medicine
- University of Alabama
- University of Chicago
- University of Michigan Medical School
- University of Vermont
- Vanderbilt University Medical Center

Federal Agencies
- 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