Learning Health System Summit: Background Briefing Slides

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For the Joseph H. Kanter Family Foundation
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Joe Kanter’s Story

“Understand what works best in every disease...”
One Metaphor and One Lesson from History
Main Themes

1. What is a Learning Health System (LHS)? What it can do to promote individual and population health
2. The concept of an "ultra large scale" system that can serve the entire nation
3. Where things stand now and what the Summit can achieve
A Learning Health System (LHS)

“… one in which progress in science, informatics, and care culture align to generate new knowledge as an ongoing, natural by-product of the care experience, and seamlessly refine and deliver best practices for continuous improvement in health and health care.”

(Institute of Medicine)
A Learning Health System for the Nation

Governance
Patient Engagement
Trust
Analysis
Dissemination

State Public Health
Pharmaceutical Firm
Community Practice
Federal Agencies
Health Information Organization
Health Center Network
Integrated Delivery System
Beacon Community

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A Learning System Will Make These Things Possible

“17 years to 17 months, or maybe 17 weeks or even 17 hours…”

• Nationwide post-market surveillance of a new drug quickly reveals that personalized dosage algorithms require modification. A modified decision support rule is created and is implemented in EHR systems.

• During an epidemic, new cases reported directly from EHRs. As the disease spreads into new areas, clinicians are alerted.

• A patient faces a difficult medical decision. She bases that decision on the experiences of other patients like her.
The National LHS: *One Infrastructure* that Supports

- **Research**
  - Clinical
  - Comparative effectiveness
  - Translational

- **Public Health**
  - Surveillance
  - Situational Awareness
  - Interventions

- **Quality Improvement**
  - Health process and outcomes research
  - Best practice dissemination
A National LHS Must Be Able To:

- Transform data into actionable knowledge
  - Aggregate
  - Analyze
  - Package

- Disseminate knowledge back to decision makers

- Govern and sustain itself, and maintain public trust
The National LHS as Currently Envisioned

- A federation of some type
  - *Not* a centralized database
- Grounded in public trust and patient engagement
- Participatory governance
- An “Ultra Large Scale” national system
  - “Just enough” standardization
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The IOM “Digital Infrastructure” Report

*Digital Infrastructure for the Learning Health System: The Foundation for Continuous Improvement in Health and Health Care*

“Health and health care are going digital. ...Progress in computational science, information technology, and biomedical and health research methods have made it possible to foresee the emergence of a learning health system which enables both the seamless and efficient delivery of best care practices and the real-time generation and application of new knowledge.”

Available at: [www.iom.edu/vsrt](http://www.iom.edu/vsrt)
Ultra-Large-Scale Systems

- Including people and technology
- Decentralization
- Innovation around minimal (but essential) standards
- Diverse requirements
- Continuous evolution and deployment
- Diverse and changing elements
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LHS: A Pillar of the 2011 Federal Health IT Strategic Plan

Goal I: Achieve Adoption and Information Exchange through Meaningful Use of Health IT

Goal II: Improve Care, Improve Population Health, and Reduce Health Care Costs through the Use of Health IT

Goal III: Inspire Confidence and Trust in Health IT

Goal IV: Empower Individuals with Health IT to Improve their Health and the Health Care System

Goal V: Achieve Rapid Learning and Technological Advancement

Better Technology → Better Information → Transform Health Care

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Meaningful Use (MU) is Necessary but Not Sufficient for an LHS

• MU is a status achieved *individually* by eligible professionals and hospitals

• LHS is a *system* that includes these professionals and hospitals, and other entities

• To function as a system, the LHS requires elements not contemplated by MU:
  – Goals at a higher aggregation level
  – Inclusion of broader stakeholders
  – Organization: membership, governance
Current State: An Archipelago
Toward a Federation*

“Carrying the nation the rest of the way to achieving a broadly participatory and functioning learning system will require coordination of effort, within and outside the federal government, of individual organizations that will inevitably be investing their own resources to advance their own capabilities as learning organizations. To the extent that these efforts align with progress toward a national system, they will advance a national agenda as much as each organization’s unique mission.”

From the Archipelago to a Federation: The Kanter LHS Summit

Engaging a critical mass of key stakeholders, to be, for the LHS, what Dumbarton Oaks was for the United Nations

- Planning Committee drafts *LHS Principles*
- Review and revision of *Principles* prior to Summit
- Consensus on (many) *Principles* at the Summit
- Endorsement of *Principles* after the Summit
Stakeholder Groups at the Summit (~ 70 participants as of 4/2/12)

- Advocacy and Consumer Organizations
- Provider and Provider/Research Organizations
- Government Agencies
- Payers
- Pharmaceutical Industry
- EHR Vendors
- Philanthropic Organizations
- Professional Associations
- Research Initiatives and Organizations
- Thought Leaders
So What’s Next?

• Draft of the *Principles* to arrive soon
• Send us your comments
• Review the feedback received (We may contact you)
• Come to the Summit (May 17-18)
• Engage in creating the LHS
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