The Learning Health System
Path to Continuously Learning Health Care
Moving from the linear...
... and lost learning opportunities

SCIENCE

EVIDENCE

CARE

Insights poorly managed

Evidence poorly used

Experience poorly captured

Missed opportunities, waste, and harm
To a virtuous cycle of continuous learning
The learning health system

In the learning health system, science, informatics, incentives, and culture are aligned for continuous improvement and innovation—with best practices seamlessly embedded in the delivery process and new knowledge captured as an integral by-product of the delivery experience.
Context
What’s changed since *Quality Chasm*?

- Complexity and excess costs
- New tools and levers (CQI, HITECH, ACA)
- Continuous learning capacity

(IOM catalytic focus)
Priorities for progress
Priority needs in moving to continuous learning health care

• **Learning strategies and data science**
  - real-time, real-world oriented
  - structured learning and spontaneous learning
  - patient participatory
  - large data and small data accommodating

• **Learning infrastructure**
  - research ready
  - multi-use
  - patient accessible

**Learning incentives**
  - transparency
  - accountability frameworks
  - reward systems

• **Learning culture**
  - democratization of decision inputs
  - learning stewardship capacity
  - leadership-instilled culture of continuous learning
The Learning Health System

Vision
Care Complexity
Data Utility
Effectiveness Research
Evidence
Digital Platform
Systems Engineering
Patients & the Public
Cost & Outcomes
Value
Data Quality
Leadership
Core Metrics
Observational Studies
Large Simple Trials

INSTITUTE OF MEDICINE
OF THE NATIONAL ACADEMIES
Advising the nation / Improving health
• Today’s aim

• Today’s assumptions

• Today’s ask
Imagine....
Moving from the linear...
Moving from the linear...
... and lost learning opportunities
... and lost learning opportunities
Toward the vision of continuous learning...