ASCO's Approach to Health IT & Rapid Learning Systems: CancerLinQ
“We seek the development of a learning health system in which 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.”
We’ve lived in a world where research was in one side of the house and clinical care was on the other. We now have an opportunity to link the two. Classical research involving classic clinical trials will continue, but we can also aggregate data from our routine clinical care and gain valuable insights from massive numbers of patients.
To create a national system capable of collecting the EMR data from every single medical oncology encounter in the country
The HIT Revolution in Cancer Care

- Widespread adoption of EHRs by physicians and hospitals
- Improved data processing and storage capacities
- Rapid analysis tools
- Advances in natural language processing

2012: EHR/EMR Use in U.S. Oncology Practices

- 60.8% of practices already have advanced EHRs/EMRs
- 16.2% Has basic EHR/EMR
- 14.9% Looking to implement EHR/EMR in next 6 months
- 8% No EHR/EMR

What is ASCO’s Rapid Learning Healthcare System?
Laying the foundation by:

- Engaging the community
- Working with experts
- Business planning
- Data standards
- Data governance
- Legal analysis
- Technology analysis

Leading to:

Building a prototype from which to learn, while demonstrating proof of principle.
The Prototype

Goals of the Prototype

- Quality Measurement Tool & Reports
- Clinical Decision Support
- Data Analytics & Reporting Tools
- EHR
- Batch File Processing
- Automated Processing

Provide Services

Intake Data

Trend Analysis

Correlation Analysis

Point of Care

Analyze Data

Transform Data

Aggregate Data

Hypothesis Generation

Peer Review & Feedback
The Prototype

Goals of the Prototype

- Demonstrate value-added tools, such as the ability to measure a clinician’s performance on a subset of QOPI measures in real-time.
- Demonstrate ASCO’s capability to develop rapid, real-time, clinical decision support based on clinical guidelines and integrate them into a demonstration EHR system.
- Provide “lessons learned” about the technological and logistical challenges involved in a full-scale CancerLinQ implementation.
- Demonstrate the ability to capture and aggregate complete longitudinal patient records from any source, in any format, and make use of the data.
- Create new ways of exploring clinical data and hypotheses generation.
Working with ASCO Board of Directors and other volunteer leadership, we have defined a plan to further develop the project.

The Board has approved an investment of $21.5M in 2014 to stand up the project on a national scale.

Our requirements gathering is near complete and we will begin to craft the RFP for our vendor team early in 2014.

We continue to garner additional support and further engage the clinical community.

We anticipate data collection to begin by mid-2015.