

The Office of the National Coordinator for  
Health Information Technology



# ONC's Interoperability Strategy

## Grand Rounds: Rethinking Clinical Research

*A Shared Forum of the NIH HCS Collaboratory and PCORnet*

January 17, 2014

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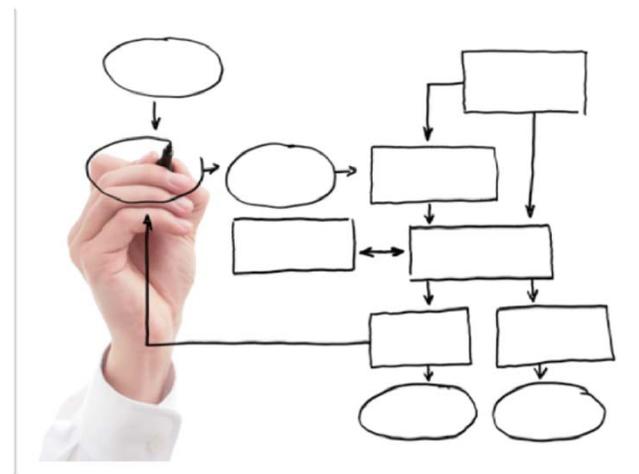
Chief Science Officer & Director, Office of Science & Technology

Putting the **I** in **Health IT**  
[www.HealthIT.gov](http://www.HealthIT.gov)

- ONC's Interoperability Strategy
- Goal: A Learning Healthcare System
- Overview of Structured Data Capture (SDC)
- PCORI Overview
- Open Dialogue/Discussion

# ONC's Interoperability Strategy

- Support the success of MU1 and MU2
- Continue to expand the value of the portfolio of standards to support ACOs, payment reform, DoD/VA systems acquisitions, and other admin priorities
- Modernize standards portfolio to include newer, simpler & more powerful standards



- Leverage *government as a platform* for innovation to create conditions of interoperability
- Health information exchange is *not one-size-fits-all*; create a portfolio of solutions that support all uses and users
- Build in *incremental steps* – “don’t let the perfect be the enemy of the good”

# What is the S&I Framework?

- The Standards and Interoperability (S&I) Framework represents one investment and approach adopted by the Office of Science & Technology (OST) to fulfill its charge of prescribing health IT standards and specifications to support national health outcomes and healthcare priorities
- The S&I Framework is an example of “government as a platform” – enabled by integrated functions, processes, and tools – for the open community\* of implementers and experts to work together to standardize



*\* As of October 2013, 2500+ people had registered on the S&I Framework wiki, and 740+ people representing 500+ organizations had committed to the S&I Framework*

## Vocabulary & Code Sets

How should well-defined values be coded so that they are universally understood?

## Content Structure

How should the message be formatted so that it is computable?

## Transport

How does the message move from A to B?

## Security

How do we ensure that messages are secure and private?

## Services

How do health information exchange participants find each other?

## The Learning Healthcare System



**H-I-T**

Health Information Technology

# The Learning Healthcare System

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- Making health information electronic is the first step
- USING data to improve outcomes is the logical next step
- Data can be used to improve population, public and patient health
- Standardization and access to data is critical to unlocking potential

*The utility of EHR data for supplemental purposes has been limited due to a lack of uniformity in the terminology and definitions of data elements across EHRs. This limitation is compounded by the fact that clinician workflow often records patient information in unstructured free-text data well after the episodes of care.*

- EHRs are recognized as the data source with the highest potential to provide timely and relevant data in a form that is quickly usable for quality and safety improvement, population health, and research
- Linking EHR data with other data in a uniform and structured way could accelerate the utility of EHR data for supplemental purposes

- One of 10 active Initiatives under the ONC S&I Framework
- Launched on January 23, 2013 in partnership with NIH NLM and AHRQ
- Key area of focus is enabling the collection of structured data within EHRs to supplement data collected for other purposes specific to:
  - Clinical research (Patient Centered Outcomes Research/ Comparative Effectiveness Research) (NLM FOCUS)
  - Patient safety event reporting (AHRQ FOCUS)

- Strong public & private community participation
  - Over 280+ individuals participated in the Initiative Launch Webinar
  - ~200 Registered Community Members; 50+ regularly participate in weekly meetings
- In addition to the NIH and AHRQ, strong federal partner engagement and participation:
  - FDA (CDER/CDHR)
  - CMS (esMD)
  - CDC
  - SAMSHA

# The Value of SDC within EHRs

Advances MU3 Learning Health System

- Will enable patient information to flow securely from EHRs to other systems: research consortia, registries, bio repositories, and public health systems

Reduces Data Collection Burden

- Will enable secure, single-point data entry that populates to multiple systems

Improves Comparability of Data

- Aggregated patient data is more comparable
- Will better inform research, quality reporting and ultimately, influence patient care

Reduces need for site-specific EHR enhancements

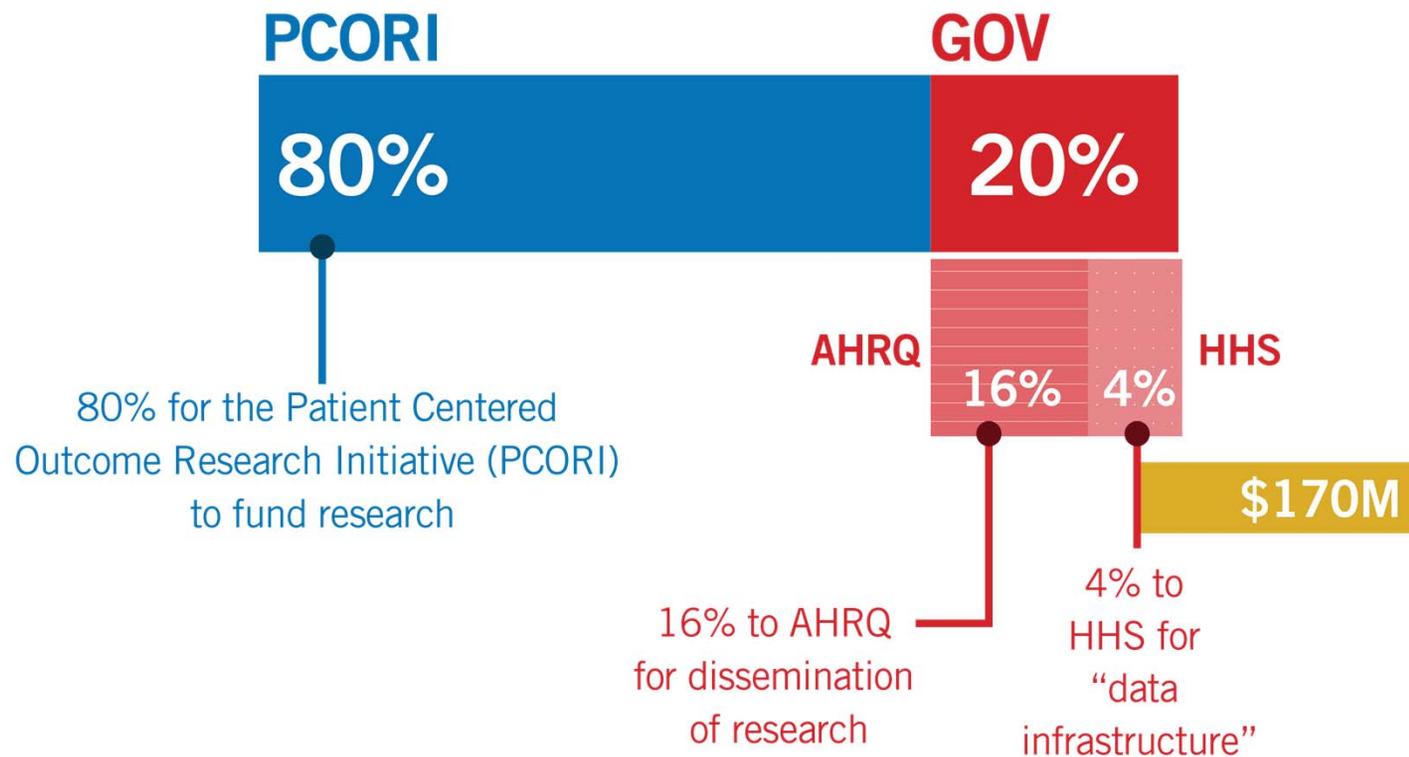
- Will enable EHR systems to participate in important reporting and research activities

Limits barriers to volunteer adverse event reporting

- Will improve workflow of reporting to public health agencies leading to improvements in population health

- National Priorities:
  - Assessment of options for prevention, diagnosis and treatment
  - Improving healthcare systems
  - Communication and dissemination research
  - Addressing disparities
  - Accelerating PCOR and methodological research

## How the Money is Distributed



## In Summary...

- Health information technology has the potential to significantly increase the quality and efficiency of healthcare.
- Meaningful Use is designed to get information into an electronic format, share that information with others, and do useful and interesting things with the data.
- ONC is working to standardize vocabulary, content, structure, services and security through the S&I Framework.
  - Standard ways for EHRs to collect data (beyond just what it knows about)
  - Standard ways for EHRs to provide access to data (across multiple use cases)
- Educating physicians and researchers to leverage this tool for clinical care and research is essential!

# Questions/Discussion

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Learn more at:

**ONC website:**

[www.healthit.gov/](http://www.healthit.gov/)

**S&I Framework Wiki:**

<http://wiki.siframeframework.org/>

**Implementation  
& Testing Platform:**

<http://sitplatform.org>

Putting the I in HealthIT 

 **S&I FRAMEWORK**