Interoperability Wrap Up

A US and UK Perspective

7/24/2015

Marisa L Wilson DNSc MHSc CPHIMS RN-BC
Associate Professor
The University of Alabama at Birmingham
and
Paula M Procter RN, CertEd(FE), MSc, SFHEA, FBCS, CITP, FIMIANI
Reader in Informatics and Telematics in Healthcare
Department of Nursing and Midwifery
Sheffield Hallam University

Mutual Concerns

1. System integration and interoperability for healthcare delivery.
2. Interface in system integration.
3. Types of system interoperability.
4. Benefits of integration and interoperability.

Systems Integration for Healthcare Delivery

- Different information systems should be able to exchange data in a fashion that is seamless to the end user

Interface

- Point to Point
  - Requires custom programming
  - Expensive
- Interface Engine
  - Allows data exchange between sending and receiving systems
  - Requires management
  - Expensive
  - Uses translation tables to move data to and from each system

Interoperability

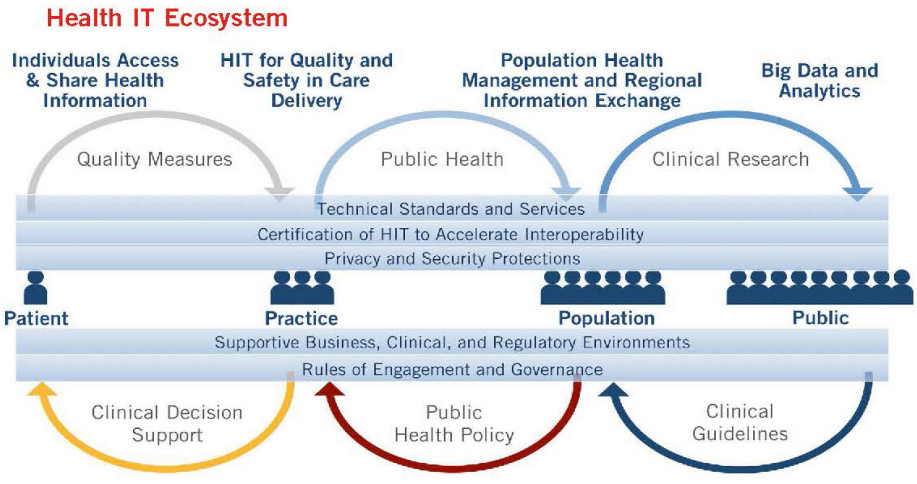
- Ability of two entities to exchange and predictably use data or information while retaining the original meaning of data
- Semantic and technical interoperability)
- Used interchangeably with term "interface" but is not the same
  - The interface engine routes information from system to system without enabling understanding/use

Why the Push to Integration?

- Health and financial data are collected at multiple points within the healthcare delivery system.
- Redundant efforts are expensive, frustrating, waste time, and result in different "versions" with none being complete or error free.
- No one system has the entire patient story.

The United States Perspective

The US HIT System Goal



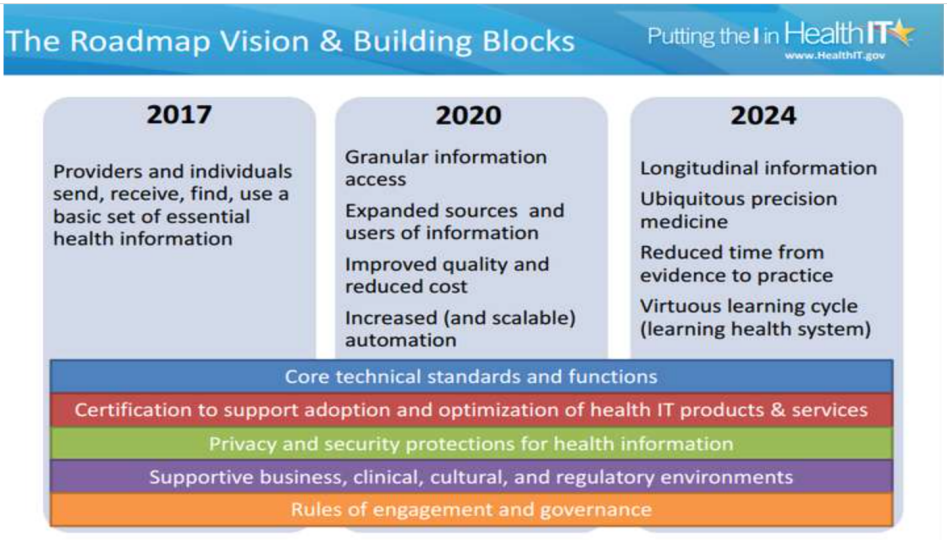
From: "Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap Version 1.0,"The Office of the National Coordinator

The Informatics Call to Action

- The ONC has set a 2017 deadline for systems to be in place that "enable a majority of individuals and providers across the care continuum to send, receive, find and use a common set of electronic clinical information at the nationwide level."

"Connecting Health and Care for the Nation: A Shared Nationwide Interoperability Roadmap Version 1.0" (Roadmap)." The Office of the National Coordinator

The ONC 5 Building Blocks



The Role of the Nurse Informatician

- Identifying and defining data elements that need to be moved between systems
- Ensuring the use of coded concepts.
- Determining measures to ensure the quality of data exchanged among individual systems is what is needed.
- Developing the Use Cases
- Formation and maintenance of the electronic health record that will enable the interoperable data exchange.

The United Kingdom Perspective

NHS England

- National Health Service (NHS), 100% discount at the point of contact
- NHS UK divided into four parts, England, Wales, Scotland and Northern Ireland
- Costs around £113 (US$179) billion a year, 6.2% of GDP
- General Practice Commission for Care
- There are around 69 million patient visits to General Practice per year
- As of May 2015, 95% of patients have online access to their General Practice personal health record
- In 2004, the NHS introduced a single patient identifier

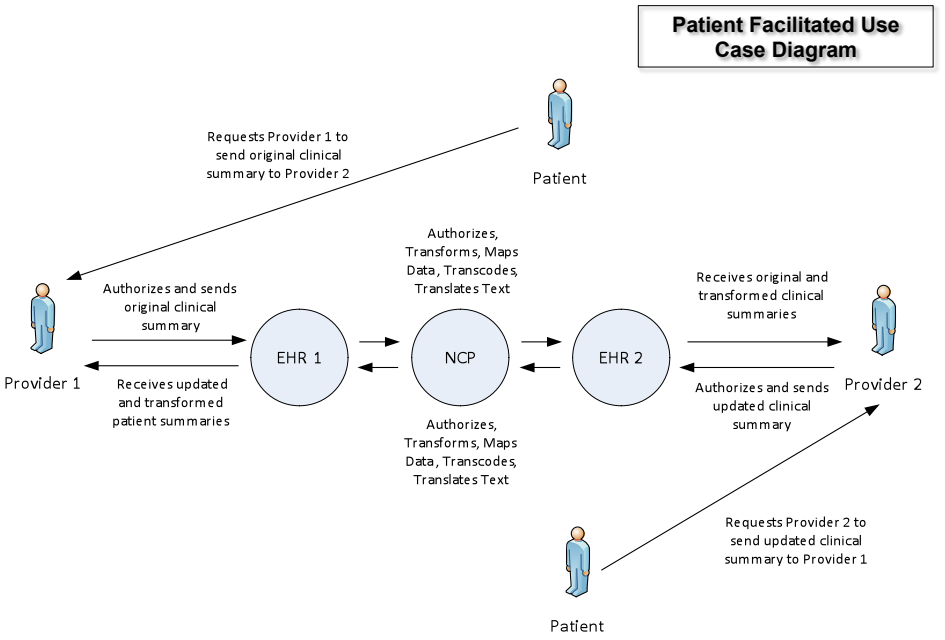
Interoperability

In 2010 the Transatlantic Economic Council decided to make a critical contribution to this development by promoting interoperability of health related information and communication technology (eHealth/health IT) products and services, gaining improved mobility and consistent proficiency recognition for a professional workforce, and by helping to prevent unnecessary regulatory divergences.

EU-US Interoperability of EHR Work Group

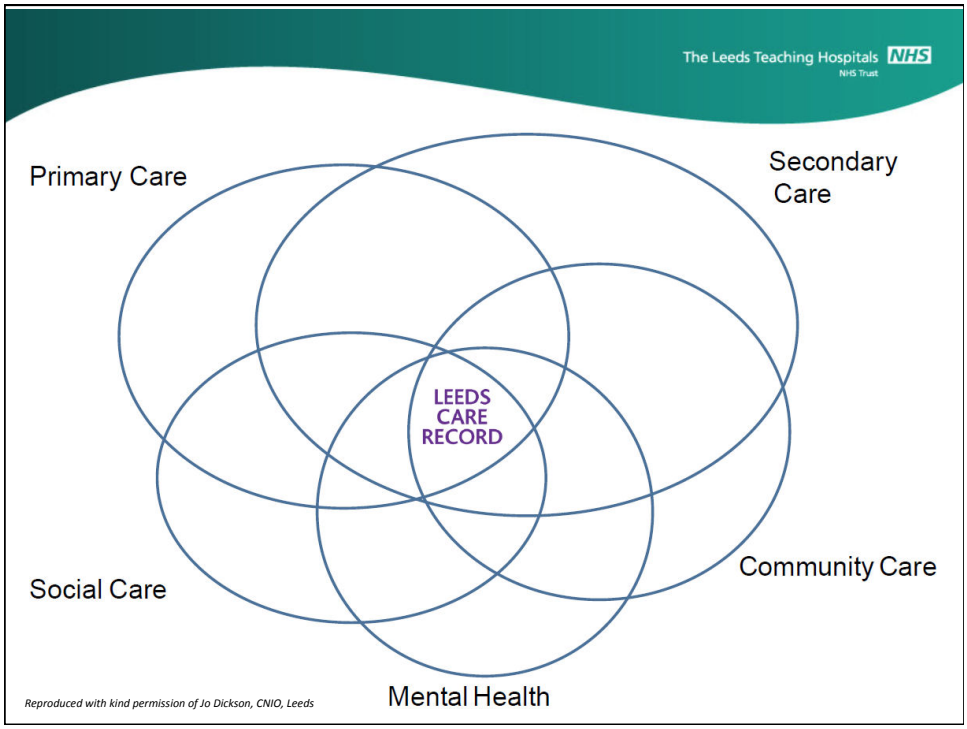
(EU-US eHealth Cooperation Initiative)

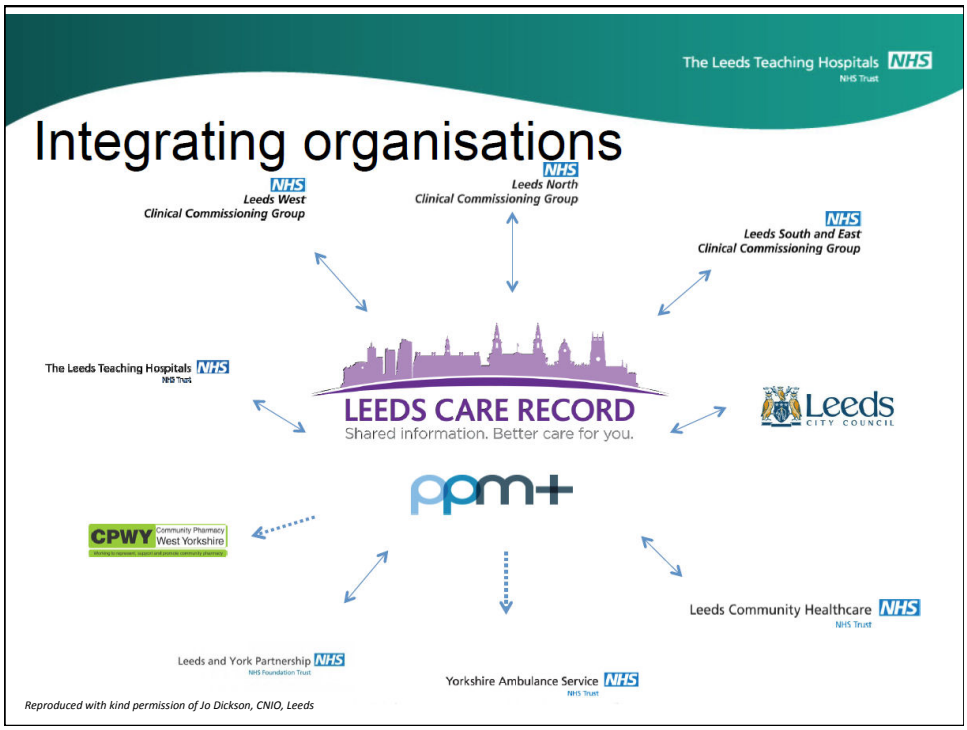
http://wiki.siframework.org/EU-US+eHealth+Cooperation+Initiative



Taken from: EU-US eHealth Cooperation Initiative (2013) page 23

http://www.aomrc.org.uk/publications/reports-a-guidance?view=docman


The Leeds Teaching Hospitals NHS
NHS Trust
Primary Care
Secondary Care
LEEDS CARE RECORD
Social Care
Community Care
Mental Health
Reproduced with kind permission of Jo Dickson, CNIO, Leeds


The Leeds Teaching Hospitals NHS
NHS Trust
Integrating organisations
NHS Leeds West Clinical Commissioning Group
NHS Leeds North Clinical Commissioning Group
NHS Leeds South and East Clinical Commissioning Group
The Leeds Teaching Hospitals NHS
LEEDS CARE RECORD
Shared information. Better care for you.
Leeds City Council
ppm+
CPWY Community Pharmacy West Yorkshire
Leeds Community Healthcare NHS
Leeds and York Partnership NHS
Yorkshire Ambulance Service NHS
Reproduced with kind permission of Jo Dickson, CNIO, Leeds

The Aspirations...

- '**give care professionals and carers access to all the data, information and knowledge they need**' – real-time digital information on a person's health and care by 2020 for all NHS-funded services, and comprehensive data on the outcomes and value of services to support improvement and sustainability;
- '**make the quality of care transparent**' – publish comparative information on all publicly funded health and care services, including the results of treatment and what patients and carers say;
- '**build and sustain public trust**' – ensure citizens are confident about sharing their data to improve care and health outcomes;
- '**bring forward life-saving treatments and support innovation and growth**' – make England a leading digital health economy in the world and develop new resources to support research and maximise the benefits of new medicines and treatments, particularly in light of breakthroughs in genomic science to combat long-term conditions including cancer, mental health services and tackling infectious diseases;

Personalised Health and Care 2020: Using Data and Technology to Transform Outcomes for Patients and Citizens: A Framework for Action. (2014) HM Government and National Information Board (NHS)