

Fundamentals of Health Workflow Process Analysis and Redesign

The Concepts of Health Care Processes and Process Analysis

Lecture a

The Concepts of Health Care Processes and Process Analysis

Learning Objectives

1. Describe the purpose for process analysis and redesign in the clinical setting (Lectures a, b)
2. Describe the role of a Practice workflow and information management redesign specialist and contrast it with other roles such as technical support and implementation management (Lecture a)
3. Explain how health care process analysis and redesign and meaningful use are related (Lecture a)
4. Analyze a health care scenario and identify the components of clinical workflow (Lectures a, b)
5. Given a scenario of a health care analysis and redesign, analyze the responsibilities of each participant in the process and how the roles complement or overlap with one another (Lecture b)
6. Describe how the workflow processes used by a health care facility might differ depending on the type of facility (Lecture b)

Tom DeMarco

Procedure, like dance, resists description.

-- Tom DeMarco 1979

Definitions

Definitions:

- Process
- Process Analysis
- Process Redesign
- Workflow
- Workflow Analysis, and
- Data and Information Flow

Process

Process: a series of actions or operations
“conducting” to an end

Procedure: The steps in a process and how these steps are to be performed

(American Society for Quality (ASQ), 2011; Merriam-Webster, 2011)

Process Analysis

- Understanding process elements and the relationships between them
- Identification of opportunities for improvement

(Merriam-Webster, 2011)

Process Redesign

The revision of a process to improve it in some way.

(Merriam-Webster, 2011)

Workflow

- “The *flow of work*”
- The way in which work progresses through a process.
- In this component, the words workflow and process will be used interchangeably.

(Wikipedia, 2011; Concise Oxford English Dictionary, 2011)

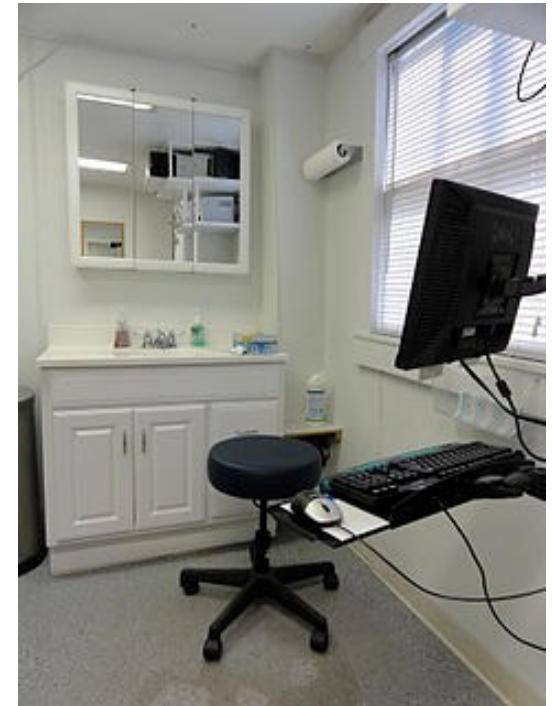
What is Clinical Workflow?

- The way in which activities in the health care setting are carried out, by whom, in what order, etc.
- The processes that make up health care:
 - Admitting a patient
 - Submitting a claim
 - Prescribing a medication

Example: Clinical Processes

Think about your last visit to your provider. If you could break the visit up into clinical processes, what would they be?

Pause the slides while you write them down on a piece of scratch paper.



(Everson, 2011)

Discussion: Clinical Processes

You might have listed:

- Patient registration / intake / payment
- Waiting to be seen
- Information checking / gathering
- Checking vital signs
- Visit with the clinician
 - Ordering tests
 - Diagnosis
 - Writing prescriptions
- Drawing blood
- Referral to another provider
- Billing

Data and Information Flow

The steps or path by which data are moved through a work process or a system or some combination of both, including the order of steps, and operations performed on the data (or information).

Practice Workflow and Information Management Redesign Specialist

Uses knowledge and understanding of

1. An organization's objectives, structure and procedures, and
2. Information technology

to improve an organization's operations

Role of Practice Workflow and Information Management Redesign Specialist

Workers in this role assist in reorganizing the work of a provider and facility staff to take full advantage of the features of health IT in pursuit of meaningful use of health IT to improve health and care.

Process Analysis Part of the Role

- Describe the Dance
- Overcome communications problems in analysis
 - Natural difficulty in describing procedure
 - Inappropriateness of narrative text for describing procedures
 - Lack of common language between the user and analyst

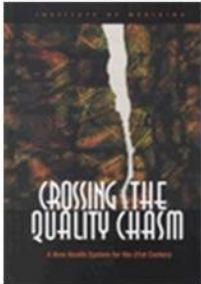
Process Analysis Skills

- Knowledge of data and data system concepts
- Knowledge of clinical workflow concepts
- Able to communicate such concepts
- Able to identify problem areas

Process Redesign

- **Role**
 - Choreographing a new dance between humans, information, and computers
- **Skills**
 - Ability to combine organizational knowledge and technology to create a better way

Why is Health Care Process Analysis and Redesign Important?

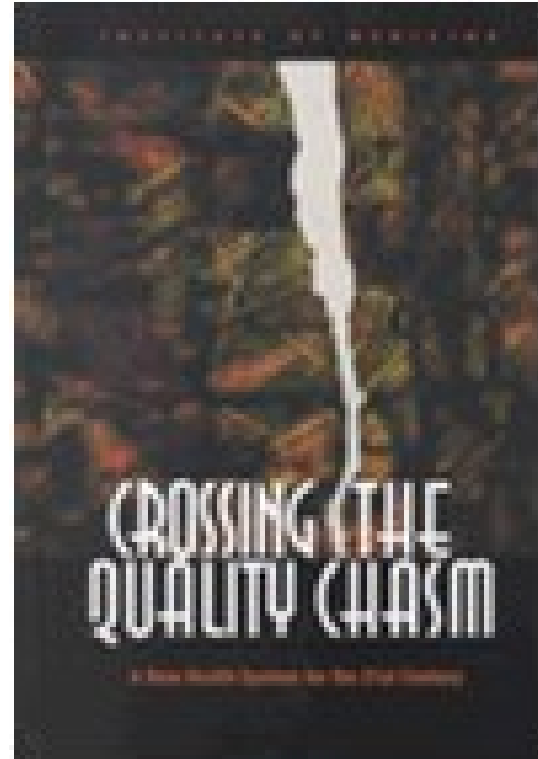


- 98,000 or more people die annually in the US due to medical errors
- Lack of information and care fragmentation called out as leading contributors
- Meaningful use of Health IT will decrease this number

(Institute of Medicine, 2000, 2001; NRC, 2009)

Institute of Medicine (IOM) 6 Quality Areas for Health care

1. Safe
2. Effective
3. Efficient
4. Timely
5. Patient centered
6. Equitable



(Institution on Medicine, 2001)

EHR Meaningful Use

- Term coined by the framers of the 2009 American Recovery & Reinvestment Act (ARRA)
- Addresses five national health policy priorities
 1. Improve quality, safety and efficiency and reduce health disparities
 2. Engage patients and families
 3. Improve health care coordination
 4. Improve population and public health
 5. Ensure adequate privacy and security protections for personal health information (PHI)

Meaningful Use Topics

- Data Capture
- Data Standards
 - ICD, SNOMED, RxNorm, LOINC
- Effective Clinical Workflows
- Computer-Based Order Entry
- E-Prescribing
- Clinical Decision Support
- Patient Health Information Exchange
- Privacy and Security
- eMAR (Medication Administration Records)

Meaningful Use Requirements Examples

- “More than 30 percent of all unique patients with at least one medication in their medication list seen by the [eligible provider] EP have at least one medication order entered using [Computer Physician Order Entry] CPOE.”
- “More than 80 percent of all unique patients seen by the EP have at least one entry or an indication that no problems are known for the patient recorded as structured data.”

(Eligible Professional Meaningful Use Core Measures - Measures 1 and 3, 2010)

Meaningful Use Requirements Tougher Each Year

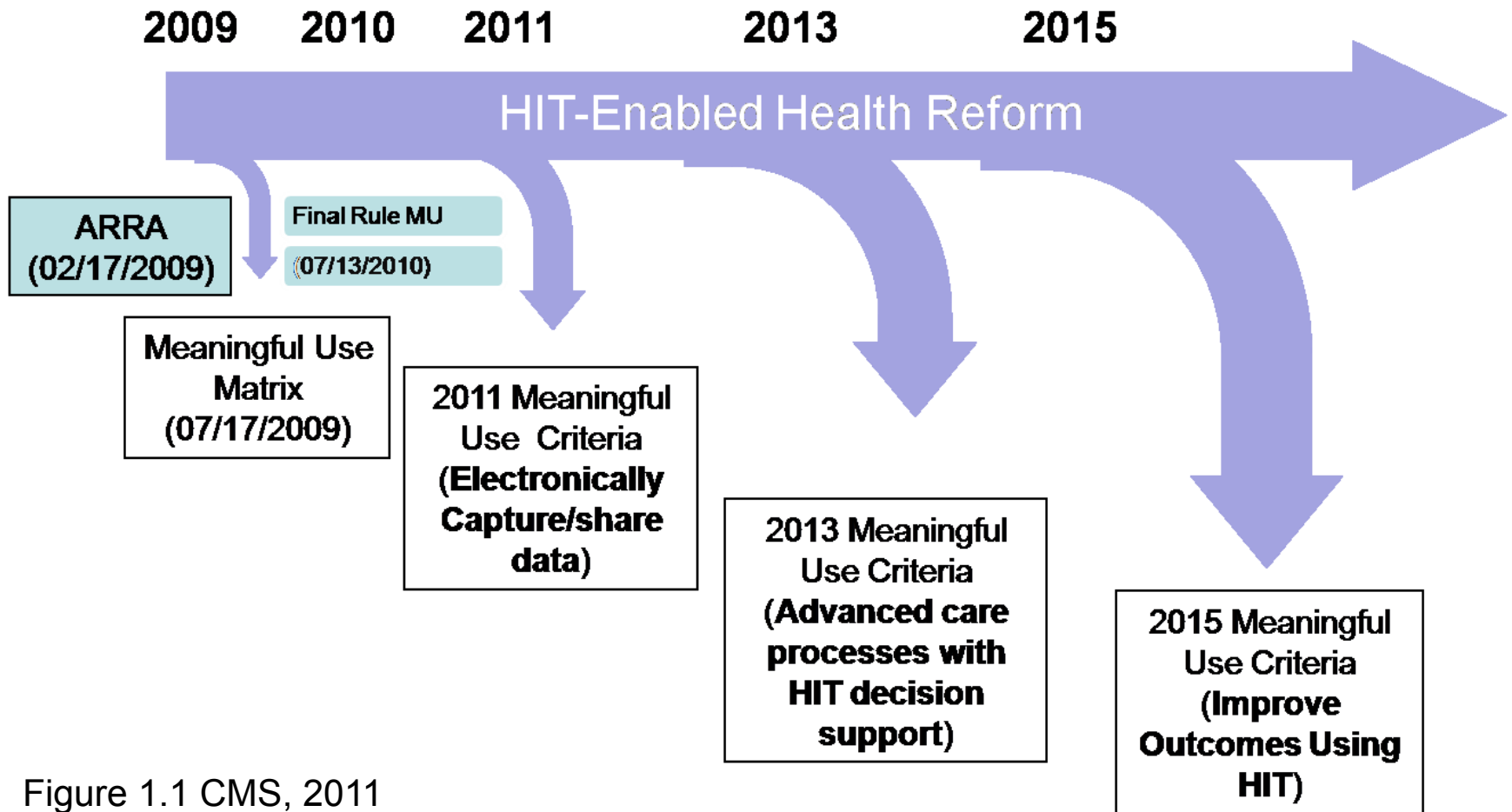


Figure 1.1 CMS, 2011

Meaningful Use

- Qualified EHR - an electronic record of health-related information that:
 - Includes patient demographic and clinical health information
 - Has the capacity to:
 - Provide clinical decision support
 - Support physician order entry
 - Capture and query information relevant to health care quality
 - Exchange electronic health information with, and integrate such information from, other sources

(Department of Health and Human Services, 2010)

Meaningful Use

Stage 1

- Lays the groundwork for a planned secure nationwide health information network
- Establishes minimal functionality for Certified EHR Technology

Qualified EHR

- Includes patient demographic and clinical health information, such as medical history and problem lists
- Has the capacity to:
 - Provide clinical decision support
 - Support physician order entry
 - Capture and query information relevant to health care quality
 - Exchange electronic health

The Concepts of Health Care Processes and Process Analysis Summary – Lecture a

- Defined key terms relevant to workflow analysis and process redesign
- Described the practice workflow and information management redesign specialist role and requisite skills
- Reviewed patient safety and health care quality reasons why Health IT is a national priority
- Described the Centers for Medicare & Medicaid Services (CMS) program to incentivize nation-wide adoption and meaningful use of health IT

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Charts, Tables, and Figures

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Images

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