



Awardee of The Office of the National Coordinator for Health Information Technology

Component 10 – Fundamentals of Workflow Process Analysis and Redesign

Unit 10.5-1 - Process Analysis

This material was developed by Diane Zeleny, funded by the Department of Health and Human Services, Office of the National Coordinator for Health Information Technology under Award Number 1 U54HC000024.

Objectives

- Describe the purpose of Process Analysis
- Describe skills and knowledge necessary for Process Analysis
- Perform a process analysis for a given clinic scenario
- Given results of a process analysis, draft a summary report
- Given results of a process analysis identify desired electronic medical record functionality

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Topics – Unit 10.5

- Objectives of Process Analysis
- Process Analysis skills and knowledge
- Steps for Process Analysis
- Clinical Practice Processes
- Process Variations and Exceptions
- Identifying EHR functionality from Process Analysis

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"You can only elevate individual performance by elevating that of the entire system."¹

- W. Edwards Deming



Public domain photograph of W. Edwards Deming obtained from <http://commons.wikimedia.org/>

Definitions

Definitions:

- Process²
- Process Analysis
- Process Improvement

Process

- Series of actions or operations conducting to an end
- Continuous operation or treatment

Process Analysis

- Understanding process elements and the relationships between them
- As well as identification of opportunities for improvement

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Process Improvement

Making changes to a process to make it better in some way

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Process Analysis Skills

- At ease with data and data system concepts
- At ease with clinical workflow concepts
- Able to communicate such concepts
- Able to identify problem areas

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Framework for Process Analysis

- Form an objective picture of the process, process variations and exceptions
- Translate this information into a list of Electronic Medical Record functions needed at a clinic

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Steps for Process Analysis

- Start with process inventory and diagrams
 - Context diagram showing clinic functions
 - Flowchart for each process
- For each process, list
 - Variations applicable to the clinic
 - Exceptions
- Report findings
 - Major observations
 - EHR functionality necessary to support clinic functions
 - Opportunities for improvement

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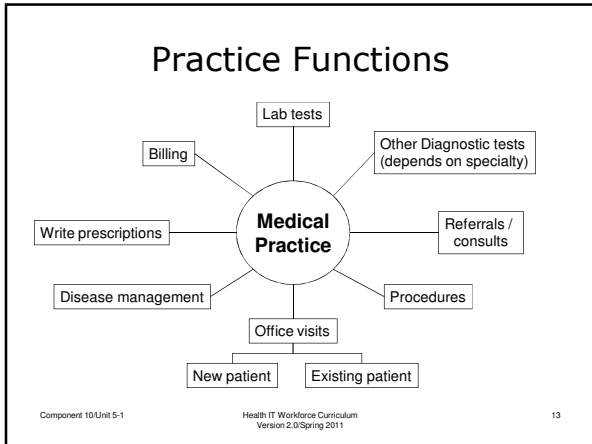
Process Inventory

- Identification of main clinic processes
- Analyst works with clinic leadership to identify high priority processes
- Select processes are analyzed
 - Some can't be improved
 - Some the gain is too small
 - Some can be improved, but by means other than use of health IT

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- ### Practice Process List
- Patient check-in
 - Patient visit
 - Prescriptions
 - Assimilating received documentation
 - Labs
 - Other Diagnostic Tests
 - Referral / consult
 - Disease Management
 - Billing
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- ### Process Inventory
- List of the main processes used by a practice
 - Specifies common variations and exceptions
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Process Variations and Exceptions

Variations: processes used by the clinic

Exceptions: errors or common odd things that occur during the process

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Conclusion

This concludes the first of two lectures for the Process Analysis Unit.

You may go on to the second lecture or stop and return to the second lecture at a later time.

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References

1. Deming, W. Edwards. *Out of Crisis*. MIT Press, Cambridge, Massachusetts 1982.
2. *Merriam-Webster Online Dictionary*, July 17, 2010. Available from <http://www.merriam-webster.com/dictionary/process>.
3. American Society of Quality Glossary, Available from <http://asq.org/glossary/p.html>.

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