

A Focus on Business Process Analysis and System Requirements

A webinar for Birth Defect Surveillance
Programs



Public Health Informatics Institute

May 5, 2023



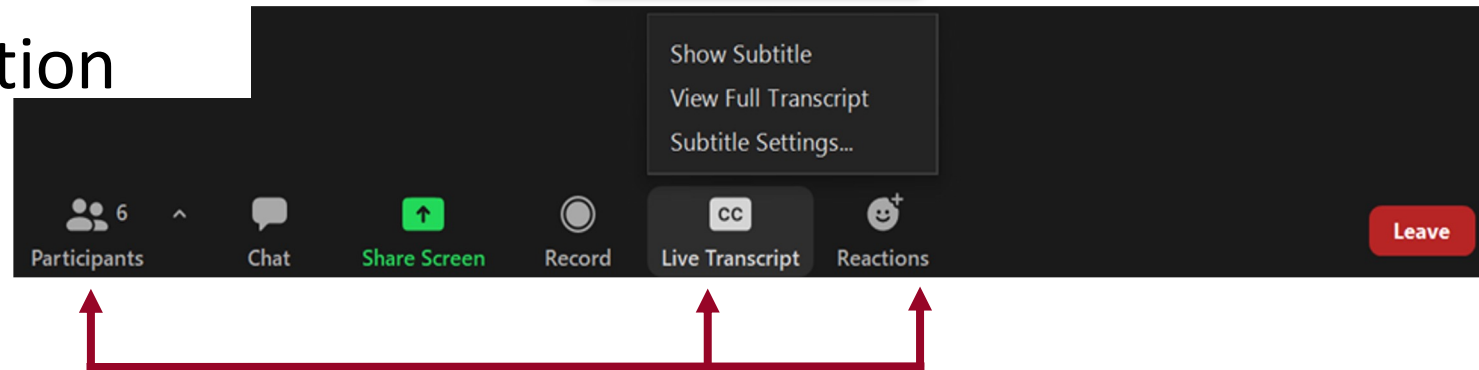
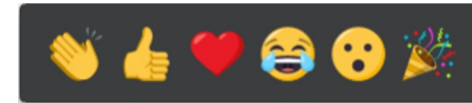
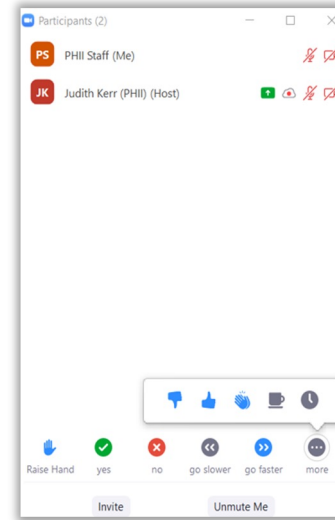
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Funding Disclaimer: This work was supported by Cooperative Agreement number 6-NU380T000316, funded by the Centers for Disease Control and Prevention. Its contents are solely the responsibility of the authors and do not necessarily represent the official views of the Centers for Disease Control and Prevention or the Department of Health and Human Services.

Finding your way around Zoom

- Rename yourself in Zoom to include your organization
- Type your questions into the chat or use reactions to communicate with presenters
- Live Transcript option





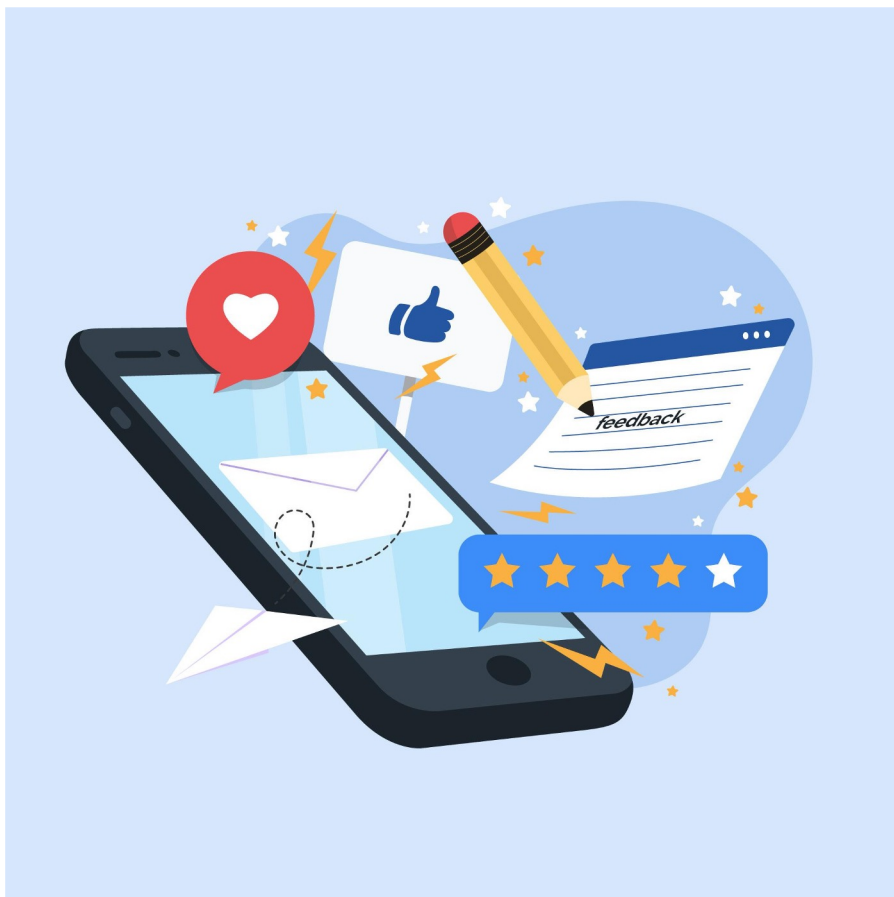
Informational sessions

Today's topics: Business Process Analysis and Requirements Definition

<https://phii.org/birth-defects-surveillance/>

Upcoming topics: Interpreting Business Process & Determining Next Steps - July 21, 2023

Webinar Feedback



- Six short questions at the end of the zoom call
- Help us gauge the effectiveness of our webinar and provide additional resources to assist you in achieving interoperability



Laura Pabst, MPH
Centers for Disease Control and Prevention
National Center on Birth Defects and Developmental Disabilities



Poll Question:

Have you worked with your team to identify current processes and ways you might improve the collection and sharing of birth defects surveillance data?

Guest Presenter



Juneka Rembert, MPH
Project Team Lead

- Over 21 years of experience as a Systems Business Analyst leveraging technology to drive organizational change
- Project Team Lead for a variety of PHII Requirements Lab global and domestic projects
- Subject Matter Expert in Software Development Lifecycle (SDLC)
- Leads public health IT teams in development, testing and implementation of information systems and the data analysis process
- Certified Project Management Professional (PMP)
- Designs and develops data collection tools used for various projects
- Experienced in vendor selection assessments and management
- Previously served as a senior systems analyst and contractor for the CDC, ATSDR/Office of Information Systems and the Procurement Grants Office

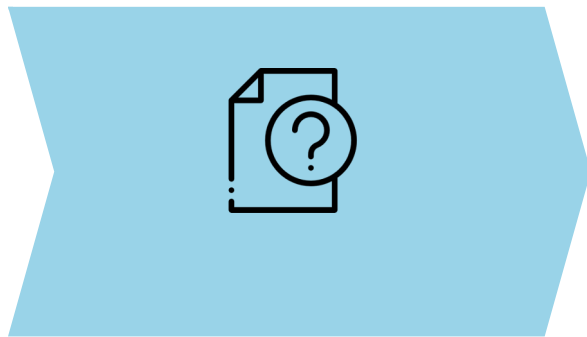
Collaborative Requirements Development Methodology



Overview of CRDM

Collaborative Requirements Definition Methodology (CRDM)TM

Business Process Analysis



Think

- Define goals and objective
- Model context of work
- Describe tasks and workflow
- Identify common task sets

Business Process Redesign



Rethink

- Examine tasks and workflow
- Identify inefficiencies
- Identify efficiencies with repeatable processes
- Refine business processes and business rules
- Remodel context of work
- Restructure tasks and workflow

Requirements Definition



Describe

- Define specific tasks to be performed for optimized business processes
- Describe the implementation of business rules
- Describe in words and graphics how an information system must be structure
- Determine scope of next phase of activities

Collaborative Requirements Definition Methodology (CRDM)TM



Think

How do we do our work now?

- Define goal(s) and objective(s)
- Model context of work
- Describe tasks and workflow
- Identify common task sets

Collaborative Requirements Definition Methodology (CRDM)[™]



Rethink

How should we do our work?

- Examine tasks and workflow
- Identify inefficiencies
- Identify efficiencies with repeatable processes
- Refine business processes and business rules
- Remodel context of work
- Restructure tasks and workflow

Collaborative Requirements Definition Methodology (CRDM)TM



Describe

How should we do our work?

- Define specific tasks to be performed for optimized business processes
- Describe the implementation of business rules
- Describe in words and graphics how an information system must be structure
- Determine scope of next phase of activities



Important Concepts

Q: What is a business process?

A: A set of activities and tasks that logically group together to accomplish a goal or produce something of value for the benefit of the organization, stakeholder, or customer



Important Concepts

Q. What is business process analysis?

A. The effort to understand an organization and its purpose while identifying the activities, participants and information flows that enable the organization to do its work. The output of the business process analysis phase is a model of the business processes consisting of a set of diagrams and textual descriptions to be used for design or redesign of business processes.



Important Concepts

Q. What is a business process redesign?

A. The effort to improve the performance of an organization's business processes and increase customer satisfaction. Business process redesign seeks to restructure tasks and workflow to be more effective and more efficient.



Knowledge Check



What are the three components of the CRDM?

- SDLC, Business Process, System Implementation
- IT, Requirements Gathering, RFP
- Business Process Analysis, Business Process Redesign, Requirements Definition
- None of the above

Business Process Analysis Tools/ Outputs

- Domain Framework
- Graphical Tools:
 - Context Diagrams
 - Task/Process Flow Diagrams
- Text Tool (Narrative Story):
 - Business Process Matrix



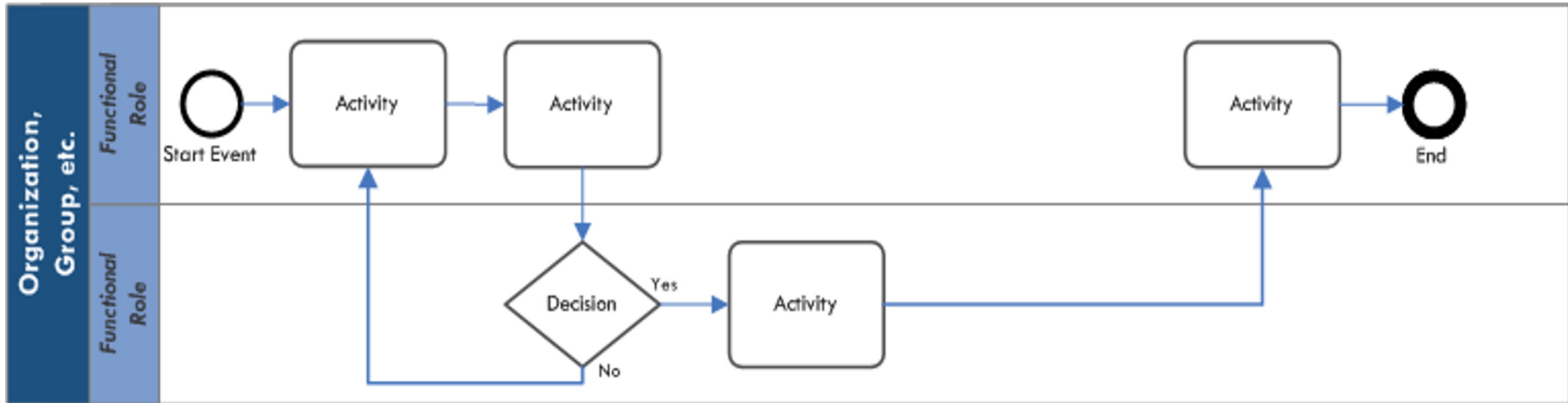
Business Process Matrix

- A table that helps to define the parameters of the scope of the business processes you are mapping out.
- Includes, for each business process:
 - **Goal**
 - **Objective**
 - **Business Rules**
 - **Trigger(s)**
 - **Task Set**
 - **Inputs**
 - **Outputs**
 - **(Measurable) Outcomes**

Project Name
 Business Process Matrix Template
 Business Process Name

OBJECTIVES	BUSINESS RULES	TRIGGERS	TASK SET	INPUTS	OUTPUTS	MEASURABLE OUTCOMES
A concrete statement describing what the business process seeks to achieve. A well-worded objective will be SMART: Specific, Measurable, Attainable/Achievable, Realistic, and Time bound.	A set of criteria that defines or constrains some aspect of the business process. Business rules are intended to assert business structure or to control or influence the behavior. Examples in healthcare and public health include laws, standards, and guidelines.	An event, action or state that indicates the first course of action in a business process. In some <u>case</u> , a trigger is also an input.	The key set of activities that are carried out in a business process.	Information received by the business process from external sources. Inputs are not generated within the process.	Information transferred out from a process. The information may have been the resulting transformation of an input, or it may have been information created within the business process.	The resulting transaction of a business process that indicates the objectives have been met.

Task Flow Diagrams



Where the work takes place

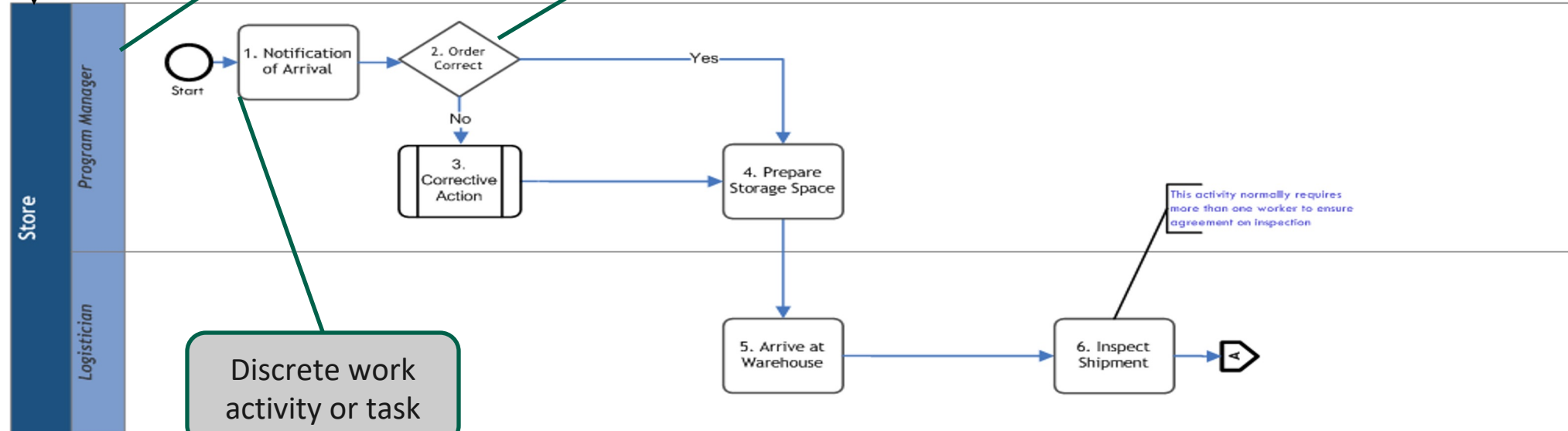
Person who does the work

Decision point in the work flow

Receiving Business Process

Logistics Management Information System (LMIS)

1 of 2



Discrete work activity or task

Activity Details / Narrative	General Process Notes Objective: Receive verified quantity and quality of goods into store and determine need for remedial action when necessary.
	<ul style="list-style-type: none"> Portions of this business process may be outsourced. If the goods are arriving at the warehouse from the port (shipped from outside the country) they should have been through a separate process of port clearance/customs. Goods arriving at the warehouse will be handled in different manners according to the requirements of cold chain, security, etc. This business process should describe the receiving process at all levels of the system. The activities in this business process may be performed by different individuals or functional roles based on the level at which the process is occurring (national, regional, district, etc.)

1. Notification of Arrival <ul style="list-style-type: none"> Program managers or logisticians are notified of a shipment's pending arrival. This notification should happen prior to the physical arrival. The notification could be in several forms: telephone, fax, email, etc. The delivery may be scheduled or may not. Verify what is being received compared to what was requested. 	2. Order Correct <ul style="list-style-type: none"> Is what is being received what was requested and/or expected? This activity provides the first verification of quantity of goods ordered versus goods shipped. An order can be accepted even if the order is not correct. This is generally a decision made by Program Manager. In many cases, the shipment is already in transit and will arrive at the warehouse. 	4. Prepare Storage Space, cont. <ul style="list-style-type: none"> This activity allows the store maximum time to find appropriate space for the shipment. This activity can become a trigger to the Storage business process.
3. Corrective Action <ul style="list-style-type: none"> The shipment can be flagged for rejection and stored for disposition upon arrival at the warehouse. The order can be accepted as is. The shipper is notified of the incorrect shipment and additional corrective action can be taken. 	5. Arrive at Warehouse <ul style="list-style-type: none"> The goods should arrive with documentation from shipper. These documents are typically found within one of the boxes received. Goods can either be quarantined or stored in cold storage at this point in the process prior to inspection. Containers are checked against shipping documents for any apparent damage and or missing shipping cases. 	6. Inspect Shipment <ul style="list-style-type: none"> Quality Check - The shipment is inspected based on predefined criteria including: goods specifications, correct quantities received, usable or damaged goods. Administrative Check - Is what was ordered what was received.

Capture rules, comments and feedback





Engagement Activity



Please click the link to Miro in the chat to be taken to the activity page.

Questions

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Resources: Diagramming Tools and Information

- PHII.org - CRDM Overview
- Lucidchart - free version available
- PowerPoint
- Microsoft Visio
- Creately
- Miro
- Gliffy
- Google Drawings