**Page ID**: **#.# Clinical Workflow Modeling**

# Primary Content

**Title**

Enter the **Title** of the **Method** here (REQUIRED).

**Clinical Workflow Modeling**

**Description**

Enter the **Description** here (REQUIRED).

A method for describing an operation to improve its efficiency and effectiveness. The method entails use of one or more notational languages, which are tools for creating box-and-arrow visualizations of processes, decisions, events, and interactions within a system. Clinically, workflow models are created for use cases, scenarios, and health practice patterns.

There are four commonly used model and notation types:

* **Business Processing Modeling Notation (BPMN)**, which describes procedures and makes explicit how things should be done.
* **Case Management Modeling and Notation (CMMN)**, which explains how to react to different events that can occur.
* **Decision Model Notation (DMN)**, which describes requirements for decision-making and the specification of decision logic — i.e., how decisions will be made.
* **Unified Modeling Language (UML)**, which describes interactions within a system.

In all cases, the model is developed by first acquiring an understanding of the roles of the persons involved in the workflow as well as the activities and interactions that occur. This is accomplished through interviews and observations. Once developed, the model is put through a validation process that typically is done with a focus group.

**Outcomes**

Enter the **Outcomes** here. If there are no details, insert N/A or TBD.

* A visual representation that specifies interactions, decisions, and exchanges of information within an interactive system.

**Recommended Uses**

Enter the **Recommended Use** here. If there are no details, insert N/A or TBD.

* To understand the current process or specify interaction requirements, including the necessary information, choices, and inputs that users require to achieve their intended outcomes.

**Limitations**

Enter the **Limitations** here. If there are no details, insert N/A or TBD.

* Requires expert users for interviews and observation.
* Training and practice required to execute effectively.
* Data analysis is time-consuming.

**Required Skills and Expertise**

Enter the **Required Skills** **and Expertise** here. If there are no details, insert N/A or TBD.

* The method can be done without formal training in human factors or related fields, but execution requires training and practice.
* Training or experience with software tools (e.g., Microsoft Visio) is recommended.

**How to Proceed**

If there are no details, insert TBD.

* **How-To Guide.** Review step-by-step instructions on how to conduct a usability walkthrough.
* **Schedule a Consult.** Connect with a usability specialist for support on your project.

[BEGIN: How to Do It]

**Procedure**

Enter the **Procedure** here (REQUIRED).

**Clinical Workflow Modeling Steps:**

### 1. Knowledge elicitation

* Involves acquiring an understanding of the roles, activities, and interactions in a clinical workflow. The idea is to systematically collect information in a form that can be used to build a model.
* Activities include observations, interviews, focus groups, walkthroughs, and simulations.

### 2. Plan model storyline

* Involves building a text narrative from the compiled notes.
* Objectives include identifying and representing the difference between “as-is” and “to-be,” identifying pain points, and noting exceptions and special cases.

### 3. Develop/update model

* Involves selecting a notation standard and sketching to determine complexity of the model.
* Activities include the identification of potential swim lanes (horizontal decomposition), hierarchical decomposition into sub-processes, and localization of decision points and branches.
* When sketch is mature, the model can be built more formally within a software application (such as MS Visio or PowerPoint).

### 4. Assess model

* Involves model validation, which is typically done in focus group. The model is presented, and participants are encouraged to keep an eye out for pain points and “likes.”
* With a critical incident technique, best-case and worst-case real-world examples can be teased out.
* Discussion is included with aim to identify any steps in the flow that might be combined or eliminated.

### 5. Lessons learned

* Involves identifying areas for improvement in the process and the assessment of benefits of proposed technology or procedural changes.

[END: How to Do It]

**Glossary Terms**

Enter the **Glossary Terms** here. If there are none, insert “None.”

Workflow, Efficiency, Effectiveness, Interaction

**Author**

Enter the **REFERENCES** here. If there are no details, insert N/A or TBD.

* Visionary Consulting Partners

**Sources**

Enter the **REFERENCES** here. If there are no details, insert N/A or TBD.

* [BPMN + CMMN + DMN: The triple crown of process improvement standards](https://www.youtube.com/watch?v=N3htv1tjmuc), Object Management Group (OMG).
* [Unified Modeling Language (UML) and Systems Modeling Language](https://www.youtube.com/watch?v=vAHHdnIV8rU), Object Management Group (OMG).

**References**

Enter the **REFERENCES** here. If there are no details, insert N/A or TBD.

* N/A

# Related Content

Three sections are provided below for content that will be placed inside an area of the page defined for **Related Content**. Each section requires a **Header** and corresponding **Details**.

* **Header** text can be edited, but **do not** change the text formatting.
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# Document Properties

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| --- | --- |
| **Categories** | [CATEGORIES USAGE (AND ACTUAL CATEGORIES) TBD] |
| **Excerpt** | Clinical workflow modeling is a method that employs notational languages as tools for creating box-and-arrow visualizations of processes, decisions, events, and interactions within a system. |
| **Required Expertise** | Select a Required Expertise:  [] [Hire a Pro]  [X] [Training and Practice Required]  [] [DIY] |
| **Project Phase** | Select a Required Expertise:  [] [Plan]  [X] [Understand]  [X] [Specify]  [] [Produce]  [] [Evaluate]  [] [Measure] |
| **Tags** | [TAGS USAGE (AND ACTUAL TAGS) TBD] |