



## 4.2 Mapping Current Workflow and Processes

The following steps should be used to map current workflow and processes:

1. Identify processes to be mapped, those that will be impacted by the eHealth solution being acquired. A good place to start identifying processes to be mapped is those you have envisioned for eHealth solutions.
2. Use individuals who actually perform the process. They know it best and they need to own the impending change. You may need to hold a retreat or some virtual meetings with field personnel to ensure they become engaged in the activity.
3. Instruct persons on process mapping, why it is being done, and how it is done. Ensure that people know the purpose is to get automation right, not to lay blame. Then, be sure no one insinuates blame for current issues. Encourage staff to identify all problem areas so they can be addressed through automation.
4. Map current processes. Avoid identifying opportunities for improvement now because critical controls built into current processes may be overlooked.
5. Validate maps to ensure they reflect current processes, all variations, all data collected (the information payload), and all decision making.
6. Collect all forms and reports that are part of processes to be automated through eHealth solutions.
7. Obtain benchmark data to define expectations for change and for use in benefits realization studies.

### Workflow and Process Redesign

The following steps should be used to map how workflows and processes will be performed with eHealth solutions:

1. Identify potential problems in current workflows and processes and determine their root cause. Study the following areas:
  - Bottlenecks
  - Sources of delay
  - Rework due to errors
  - Role ambiguity
  - Unnecessary duplications
  - Unnecessary steps
  - Long cycle time
  - Lack of adherence to standards
  - Lack of information
  - Lack of quality controls

The following tools may be helpful in identifying root cause:

- Statistical charts
  - Radar
  - Pareto
  - Control
- Relations diagrams
- Tree diagram
- Affinity diagram
- Force field analysis
- Cause and effect diagrams
- Physical layouts as applicable

2. Identify changes that may be able to resolve problems today. Implement these and revise maps to reflect the changes.
  3. Educate about health care information technology (HIT) and electronic health records (EHR) and identify further changes that will be possible and are desirable.
  4. Document in a new map the potential new processes reflecting desired improvements.
  5. Use maps reflecting new processes to create use case scenarios to identify HIT functional specifications for vendor selection, and later to build out the HIT application during implementation to achieve the desired improvements.
  6. Test new workflows and processes once incorporated into the HIT.
  7. Train all staff on new workflows and processes, using the maps as guides.
  8. Incorporate changes from the maps into policy and procedure. Some organizations use the maps themselves to construct their policies and procedures.
  9. Conduct benefits realization and celebrate successful change/correct course as necessary.
- Systems flow chart: a commonly used tool that is relatively easy to construct and especially easy to use in visualizing workflow. It uses two basic symbols: A rectangle denotes the step in a process where a task is performed. It should answer “who does what.” For instance, a task may be “nurse’s aide records patient temperature.” A diamond shape denotes where a decision must be made. For example, after recording the temperature, the nurse’s aide may need to decide whether the temperature is within the normal range, and if not, what to do next. Such a decision would incorporate the decision “Normal?” in the diamond shape, with one branch denoting “Yes” and leading to the next step; and one branch denoting “No” and leading to the alternative next step. Where the system flow chart addresses the issue of envisioning decision points, a disadvantage is that it does not enable much description in its symbols.
  - Systems flow chart with sticky notes: A final option for constructing a process map is in the form of a systems flow chart with sticky notes. Upright, the note forms a rectangle, and tilted the note forms a diamond. Because sticky notes can be placed on a blank wall or large sheet of paper and then moved around if tasks are noted to be missing, the sticky note tool is especially useful where mappers are new to mapping, or where there is potential variation among different staff, different locations, etc.

### Process Mapping Tools

A variety of tools are available for process mapping:

- Flow process chart: a template that enables steps in a process to be enumerated in a list format. This tool is often used by clinicians who are unfamiliar with flow charting. The disadvantage of the tool is that it is more difficult to spot decision points and clearly see the various branches in thought processes when making a decision.