

Instructions

PROCESS MAPPING

PURPOSE OF THE PROCESS MAPPING STUDY

To identify opportunities to streamline workflow, reduce duplication, and mitigate issues in health center's processes. Ultimately, by tracking and analyzing processes as they occur in practice, processes can be redesigned to achieve better outcomes and improve the experiences of staff and patients.

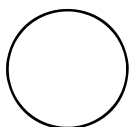
INTRODUCTION

Assessing a health center's processes in detail as they occur in practice is an important way to identify opportunities to improve upon both clinical and administrative functioning. Process mapping is a useful exercise in which health center staff specifically dissect what happens during a particular process (i.e., New patient presents asking for a pregnancy test), identifying what staff are involved in the process, what decisions must be made and when, etc. In mapping out the steps of a particular process as it occurs in practice, health centers can then identify ways to improve upon the effectiveness and efficiency of the process. Process mapping requires familiarity with what happens during every part of the process being studied.

The following provides step-by-step instructions for using process mapping. Included is guidance on how to determine which specific process(es) to study, how to create a flow chart of chosen process(es), questions to consider during analysis, and steps for redesigning the process(es) to achieve better outcomes.

PROCESS MAPPING USING FLOW CHARTS

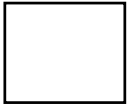
Flow charts are used for process mapping. A flow chart is a diagram that represents a sequence of steps in a workflow or process using various geometric symbols. The diagram indicates the direction of flow by connecting symbols with arrows. The following shapes are commonly used in flow charts:



The circle is used to show the start and the finish of any process.

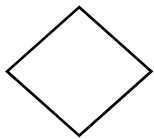
- **For example:** Start: The patient signs in at the front desk; End: The patient exits the health center.

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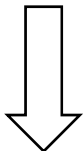
The square is the most frequently shape in a flow chart, as it represents all steps in the process.

- **For example:** Lab technicians completes the General Health History and Reproductive Health History forms; the public health nurse provides contraceptive counseling.



The diamond represents a step in the process in which a decision is made. Typically "Yes" or "No" arrows emerge from the diamond and lead to different next steps. However, diamonds do not always need to have yes/no arrows, but other options instead and there may be more than two options emerging from a diamond. Keep in mind, some options may point to the same subsequent step in some instances

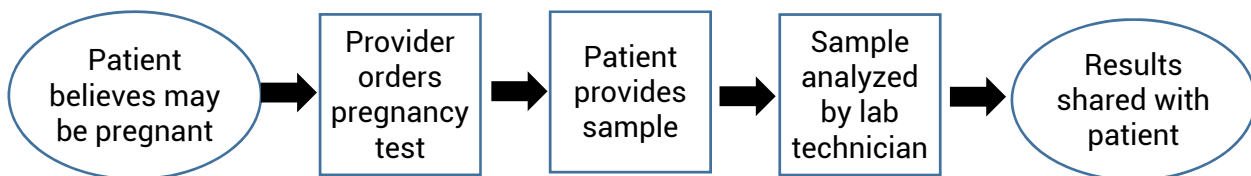
- **For example:** During a visit, the lab technician conducts a pregnancy test. In the diamond, the user would mark "Pregnant: Yes or No." There would be two different arrows, one for the process if the patient isn't pregnant and the other for the process if the patient is pregnant.



The arrow is used to show the direction of the flow.

A flow chart can be basic:

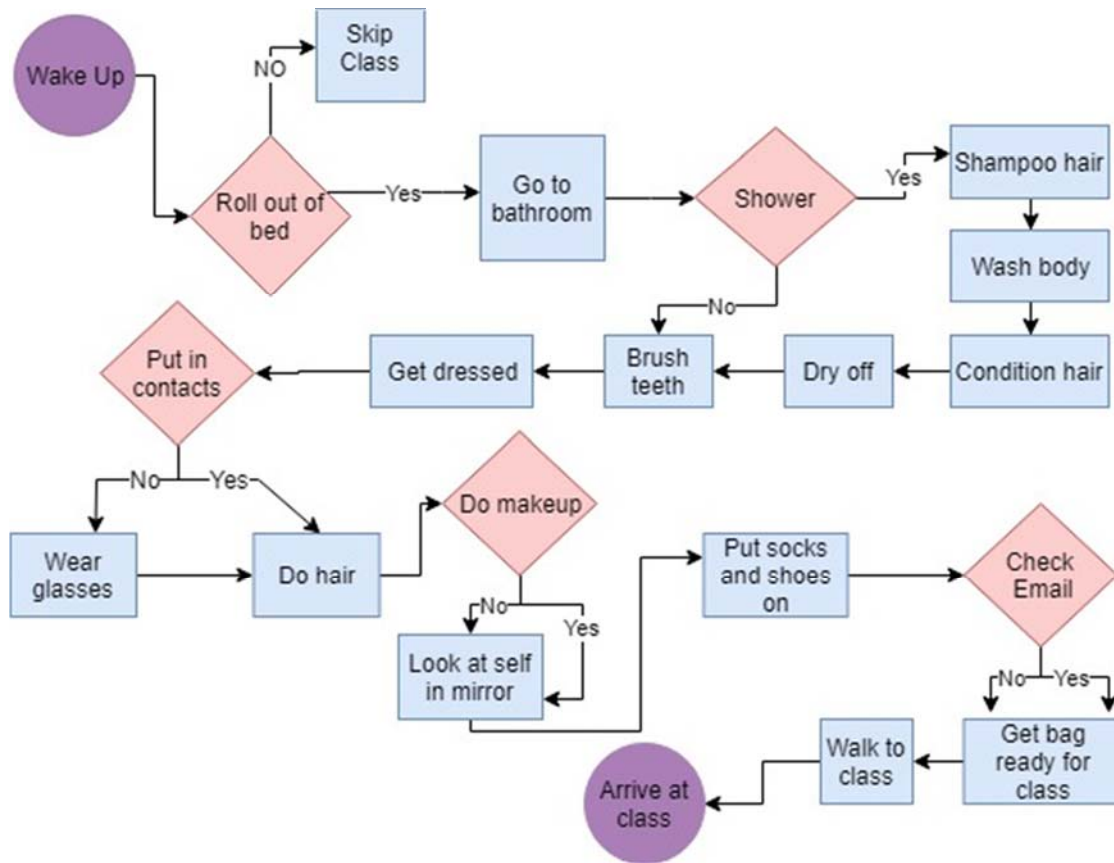
Pregnancy Test (Basic)



Or a flow chart can be detailed:

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Morning Routine (Detailed)



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INSTRUCTIONS

1. Identify the process(es) to be studied

Identify which process or processes need improvement. Consider the following questions when prioritizing process(es) to study:

- What processes are done /occur often (e.g., what are high-volume processes for which positive changes will translate to measurable improvements)?
- Where and when have glitches or inefficiencies in processes occurred for patient or during service delivery?
- What patient outcomes are less than desired or expected in the health center, based on literature and/or experience?
- What process(es) do patients most frequently complain about?
- What process(es) do staff most frequently complain about?
- Where might resources be wasted or ineffectively used?
- Where are areas in which evidence-based practices are not followed?

2. Map the process

Often, a process can take a several attempts to capture all its steps in a flow chart. Consequently, it is helpful to first map the process with sticky notes to allow for additions and edits as the process is mapped. It is especially recommended, if possible, to work with various colors of sticky notes (or write the corresponding shape on each sticky note) to symbolize start and end point, decision points, and more.

When conducting this activity, it is crucial to map out what *actually* happens in a health center even if the process mapped does not reflect policies and protocols. Include the steps and decision points that occur when a problem arises. Once the complete and full process is mapped, key staff will have the opportunity to consider what would need to change to improve the process.

- a. Schedule a date and time for process mapping and involve key staff of all levels and disciplines in the development of the process map to ensure it is complete and reflects typical practice.
- b. Determine the start and end points of each process. Write each on separate sticky notes.
- c. Identify the main process steps and place each step on its own sticky note. It may be helpful to post the sticky notes on a piece of newsprint or on an open

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- wall. Create a global map first; focus on the main steps that comprise a process.
- d. Then, fill the map with additional details. Include the staff role or person responsible for each step. Include the steps and decision points that occur when a problem arises.
 - e. As steps are created, map them in the sequence in which they occur.

NOTE: Health center leadership should resist the urge to map a process by themselves without engaging all appropriate staff members. Process mapping is designed to record what *actually* happens during a process, with the goal of identifying potential inefficiencies. Engaging all relevant staff members in a collaborative process to complete the tool will increase the likelihood that the information collected reflects true practice.

3. Analyze the process

After creating a flow chart, analyze the process with the goal of identifying what is not working efficiently or effectively. The following questions are designed to guide analysis of the process, though not all questions need to be addressed if not relevant:

- How many steps are there in the process?
- How many different staff roles are involved with the process? How many individuals are typically involved with the process? Are all the appropriate staff roles engaged in each step?
- Where is there duplication of work?
- Where do bottlenecks occur?
- How much time does each step take?
- How much time elapses between each step?
- Where could the length of time (for a specific step or period in between steps) be reduced?
- Where do delays regularly occur?
- Where in the process do problems for patients often arise?
- What specifically about the process do patients complain about?
- What specifically about the process does staff complain about?
- Which steps add value? Which steps do not add value?
- Can the steps be rearranged to improve efficiency or efficacy?
- What information is given to the patient at each step? How does this compare to the information that the patient needs?
- How can best practices be integrated into the process?

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The following list includes common problems that occur during particular processes. Do any of these apply to the process being analyzed?

- Waiting delays
- Duplication of work
- Excessive handoffs between different staff
- Interruptions
- Many requirements for decisions and approvals
- Poorly defined roles and responsibilities

4. Redesign the process

After analyzing the process, key staff will update the process based on discussions.

Steps for redesigning the process:

- a. Review the process flow chart and identify:
 - Each service provided / task completed at each step
 - Forms or supplies used at each step
- b. Target and either eliminate or streamline redundant or unnecessary steps.
- c. Assess whether staff activities maximize their expertise (e.g., are there instances where clinicians are not operating at the “top of their licenses”?).
- d. Define which activities or tasks can only be accomplished by a specific category of staff person [e.g., Long Acting Reversible Contraception (LARC) insertions, prescribing medication, collecting payment].
- e. Determine which tasks can be shifted to other members of the care team.
- f. Re-bundle activities to balance workload, minimize inefficiencies, and enhance quality of care.

Common improvement strategies include:

- Combine steps to minimize hand-offs and movement between rooms
- Manage interruptions
- Standardize processes
- Built-in quality checks
- Revise staffing schedules and hours of operation

Note: Data collected will only reflect a single point in time. Changes to staffing patterns, operations and processes, hours, patient populations, situations, and more can all health center processes. Therefore, process maps should be reassessed periodically, especially after such changes occur, to determine if policies and processes must also be updated to reflect the current state of the health center.

This tool was adapted from the following resource: Office of Population Affairs. 2012. Clinic Efficiency: A Compendium of Strategies and Recommendations for Title X Family Planning Programs. Washington, DC: Government Printing Office.