

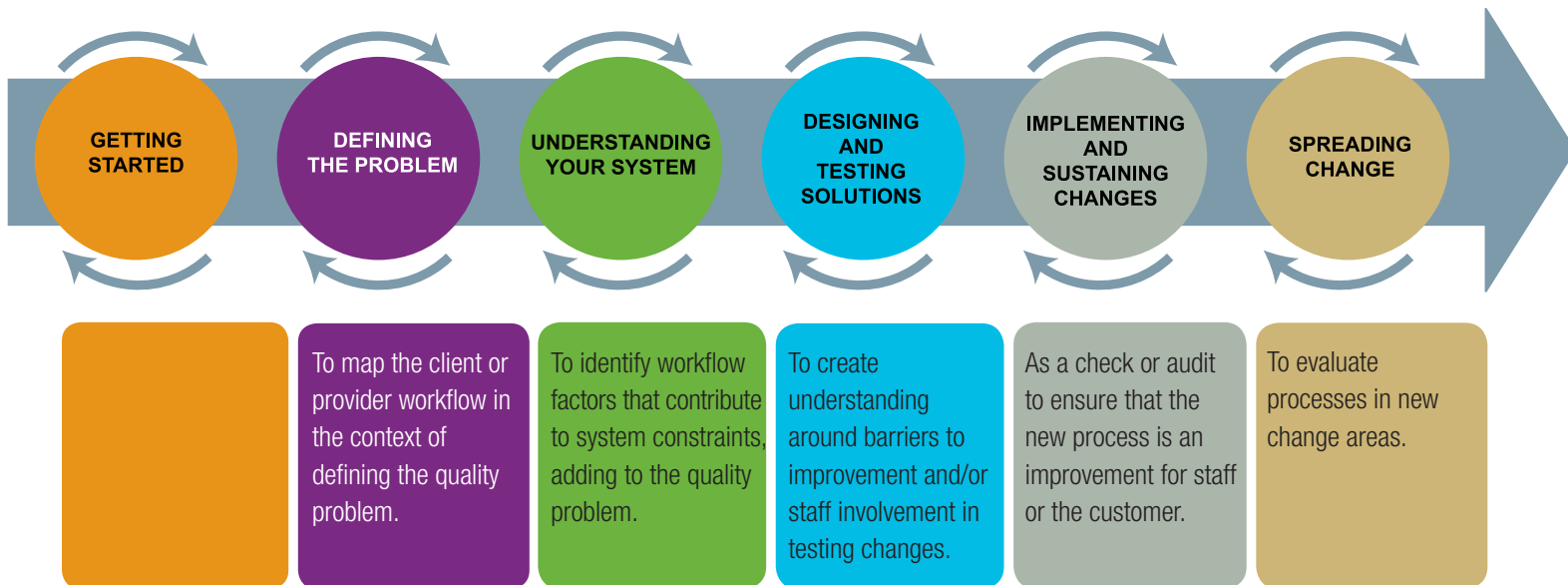
Spaghetti Diagram

INSTRUCTION

Why would I use this tool?

A Spaghetti Diagram is a simple mapping tool used to determine the physical movement of people or products—for example, how many times providers or customers travel to a location, how many steps they have to take, and what they are looking for. This line diagram makes apparent inefficient layouts, frequently travelled paths and unnecessary movements. It is a good idea to perform a second Spaghetti Diagram after redesigning the physical layout and/or the relocation of products, equipment or services.

How would I use this tool differently at different stages of the QI Framework?



How do I use this tool?

1. Identify the process and the movement you are going to map (e.g., processing a fax request for medication renewal) then identify the steps in the process. Another way to approach this is to focus on all activities for one person for a specified period of time (e.g., map a provider's movement through the department for a specified time).
2. Draw a sketch of the area where the work takes place.
3. Draw the movement for each step of the process. If possible, walk the process step-by-step while you draw the movement.
4. You may use directional arrows for the routes that are drawn on the paper.
5. Do not leave out any flow movement even if the paper becomes cluttered and difficult to follow.
6. If desired for improvement, record the amount of time for each activity.
7. Look for point-of-use opportunities for equipment, supplies and paperwork (e.g., standardize examination room setup with regularly used equipment and supplies).

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- Record the names of those involved, dates, times, and other relevant information.
- Team identifies opportunities for improvement and tests changes in order to make improvements (e.g., try moving a regularly used piece of equipment like a weigh scale to a central location and remap the changes in motion).
- Create a separate diagram showing the new state of flow that eliminates as many non-value added tasks or as much movement as possible.

What do I need to use this tool?

Materials

- Paper (Butcher paper and graph paper are ideal for working with a team.)
- Pencils
- Erasers

Timing

30–40 minutes, but may be longer or shorter as determined by the frequency of the activity.

Setup

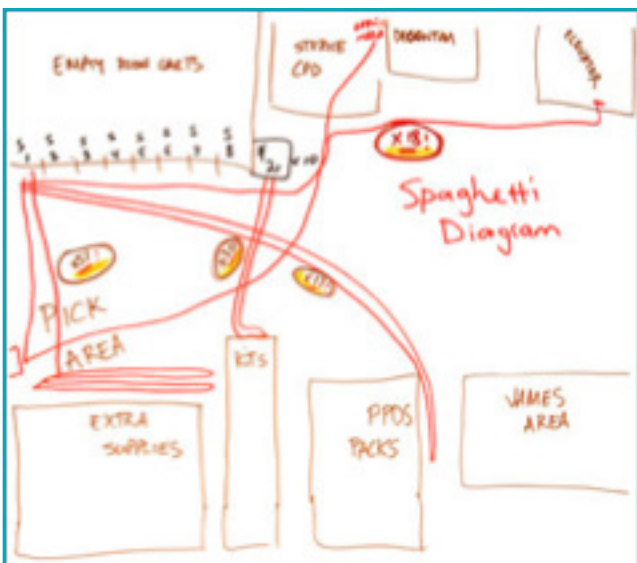
Engage team members and/or customers that are involved in the process. Encourage them to do what they normally do, simulating to the extent possible their regular process.

What tips and tricks will be useful in facilitating this tool?

- Creating a Spaghetti Diagram should be done with or by those that use the process.
- Record the path with a pencil.
- You are looking for “cooked spaghetti,” not spaghetti directly from the box; things rarely move in straight lines.

What does a Spaghetti Diagram look like?

HAND-DRAWN



COMPUTER-DRAWN

