

Value Stream Analysis INSTRUCTION

Why conduct a Value Stream Analysis?

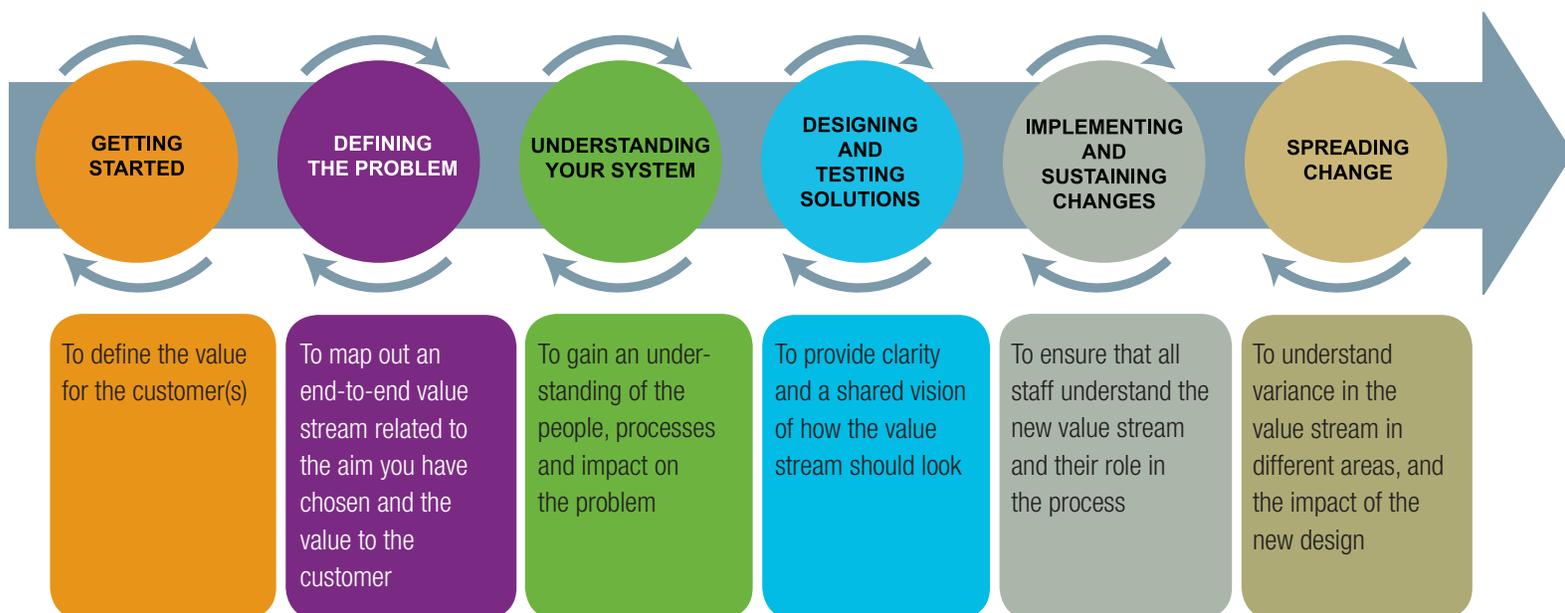
A value stream analysis (VSA) is a structured process designed to help you prioritize, plan and link improvement work across disciplines, organizations and sectors in the creation of a local Improvement/Action Plan. Completing a VSA is the first step in an improvement journey.

Value stream mapping (VSM) presents a graphical representation of the flow of materials, people and information from the beginning through to the end of a process and should be used when it is necessary to have a detailed and comprehensive understanding of a process or service. By providing a clear understanding of a process, the issues that affect it, and the potential impact of these issues on care and outcomes, VSM benefits stakeholders by enabling them to identify and link the root causes of issues to specific activities and steps within a process. For this reason, value stream mapping also assists with the prioritization of process improvements.

The objectives of a value stream analysis are:

- To develop a value statement that is the “voice of the customer” and serves as the “conscience” of future work.
- To visualize the current state of the flow of information and resources
- To identify waste in the system
- To draft a value stream map of the desired future state.
- To identify the gaps between the current and future state, set priorities and create a high-level action plan to define next steps

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



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How do I conduct a value stream analysis?

1. Define what the customer values:
 - Who is the customer?
 - What does the customer value?
2. Before mapping out the value stream, be well-prepared by:
 - Reviewing or assessing any current state process flow maps and metrics
 - Ascertaining the type of data that needs to be collected and developing a plan to gather any data that is required
 - Communicating the intent of the value stream analysis and linking the process to the values of staff and providers
3. The whole team should be involved in mapping the value stream and the output should represent the team's approach to improvement. Ensure this is so by:
 - Documenting the process to determine resource and information flow. This can be done by physically walking through the process with staff and recording all activities that are observed. Measure the touch time, cycle time, volumes and number of staff for each step. Ask how often they have to redo work and note how work products initiate flow (e.g. batched, ad hoc). It can also be accomplished by having those who work directly in the process outline each step
 - Collecting cycle time and volumes for the whole value stream
 - Team members should return to work unit area as necessary to acquire more or verify data details as required
4. Once you have mapped out the value stream, work with the team to probe for accuracy and areas of opportunity by:
 - Reviewing the process, lessons learned, problems identified
 - Assessing any improvement recommendations made by staff
 - Assessing where waste and problems occur, including: bottlenecks, non-value added work, resource problems, rework and duplications, quality issues and control effectiveness
 - Analyzing each element of the value stream, asking questions to identify signs of opportunity in the areas of: material flow, process flow, resources, waste, queues, information flows and quality.

What do I need to conduct a value stream analysis?

Materials

- Value Stream Mapping template
- Pens or pencils
- Sticky notes (3-4 colours)
- Masking tape
- Flip chart

Timing

Plan to spend one or two days conducting a value stream analysis. Please see below for a sample agenda.

Setup

- Bright, ventilated meeting room
- Clear wall space in a the meeting room
- Clear floor space by the wall where the map will be created

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Sample Agenda

Day 1: 8:30 a.m. – 4:30 p.m.

1. Welcome and introductions
2. Overview of initiative
3. Review event charter (boundaries, team selection, measures)
4. Introductory training (overview of Lean principles and the fundamentals of improvement)
5. Define customers and specify value
6. Map current state and identify waste
7. Identify the client's emotional journey and reflect on "what can we do by Tuesday?" to make the improvements immediate and imminently doable.

Day 2: 8:30 a.m. – 4:30 p.m.

1. Design the new process and identify gaps
2. Create, prioritize, and document the Improvement Plan
3. Next steps and closing remarks

What tips and tricks will be useful in facilitating a value stream analysis?

- Consider the role of families/caregivers:
 - o What role do families/caregivers play in the care team?
 - o In what ways do they interact with the care team?
 - o What more could be done to enhance family/caregiver skills in providing care?
 - o What more could be done to further integrate families/caregivers in to the care team?
- Focus on processes that have long lead times, high volume or high impact. There is no need to map the flow of every discrete aspect or input.
- Mapping is a team exercise. It builds the team, ensures that everyone understands the current state and can illustrate inconsistencies and opportunities for improvement.
- Think in terms of the process; not in terms of departments, professions or individuals.
- Collect current state information by observing a patient and the flow of information through a process. Document observations, time taken and other information as it occurs
- Write down assumptions the care team may have about processes and identify discrepancies
- Include 'informal' information flow (e.g. phone calls, hallway conversations, written notes)
- Focus on getting a good snapshot of the actual process. If stakeholders state that certain parts of the process occur only rarely, review and observe the process again.
- Use a pencil and sticky notes. A value stream map is a working document and using a pencil and sticky notes enables simple and neat editing

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- Simplify the map by grouping steps that are directly related. This is best done once the team has a thorough understanding of the detailed version of the map. Please also refer to HQO's instruction sheet on Process Mapping
- Ensure that you have a cross functional team that includes all stakeholders (consider including a patient or family member)
- Map the patient's journey, not the providers journey
- Be careful not to jump to developing the future state map too early. It is important to spend time developing an understanding of the current state
- Consider lean principles:
 - o Did we increase value to the client? Refer back to the value statement.
 - o Did we decrease waste (Defects, Overproduction, Waiting, Non-utilized brainpower; Transportation, Inventory, Motion, Extra or over processing)?
 - o Did we create flow? Pull? Defect-free processes? Visual Management?