

ED PIP: Diagnostic Phase

Tools: SIPOC

SIPOC – Overview

Outcome	<ul style="list-style-type: none"> ■ All relevant elements of a process are captured (high level process, project scope, key stakeholders)
Definition: 'What is it?'	<ul style="list-style-type: none"> ■ SIPOC (Supplier / Input / Process / Output / Customer) is a high level pictorial representation of the process including the logical flow from the key suppliers and their inputs, through the process with the resulting outputs to the key customers from the beginning to the end
Objectives: 'What is it used for?'	<ul style="list-style-type: none"> ■ SIPOC <ul style="list-style-type: none"> - Provides a shared vision of the high level view of the process (excellent team building exercise) - Helps the team identify the key stakeholders and verifies that the team is complete - Enables stakeholders to more readily understand the process
Benefits:	<ul style="list-style-type: none"> ■ This exercise “forces” alignment of the team and helps to verify that the correct scope is being addressed by the project ■ It is an excellent team building exercise
When to use	<ul style="list-style-type: none"> ■ The SIPOC should be one of the first major “team facilitated” exercises early into the project

Tip for integrating Lean principles into healthcare:

- *Part of successfully implementing Lean in healthcare is adopting common language that may have originated in manufacturing and internalizing how it is used in a healthcare environment. For SIPOC, it means swapping customer for patient in some scenarios or nurse for supplier...*
- *Don't be intimidated by the technical elements along your improvement journey... Ask questions and make sure you're comfortable with the tools*

To use SIPOC effectively in healthcare, start on the right side of the diagram first –the Customer (who is often the patient)

Supplier	Input	Process	Output	Customer
<ul style="list-style-type: none"> Who or what functional organization, system, report, database, etc., supplies or provides whatever it is that is needed as an input to this activity? <ul style="list-style-type: none"> <i>In healthcare this will typically be a patient or a healthcare provider or support staff.</i> 	<ul style="list-style-type: none"> What data, supplies, system, tools, etc., are required for this activity, or who is needed to perform the action <ul style="list-style-type: none"> <i>In healthcare this could be the decision to treat a patient</i> 	<ul style="list-style-type: none"> This may be multiple high level processes <ul style="list-style-type: none"> <i>In healthcare, this could be the diagnostic test, or procedure.</i> 	<ul style="list-style-type: none"> What information, data, report, eligibility status, etc., comes out of this activity or is produced as a result of this activity? <ul style="list-style-type: none"> <i>In healthcare this might be the results of a diagnostic test</i> 	<ul style="list-style-type: none"> Who or what receives whatever it is that comes out of this activity? <ul style="list-style-type: none"> <i>In healthcare this is typically either the patient or one of the providers. For example, the patient would receive the diagnostic test, however, at a different part of the process, the customer might be the physician receiving the results of the test from the specialist</i>

To further elaborate on SIPOC as a tool, try using a basic every day example like buying a cup of coffee from a coffee shop...

Follow the steps outlined here to fill out the SIPOC chart...

Step 1

Start by identifying which people are involved in the process

Supplier	Input	Process	Output	Customer
Coffee Customer	Coffee requirements	Order coffee and pay	Order	Staff member
Staff member	Order	Pour coffee	Coffee in cup	Staff member
Staff member	Coffee in cup	Hand coffee	Coffee in cup	Coffee Customer

Step 6

Identify the Supplier(s) of the corresponding input(s)

Step 5

Identify the input(s) necessary for the Process to function properly

Step 2

Complete the high level process (no more than 4-8 steps)

Step 3

Specify the key outputs of each corresponding process step to be delivered.

Step 4

Identify the Customer(s) that will receive the corresponding outputs from each process step.

Now let's use a healthcare example (*a patient discharge*) to reinforce how SIPOC can be used...

Step 1

We have identified a process that will involve a patient, ward clerk and nurse...

Supplier	Input	Process	Output	Customer
Patient	Patient Information / Systems	<ul style="list-style-type: none"> • Triage/Reception • Patient Assessment • Assign bed & Admissions • Deliver Care 	<ul style="list-style-type: none"> • Discharge Decision 	Ward Clerk
Ward Clerk	Discharge Decision	<ul style="list-style-type: none"> • Discharge decision/activities 	<ul style="list-style-type: none"> • Patient discharge papers 	Nurse
Nurse	Patient Discharge Papers	<ul style="list-style-type: none"> • Patient discharge 	<ul style="list-style-type: none"> • Discharge 	Patient

Step 6

Identify the Supplier(s) of the corresponding input(s). This will be the supplier from the previous row.

Step 5

Identify the input(s) necessary for the Process to function properly (this will typically be the output of the previous row)

Step 2

In some cases, such as the first row of processes, we link together multiple high level processes.

Step 3

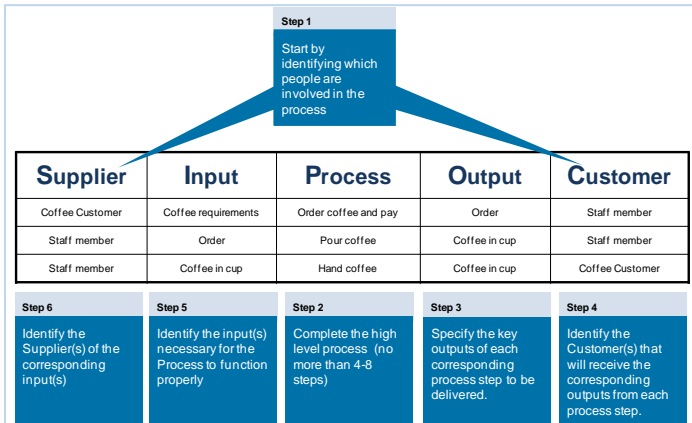
The outputs of one process become the input of the next row

Step 4

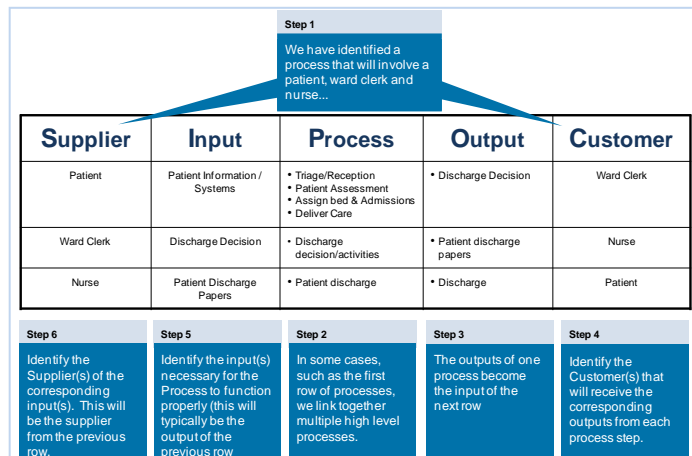
Identify the Customer(s) that will receive the corresponding outputs from each process step.

Using the two different examples, we develop a common understanding of how to use SIPOC to achieve our goals

Example # 1: Coffee Purchase



Example # 2: Pt. Discharge



Consider the following tips and tricks to fully benefit from SIPOC:

- 1. Capture the key elements of the scope of the project:** make sure that the team stays as high as possible – it will become obvious as the SIPOC is being developed if a process step is missing
- 2. Make mapping a team exercise:** it is a great team building exercise and ensures that everyone understands and can point out inconsistencies
- 3. If the team gets stuck,** jump to the next step above and work forward to the step that they were stuck on
- 4. Generally, the output for step b is the input for step d** – this may be another explanation if the Customer / Supplier does not align between adjacent rows