



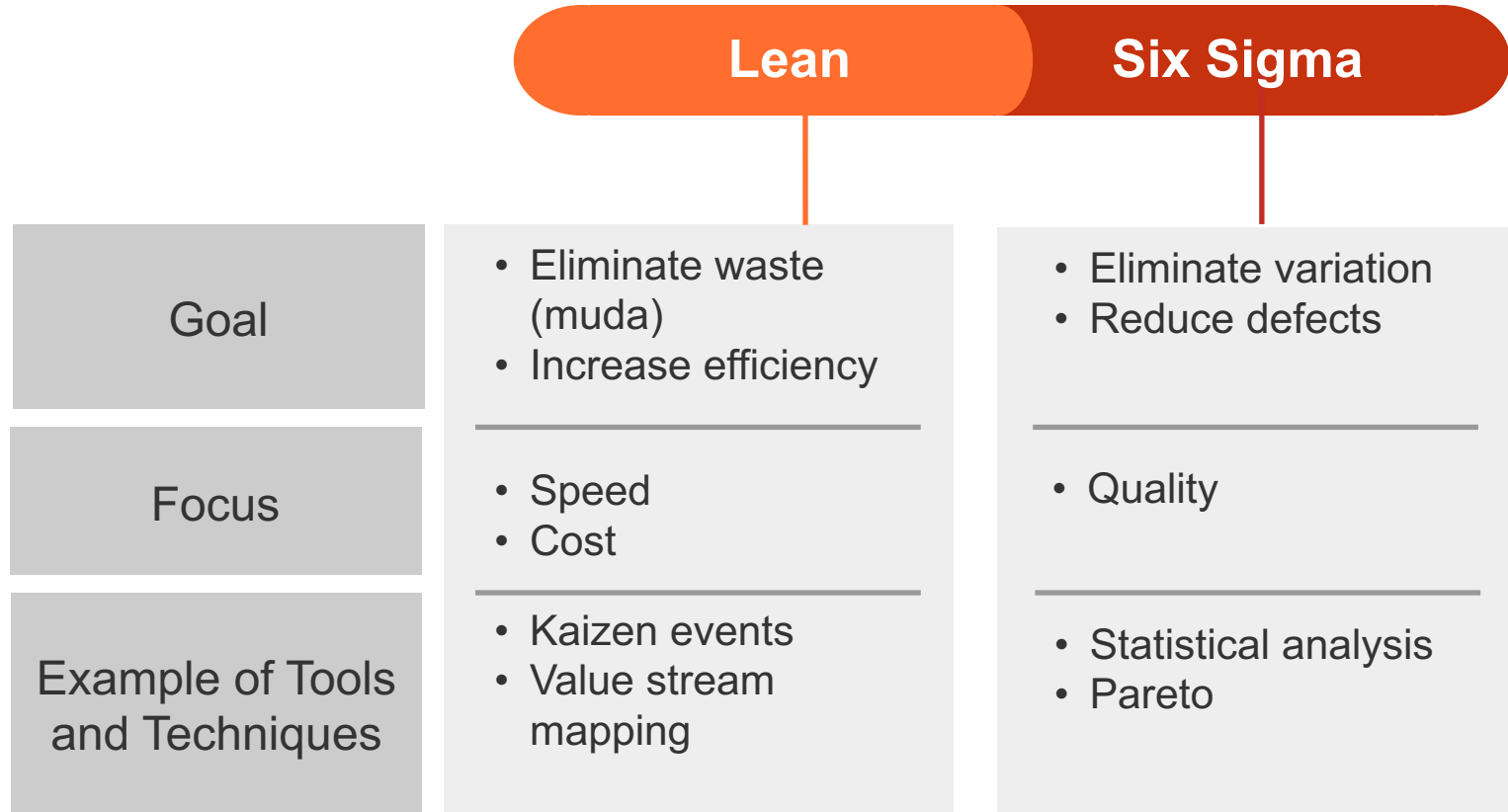
Six Sigma Overview and Applying It

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THE KINETIX GROUP

Lean Six Sigma



The Lean part is doing things more efficiently, but Six Sigma is doing things right.

Lean Six Sigma Principles

1

Focus on the customer (CTQ's, Voice of the Customer)

2

Identify the process and understand it (i.e. Value stream)

3

Manage, improve and smooth the process flow

4

Remove non value-adding steps and waste (muda)

5

Reduce variation

6

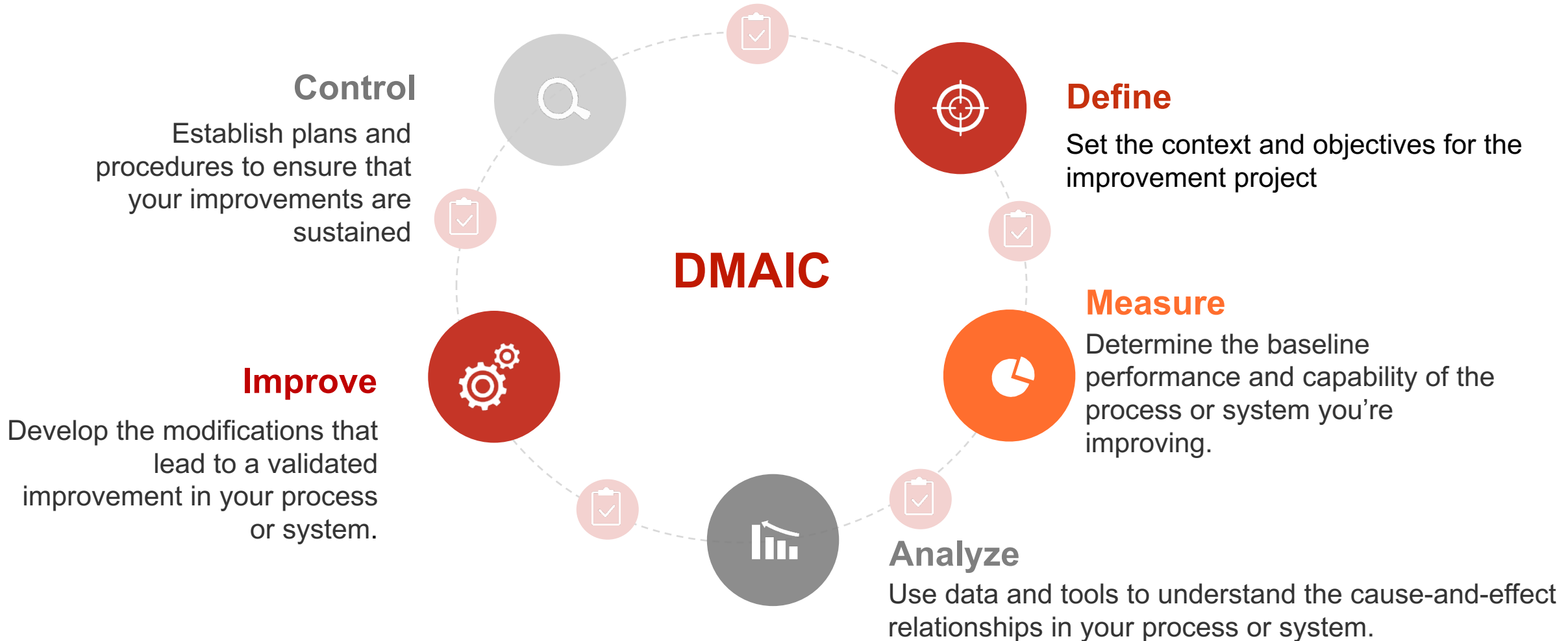
Involve and equip people in the process

7

Undertake improvement activity in a systematic way

Lean Six Sigma Methodology: DMAIC

A Structured Problem-solving Methodology



DMAIC: Define



- Project Charter
- SIPOC
- CTQ

DMAIC: Define

[Insert Project Name] [Insert Date]

PROBLEM OR OPPORTUNITY SUMMARY

A problem/opportunity statement should detail the issue those involved want to address. It should be brief, but descriptive. Potential details may include general background information, the duration of time the problem has existed for, the measurable item that is affected (i.e. describe the defect), the business and/or clinical impact, or the performance gap. A statement as to why this effort was initiated and the effect of the outcome should be included, along with an indication of how the project aligns with strategic initiatives. The Problem/Opportunity Summary should orient the team to the true need for the project.

[Insert information here]

PROJECT SCOPE & BOUNDARIES

The project scope refers to the boundaries of the project. It is an attempt to outline the range of the team's activities. This section should identify the Division, Business Unit, Function, Site, Floor, Area, process and/or product encompassed by the project. Any project constraints or restrictions should also be included. The team champion, the team leader, process owner, and the team should all be involved in this process.

[Insert information here]

PROJECT GOAL

The goal statement should be created and agreed to by the team and the team champion. It lists specific and measurable objectives for the project. This will help the team to reach consensus on what will be addressed throughout the course of the project. Ideally, the goal will be achievable within a 90 to 120-day period. A typical "rule of thumb" goal calls for a 90% reduction or improvement in an initial metric. For example, reduce noncompliance from 20% in a quarter to 10%.

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[Insert information here]

DEFECT DESCRIPTION

Define the "defects" in processes which, when reduced or eliminated, will have the greatest impact on patient safety and quality. These will be used as Critical to Quality metrics (CTQ). Include how CTQs will be measured.

[Insert information here]

CONSEQUENTIAL SUCCESS MEASURES

List any other measures that will be impacted by this project. Include the source and analysis of any baseline data that identified the opportunity.

[Insert information here]

LEVERAGE PAST/LEVERAGE FUTURE

Determine whether this project or something similar has been done before and if so, consider and describe how learnings from this project may be applied. Include any actions taken after project completion.

[Insert information here]

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Deliverable Name	Lead	Description	Content approver
7. [Insert deliverable name]	[Insert lead name]	{Insert description}	[Insert name]
8. [Insert deliverable name]	[Insert lead name]	[Insert description]	[Insert name]

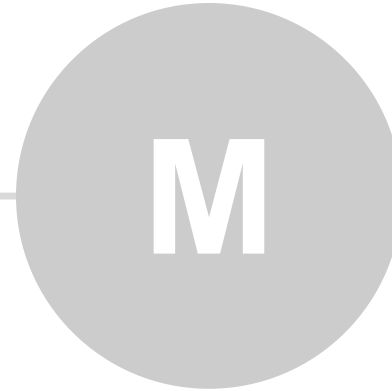
PROJECT TEAM / RESOURCE COMMITMENTS

List all members of the team and their titles. This section aims to ensure that all the individuals necessary to effect change will be involved, in addition to defining who will be on the team and why. The team may include key stakeholders to ensure they are aware of any changes, and to provide input and guidance as needed. Identify any core team members with blue font below. A specific resource commitment (e.g. 1/2 day per week for six months) should be sought from core team members and supervisors.

Role / Representative	Name / Title	Date
Project Sponsor	[Insert name, title]	
Physician Champion & Process Owner The person who will be responsible for insuring that HF control processes and metrics stay within control limits.	[Insert name, title]	
Team Co-Leader	[Insert name, title]	
Team Co-Leader	[Insert name, title]	
Six sigma/Lean/PDSA coach	[Insert name, title]	
Pharmacy – spearhead development and deployment of protocols and monitor adherence	[Insert name, title]	
Nursing – Represent "peer voices" to the project team	[Insert name, title]	
QI / Finance – Establish clinical and financial baselines and publish future project dashboards	[Insert name, title]	
Project Advisor on methodologies and best practices	[Insert name, title]	
Project Advisor on methodologies and best practices	[Insert name, title]	

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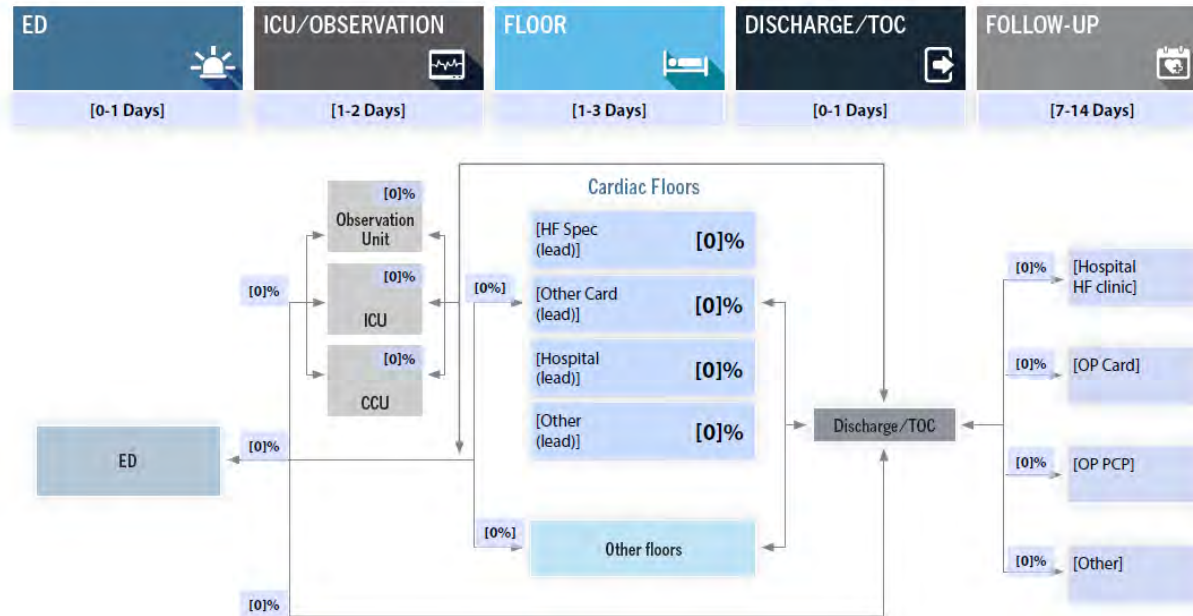
DMAIC: Measure



- Process Analysis
 - Mapping
 - Flowcharting
- Benchmarking/Baseline
- Data collection

DMAIC: Measure

HEART FAILURE PATIENT JOURNEY EXAMPLE



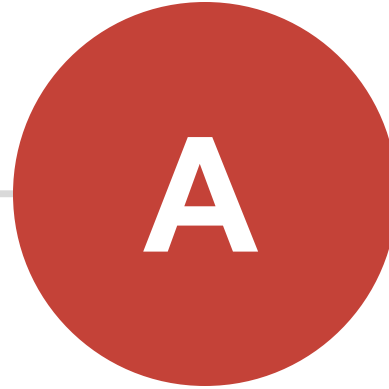
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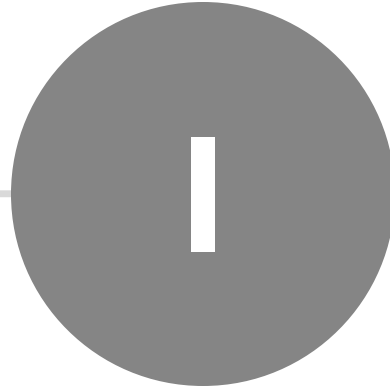
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DMAIC: Analyze



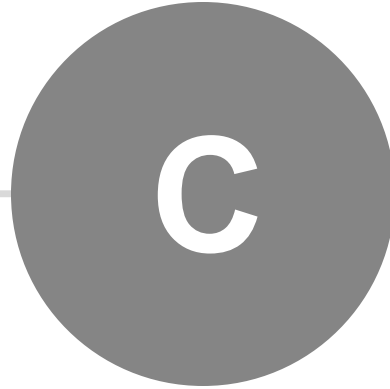
- Fishbone/Ishikawa Diagram
- Affinity Diagram
- 5 Whys

DMAIC: Improve



- Kaizen/Kaizen Blitz
- 5S (Sort/Straighten/Scrub/Systemize and standardize)
- Poka-yoke
- Kanban
- Takt time
- Cycle time reduction

DMAIC: Control



- Control plans/sheets
- Documentation
- Key lessons
- Recommendations
- Training
- Handover