

Tools & Resources for QI Success

Pediatric Hospital Medicine National
Conference

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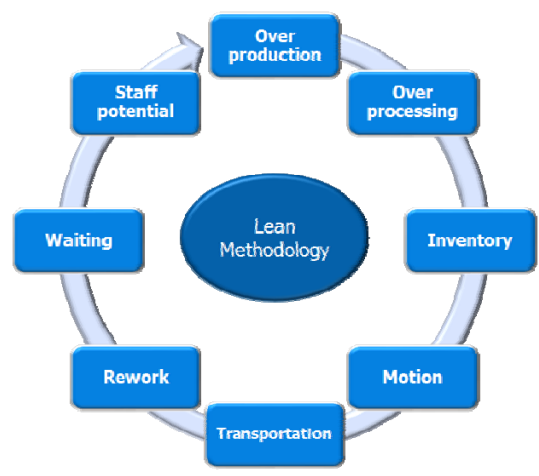
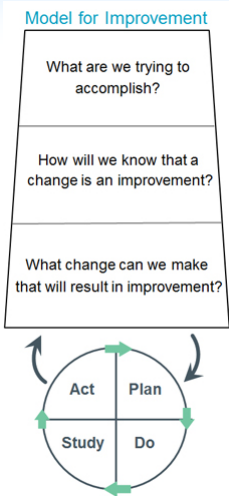
Learning Objectives

- Review several models of Quality Improvement Science
- Provide strategies to overcome common barriers
- Introduce frequently used QI tools

Introductions

- Tertiary vs Community Setting
- Clinical vs Administrative roles
- Level of QI experience

Review several models of Quality Improvement Science



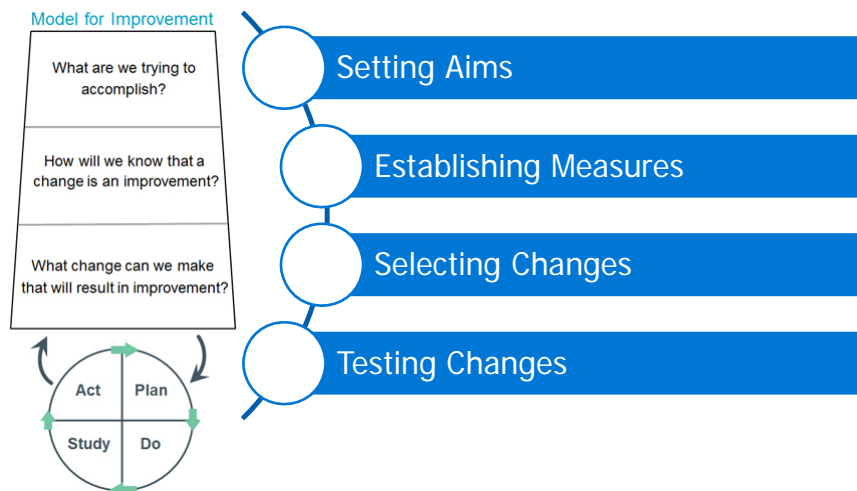
PDSA

- Originally developed as the Plan – Do – Check – Act
- Deming modified it to Plan – Do – Study – Act (PDSA)
- Now it is utilized as part of the “Model for Improvement” by the Institute for Healthcare Improvement



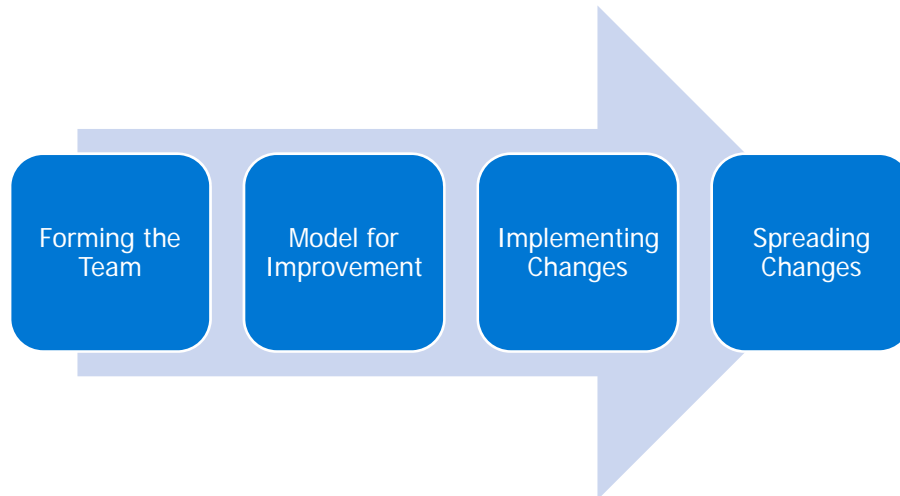
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Model for Improvement



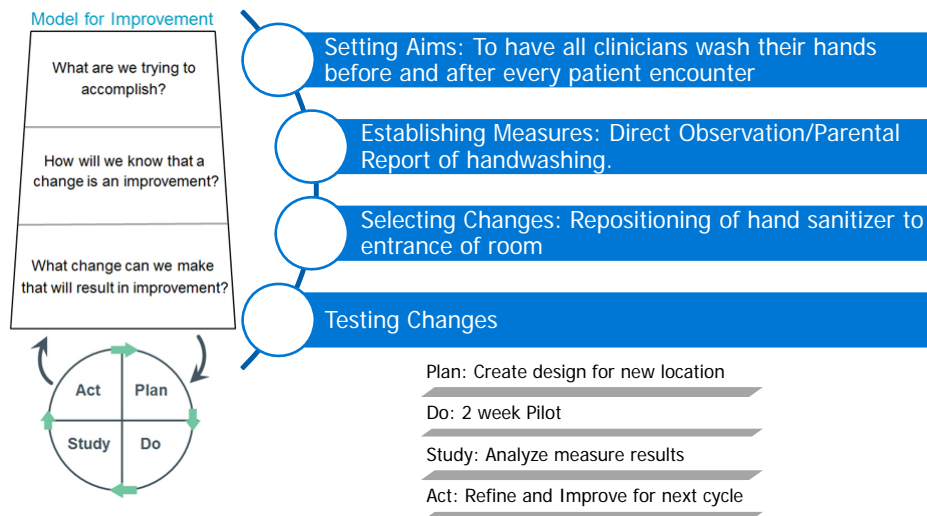
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Science of Improvement



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Example: Handwashing Initiative



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DMAIC

A step by step methodology used to solve problems by identifying and addressing the root causes of a problem

DEFINE

What is the problem or improvement opportunity? Who does the problem affect and what are their expectations?

MEASURE

How is the process currently measured and what is your performance?

ANALYZE

What are the root causes of poor performance and can they be prioritized?

IMPROVE

What solutions / improvements can be developed to eliminate or reduce poor performance?

CONTROL

How do we sustain improved performance?

DMAIC

Or in even fewer words...

DEFINE

Identify the problem and goal

MEASURE

Baseline current performance

ANALYZE

Validate key drivers or error

IMPROVE

Fix the key drivers of error

CONTROL

Sustain improvement

Example: Handwashing Initiative

DEFINE

Hospital Acquired Infections are prevalent in many centers leading to longer length of stay and higher cost. Improved handwashing has been shown to decrease HAIs, specifically MRSA.

MEASURE

Our current MRSA rate on our acute care medical floor is X. Direct observation of handwashing compliance is at 50%.

ANALYZE

Factors leading to our baseline metrics:
Placement of dispensers/empty dispensers and staff knowledge of importance

IMPROVE

Reposition hand dispensers and put in place a maintenance schedule so they are more likely to be filled. Education to all staff with signs above dispensers regarding importance.

CONTROL

Create dashboards that are placed in high traffic areas. Creation of a control team.

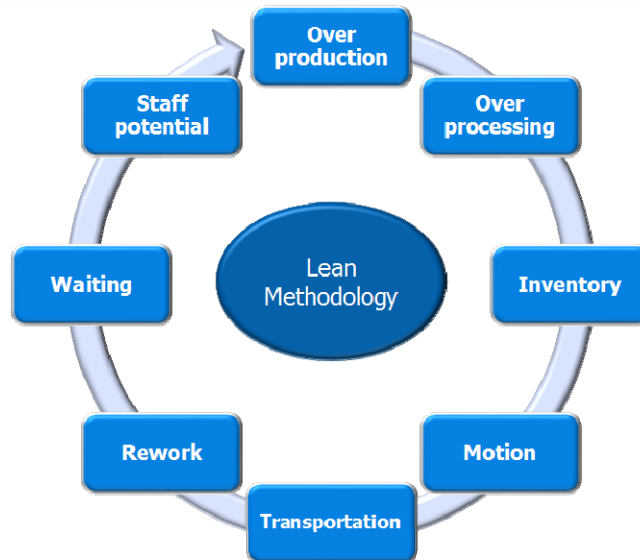
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Lean Methodology

Provide what is needed, when it is needed, using the minimum amount of resources by reducing waste and improving flow.

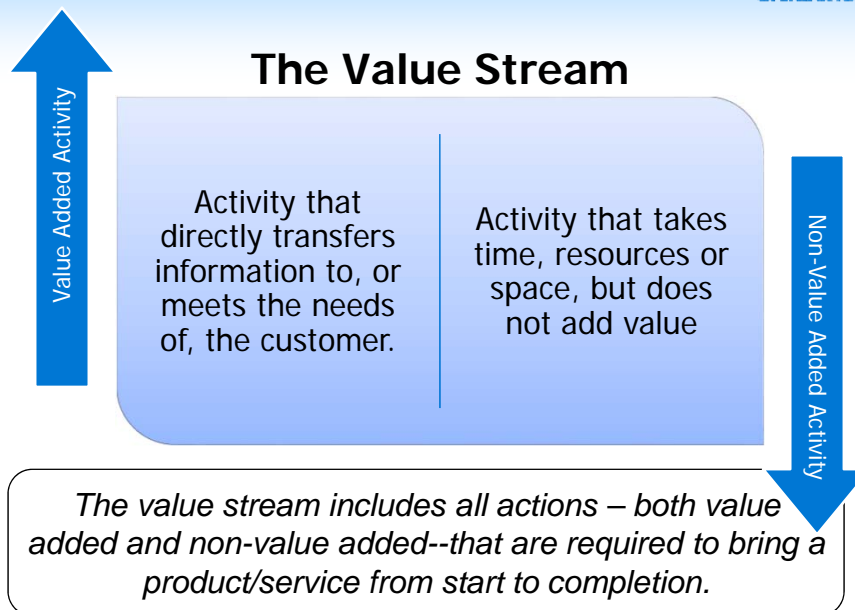
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The Ways we Waste



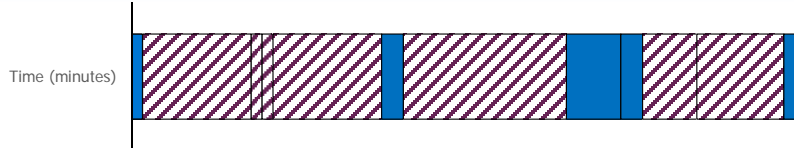
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The Value Stream



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Value Stream: Medications



Steps in Process	Time (Minutes)
■ MD places order	1
▨ Order awaits RN acknowledgment	10
▨ RN releases order	1
▨ Order received by Pharmacy	1
▨ Order awaits action	10
■ Dose verified by Pharmacist	2
▨ Placed in Queue	15
■ Order filled by technician	5
■ Order double checked by Pharmacist	2
▨ Medication dispensed to floor	5
▨ Medication awaits RN acknowledgment	8
■ RN scans medication	1
■ RN administers medication	1

*Focus on
Minimizing Non-
Value Add Time
(Waste)*

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Provide strategies to
overcome common barriers

Introduce frequently used QI
tools



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QI Initiatives:
What
challenges are
you facing?

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Common Barriers with Solutions

Creating your team

- Team design
- Stakeholder Analysis

Defining the scope/timeline

- Project Charter
- AIM Statement
- Gantt Chart

Identifying the problem/barriers

- Process Mapping
- Fishbone Analysis
- Key Driver Diagram

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Lead Team

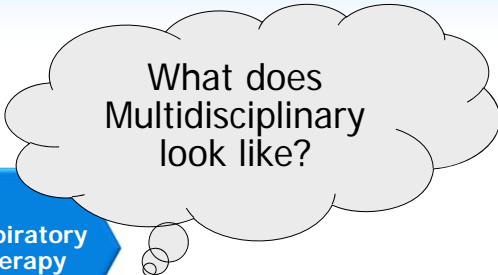
- Composition
 - Project leads
 - QI facilitator
- Role
 - Assemble team
 - Create Project Charter
 - Clearly defines team roles

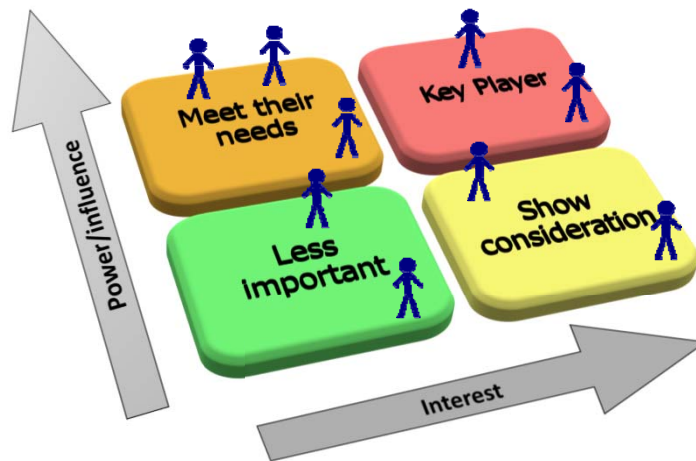
Core Team

- Composition
 - Multidisciplinary
 - Front line staff
 - Local leadership
- Role
 - Define Process
 - Identify barriers
 - Design new process

Executive Sponsors

- Composition
 - "C-suite" partner
- Role
 - Removes hospital level barriers
 - Facilitates networking at the administrator level





Common Barriers with Solutions

Creating your team

- Team design
- Stakeholder Analysis

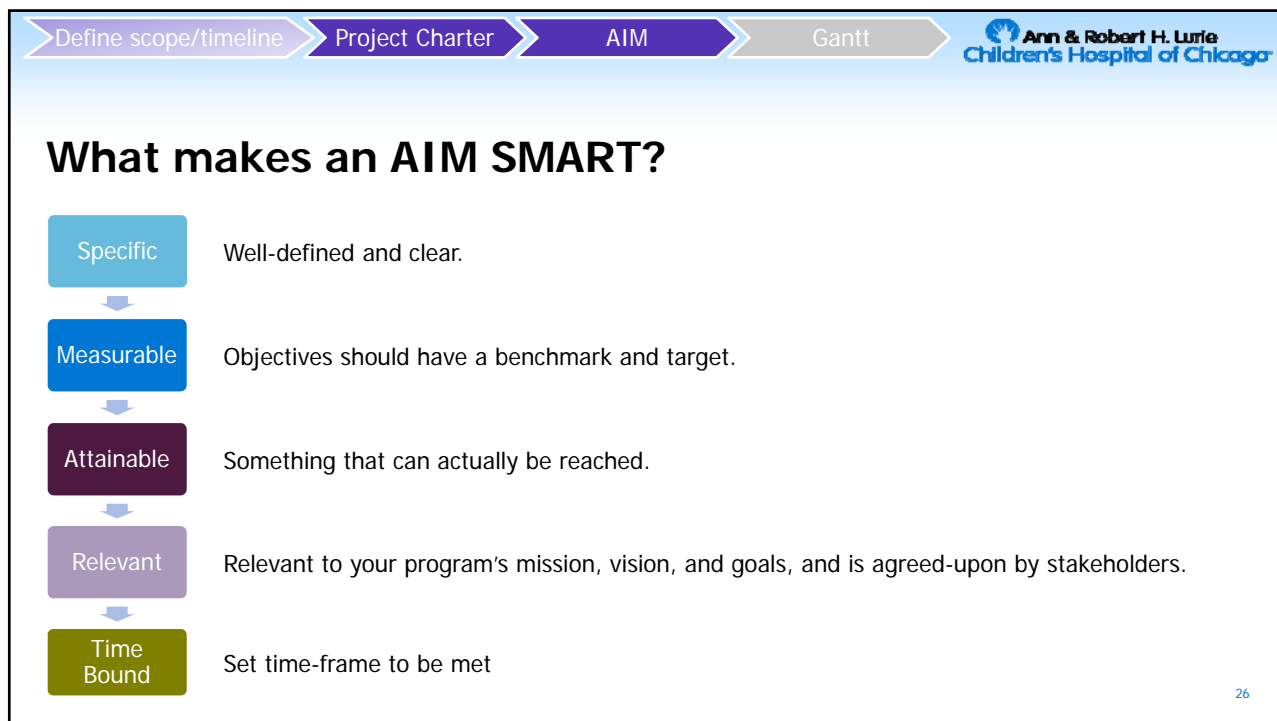
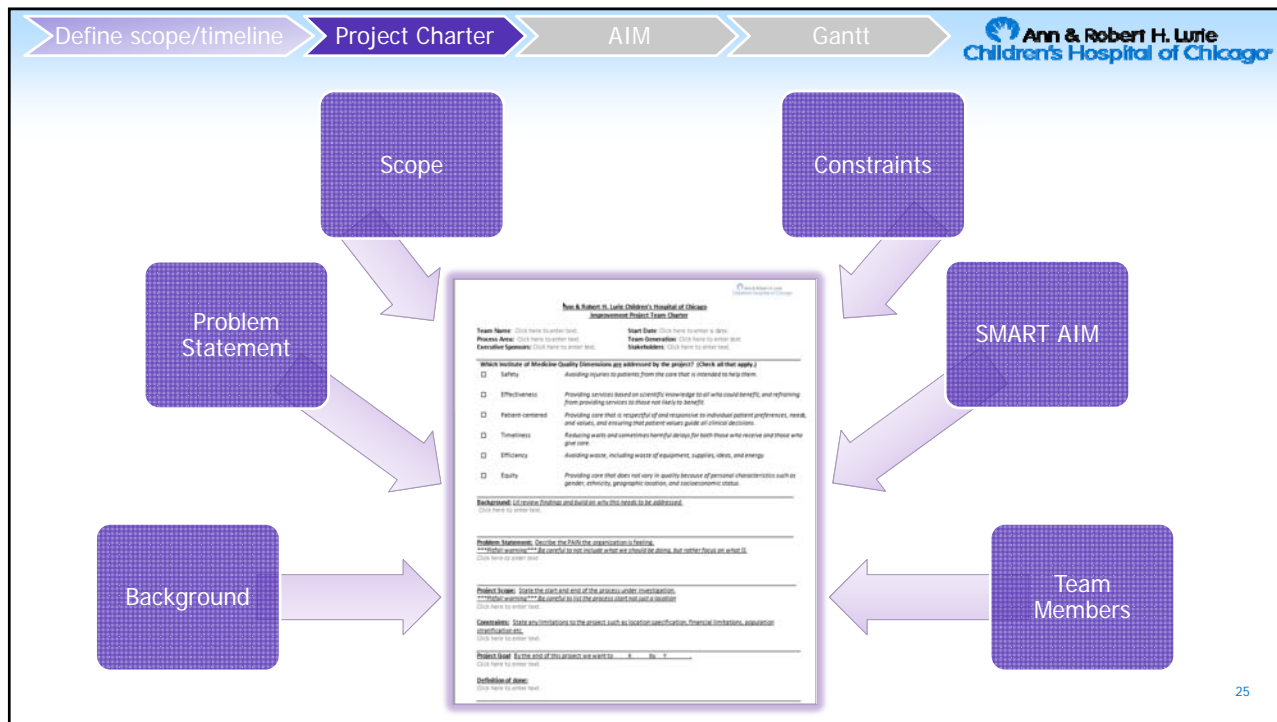


Defining the scope/timeline

- Project Charter
- AIM Statement
- Gantt Chart

Identifying the problem/barriers

- Process Mapping
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What makes an AIM SMART?

Specific

Increase hand-washing before and after every patient encounter ...

Measurable

... from 50% to 80% ...

Attainable

Why: Perfection not expected.

Relevant

How: Corporate goal of reducing Hospital Acquired Infections

Time Bound

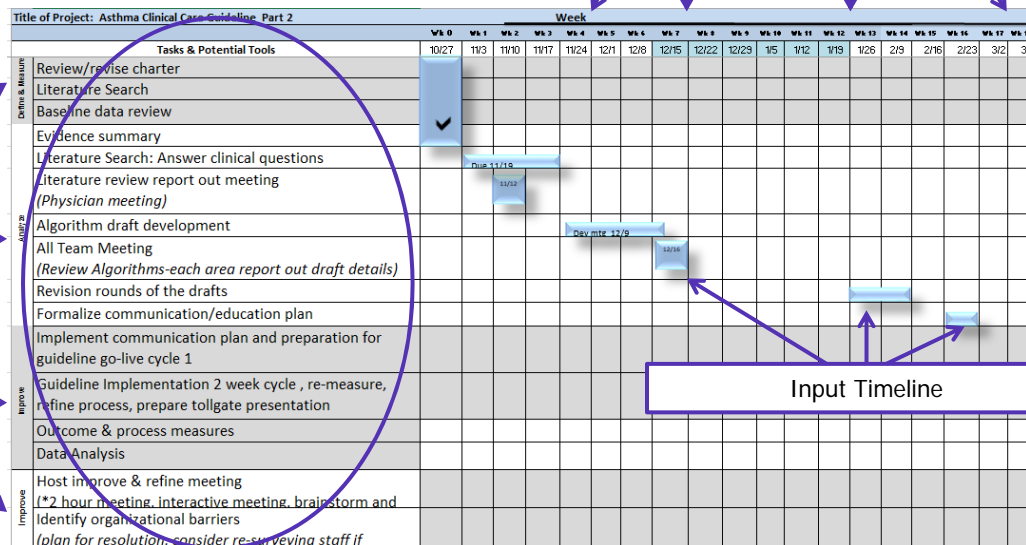
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Gantt Chart: Project Planning

Input Calendar Weeks

Input Systematic Approach on the Side



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Common Barriers with Solutions

Creating your team

- Team design
- Stakeholder Analysis



Defining the scope/timeline

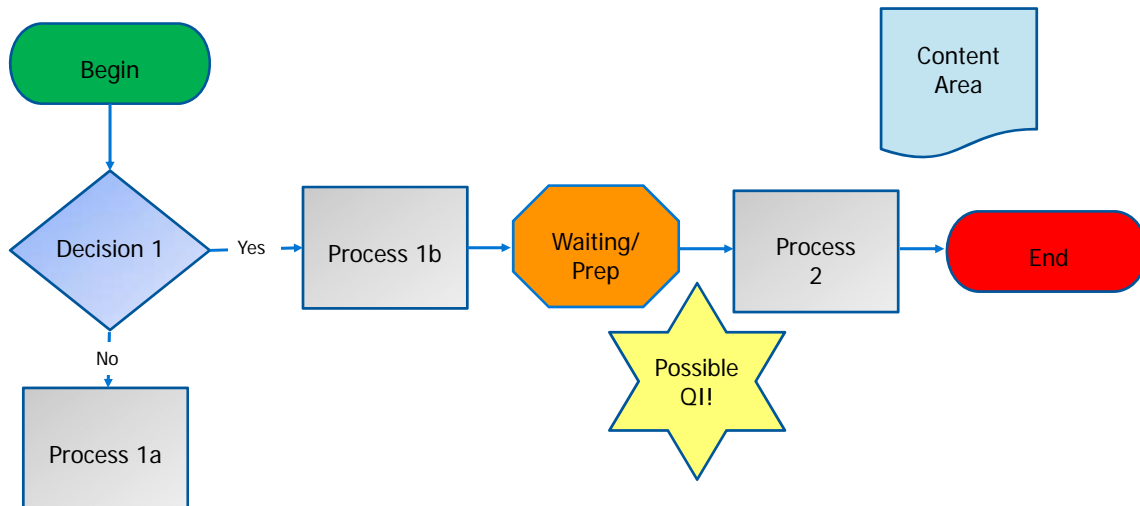
- Project Charter
- AIM Statement
- Gantt Chart



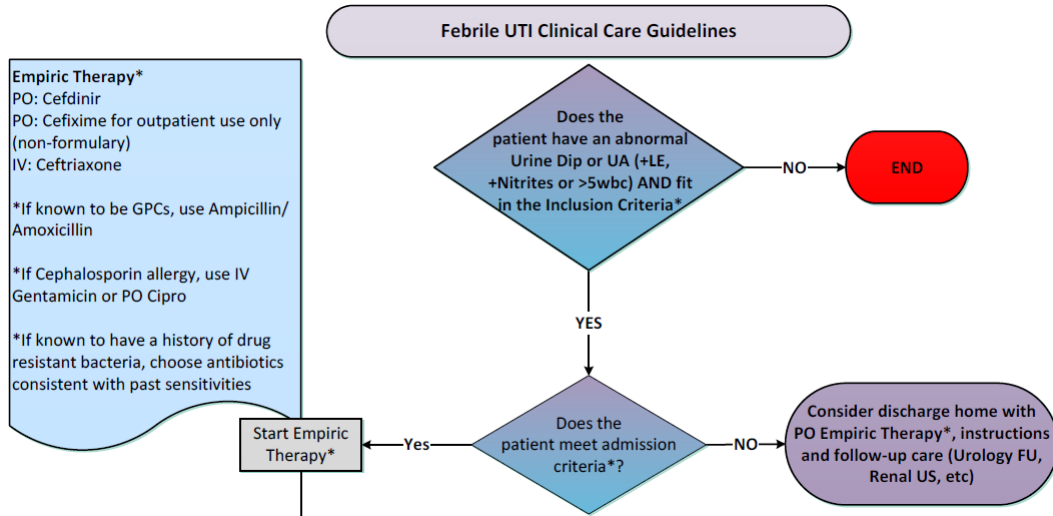
Identifying the problem/barriers

- Process Mapping
- Fishbone Analysis
- Key Driver Diagram

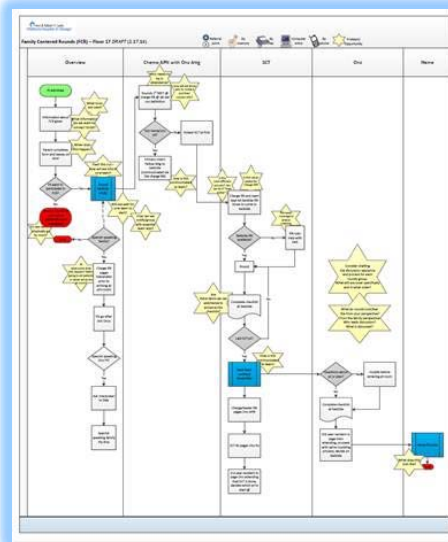
Process Mapping



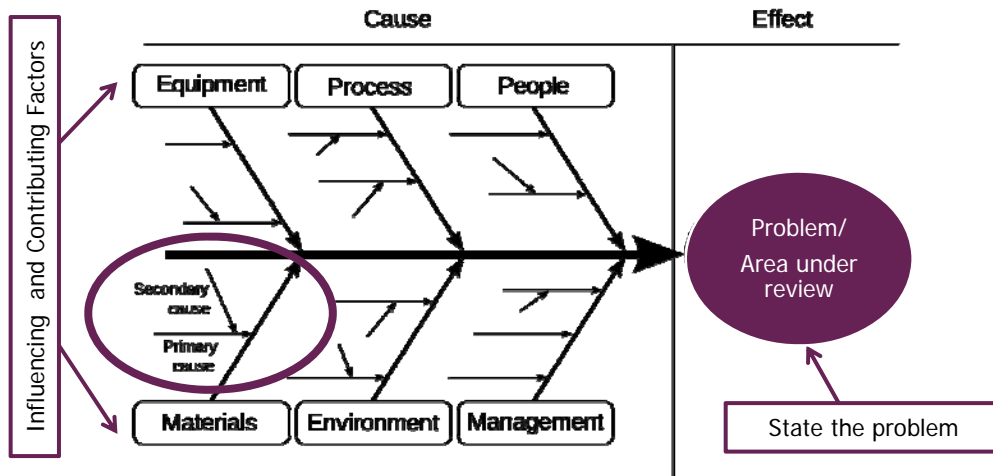
Process Map Example



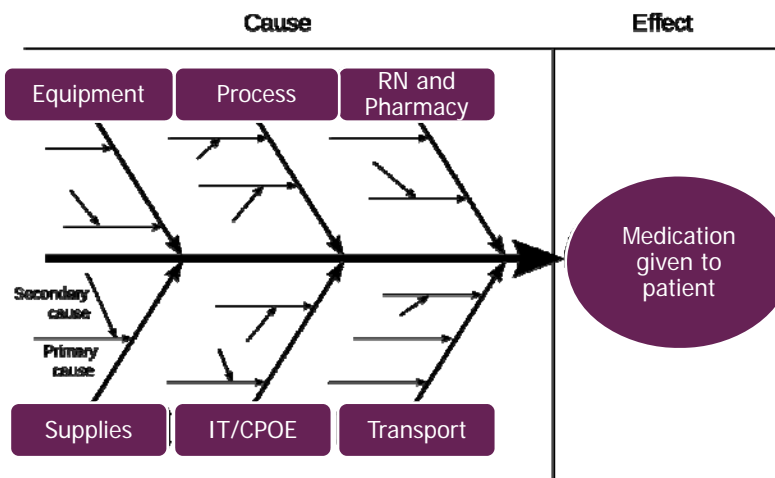
It can get complicated!



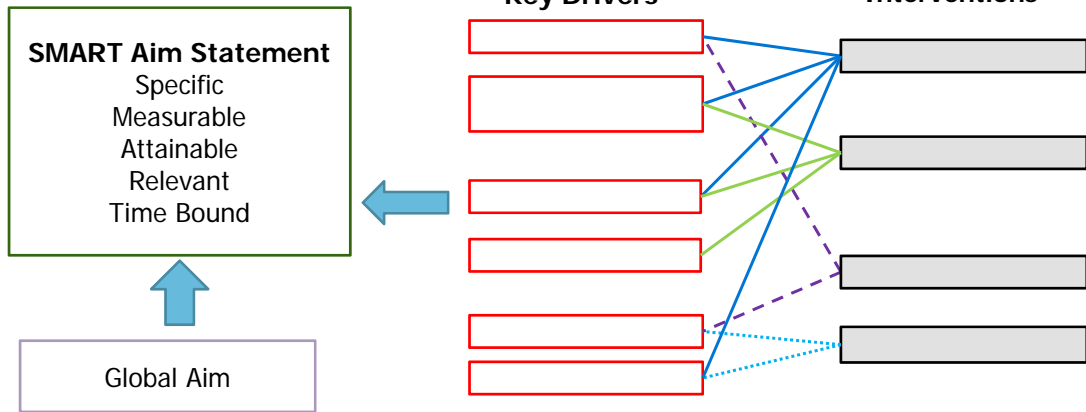
Fishbone



Fishbone



Key Driver Diagram



Thank You

