

# Starting a QI initiative

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## Forming your team

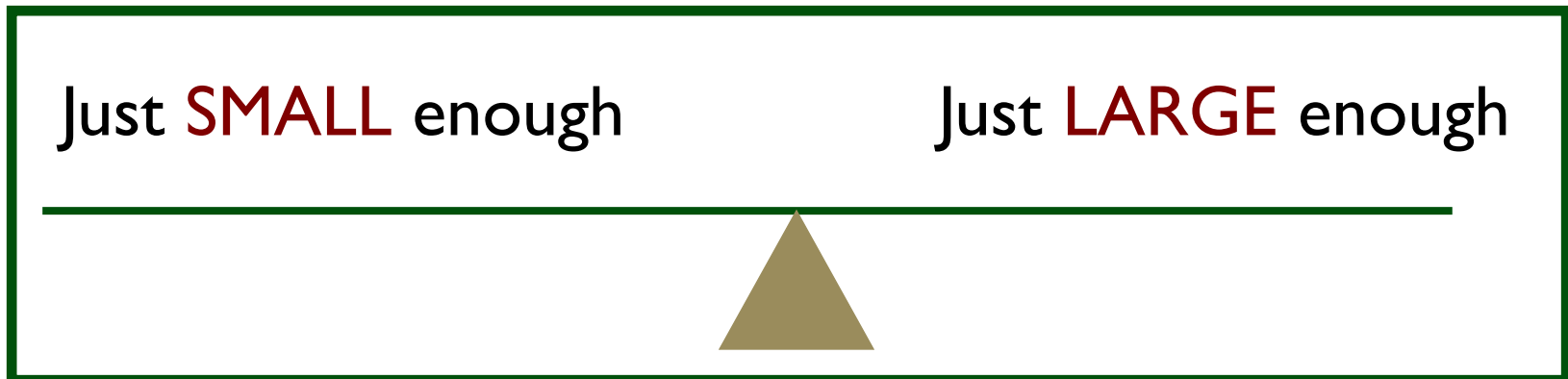
NOTE: We recommend that core team members develop a QI initiative together.

# Do I really need to work in a team?

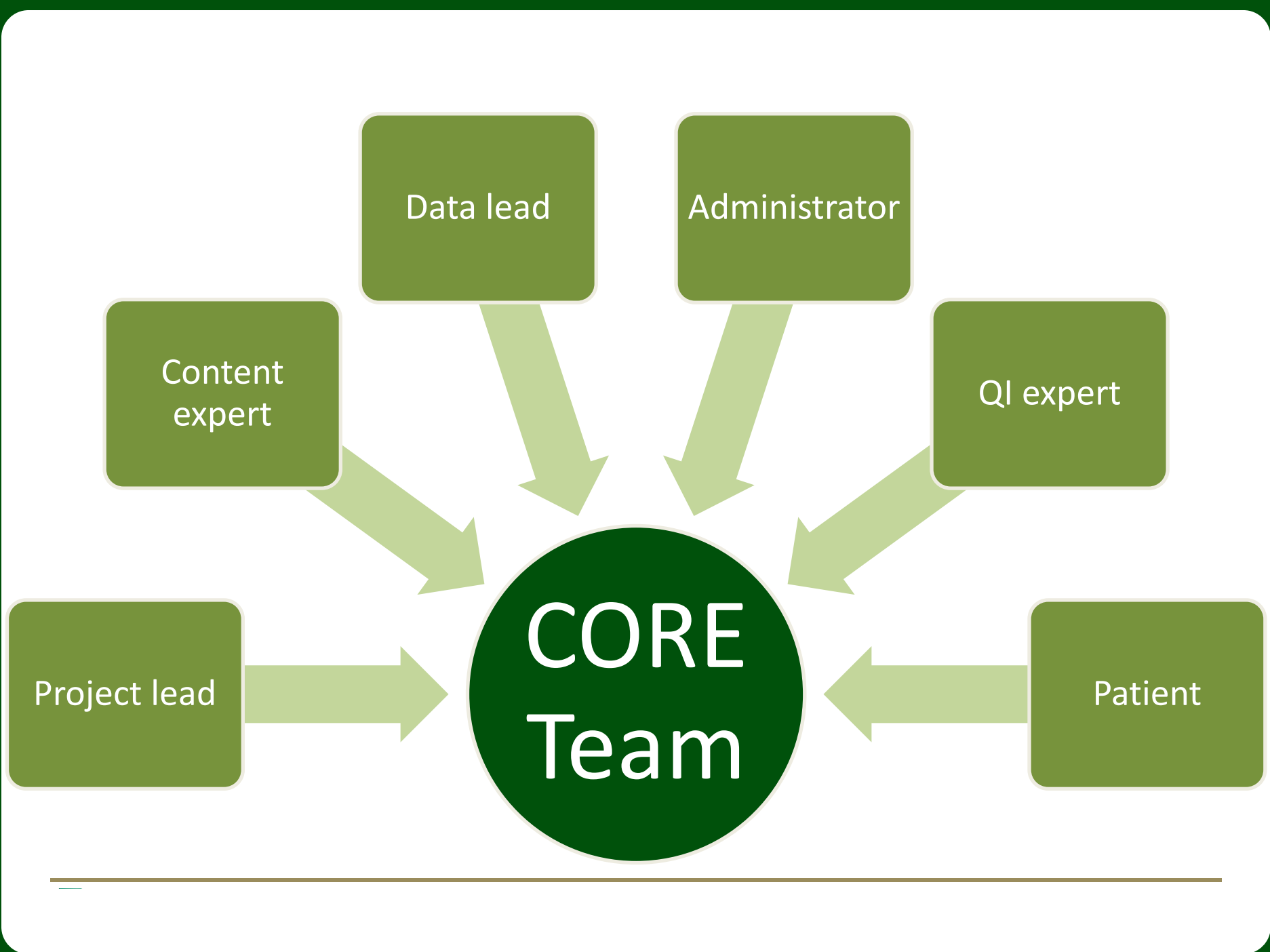
- Complex system/process
- Involves >1 department/discipline
- Knowledge about the process held >1 person
- Need creativity or differing perspectives
- Need commitment or buy-in to be successful

# Team composition

- Inter-professional
  - Include anyone who “touches” the process



- 6-10 CORE team members
  - Some processes may need sub-teams



Data lead

Administrator

Content expert

QI expert

Project lead

Patient

CORE  
Team

# Successful teams

Trust

Team norms

Shared mental model

Clear roles & responsibilities

Effective communication

Structured team meetings

# Structured team meetings

GOAL	Actions
Be Prepared	<ul style="list-style-type: none"><li>• Be organized</li><li>• Start &amp; end on time</li><li>• Have an agenda</li></ul>
Know Norms	<ul style="list-style-type: none"><li>• Document &amp; value all input/opinions</li><li>• Build consensus</li><li>• Keep people on track</li></ul>
Understand Attitudes	<ul style="list-style-type: none"><li>• Stay positive</li><li>• Appreciate other</li><li>• Celebrate successes</li></ul>
Communicate	<ul style="list-style-type: none"><li>• Team &amp; organization</li><li>• Doesn't need to be 1 hour</li></ul>

# Starting a QI initiative

## Identifying the problem

NOTE: We recommend that core team members develop a QI initiative together.



	<b>Research</b>	<b>Improvement</b>
<b>Aim</b>	New knowledge	Improvement in care
<b>Test</b>	Blinded or controlled test	Observable test
<b>Bias</b>	Design to eliminate bias	Accept consistent bias
<b>Sample size</b>	Just in case data	Just enough data, small sequential samples
<b>Hypothesis flexibility</b>	Fixed hypothesis	Hypothesis flexible & changes as learning takes place
<b>Testing strategy</b>	One large test	Sequential tests
<b>Determining if a change is an improvement</b>	Hypothesis tests, statistical tests, p values	Run charts or Control charts
<b>Data confidentiality</b>	Research subject identities are protected	Data used only by those involved with improvement

# QI in healthcare

## Quality is defined...<sup>1,2</sup>

**What & how well** something is done

***AND***

Doing the **right thing** → delivering needed healthcare services

At the **right time** → when patients need them

In the **right way** → using appropriate tests/procedures

1. Oh W, Berns SD, Blouin AS, Campbell DE, Fleischman AR, Gluck PA, O’Kane ME, Santa-Donato A, Simpson KR, Stark AR, Wachtel JS. Toward Improving the Outcomes of Pregnancy III. March of Dimes. August 2011.

2. Institute of Medicine. Shaping the Future for Health. To Err is Human: Building a Safer Health System. Washington, DC: National Academy Press, 1999.

# Variation is everywhere

## Goals

- Understand variation
- Control degree of variation
- Minimize its impact

## ***Decrease variation***

***→ deliver service in a **predictable** manner***

***→ produce a **predictable & reliable** result***

# *opportunity for improvement*

## Selecting the *right*

- **What *is* the problem?**

- Is it important/relevant?
- How long has it existed?
- Who does this problem affect?

What story do you want to tell?

- ***How do you know it's a problem?***

- Is it obvious to most people?
- Can you prove it is a problem?

What kind of data do you need to tell the story?

- **What will fixing the problem *solve*?**

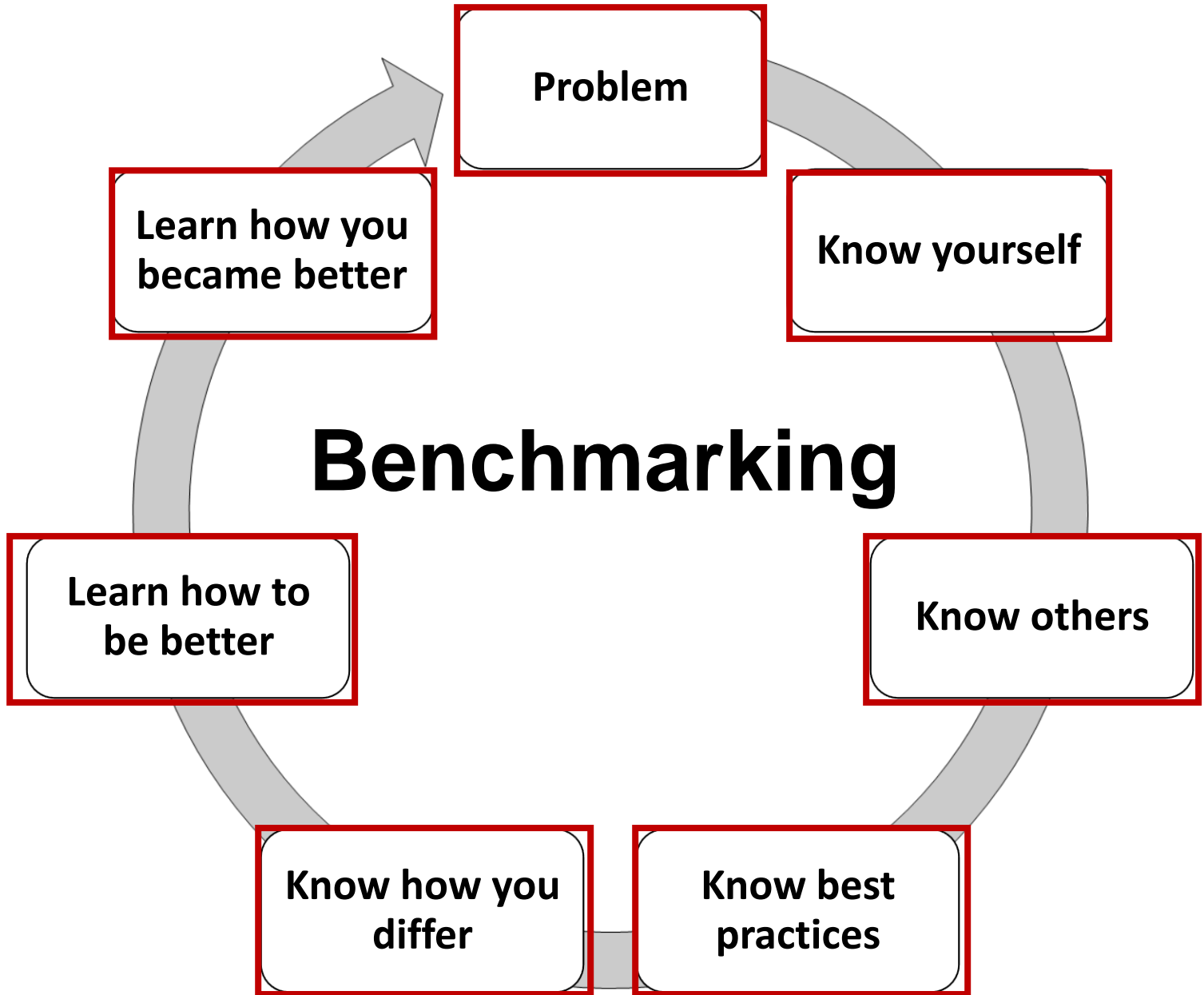
- How does it impact your unit/hospital?
- Are there potential cost/resource savings?

What's in it for me?

# Value of standardized processes

*Processes should be standardized  
before improvement can begin*

- Baseline for QI activities
- Where is a process?
- Where is the process going?
- How is the process getting there?



# Creating a Problem Statement

- Commonly used in Academic & Quality / Performance improvement methodologies
- Serves to center & focus the team to “stay on track”
- Should meet the following criteria:
  - Focused only on *one* problem
  - Represent a *solvable* problem, but does not offer solutions
  - Clear & concise (1-2 sentences)
  - Devoid of assumptions

# Examples of a problem statement

Last month's random audit of hand washing among physicians and nurses in the NICU demonstrates a 30% compliance rate. This is of significant concern because poor hand hygiene has been associated with an increased risk of hospital-acquired infections.

## Problem statement criteria

- ✓ Focused only on *one* problem
- ✓ Represent a solvable problem, but does not offer solutions
- ✓ Clear & concise (1-2 sentences)
- ✓ Devoid of assumptions



# Examples of **our** problem statement

In 2017, 9% of infants  $\geq 34$  weeks GA received empiric antibiotics for 48 hours while awaiting blood culture results either in the Newborn Nursery or NICU setting at TGH, regardless of their clinical appearance. This is important because altering the infant's microbiome with antibiotics leads to MDROs, as well as having implications for immune and metabolic function.

## Problem statement criteria

- ✓ Focused only on *one* problem
- ✓ Represent a solvable problem, but does not offer solutions
- ✓ Clear & concise (1-2 sentences)
- ✓ Devoid of assumptions

# **Develop your project's problem statement**

**Problem in Section 1 (page 4) & example in Appendix A (page 28)**

# **Starting a QI initiative**

## **Developing the aim statement**

# SMART Aim statements

Specific

Measureable

Actionable/Agreed upon

Relevant

Time bound

*Results  
are only as good as  
the type of question  
asked & how it is*

# Set realistic goals

- Data may not exist yet
- Goals can change

*If I had 1 hour to save the world,  
I would spend 55 minutes defining the problem  
and only 5 minutes finding the solution.”*

– Albert Einstein

# Define a SMART AIM statement

<b>S</b>	Specific	<p>By 4/2017, ≥ 50% of mothers delivering infants ≤30 6/7 weeks <i>or</i> ≤1500 g at TGH will have 1<sup>st</sup> pumping session occur ≤6 hours of life</p>
<b>M</b>	Measureable	
<b>A</b>	Actionable/ Agreed upon	
<b>R</b>	Relevant	
<b>T</b>	Time bound	

\*It should also include a time frame, major contributor, gap between current & desired state, impact on the organization.

\*Many times no data at this stage → target 50% improvement & revisit

# Examples of AIM statements

- Through implementation of an EMR, our patients at risk for pressure ulcers will get better care.
- We will create a truly interdisciplinary team to provide specialized patient-centered care for those with pressure ulcers.
- We will improve the prevention of pressure ulcers for patients in our hospital. By May 2015, we aim to decrease the prevalence and incidence of pressure ulcers by 75%
  - Prevalence from the current 20% to below 5%
  - Incidence from the current 10% to below 2.5%

Specific  
Measurable  
Actionable/Agreed upon  
Relevant  
Time boundc

# Example of **our** aim statement

By 6/2018, we will have an  $\geq 30\%$  reduction in antibiotic use in the first 3 days of life for  $\geq 34$  week GA infants who are admitted to the TGH Newborn Nursery or NICU and whose mother had a diagnosis of chorioamnionitis and/or qualified for GBS intrapartum antibiotic prophylaxis (IAP) (from 9% to 6%).

**Specific**

**Measurable**

**Actionable/Agreed upon**

**Relevant**

**Time bound**



# **Develop your project's aim statement**

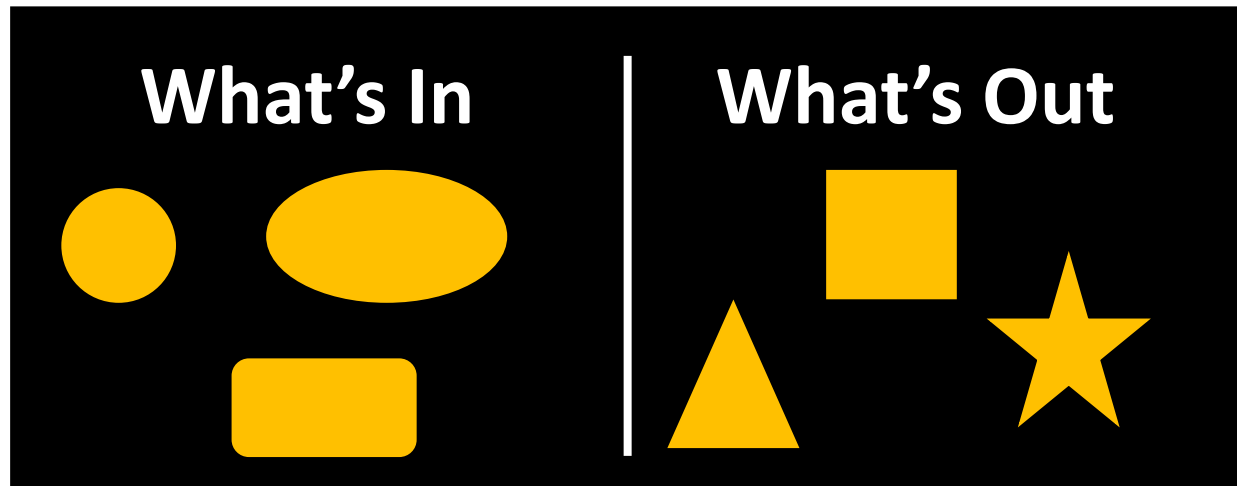
Determining the aim statement in Section 5 (pg. 10)  
Examples of aim statements in Appendix E (pg. 33)

# **Starting a QI initiative**

**Identifying project scope**

# Clearly define the scope

- Boundaries of the *process* in a project
  - Helps team stay focused
  - “Scope creep” → project failure
    - Be clear about what **is** included & **is not** included



# EOS initiative

## INCLUDES

- $\geq 34$  0/7 week GA
- Inborn
- Mother with diagnosis of chorioamnionitis and/or qualified for GBS IAP

## DOES NOT INCLUDE

- Major congenital anomalies
- Surgical conditions
- Outborn

## PROCESS SCOPE START

Infant born

## PROCESS SCOPE END

Infant 3 days of life

PROCESS	PROJECT
Start: Birth Stop: 3 days of life	Include: $\geq 34$ 0/7 week GA, inborn, mother with diagnosis of chorio and/or qualified for GBS IAP Exclude: major congenital anomalies, surgical conditions, outborn

# Identify your project's scope

Scope in Section 6 (page 12)

Examples in Appendix E (page 33)