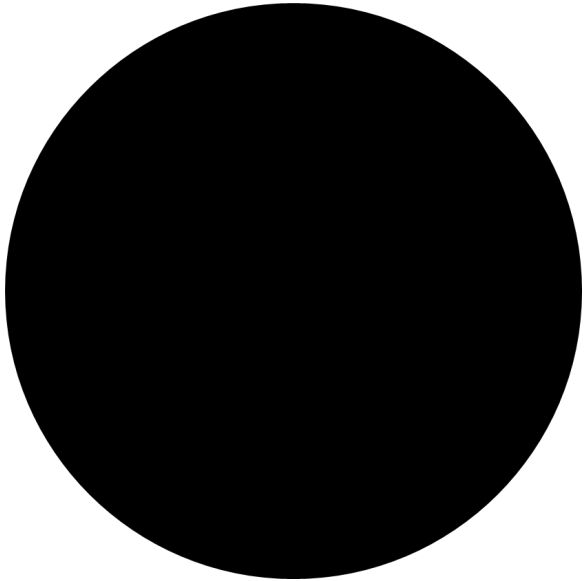
Quality Improvement (QI) 101

Date

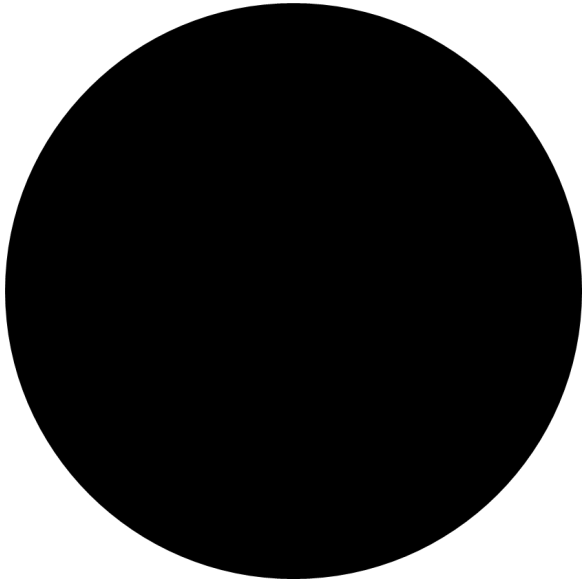


COMMUNITY SOLUTIONS

Who We Are



Team Member
City, State



Team Member
City, State

Our Goals for Today

- Understand Quality Improvement
- Develop improvement mindsets and behaviours
- Introduce the Model for Improvement (MFI)
- Learn to use a driver diagram tool to organise overall aim, change ideas, and measurements
- Introduce improvement projects & P-D-S-A cycles
- Learn how to use run charts

Quality Improvement:
Basics, Behaviours, & Mindsets

Birds and Baseballs

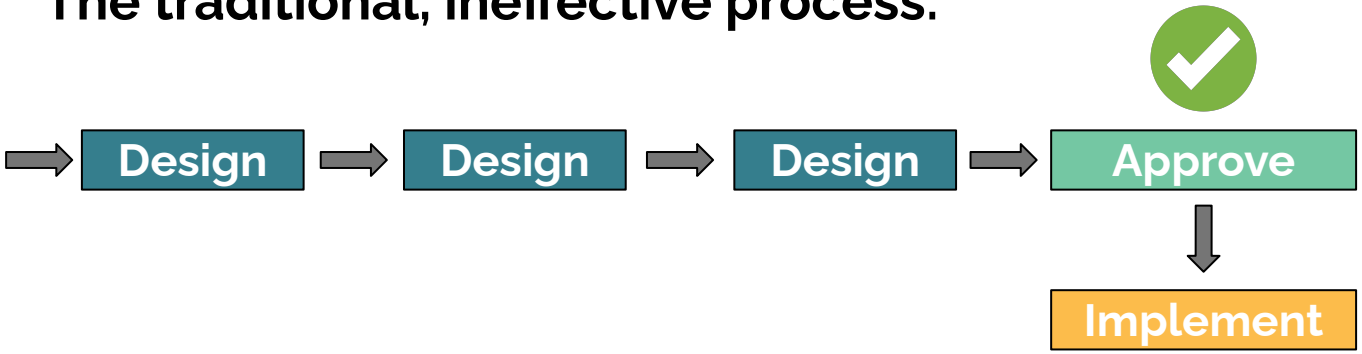


Birds and Baseballs

As we heard, complex problems can't be solved by a single actor or better technical solutions.

The traditional, ineffective process:

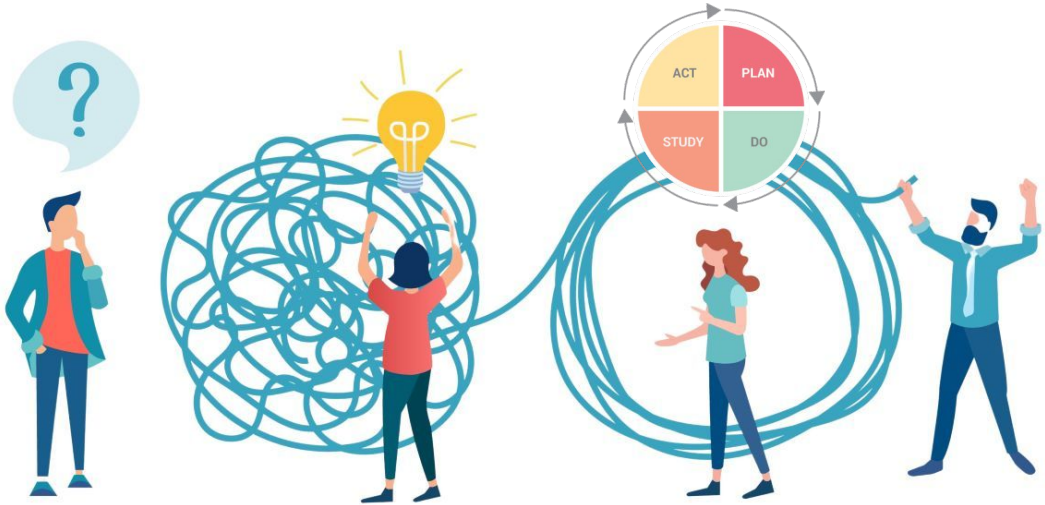




Communities need a new approach to collaborative problem solving & change!

New Approach: Quality Improvement

QI: a systematic and coordinated approach to solving a problem using specific methods and tools with the aim of bringing about a measurable improvement.



Implement change after effective continuous testing

System Change

Two Types of Knowledge for Improvement

Subject Matter Expertise



Deep subject knowledge in the are you work

Science of Improvement



Applying improvement theories practically to the real world

Mindsets to Tackle Complex Problems

Subject matter experts will need to **employ new, more flexible mindsets** as we pursue improvement and solving complex problems.



Growth Mindset We don't know how to solve the problem - *yet!* That doesn't mean we can't figure it out!



Embrace Failing Forward Test a theory, if/when there is failure - embrace it fully & quickly! Then re-iterate & improve based on what we learned.



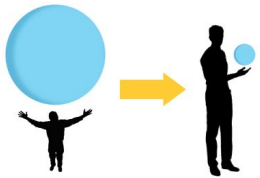
Bias Towards Action Just start! Remember, We don't need busy 10 year plans to end homelessness, we need 10 day plans!

Mindsets to Tackle Complex Problems

Subject matter experts will need to **employ new, more flexible mindsets** as we pursue improvement and solving complex problems.



Curious Thinking ask questions to draw out challenges, opportunities, and to get clear!



Shrink the Change the challenge can feel so large & urgent- but you need to stay focused on system thinking & making small changes that are in your control as a team! You can do it!



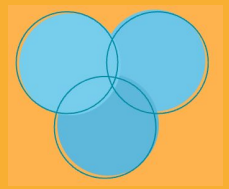
Problem Solving process out loud with your team! Refocus around being solution driven at all times & organise your ideas.

New Behaviours + New Mindsets = New Results

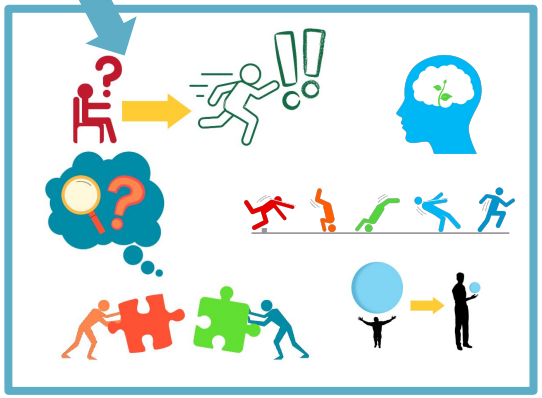
Subject Matter Experts



QUALITY IMPROVEMENT



+



=



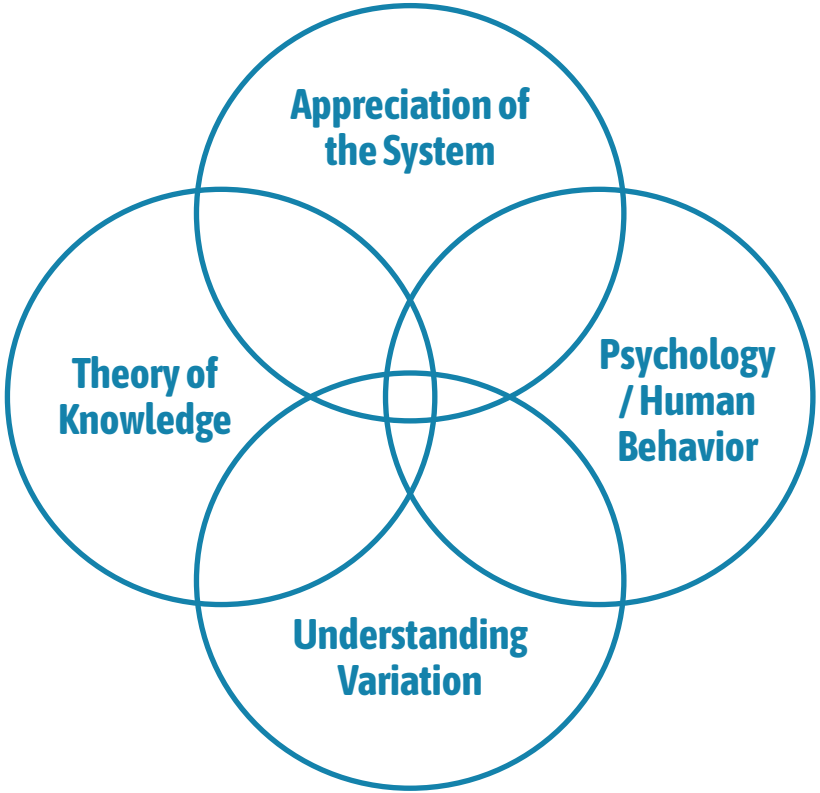
SHIFT
REDUCTIONS!
FUNCTIONAL ZERO!

Four Lenses of Curiosity

Why Curiosity?

- Every system is **perfectly designed** to **get the results it gets**.
- **Everyone has the expertise** they need to improve their work – and their system!
- An improver's **primary job is to be curious** about the systems underpinning their work

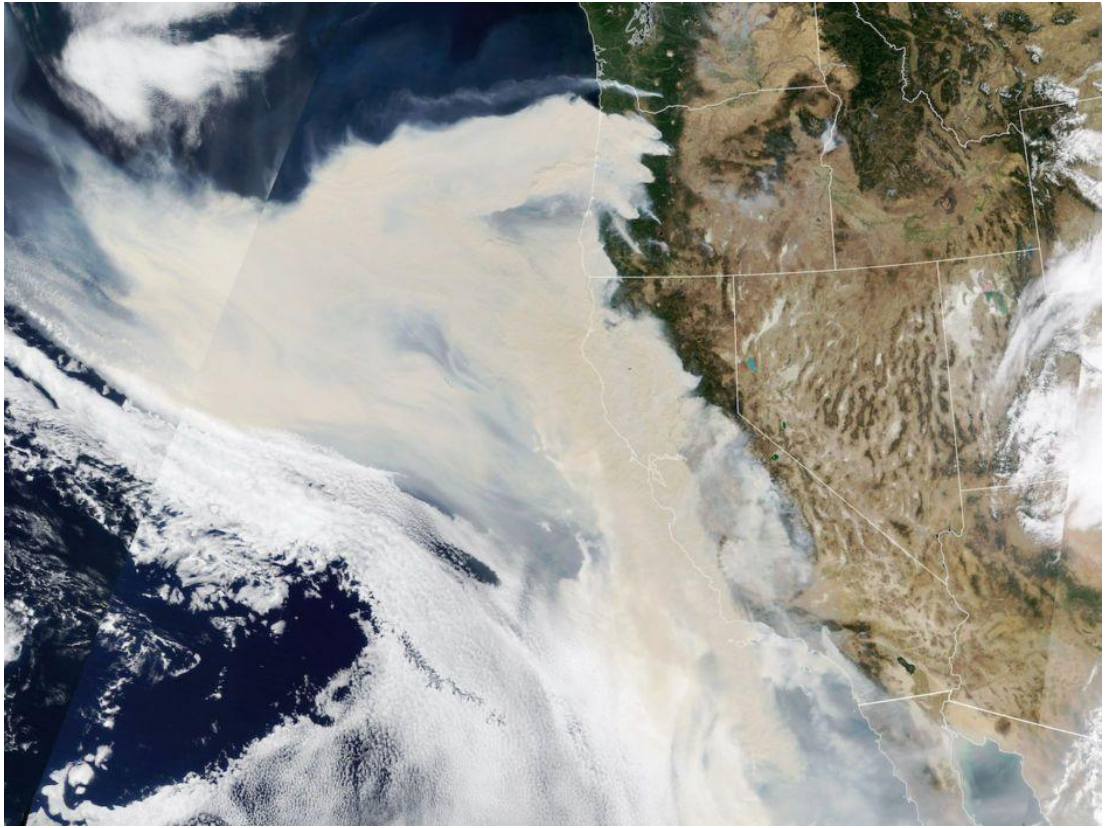
The Four Lenses of Curiosity



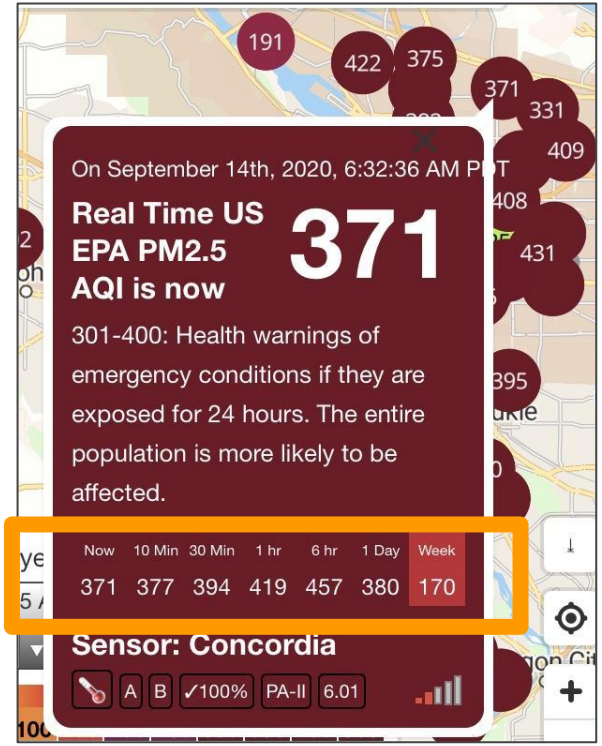
The Four Lenses of Curiosity

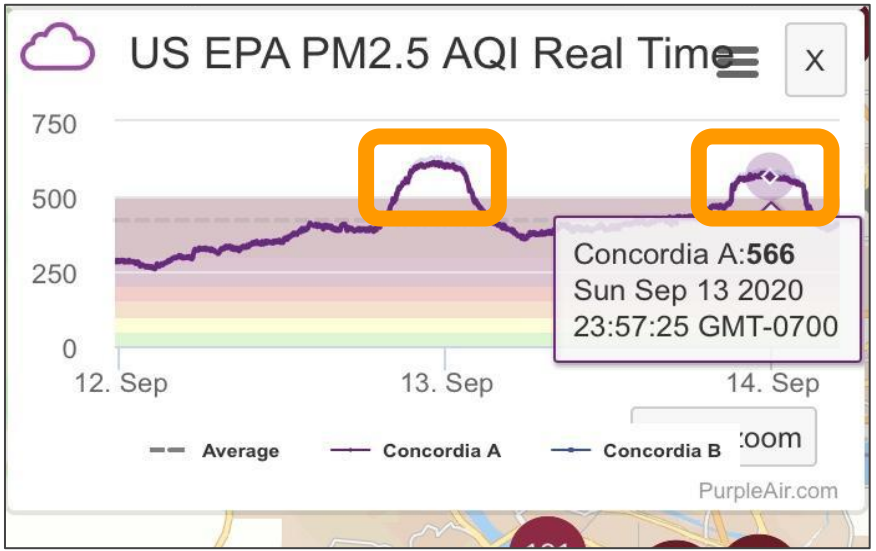
1. **Understanding variation**
    - How are you using data to inform your efforts?
2. **Appreciation of a system**
    - How are you understanding the impact of your actions on the community?
3. **Human behavior**
    - How are you engaging others in your efforts?
4. **Theory of knowledge**
    - How are you learning and adapting?

Understanding Variation

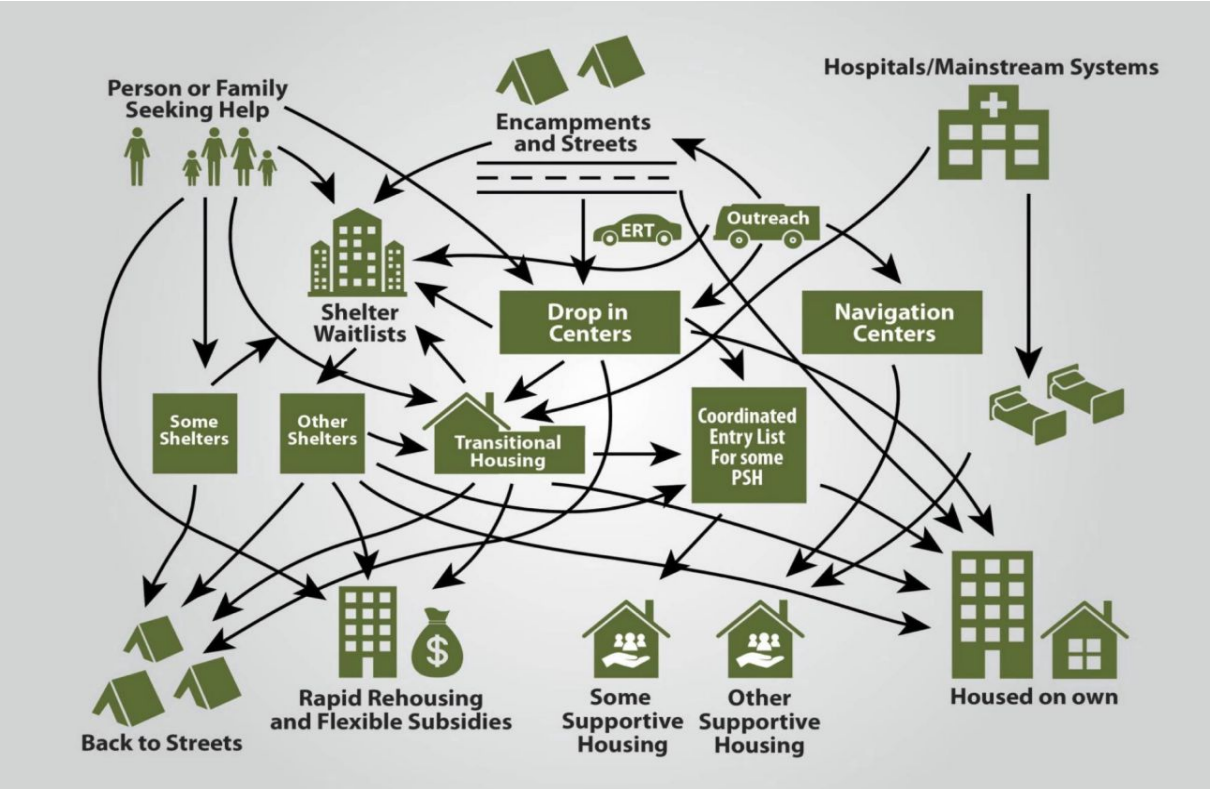


Understanding Variation





Appreciation of a System



Source: @jeffkositsky, San Francisco Department of Homeless and Supportive Housing

Theory of Knowledge

- How do we know the things we believe are true?
- What might we believe to be true that is inaccurate? How can we interrogate our existing knowledge and explore alternatives?
- How can we avoid the mistakes we are in danger of making in our thinking (e.g. biases, oversights)?
- How can we intentionally design measurement and evaluation plans to advance our knowledge?

Psychology/Human Behavior

GLOBAL HEALTH

Where Surgeons Don't Bother With Checklists

In many poor countries, older surgeons resist being questioned, and operations are more often emergencies, which leaves less time to review checklists.

In wealthy countries, a list is used in 90 percent of surgeries, the report found. But in poor countries, a checklist is used only about a third of the time.

The study blamed many factors: surgeons who resent the implication that they may make dangerous mistakes, lax enforcement by hospital administrators and the powerlessness of nurses in some cultures.

In poor countries, there are often failures in support systems intended to ensure the availability of oxygen, blood transfusions and postoperative antibiotics, and sometimes even just clean operating rooms.

When checklists are strictly adhered to, missing even one of those elements can prevent the operation from beginning. Instead, some hospitals just avoid the checklist.

In countries where doctors and nurses do not speak one of the six official languages of the United Nations — Arabic, Chinese, English, French, Russian or Spanish — a checklist is less likely to be used. Also, cultural barriers have hindered its adoption.

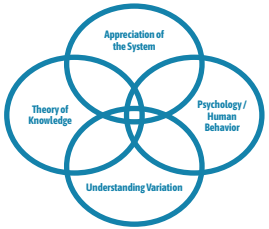
Potential Insights from Four Lenses

Appreciation for a System

- Interdependence, dynamism of the parts
- The world is not deterministic
- Direct, indirect and interactive variables
- The system must have an aim
- The whole is greater than sum of the parts

Theory of Knowledge

- What theories drive the system?
- Can we predict?
- Learning from theory and experience
- Operational definitions (what does a concept mean?)
- PDSAs for learning and improvement



Psychology / Human Behavior

- Interaction between people
- Intrinsic v. extrinsic motivation
- Beliefs, values & assumptions
- What is the Will to change?

Understanding Variation

- Variation is to be expected!
- Common or special causes of variation
- Data for judgment or improvement?
- Ranking, tampering & performance management
- Potential sampling errors

THE MODEL FOR IMPROVEMENT

5 Key Principles for Quality Improvement

1. Understand **WHY** an improvement is needed
2. Create **feedback mechanism** to know if an improvement is happening
    - Measurements are needed
1. Develop **change ideas** that will result in an improvement
2. **Test** these change ideas before attempting to implement
    - Small tests of change within the environment
1. Know when and how to make the **change permanent**.
    - Listen to the data, measurements, and subject matter expertise

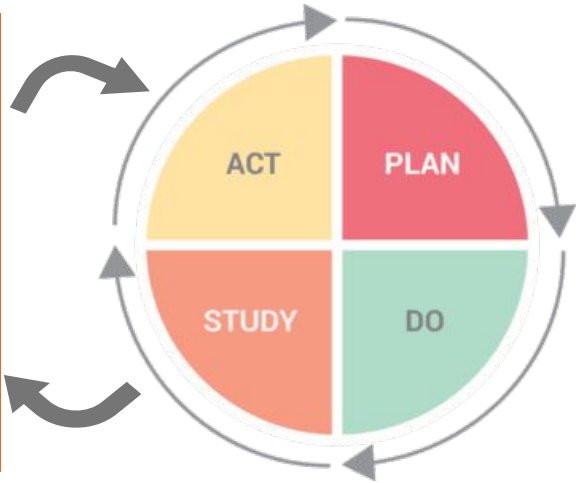
Model For Improvement

A simple, yet powerful tool for accelerating improvement by asking 3 questions:

What are we trying to accomplish?

How will we know a change is an improvement?

What change can we make that will result in improvement?

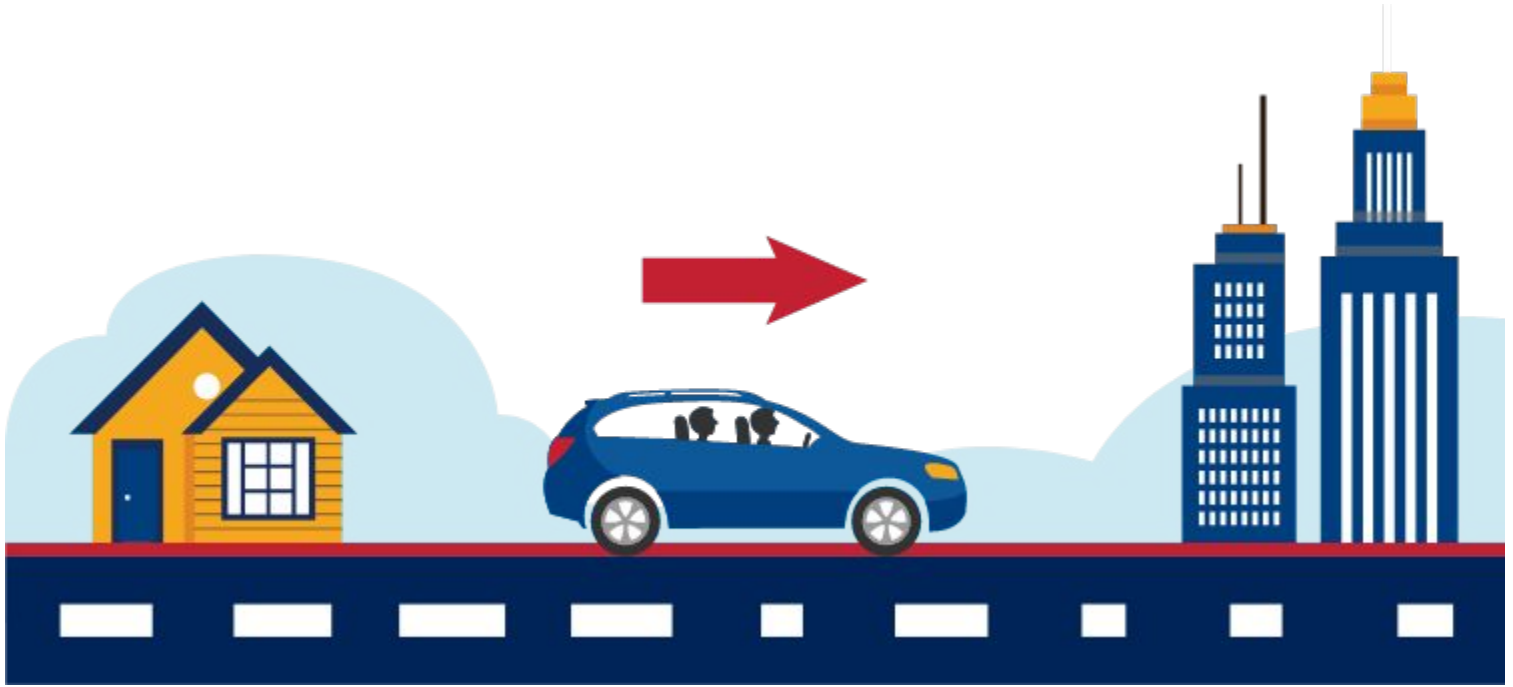


Developed by the IHI

Why use the Model For Improvement?

- Is useful for process improvement
- Is applicable to all types of organizations, groups, & levels
- Facilitates the **use of teamwork** to make improvements
- Provides a framework to **apply data, tools & improvemen**t methods
- Encourages planning to be based on theory
- Emphasizes and encourages the **iterative learning process**
- Provides a way to **empower people** to take action

Example: Think about your commute to work



Improving your commute to work

What are we trying to accomplish?

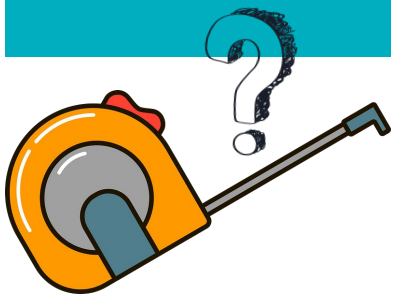


What does a "better" commute mean?

- Are we minimizing time? or stress?
- Do we want to spend more time outside?
- Do we want less driving/more walking?
- Are we willing to spend more money?
- What are the non-negotiables/constraints?

Improving your commute to work

How will we know a change is an improvement?

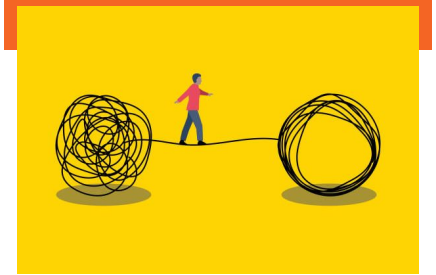


What measures will we use?

- Time spent commuting decreases?
- # of morning meetings I'm late to decreases?
- # of daily steps walked increases
- Self-rating of happiness increases

Improving your commute to work

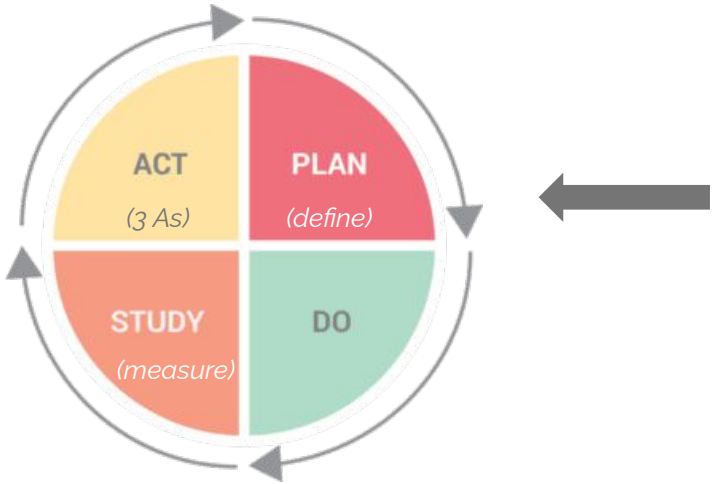
What change can we make that will result in improvement?



What change can we make?

- Leave 30 minutes earlier to avoid traffic
- Take a different route
- Take public transportation
- Bike to work
- Carpool with others

Improving your commute to work



Test the change!

- Leaving 30 minutes earlier

  Improvement: Yes or No

  Adopt, Adapt or Abandon

- Take another route

  Improvement: Yes or No

  Adopt, Adapt or Abandon

Model For Improvement

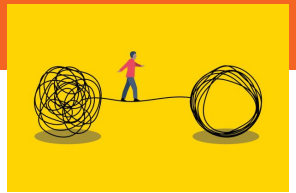
What are we trying to accomplish?

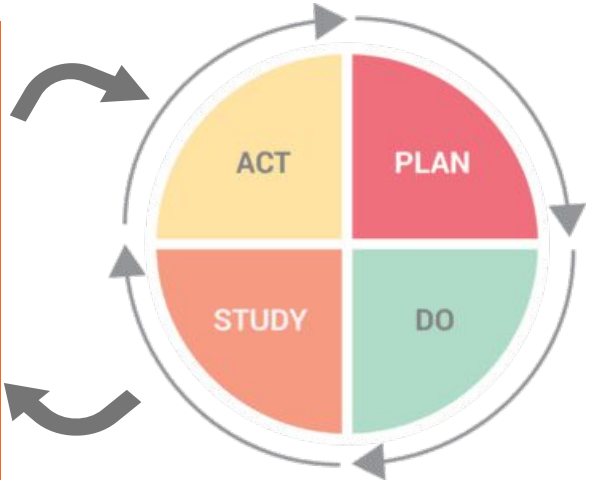


How will we know a change is an improvement?



What change can we make that will result in improvement?





Developed by the IHI

Model For Improvement

What are we trying to accomplish?

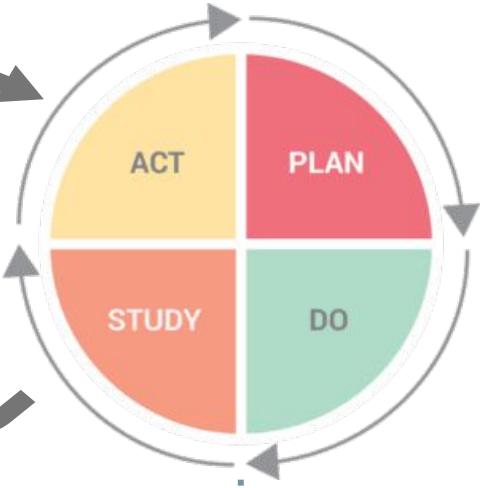
aims & driver diagrams

How will we know a change is an improvement?

measurement plans

What change can we make that will result in improvement?

improvement projects to select small tests of change



P-D-S-A cycle: adapt, adopt, or abandon

What resonated with you here?

Driver Diagram

Tool to organise improvement

Context for Driver Diagrams

Used to help **clarify an aim** and communicate how to achieve the aim.

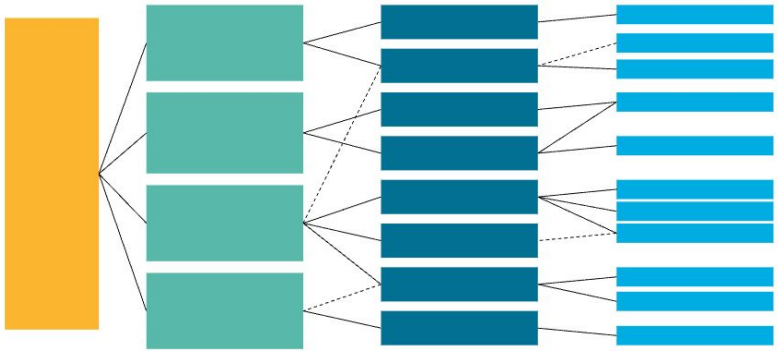




Breaks down complex problems in different ways to find **creative solutions**.

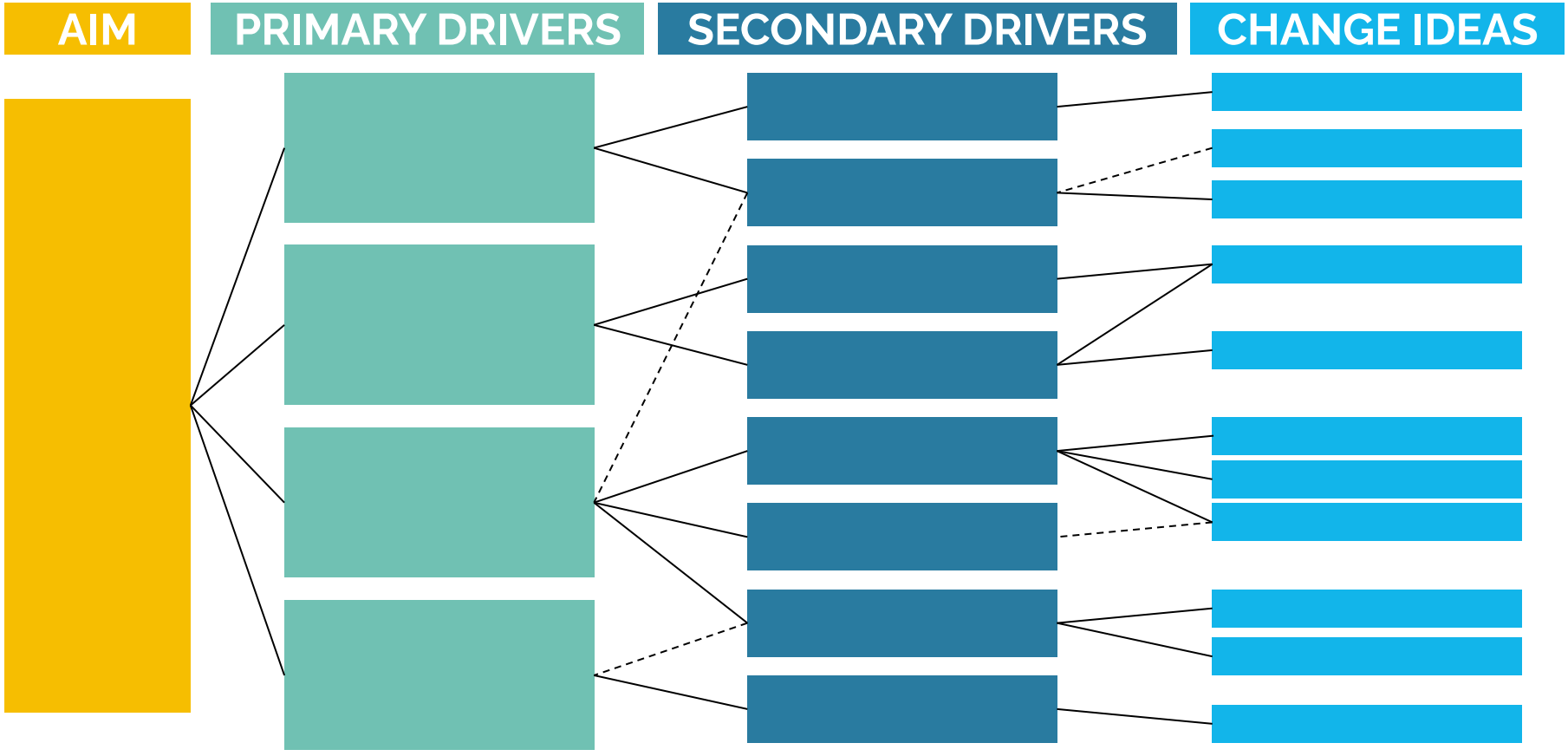
What is a Driver Diagram?

A visual tool that represents a complex system broken down to reach the aim.

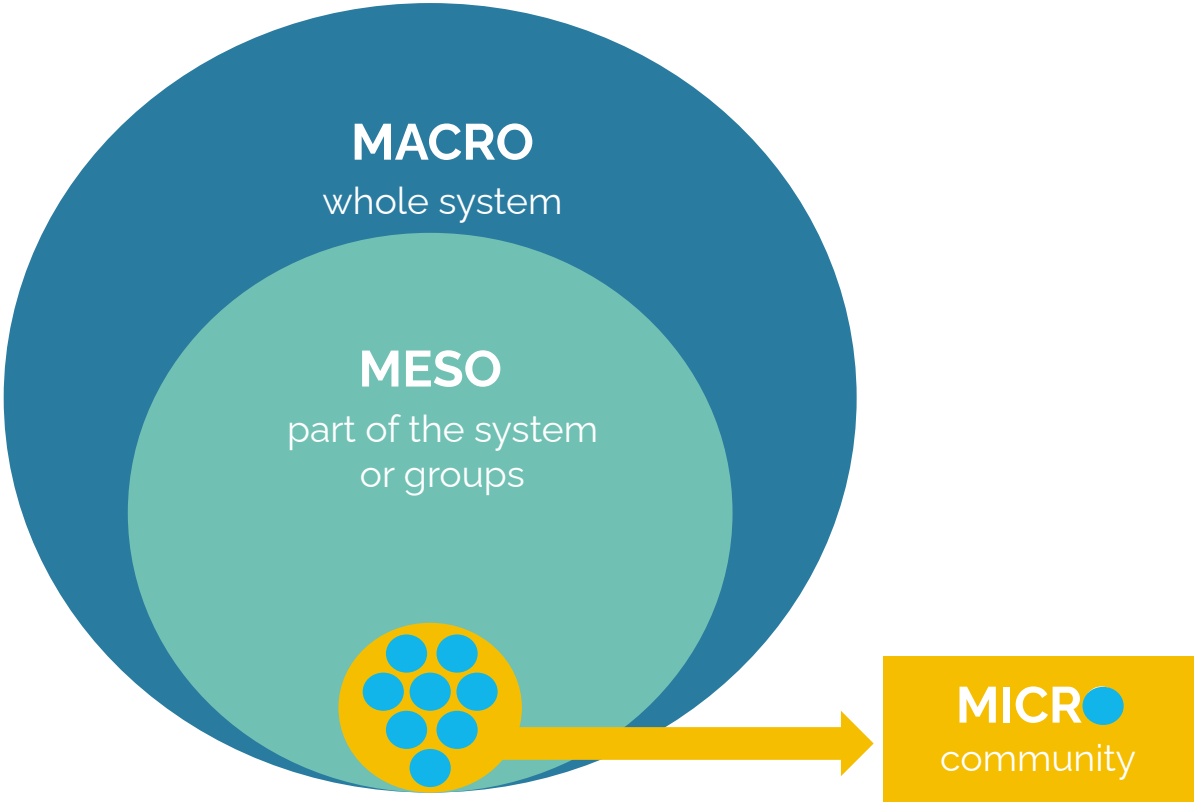


- It measures your **progress towards your aim**.
- An easy way to structure, develop & communicate strategy.
- A **living document** that can be updated regularly to keep the team flexible and focused, and captures all voices.
- **Measures & monitors the system** for effective changes and causal relationships.

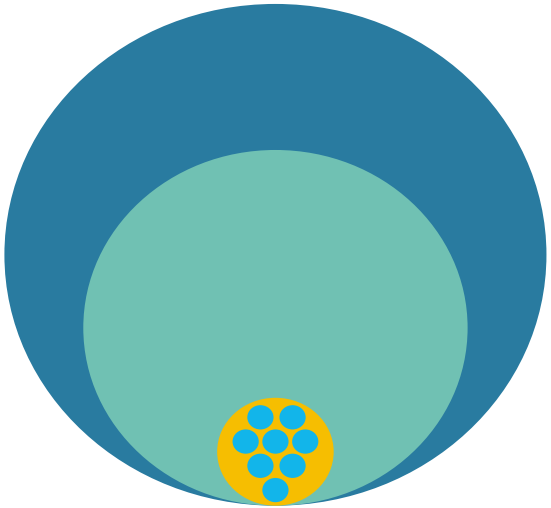
What is a Driver Diagram?



What system level are you working from?



Why do we want to know what level?



1. When defining **an aim**, you need to understand the system in which you are working. This allows you to visually represent the system and aim in a driver diagram.
2. You can have different diagrams at different levels working towards the same aim, so it helps to **set boundaries**.

Where do we start?

AIM

SET THE AIM

- Outlines the goal and/or outcome you desire.
- Answers MFI question 1:

  "what are you trying to accomplish?"



- Needs to be **clear, specific, measurable, time-bound, and shared** with the team.
- Important to have as everyone needs to clearly understand what you are trying to accomplish.

The Aim

Components of a Strong Aim Statement

WE WILL...

ACTION VERB
(eg. reduce, increase, solve, provide, build)

+

SPECIFIC PROBLEM
(eg. youth homelessness, rough sleeping)

+

NUMBER
(eg. percentage or number)

+

SPECIFIC UNIVERSE OR POPULATION
(eg. state, city, community.)

+

DATE
(eg. August 31st, 2024)

The Aim

Your aim should answer…

What? What's the problem or opportunity?

For whom? Who is the population who will benefit from the improvement?

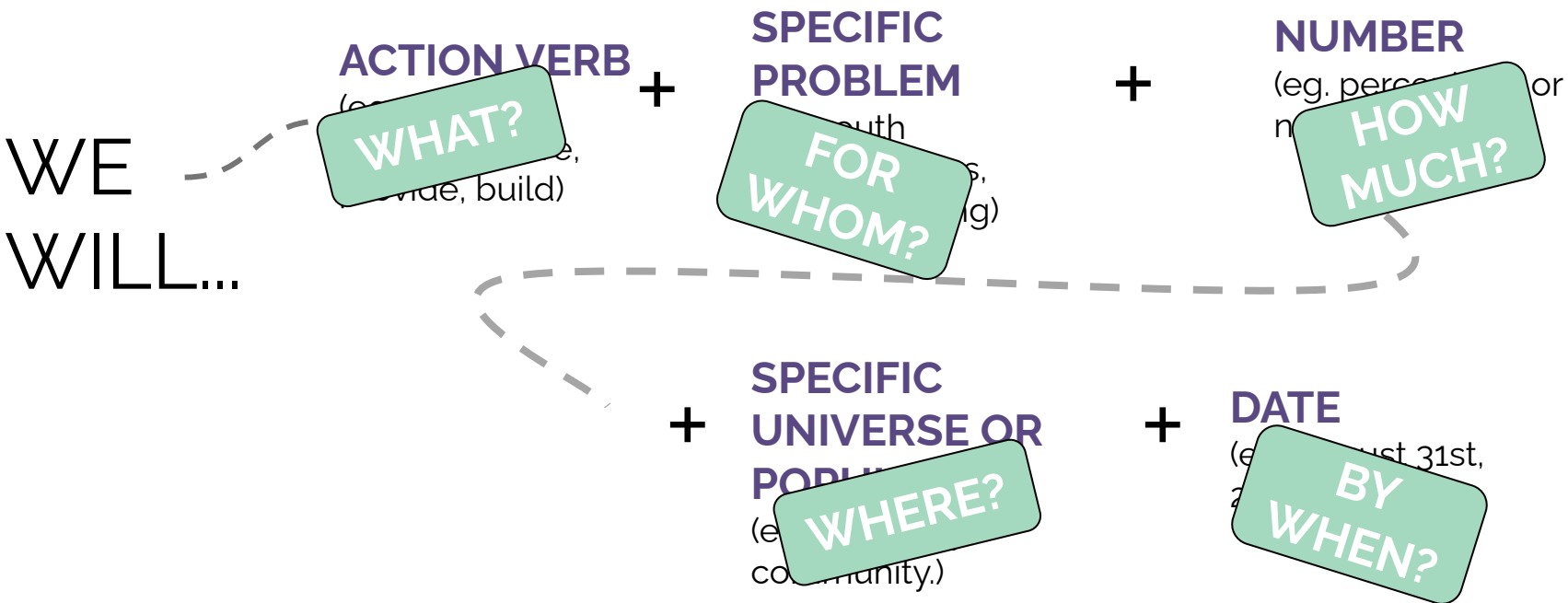
How much? By how much will you improve? Or "how good" do you want to get?

Where? What are the boundaries of the process or system you're trying to improve? Where does it begin and end?

By when? What is the date by which you will achieve the level of improvement you've set out to accomplish?

The Aim

Components of a Strong Aim Statement



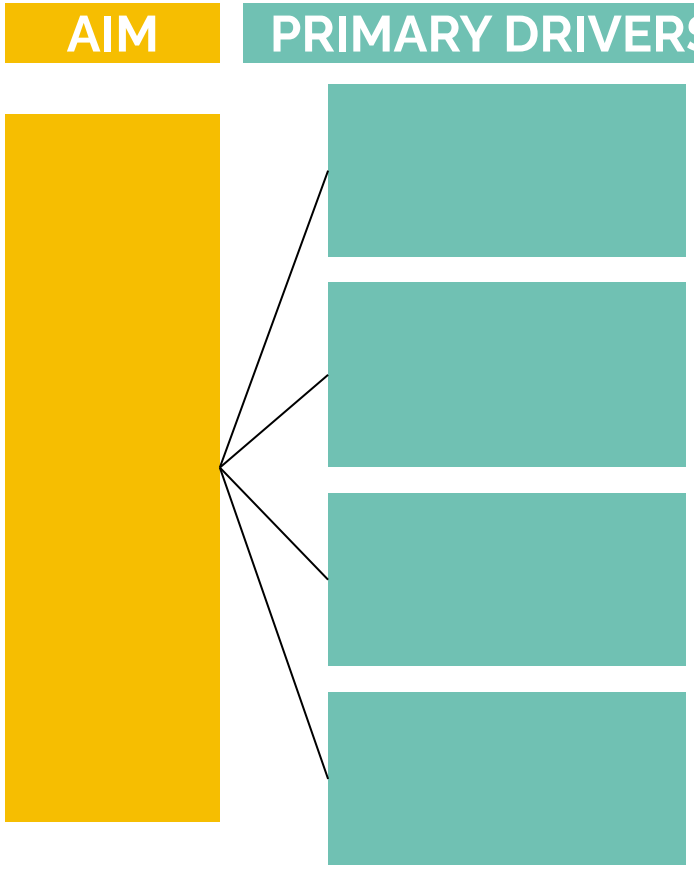
Where do we start?

AIM

CHECKING YOUR AIM

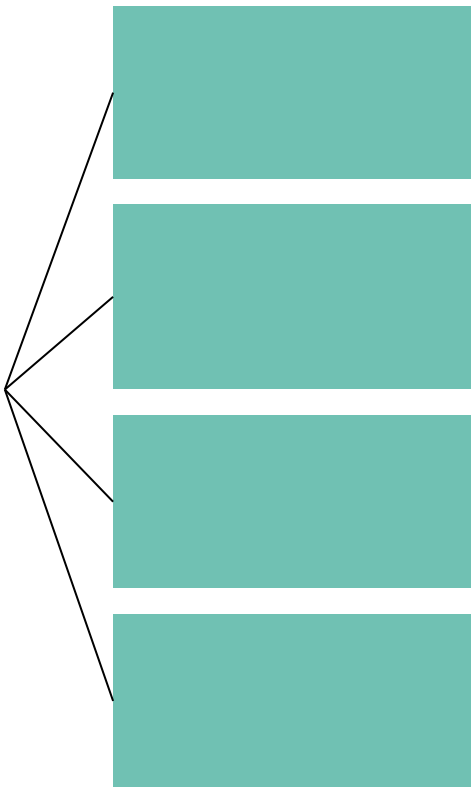
- Is the problem or opportunity stated **clearly**?
- Do you **specifically** know what the team is going to do?
- Has the team set a numerical goal to **measure** the amount of improvement they'd like achieve?
- Do you know the **timeframe** the team plans to achieve the goal?
- Is it a **shared goal** and scope for the project?
- Do you know why this improvement effort is important?

What is next?

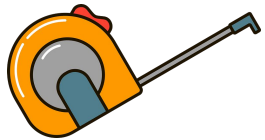


Once you have set your aim, you can start working on your primary drivers

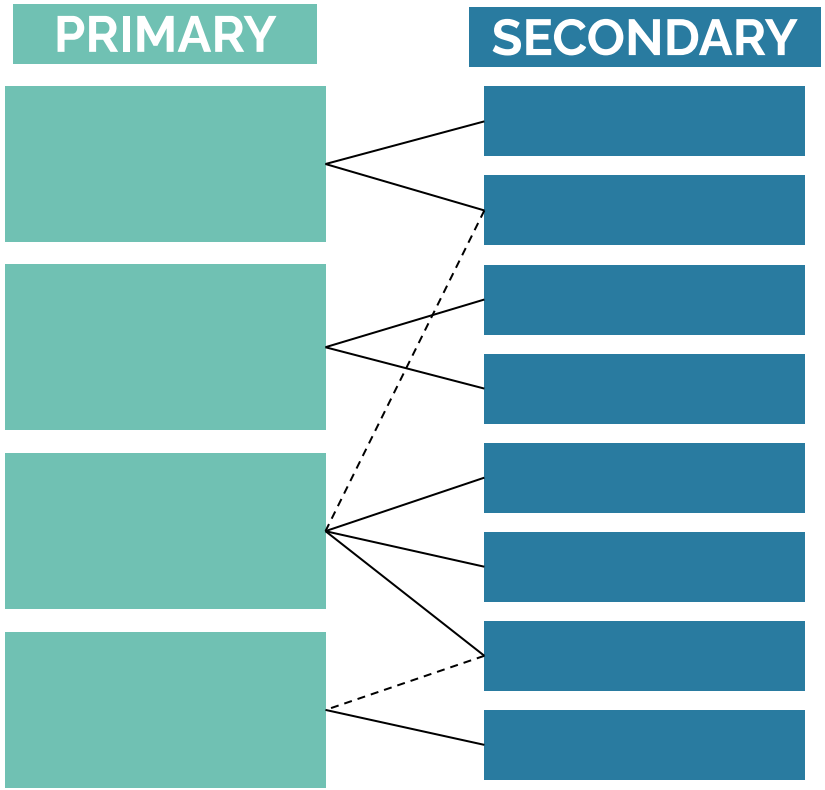
Primary Drivers



- **High-level factors that you need to influence/change** to achieve your aim.
  - “big topics” or “important areas” to address that are necessary & sufficient
- **Directly contribute to the aim** - either independently of with another to reach it.
  - *What do we need to do to get to the aim?*
- Identifies outcome measures and answers MFI question 2: *How will we know a change is an improvement?*



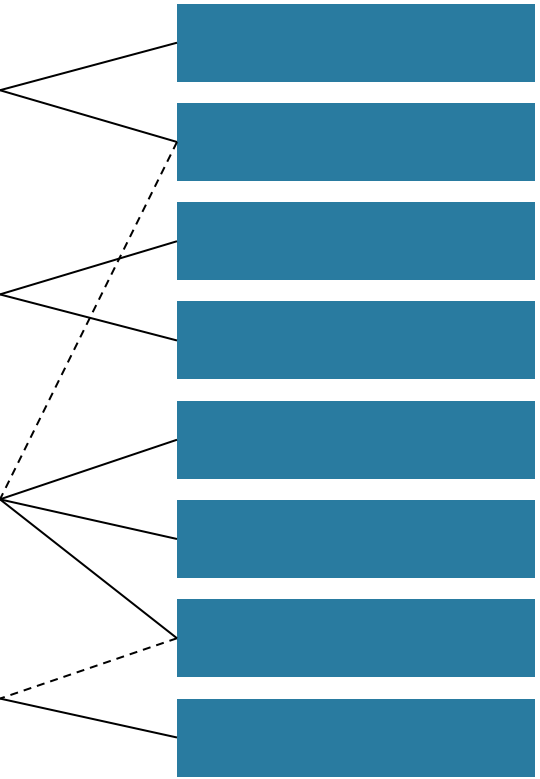
What is next?



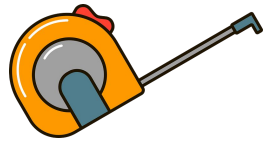
You identify the specific factors you need to achieve the primary drivers of the aim.

These are known as secondary drivers.

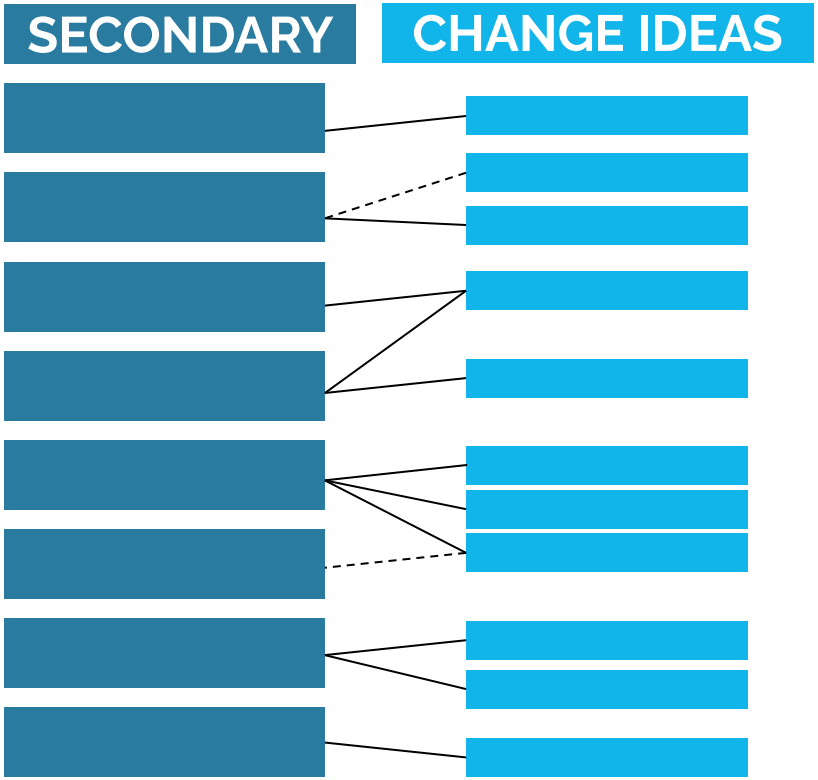
Secondary Drivers



- Smaller priorities, but still not concrete enough to be a change idea or task.
  - Seen as "**lanes of work" or "target areas"**
- Identified by brainstorming causes of the problem.
- Each contribute to at least one primary driver.
- They should be **necessary and sufficient**, and need to be **measurable**.
- Identifies process measures and answers MFI question 2: *How will we know a change is an improvement?*



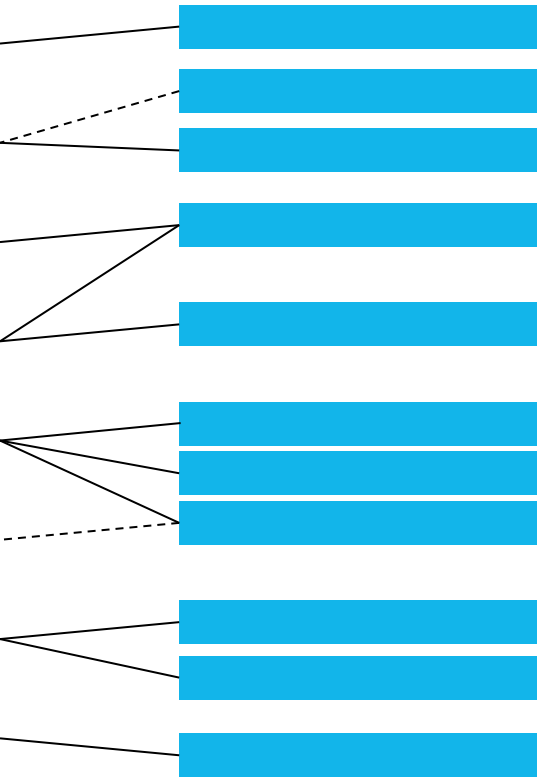
What is next?



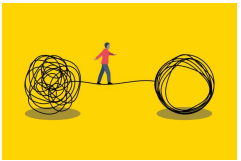
Once you have your secondary drivers, you generate your **actionable change ideas** to test to help achieve your aim.

Each idea is clear, specific, and as concrete as possible.

Change Ideas

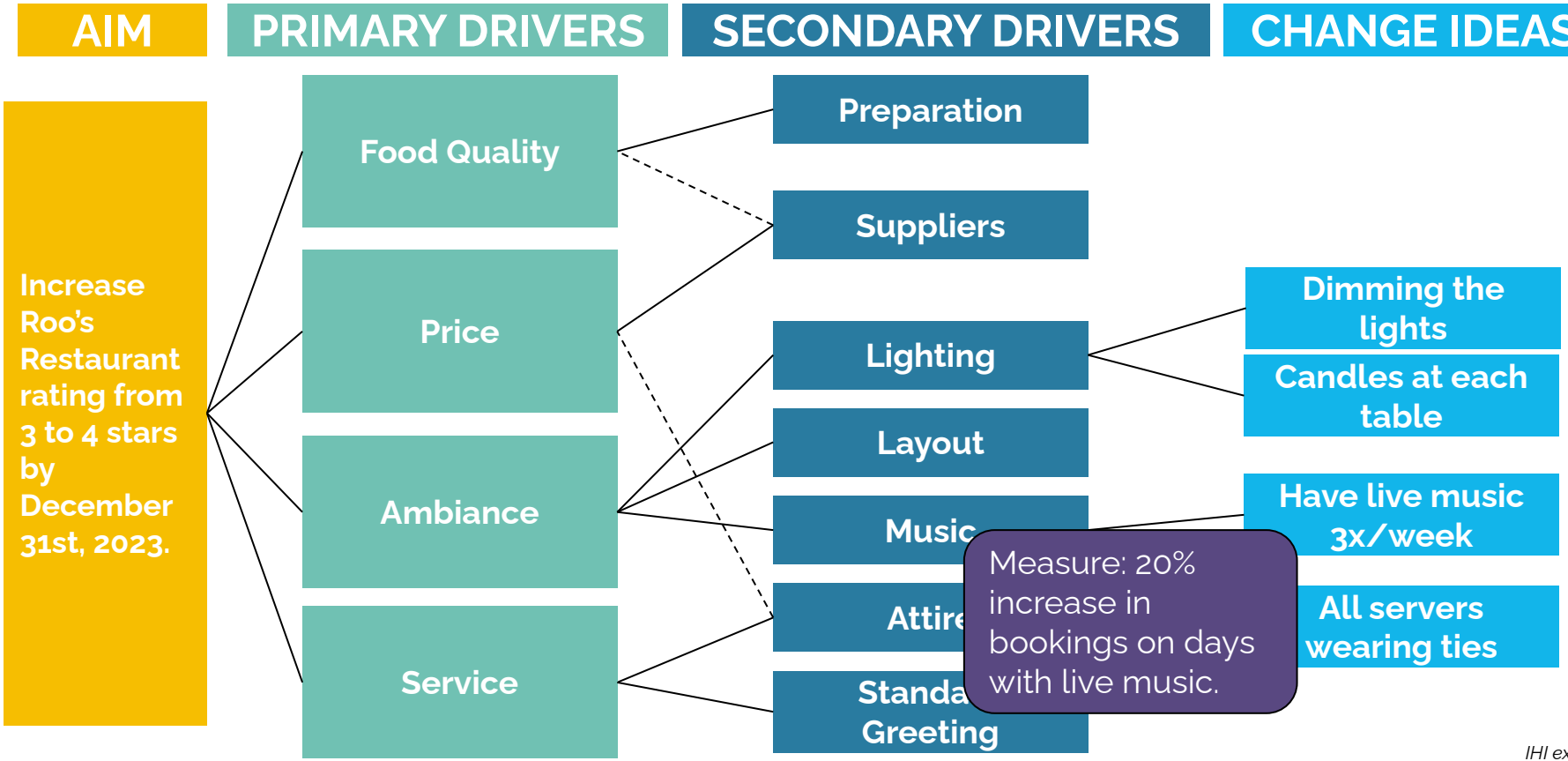


- Well-defined change ideas that identify:
  1. What exactly you are going to do
  2. How you are going to do it
- Must be **small enough to test** quickly & has to be measurable.
- Each contribute to at least one secondary driver.
- Addresses MFI question 3:
  What change(s) can we make that will result in an improvement?



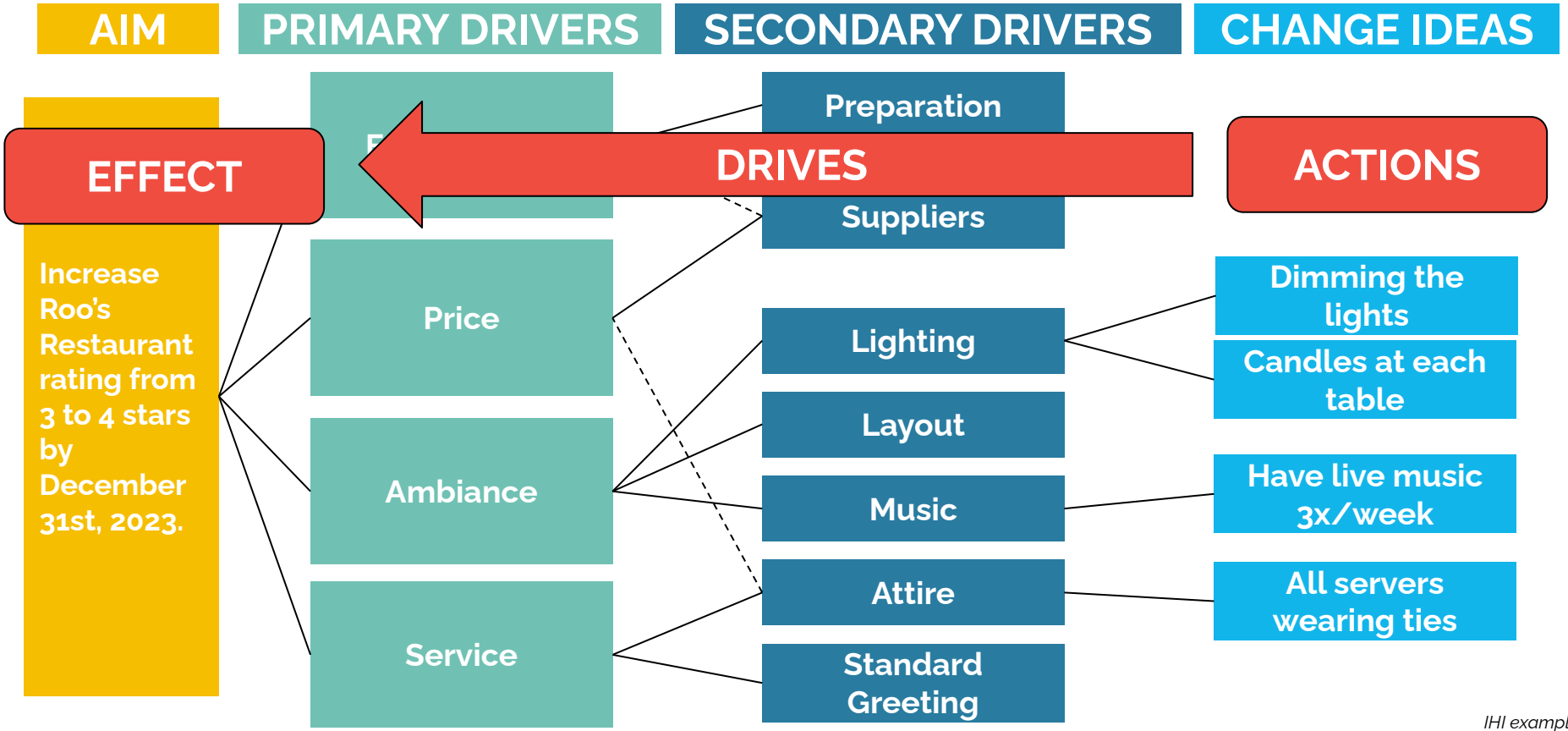
- They need to be **measurable**.

Example: Restaurant Ratings



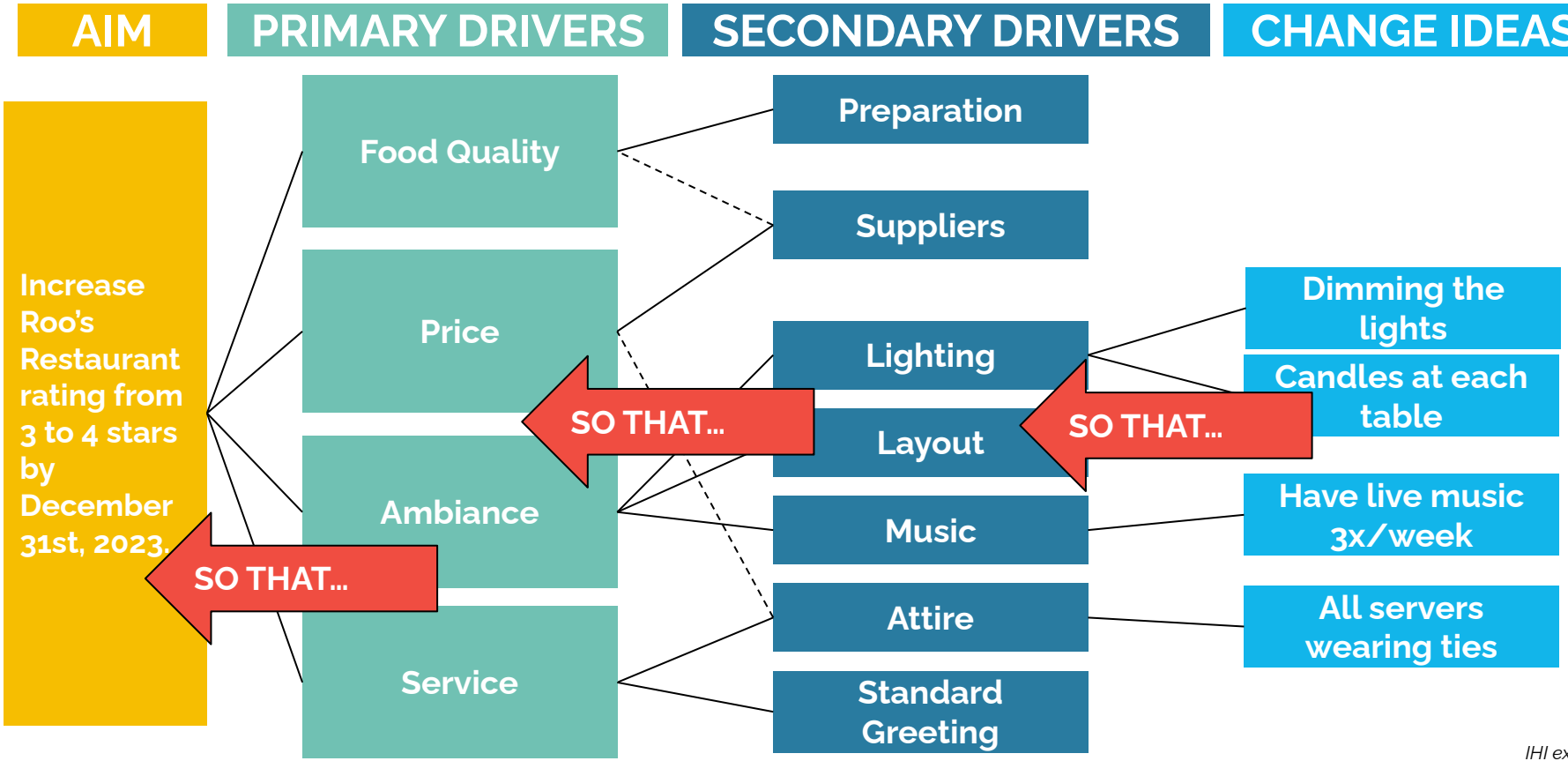
IHI example

Example: Restaurant Ratings



IHI example

Example: Restaurant Ratings



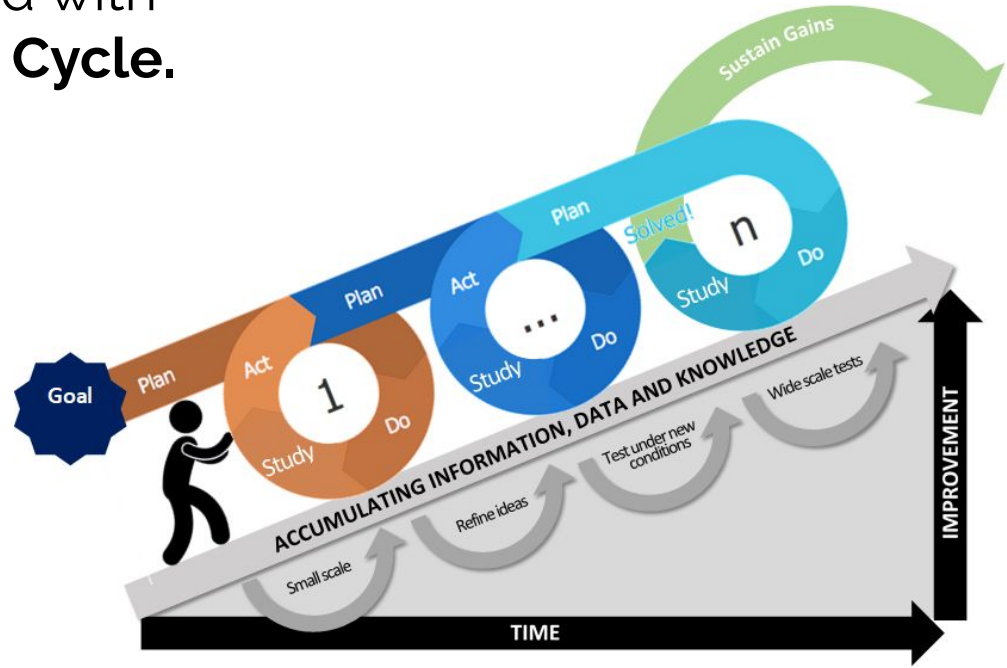
IHI example

How do we prioritise where to start?

Change ideas are assessed with **Plan-Do-Study-Act (PDSA) Cycle.**

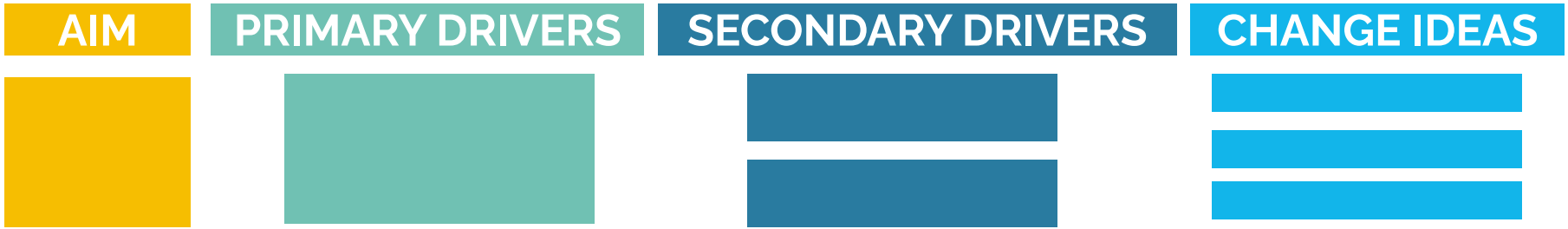
This determines:

1. if there will be high or low impact to the aim
1. if it will be easy or difficult to implement.



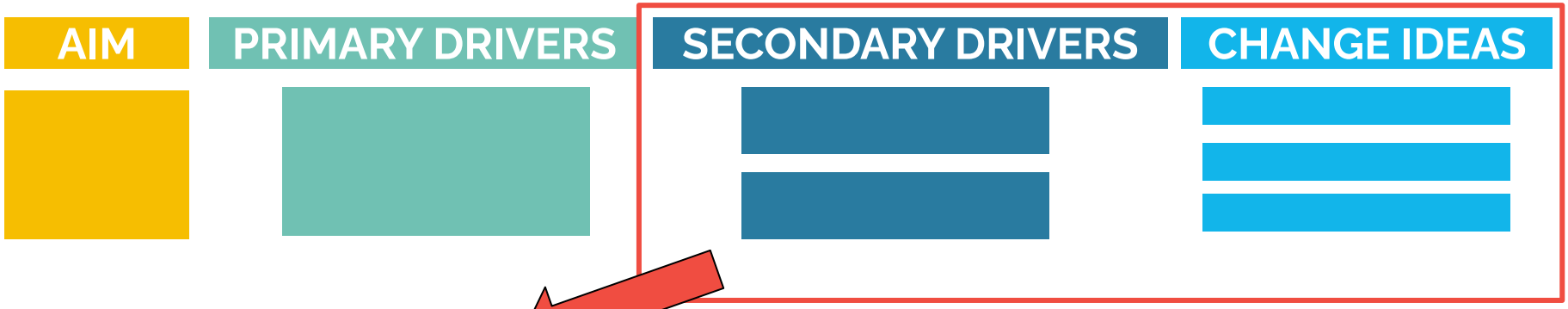
Stage 5: Act & Continuing PDSA Cycles

Moving the driver concepts to measures



- Measurement is essential!
- Identities impact and if it is making an improvement.
- Driver diagrams help to determine **outcome, process, and balancing measures** by focusing on:
  1. How much improvement you want to see, and
  2. By when.

Moving the driver concepts to measures



Process measures

- Changes being put in place have **indirect impact** on the aim
- Helps understand individual pieces in the system on the way to the aims

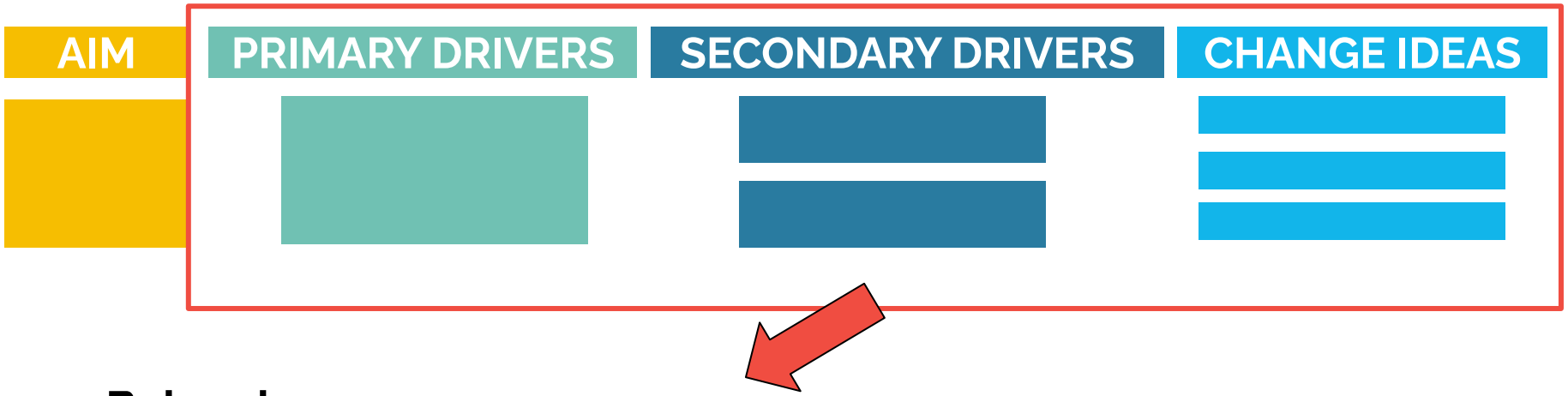
Moving the driver concepts to measures



Outcome measures

- Changes being put in place have **direct impact** on the aim
- Tells us if we are getting closer to or further away from the aim

Moving the driver concepts to measures



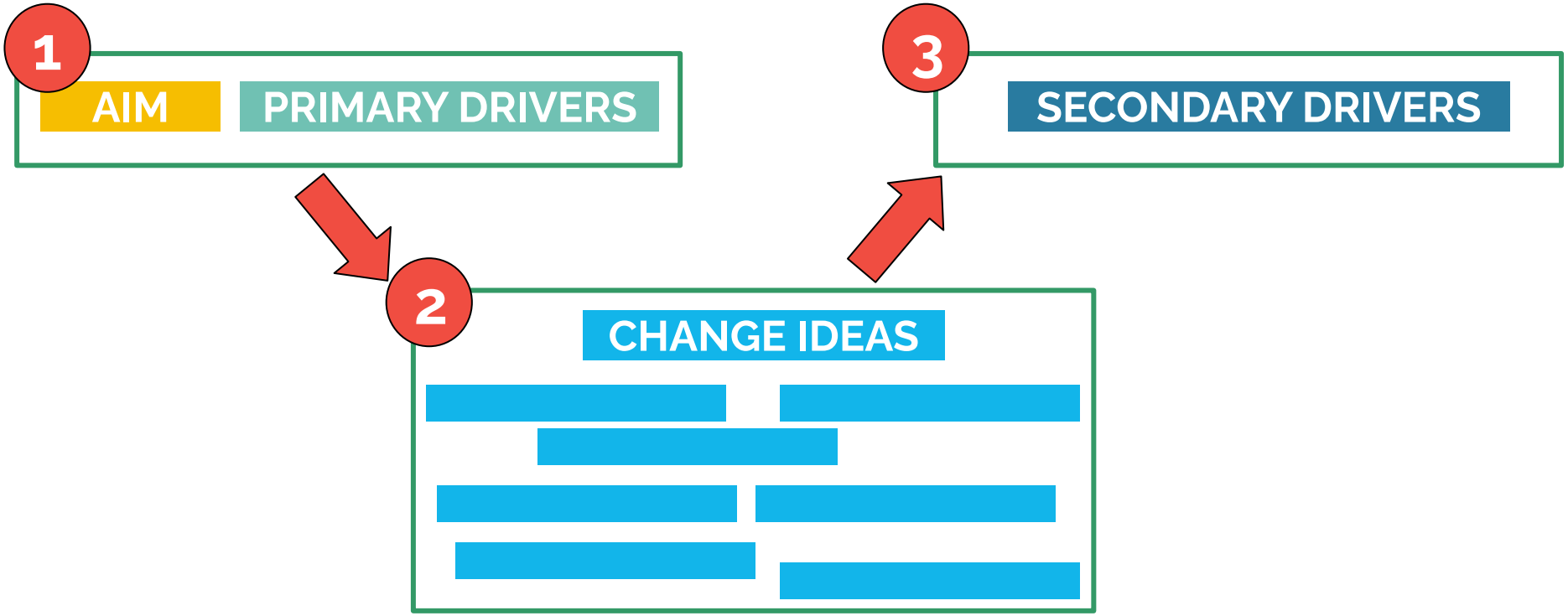
Balancing measures

- “knock on” or “side effects”
- factors to watch out for that may be impacting your projects or be impacted by your project - they are unintended consequences in the system.

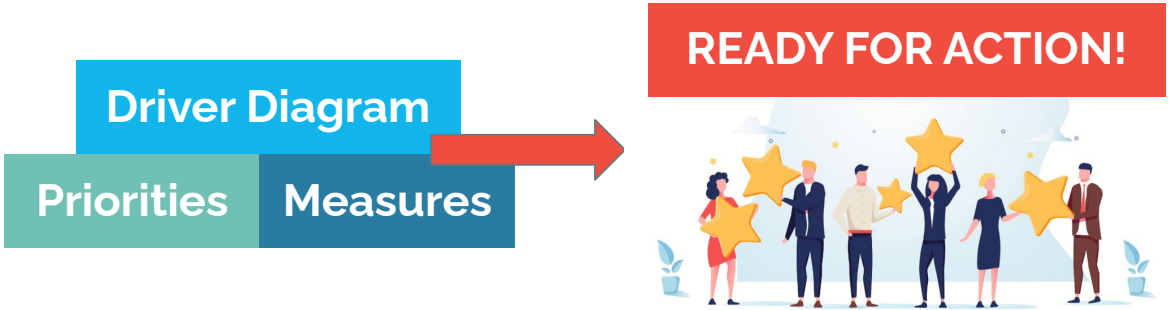
Examples of measures

Aim	Outcome Measure	Process Measures	Balancing Measures
Reach Functional Zero for Rough Sleeping Homelessness	Actively Homeless #	**System Level:** # of new people entering RS homelessness (new inflow) **Project Level:** # of people connected with support services	Length of time from identification to Housing for rough sleepers Staff satisfaction

What happens if you are stuck?



Moving into action



- **“Lots of Lots Principle”**
  - you are going to have large and small changes and projects running simultaneously in the system to reach your aim
- If one idea doesn’t work, you have alternatives built into your driver diagram.
- When you find success, build on it further!

Setting long- & short-term goals

This long- and short-term goals help to move into action & address "lots of lots" principle

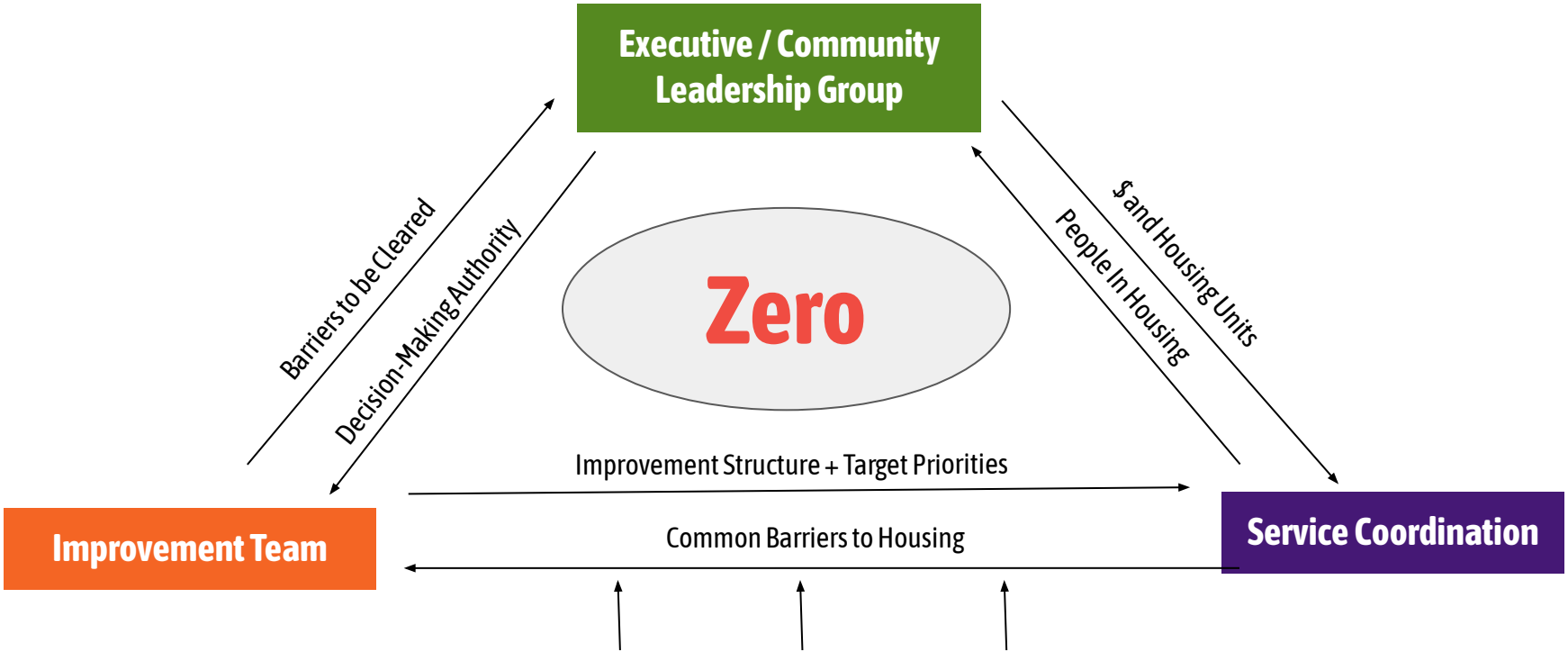


These goals can be PDSA cycles, 3-months, or 6-months, and directly relate to the overall aim of the project.

- *How would it be helpful for your community?*
- *Are you doing this now within your communities?*
- *How could you introduce them?*

Improvement Projects
Tool to drive improvement

Shared Governance Structure



What is an Improvement Project?

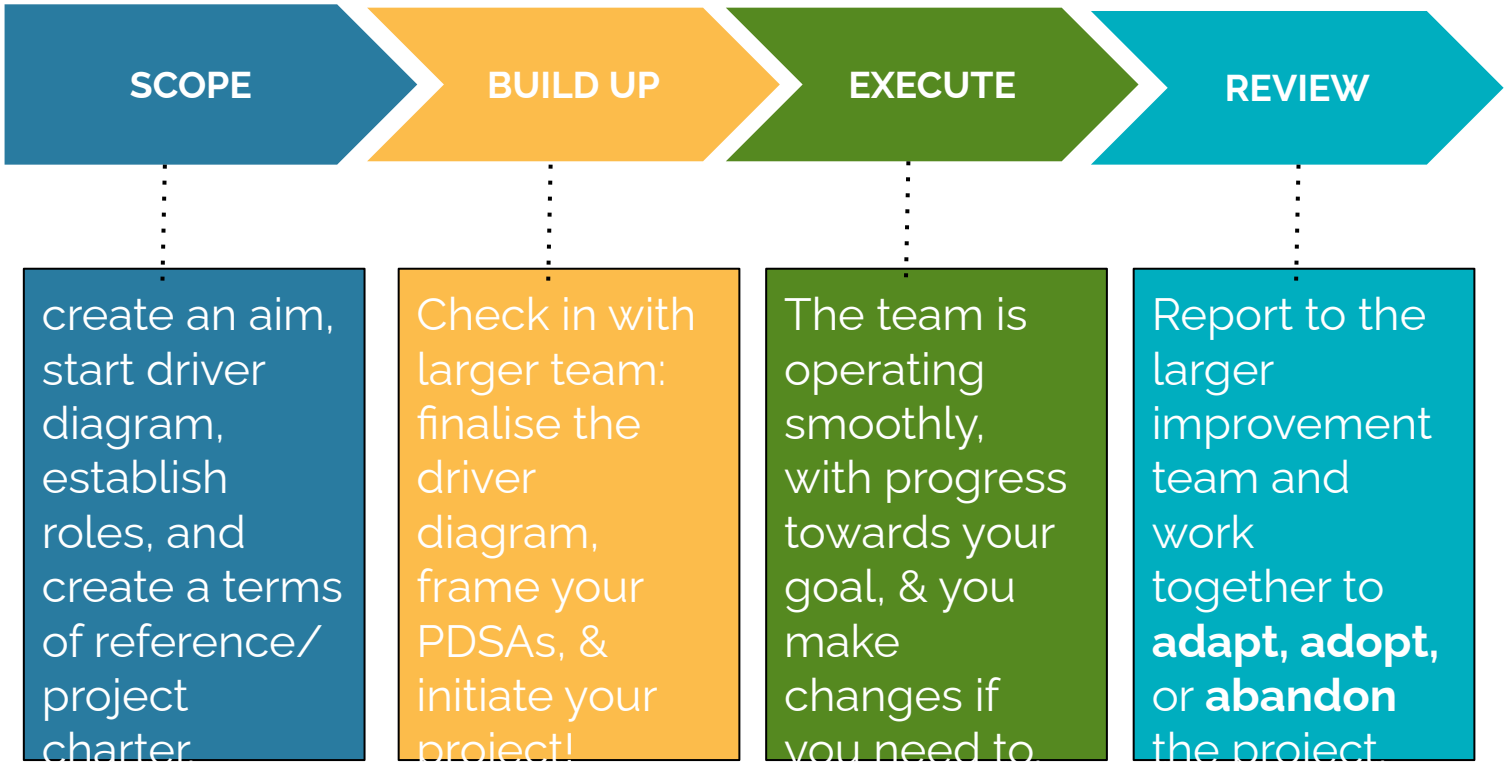
A time-bound test of change to improve a particular part of a community system towards the goal of reaching functional zero for a population, based on the fundamentals of continuous quality improvement.

Time-bound: up to 90 day parameters increase the likelihood of success

Particular part: focus on a specific piece that helps contribute to functional zero

Fundamentals of **continuous quality improvement:** projects should be specific, actionable, & measurable

Four Stages of an Improvement Project



How do you create a project?

As you **scope** an improvement project, you need the following key pieces:

SCOPE

1. An **overall aim** is set
   With a measurement strategy, over a time-bound period.
1. Create **a team** with the right people
   The team can vary in size & skill sets.
1. You have clearly defined **roles & responsibilities**
   Includes “cleared pathways” from the executive and managers.
1. Fully-formed **driver diagram**
   Regular check ins on the driver, documents, processes and improvement projects.
1. Have **data collection processes**
   Use qualitative & quantitative information to fully understand the community, track progress, and advocate.

How do you create a project?

You organise these pieces into a terms of reference or project charter.

SCOPE

Ensuring it includes these four components:

Project Lead & Team

In charge of the project's success and organises the team.

Project Description

Outline what you are trying to accomplish, start & end date

Outcome & Process Measures

You need to measure the result of a change to see if it is an improvement.

Predicted Impact on FZ & Expected Outcomes

What is the ultimate value you expect to achieve with this project?

How do you pick a project?

As you **scope** an improvement project, you need to know where to focus:

SCOPE

1. Complete **Deep Data Dive** - consider current data, needs, and assets
2. Think of **a theory about what needs to change** to your overall aim *(reach functional zero).*
3. Break it down into **change ideas/small actions that can be tested quickly** *(using a driver diagram)*
4. Check that it **works on part of your system,** and isn't a one-time event.
5. Complete an assessment to come to a decision on which to test first: **Benefits, Risks, Alternatives, Instincts, Nothing, Barriers, Opportunities, Overall impact for FZ**

How do you know when to start?

You **build up** you project:

BUILD UP

1. Have an early check in point to get your terms of reference/ project scope approved by the improvement team, & possibly the executive team.

2. Initiate the project!

How do you know it is Implemented?

You are ready for **execute** your improvement project:

EXECUTE

- Stick to the ToR or project charter
- Make changes when you need to!
- Keep within the time-bound you have set

You are ready for **review** when the project has reached its end date:

REVIEW

- Report your findings to the larger group
- Plan next steps together!

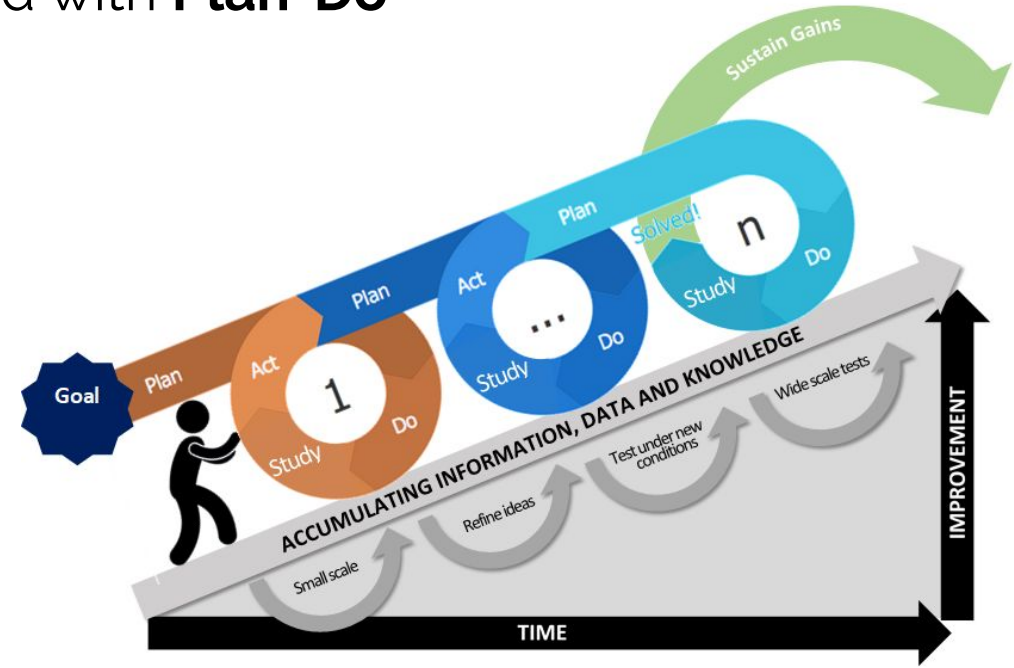
PDSA Cycles
Tool to track improvement

As mentioned..

change ideas are assessed with **Plan-Do-Study-Act (PDSA) Cycle.**

This determines:

1. if there will be high or low impact to the aim
1. if it will be easy or difficult to implement.



Stage 5: Act & Continuing PDSA Cycles

Model For Improvement

We are now focusing the final section of the model:

What are we trying to accomplish?

How will we know a change is an improvement?

What change can we make that will result in improvement?

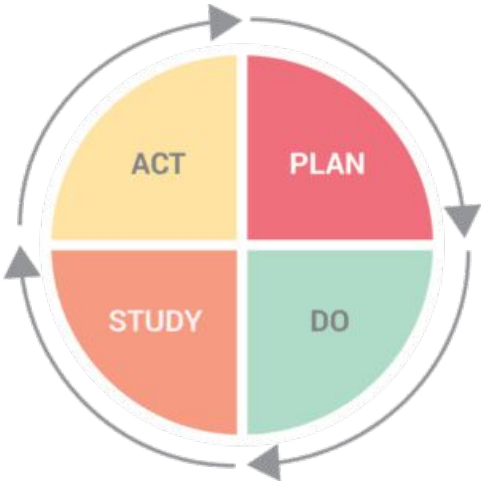


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What is a PDSA cycle?

A time-limited test of change to a community's system

- Specific, actionable, and measurable
- Involves testing one or multiple change ideas
- Quickly confirms a team's thinking or leads them to pivot
- Applies to a system, not a one-time event
- Keeps teams from getting stuck



Developed by the IHI

Improvement Project vs. PDSA

Improvement Project	PDSA
Systematic and formal approach	Used within improvement projects or on their own (informally)
Trials, measures, and tests more than one change idea at a time	Testing ONE change idea at a time
Set start and end dates	Shorter term start and end dates
Full team within scoping phase.	Don't need to establish a full team, can be internal
Terms of Reference/Project Charter	PDSA form

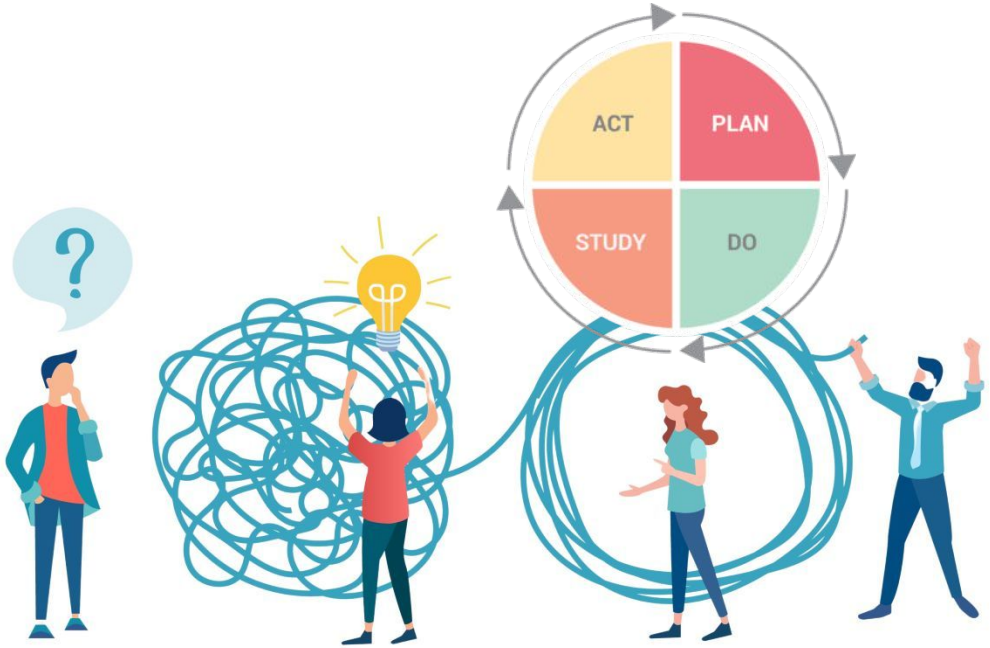
Why do we need to test?

Changes the way we implement & ensures improvement!



Why do we need to test?

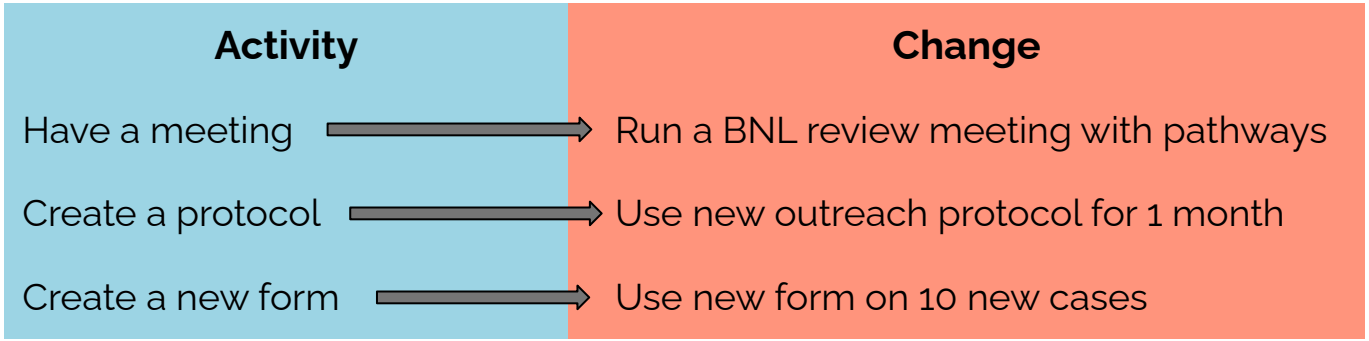
Changes the way we implement & ensures improvement!



- Uses scarce resources wisely
- Learn more from doing than planning
- Learn about the change
- Reduces resistance to change

What do we need to test?

- You need to test **changes,** not activities
  - *What is the difference?*



change is specific, actionable, & measurable, which allows you to have an explicit prediction of how it will impact the outcome.

Where do you start?

1. Is there will be **high or low impact** to the aim?
    - *What are the benefits & opportunities? What are the risks & barriers?*
1. Is it will be **easy or difficult to implement**?
    - *What resources will be needed? How much time & effort will be required? Is it easily measurable?*

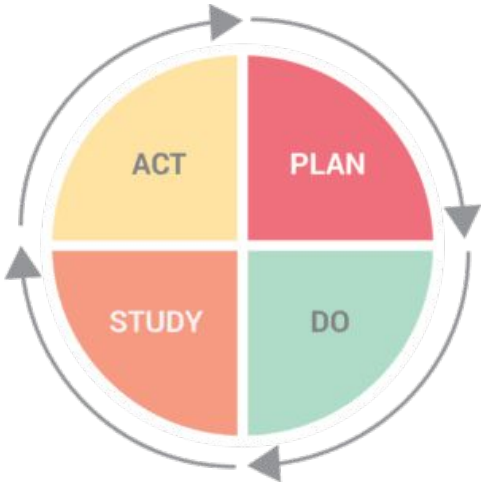
Once picked, establish an improvement team to work on the change idea. *Remember: you can run tests simultaneously!*

How do we use a PDSA cycle?

What's next?
- *ADOPT: implement?*
- *ADAPT: make changes?*
- *ABANDON: try something else?*

Did it work?
- *Analyse data*
- *Compare predictions*
- *Summarize what happened*

Next cycle



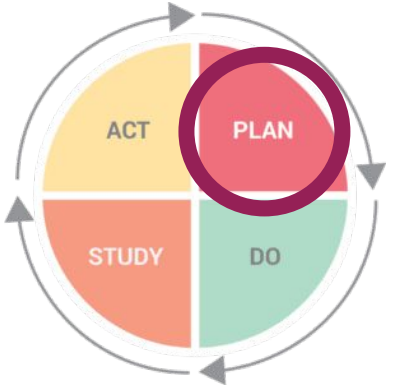
What will happen if we try something different?
- *Objective*
- *Questions & predictions*
- *Plan to answer - who, what, when, how, where*

Let's try it!
- *Carry out the plan*
- *Document challenges*
- *Begin data analysis*

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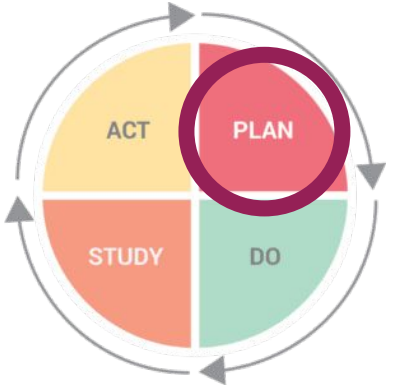
PLAN



Set Objectives

- what is the objective of the PDSA?
  - *Test a new idea? Test a change to an existing process/tool/ resource?*
- What is your aim and how does it relate to it?
  - *which driver does this change idea fit under?*
- What questions do you want to answer?

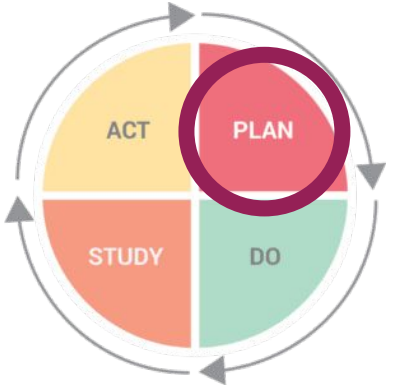
PLAN



Establish the Change & Outcome

- What is the change idea?
- What is the predicted outcome of the change idea?
- How do you plan on collecting data?
  - *How will we know that there has been an improvement? What will be different?*
- How long will we test this change to see it it worked?

PLAN



Establish a good test

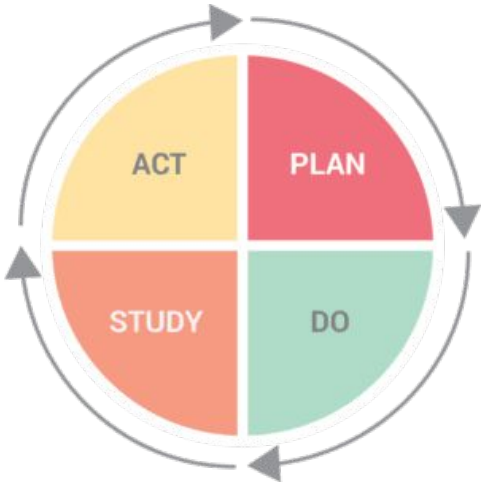
- Directed by your data - *what is it telling you?*
- Applies to a repeating system, not a one-time event or activity
- Specific, actionable, measurable, & time bound
- It can be quickly implemented and can rapidly confirm or disrupt your thinking
- Helps your team get and/or stay unstuck

How do we use a PDSA cycle?

What's next?
- *ADOPT: implement?*
- *ADAPT: make changes?*
- *ABANDON: try something else?*

Did it work?
- *Analyse data*
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Next cycle



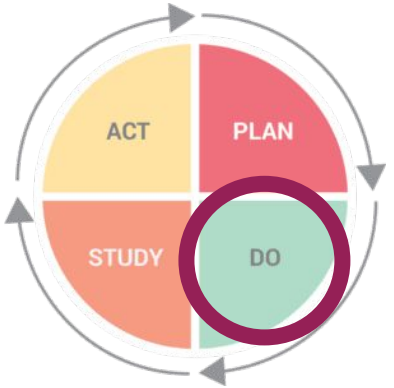
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Let's try it!
- *Carry out the plan*
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DO



DO IT!

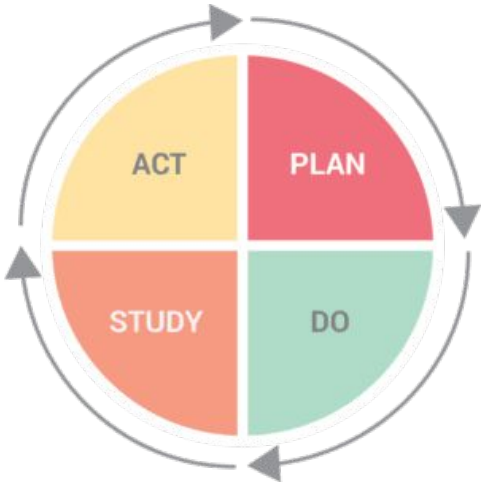
- Establish a bias towards action 

How do we use a PDSA cycle?

What's next?
- *ADOPT: implement?*
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- *ABANDON: try something else?*

Did it work?
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Next cycle



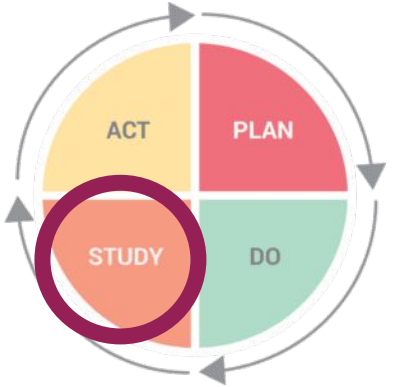
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Let's try it!
- *Carry out the plan*
- *Document challenges*
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STUDY



Document what happened without judgment.

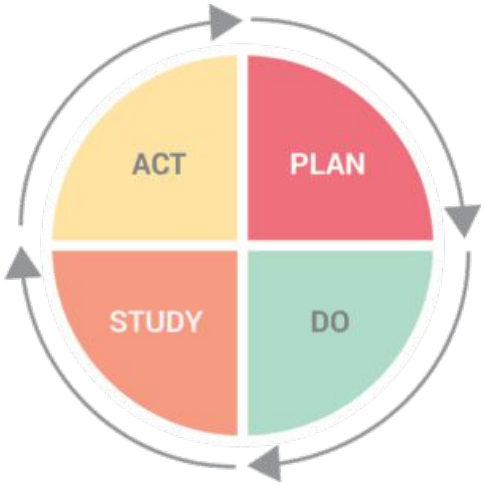
- This is where you measure!
  - *What did we learn? What did our measures tell us?*
  - *Were our assumptions and predictions accurate?*
  - *Did the implementation of the change go exactly as planned?*
  - *Were there any surprises?*
  - *What was the impact towards the aim?*

How do we use a PDSA cycle?

What's next?
- *ADOPT: implement?*
- *ADAPT: make changes?*
- *ABANDON: try something else?*

Did it work?
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Next cycle



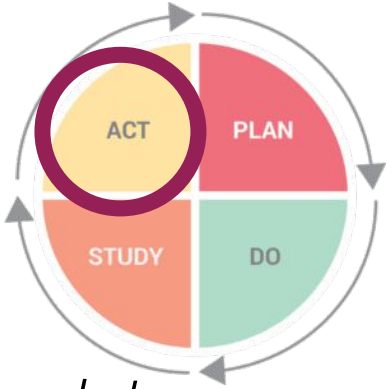
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Developed by the IHI

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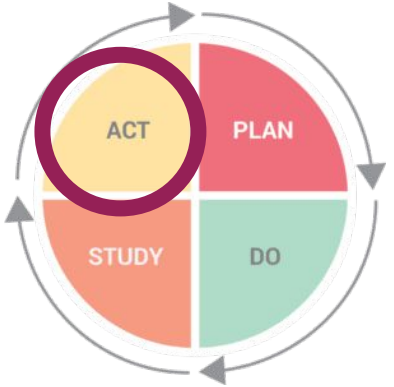
ACT



How will you **move forward?**

- **Adopt?**
  - *Reiterate the original idea on a larger scale until ready to implement?*
  - *Test was successful*
- **Adapt?**
  - *Add changes to the idea?*
  - *Test was both successful and unsuccessful*
- **Abandon?**
  - *Test a new idea based on learnings?*
  - *Test was unsuccessful*

ACT

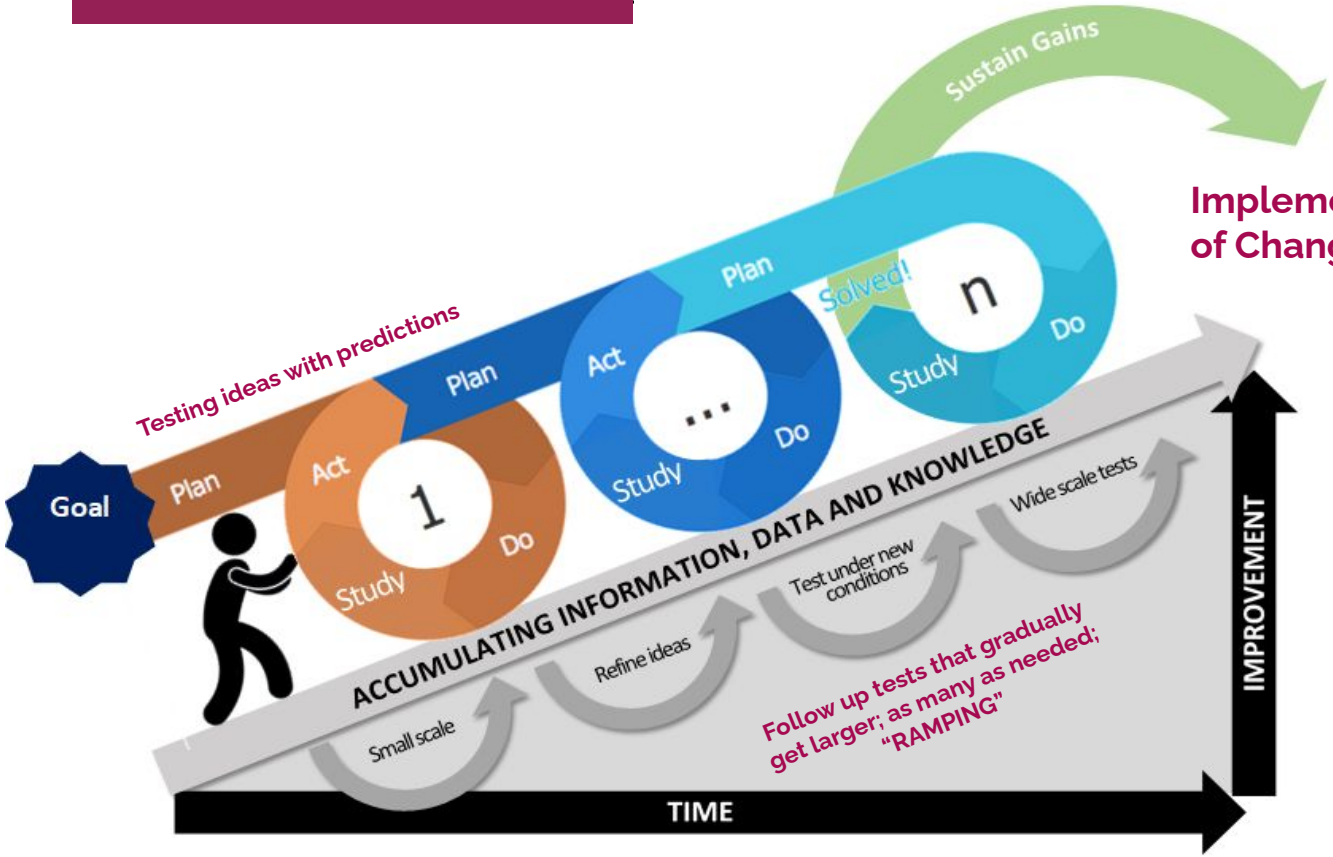


What if a test ~~failed~~ was unsuccessful?

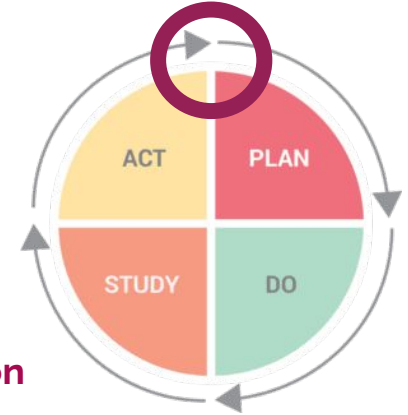
1. Distinguish the reason:
   - *Was a change was not executed; or*
   - *Was there a change executed, but it was not effective*
   - *Local improvement did not impact the secondary driver or outcome*
2. See it as a prediction being wrong –not as a failure!

Regardless of success, we've improved our understanding of the system!

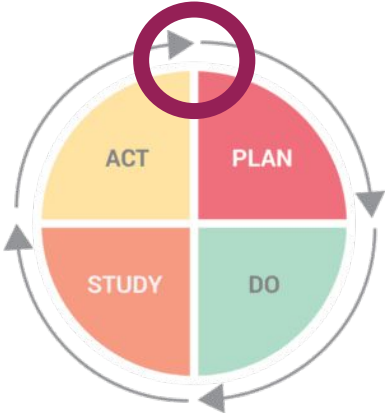
What is next?

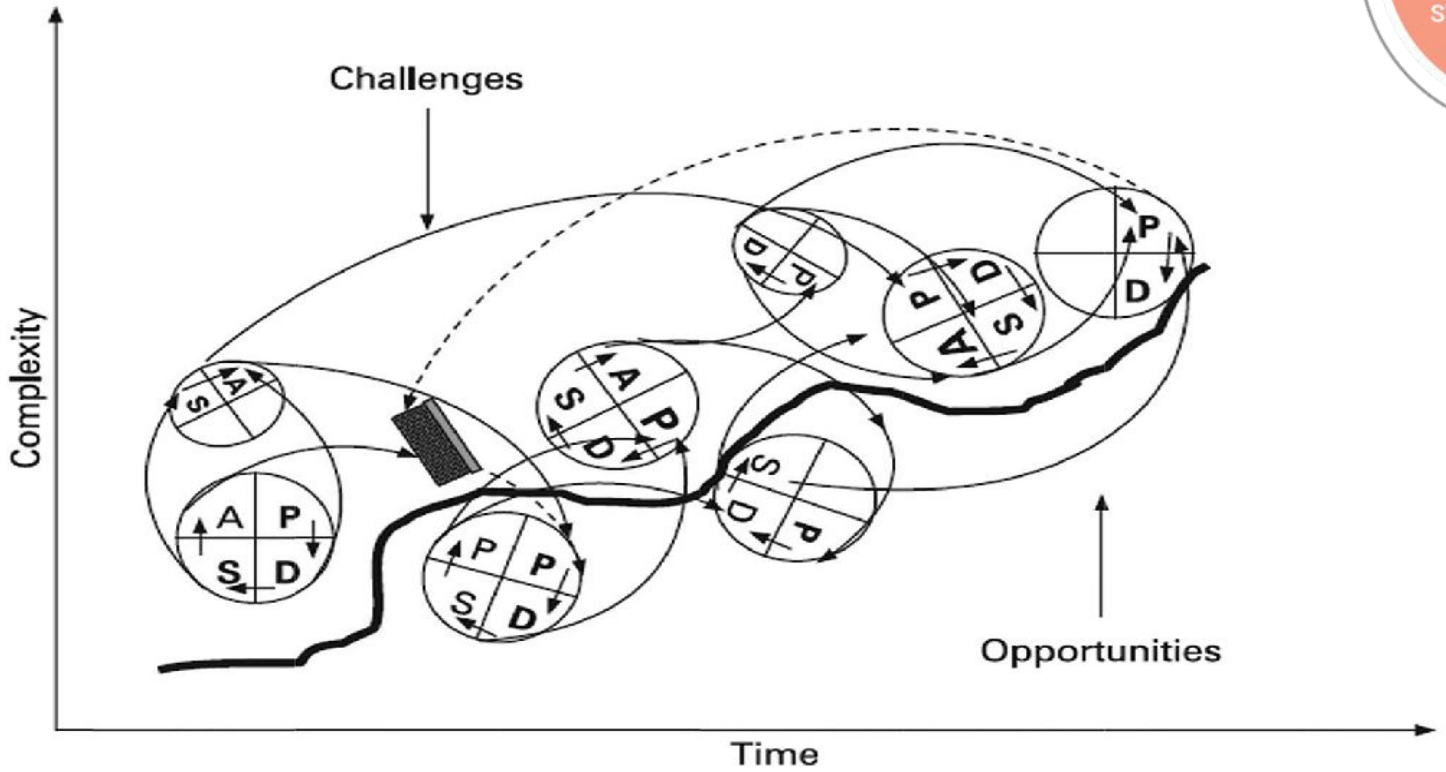


Implementation of Change!



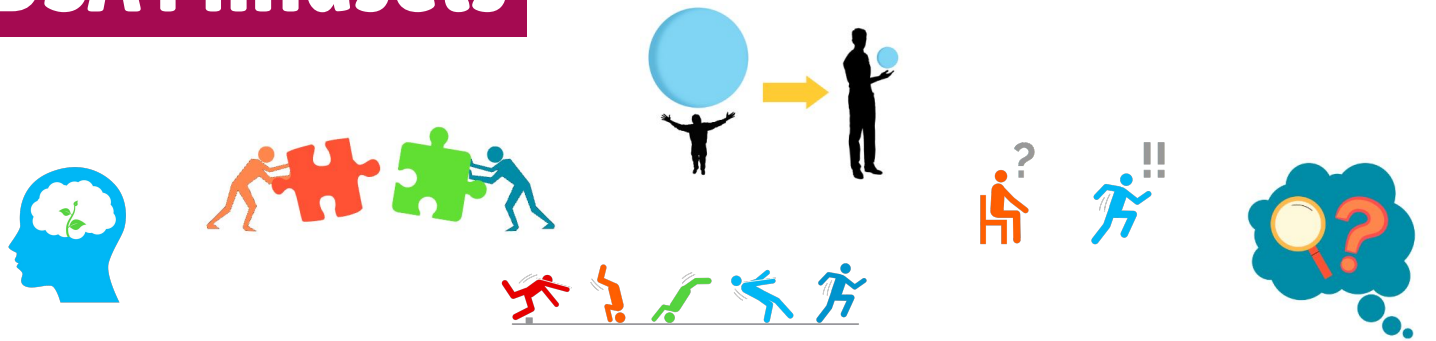
What reality can look like





IHI example

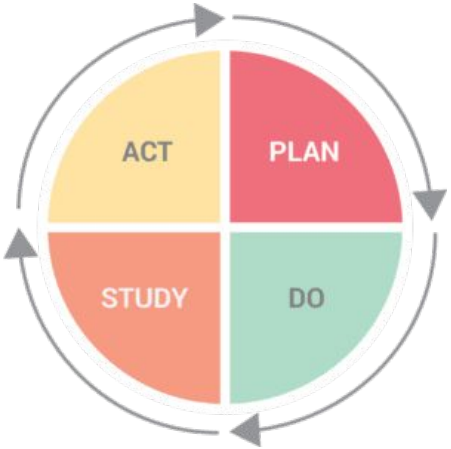
PDSA Mindsets

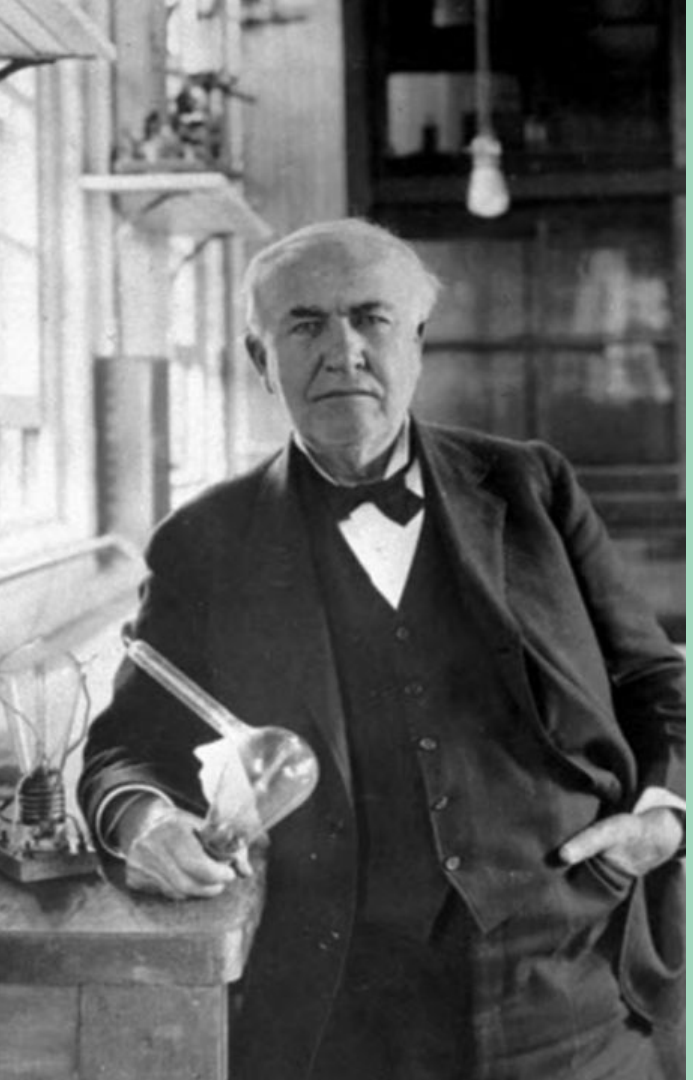


- **Don't get ahead of your knowledge** - *keep testing!*
- **Use scarce resources wisely** - *if it isn't working, pivot!*
- **Mitigate unintended consequences** - *such as cost, side effects, & balancing measures*
- **Reduce resistance to change** - *start off small*

PDSA key points

- The test of change cannot be too small
- One PDSA will lead to another (“ramping”)
- It helps you look at your system thoroughly
- You learn from your work (& mistakes)
    - Fail forward! 
- It can produce rapid results





“I did not fail one thousand times; I have found one thousand ways that won’t work.”

Thomas Edison

What resonated with you here?

Run Charts

Tool to measure improvement

What is a Run Chart?



It is a line graph that shows **observed data over time**.

By collecting the data over time, you can look for trends, shifts, and patterns.

It is an improvement measurement tool, where you **compare measures** before and after PDSA cycles to see **its impact and predict future trends**.

Why do we use run charts?

- Simple & effective way to determine whether changes you make are leading to a improvement
- Answers the second question in the Model for Improvement.



How do we use run charts?

- To measure improvement, we use run chart rules to **signal change has occurred.**
- The 3 signals for change we look for are shifts, trends and astronomical points.
- These rules help us interpret:
    1. Whether a **change is really happening**, or if a change is due to random chance.
    2. If a **change is effective**.

How do we make a run chart?

1. **Choose the data** you will measure and track overtime.
And establish a **direction of good**.

---

2. **Create your run chart** to plot the data you will collect:

- Create your **x-axis** (horizontal scale) using a measure of time. This could be minutes, hours, days, weeks, months, etc.
- Create your **y-axis** (vertical scale) using a number range that is logical for your data.

  Tip: ensure you leave room for future data that might be higher or lower than the current pattern!

- Label your axes and give the graph a title.

How do we make a run chart?

3. Plot your data overtime until you have a **minimum of 10 Quality By-Name List data points**.

4. With the 10 QBNL data points, you can **calculate the improvement median** and lock it in. If a community reaches a shift, a new improvement median is set.

5. **Interpret your chart:** focus on changes or meaningful trends/patterns/shifts.

   Tip: ensure to annotate on the chart for the important events & changes that led to improvements.

6. Add your **Functional Zero goal line** once you have achieved Quality BNL data.

Run chart rules

There are run chart rules to help understand your By-Name List data.

Improvement Median

A data point (represented by a line) where half the data points are above and half are below.

Direction of Good

Describes the desired direction of the run chart. For FZ, it is downward.

Trend

5 or more consecutively increasing or decreasing points; regardless of the improvement median.

Shift

6 or more consecutive points above or below the improvement median.

Astronomical Point

It is a dramatically different data point on a run chart.
It can also be called *an outlier*.

Annotations

Tells the improvement story by linking changes to data.

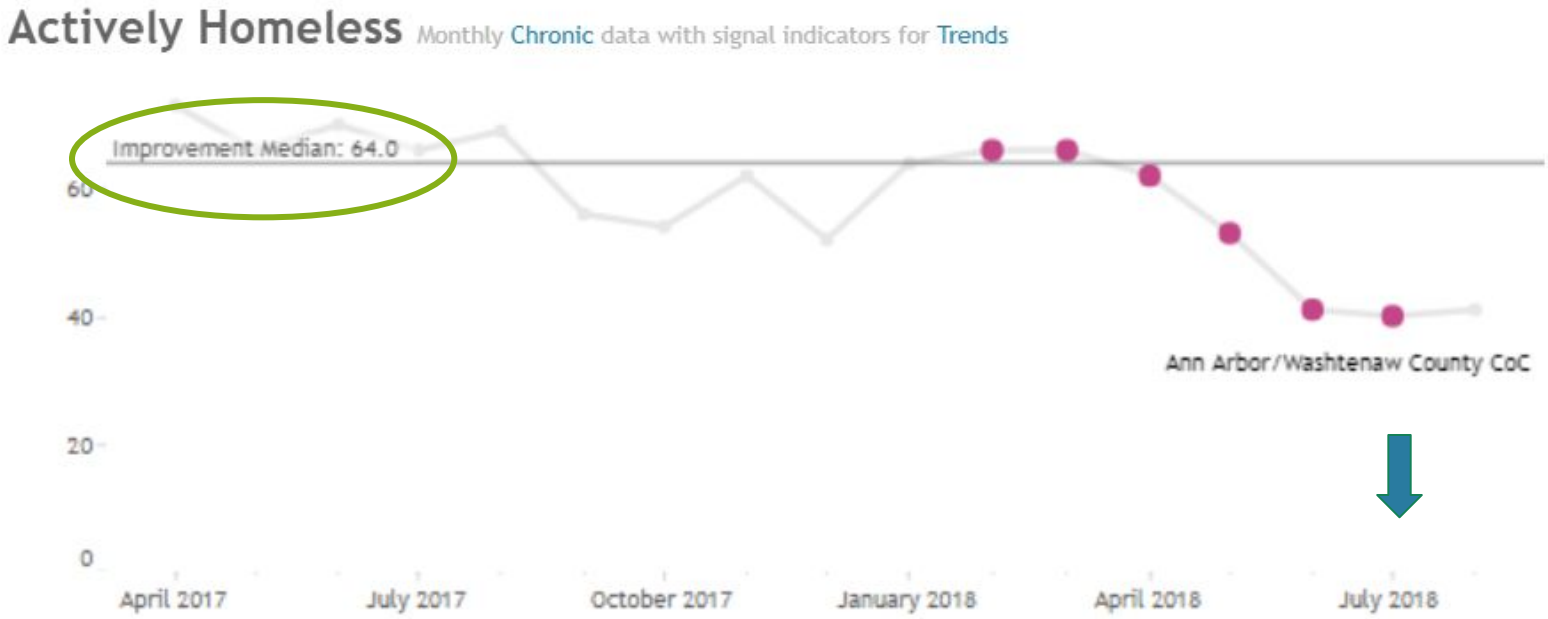
Improvement Median

A data point *(represented by a line)* where half the data points are above and half are below.

- In order to lock in an improvement median, you need a minimum of 10 Quality By-Name List data points.
- You will have a rolling median line starting from Quality data date.
- If there is a shift, a new median is set using the 6 shift points + 4 additional points collected overtime.

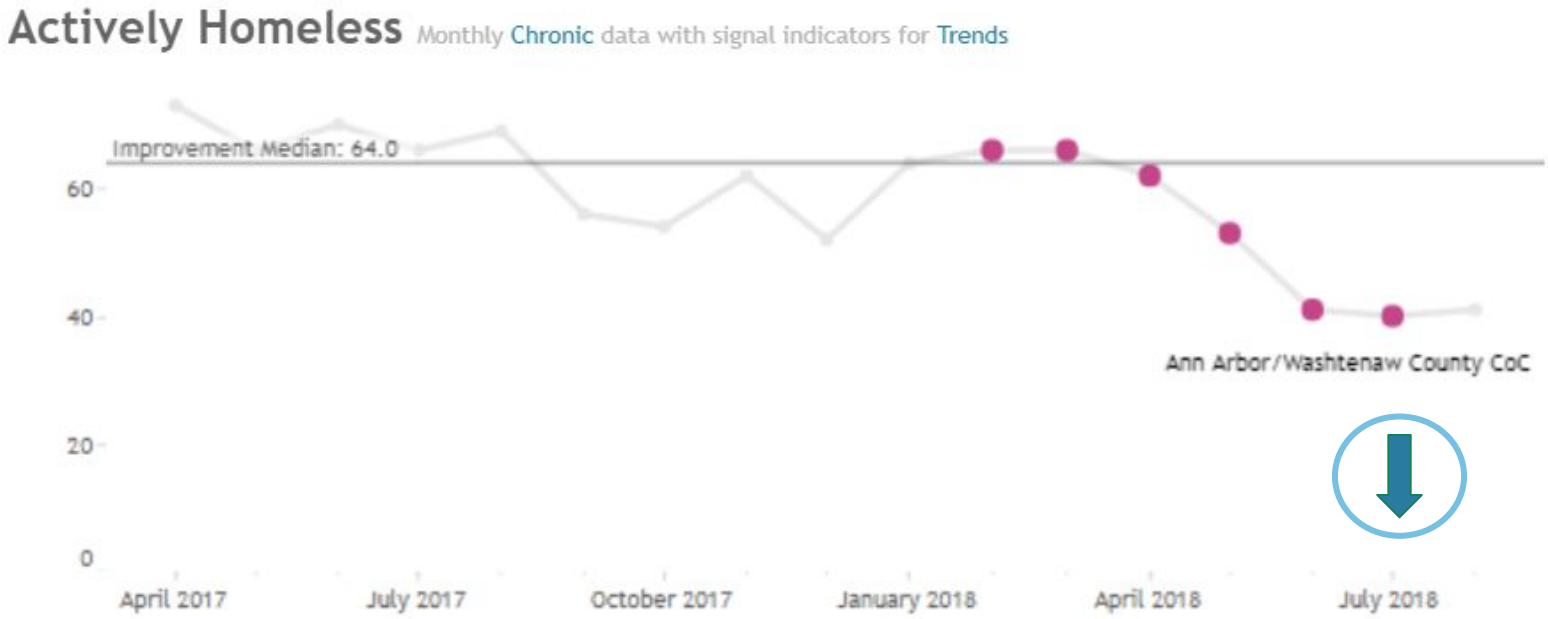
Improvement Median

This line helps you interpret the meaning of the data.



Direction of Good

Describes the desired direction for the run chart to be showing. To reach Functional Zero, it is downward.



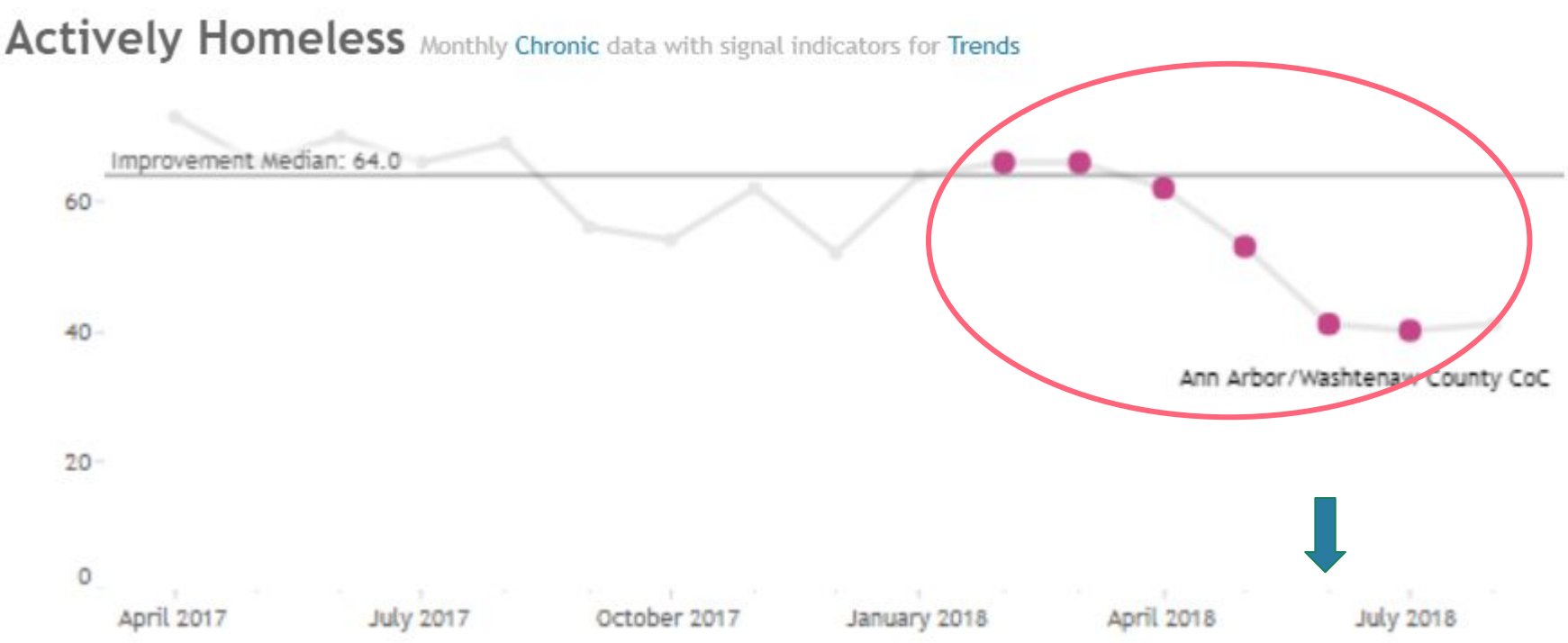
Trend

Two types of trends:

- **Upward trend:** 5 increasing points; regardless of the improvement median.
- **Downward trend:** 5 decreasing points; regardless of the improvement median.

*Trend Note: *If the value of two or more consecutive points is the same, ignore one of the points and continue counting*

Trend


Actively Homeless
Monthly Chronic data with signal indicators for Trends
Improvement Median: 64.0
60
40
20
0
Ann Arbor/Washtenaw County CoC
April 2017
July 2017
October 2017
January 2018
April 2018
July 2018

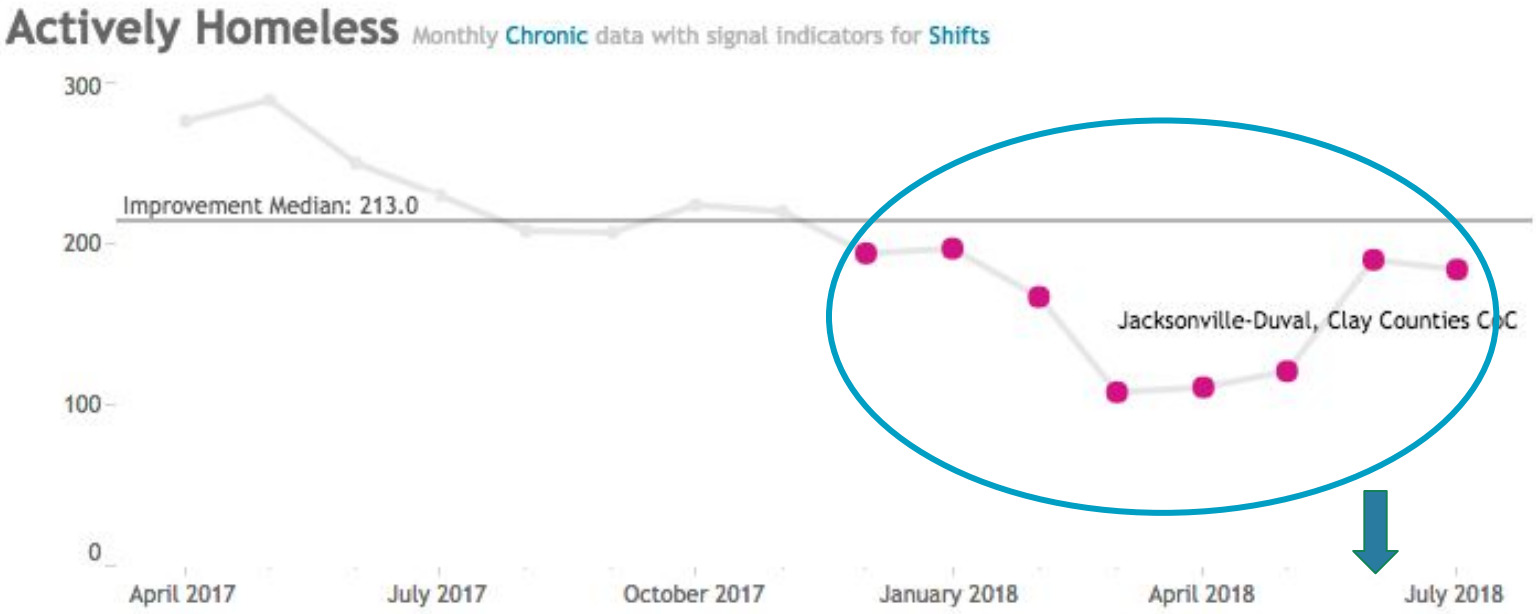
Shift

Two types of shifts:

- **Upward shift:** 6 consecutive points above the improvement median.
- **Downward shift:** 6 consecutive points below the improvement median.

*Shift Note - *Values that fall on the median neither add to nor break a shift — skip them and continue counting*

Shift


Actively Homeless
Monthly Chronic data with signal indicators for Shifts
300
200
100
0
Improvement Median: 213.0
Jacksonville-Duval, Clay Counties CoC
April 2017
July 2017
October 2017
January 2018
April 2018
July 2018

Trends & Shifts for measuring improvements

For improvement purposes and to reach FZ, you want:

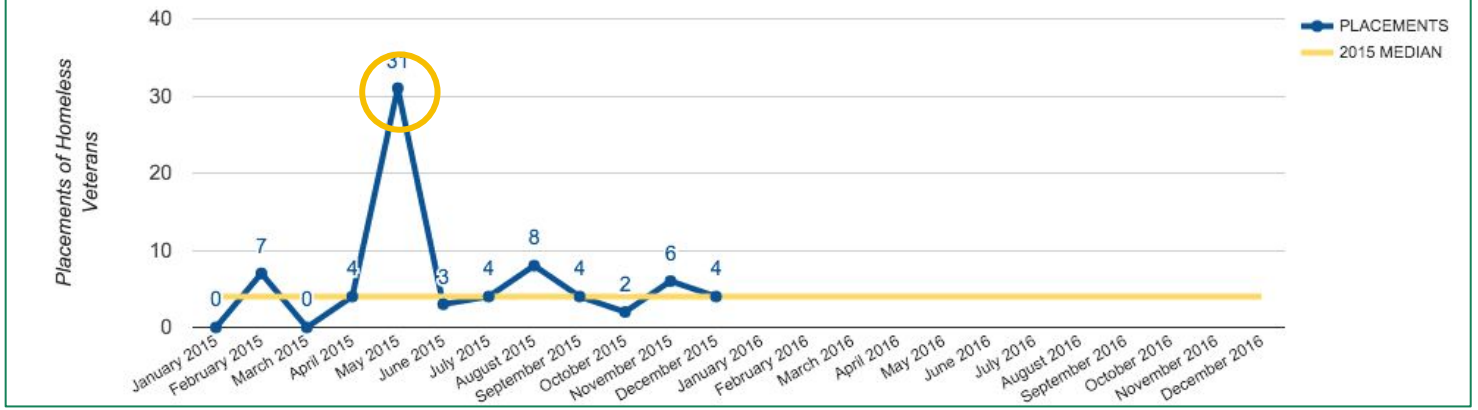
downward trends and downward shifts

- For a community to be noted as “actively reducing” they must have achieved a trend or a shift.
- Using shifts and trends helps us to recognize significant changes that are not just a result of normal variation.

Astronomical Point *(Outlier)*

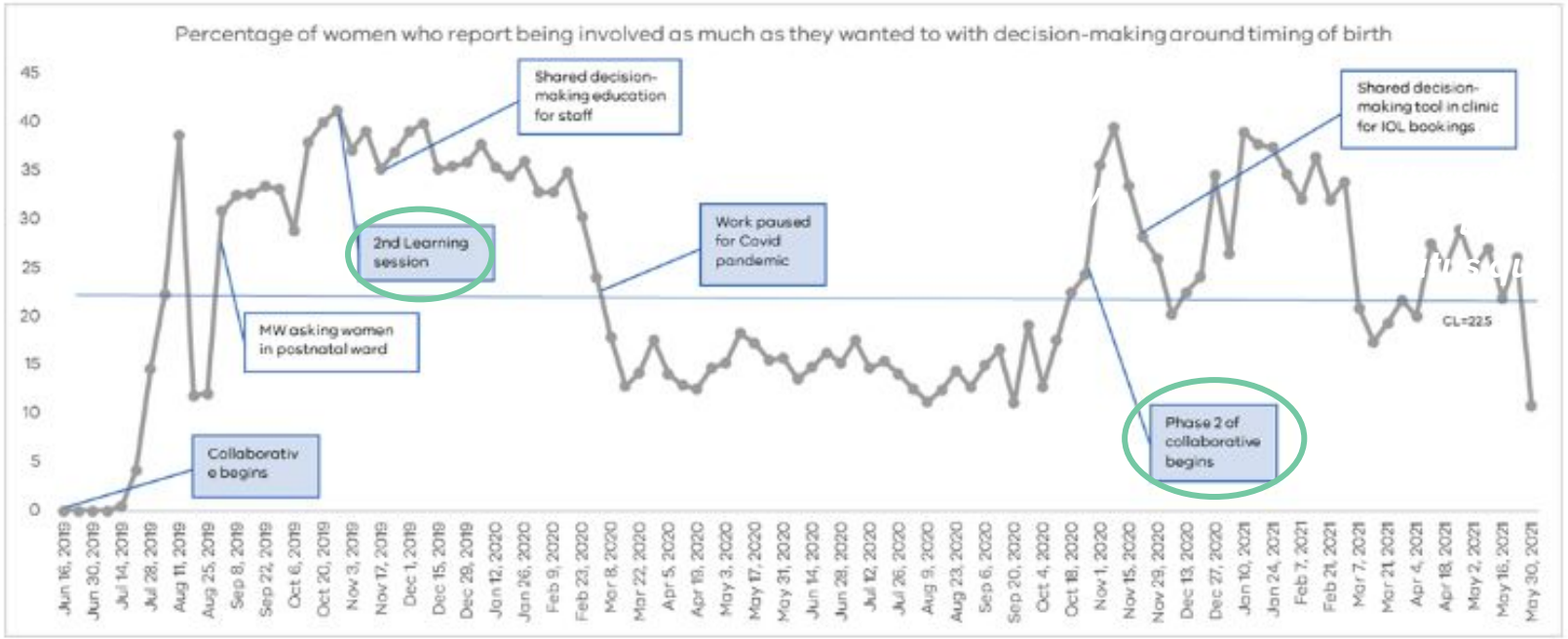
A data point that is dramatically different on the run chart and cannot be seen as non-random variation.

CHRONIC HOUSING PLACEMENTS THIS MONTH	MEDIAN MONTHLY CHRONIC HOUSING PLACEMENTS IN 2015	TOTAL CHRONIC HOUSING PLACEMENTS SINCE JANUARY 2015
4	4	73



Annotations

They tell the improvement story by linking changes seen in the data.




Your Questions!
COMMUNITY
SOLUTIONS