10:30 – 11:15

Introduction to Quality Improvement Tools

- Building a QI team – what skills are already in place (LNA)
- Developing a process map – in teams decide what you might look at & feedback
- Example of a driver diagram – return to NHS change model

[Dr Steve Dickinson – Royal Cornwall Hospital, Truro]

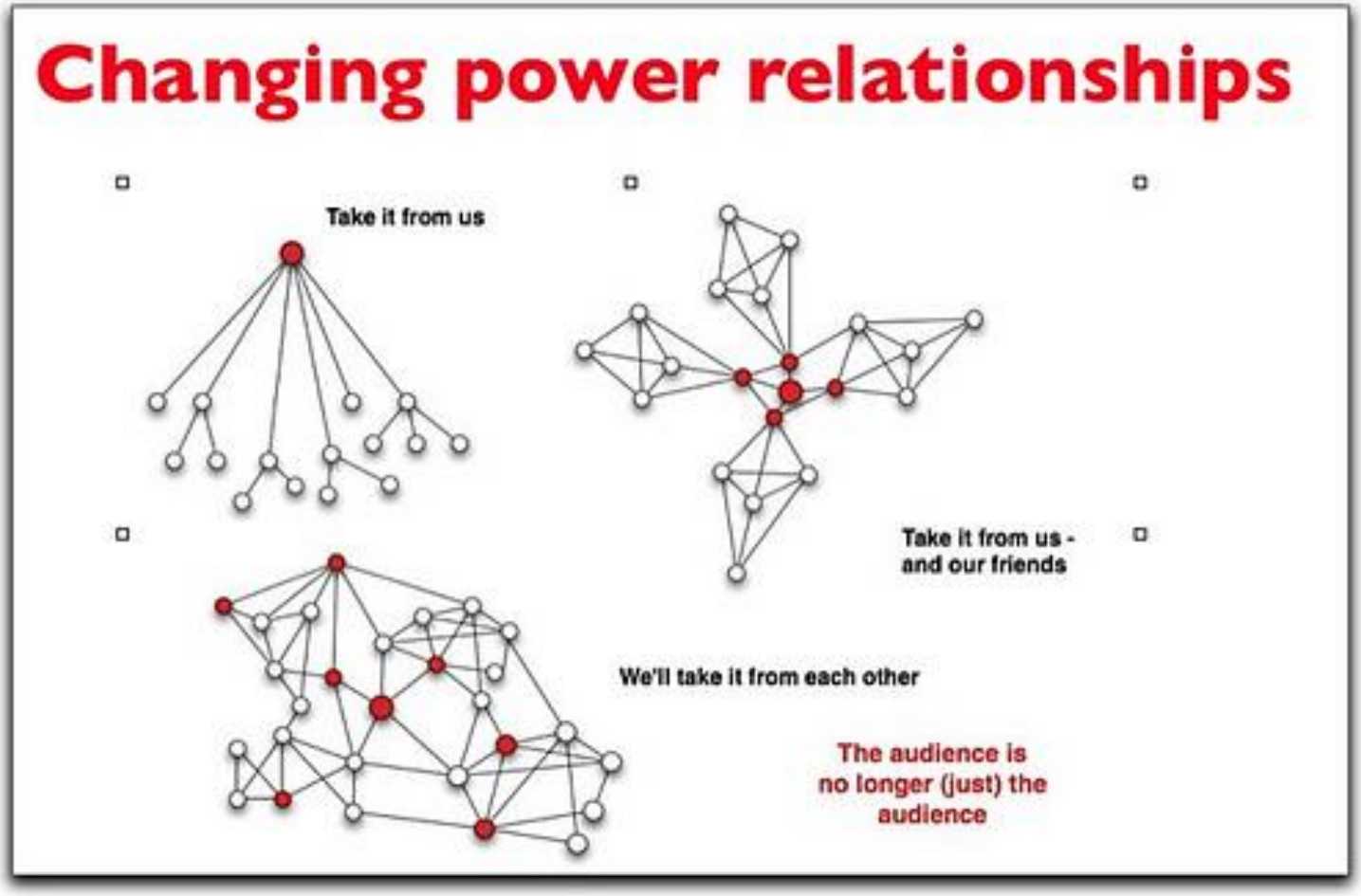
'THINK KIDNEYS'

KQuIP

Building a QI team – Who?

- Who can influence?
- Who has connections?
- Who has subject expertise?
- Who has lived experience?
- Who is good at communicating?
- Who has done this before?
- Who has an interest?
- Who can challenge?

Building a QI Team – Avoid hierarchy!



Building a QI team – Involve patients

WHY? … Because it is the right thing to do

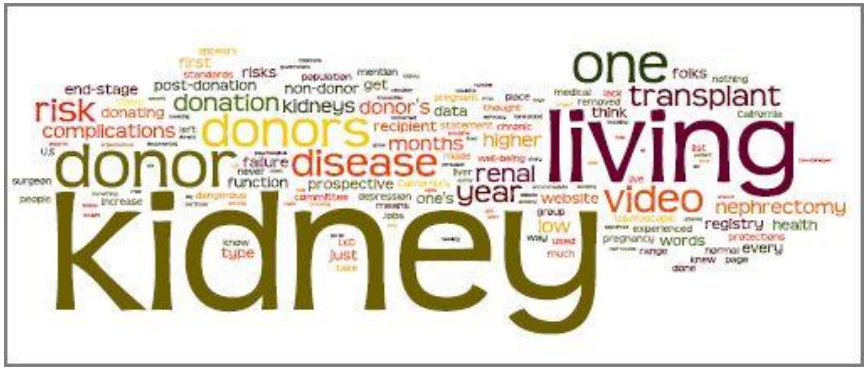
- They bring a different set of skills and insights to the programme
- A new and different way of working and thinking
- Change of language in meetings – common ground
- Bringing lived experience to the conversation – challenges some assumptions
- Filter into practice in units – patients as assets
- A new experience for patients – translates to improved Quality of Life

Exciting…

Driver Diagrams

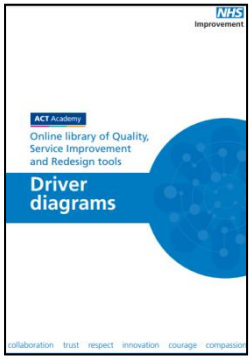
Process mapping

PDSA



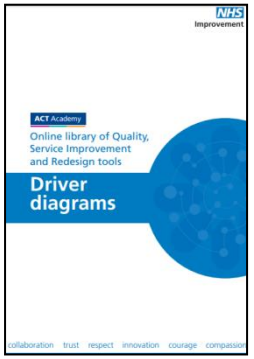
Driver diagrams (tree diagrams)

- These diagrams are a simple way to show how an overall improvement goal can be broken down into its underpinning drivers and projects. As a logic tool they allow you to communicate your improvement strategy and support the development of a measurement framework to monitor progress.

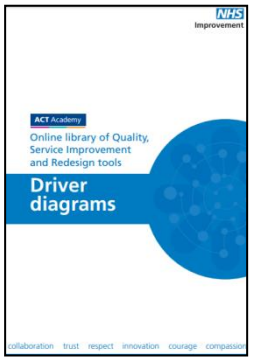


Driver diagram

- **What is it?**
- A driver diagram is a tool that can be used to help plan improvement project activities.
- Driver diagrams are essentially another name for the classic ‘tree diagrams’ commonly used in operational research.



Driver diagram



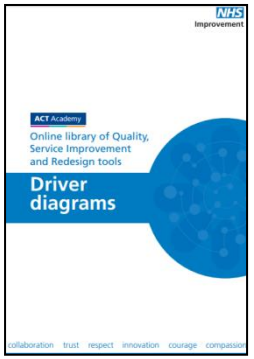
- **When to use it**

When you are dealing with complex change it is often difficult to differentiate between cause and effect and it is rare to be able to attribute a particular outcome to one particular change you have made.

Driver diagrams can be used to show your theories of cause and effect in your system – in other words, your theories about what changes will likely cause the desired effects and achievement of your aim.

It is helpful to create driver diagrams during the initial planning stages of your change programme, but they should also be used throughout your change programme. Regular review of your driver diagrams will allow you to update them as you refine your theory of change in your system and learn more about the cause and effect relationships that are in play.

Driver diagram

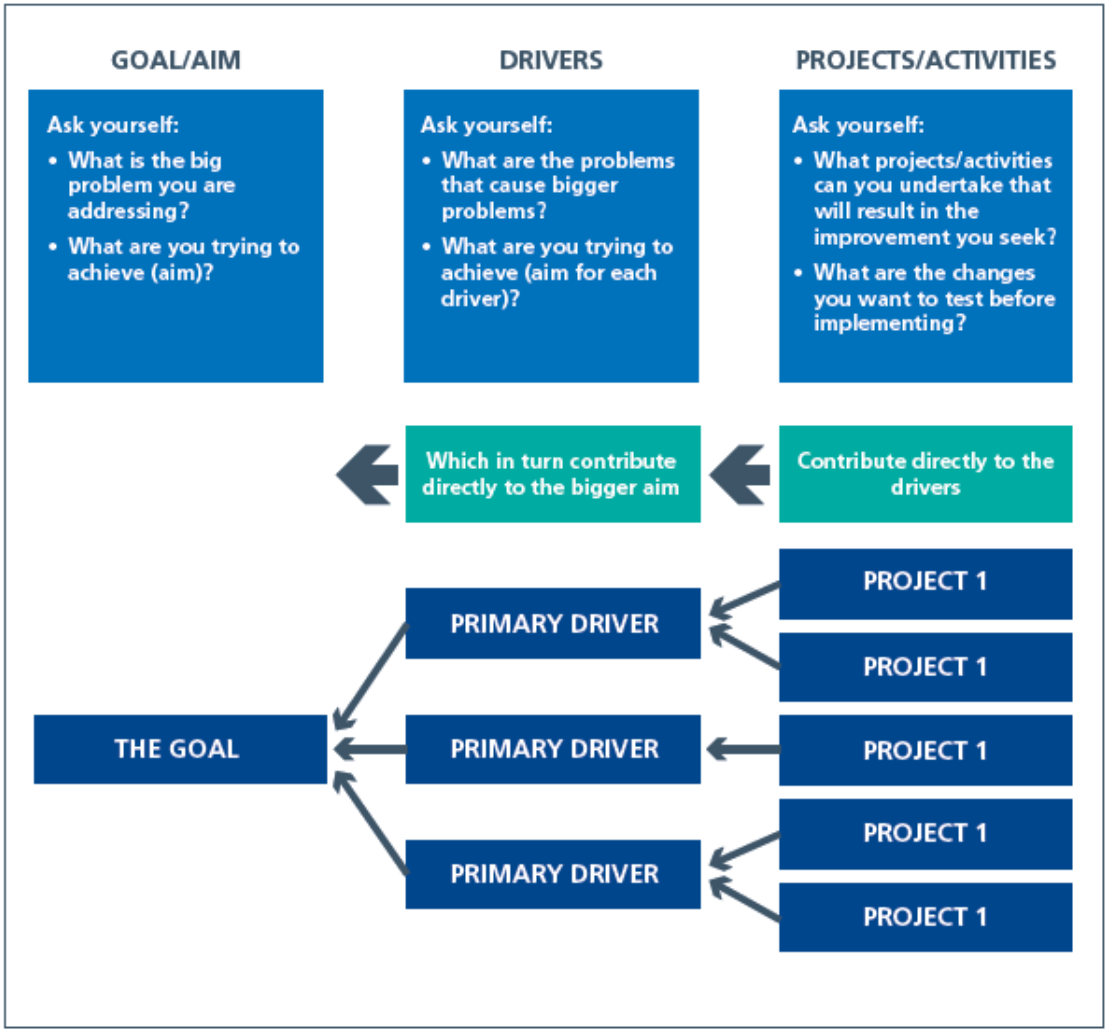


- **How to use it**

Driver diagrams are structured charts of three or more levels. They translate a high level improvement goal/aim into a logical set of high level factors (primary drivers) that you need to influence in order to achieve your goal. They also show the specific projects/activities that would act on these high level factors.

Driver diagram

Figure 1: Driver diagram showing goal/aim, drivers and projects/activities



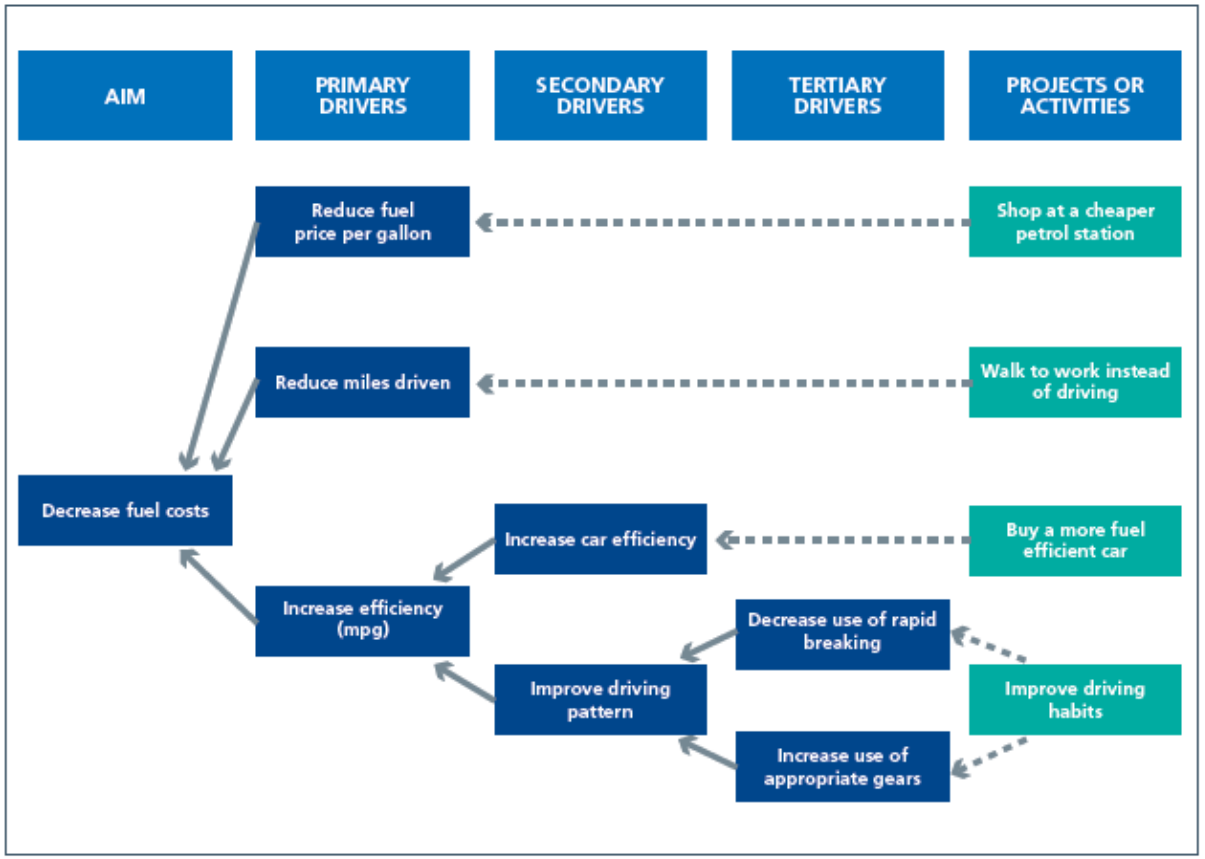
Driver diagram

Driver diagram levels

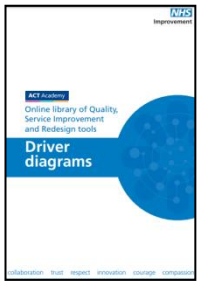
Basic driver diagrams show three levels (goal, primary drivers and projects/actions). Driver diagrams relating to more complex goals expand the number of levels so that each primary driver has it own set of underpinning factors.

In the example below, the driver diagram relates to the overall aim of reducing driving fuel costs.

Figure 2: Driving diagram – reducing driving fuel costs

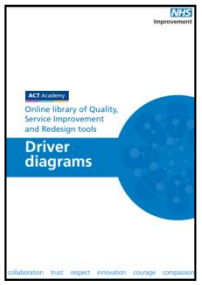


Driver diagram



- The driver diagram starts with a clearly defined and measurable goal. This is the focal point for your change efforts.
- The overall goal is linked in this example to three factors/sub-goals that are believed to have a direct impact on it (ie fuel costs will reduce if you find cheaper fuel, reduce the number of miles your drive or increase your fuel efficiency).
- The first set of underpinning goals are referred to as primary drivers because they ‘drive’ the achievement of your main goal. These drivers may act independently or in combination to achieve the overall goal/aim.

Driver diagram



- The process of breaking down a goal can continue to lower levels to create secondary or tertiary drivers (and even further if required). In this example, the primary driver has been broken down to show some secondary drivers (ie you can increase efficiency by increasing car efficiency and improving your driving pattern). The 'improve driving patterns' secondary driver is then broken down to show some tertiary drivers.

- The ultimate aim of a driver diagram is to define the range of projects (ie actual change initiatives) that you want to undertake. These can appear anywhere in the hierarchy of the driver diagram – wherever makes most sense. In the example above, you can see that some projects are linked directly with primary drivers, some with secondary drivers and others with tertiary drivers.

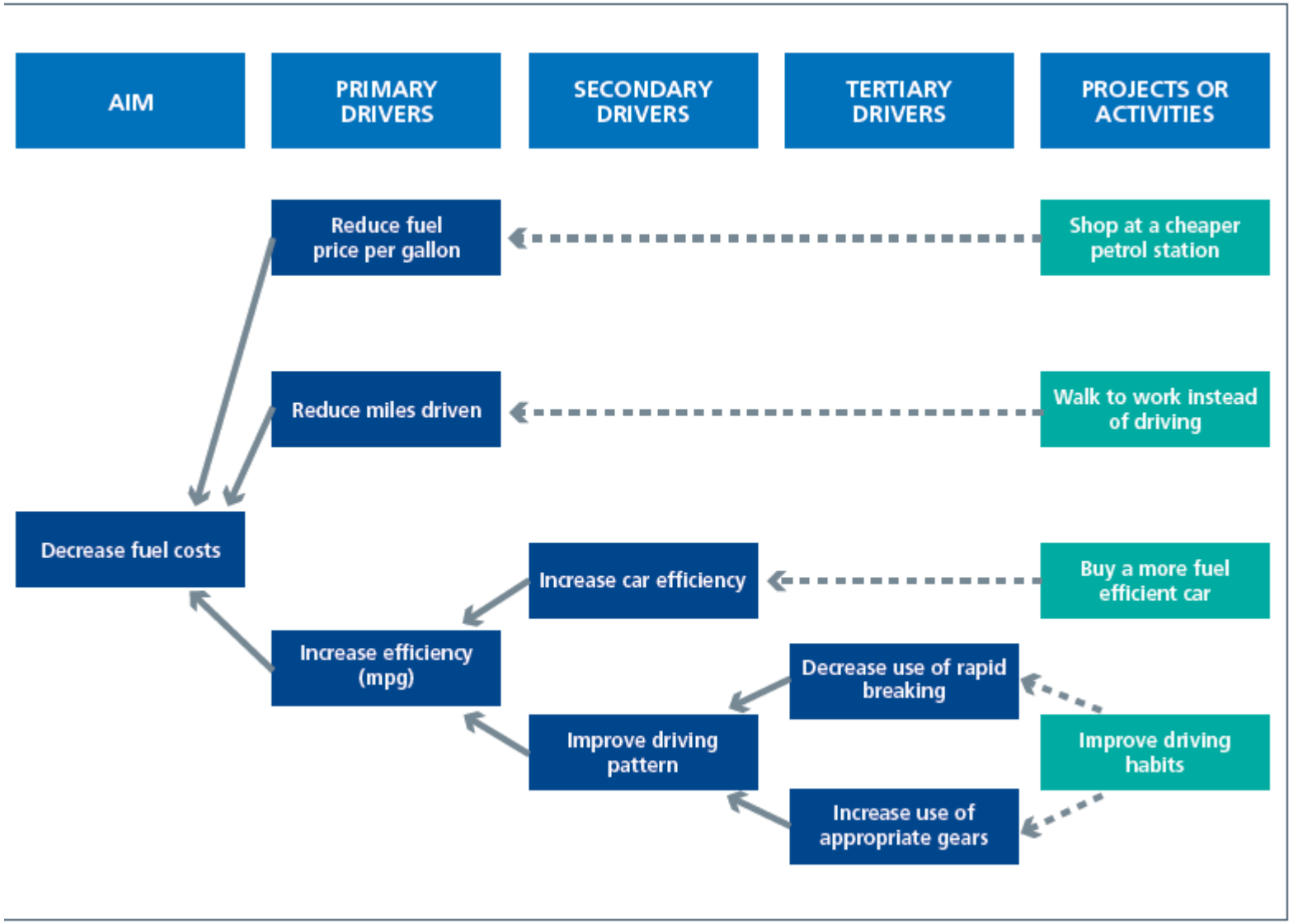
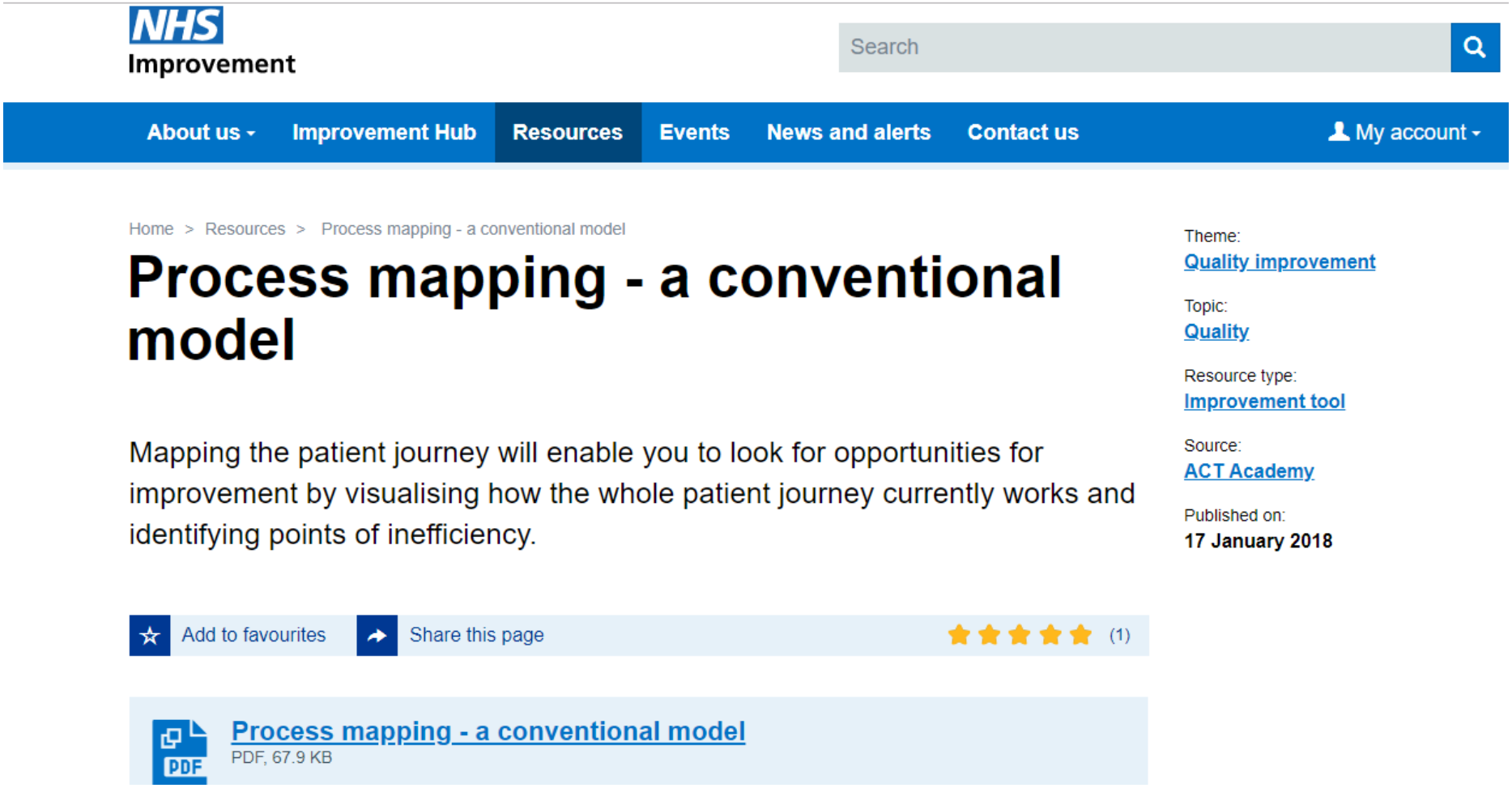

AIM
PRIMARY DRIVERS
SECONDARY DRIVERS
TERTIARY DRIVERS
PROJECTS OR ACTIVITIES
Reduce fuel price per gallon
Shop at a cheaper petrol station
Reduce miles driven
Walk to work instead of driving
Decrease fuel costs
Increase car efficiency
Buy a more fuel efficient car
Increase efficiency (mpg)
Decrease use of rapid breaking
Improve driving pattern
Improve driving habits
Increase use of appropriate gears

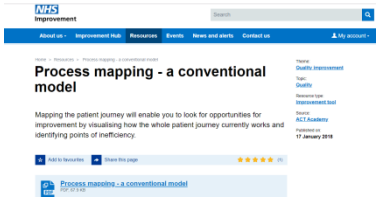
Figure 3: A driver diagram template

AIM	PRIMARY DRIVERS	SECONDARY DRIVERS	CHANGE IDEAS

Process mapping



Process mapping



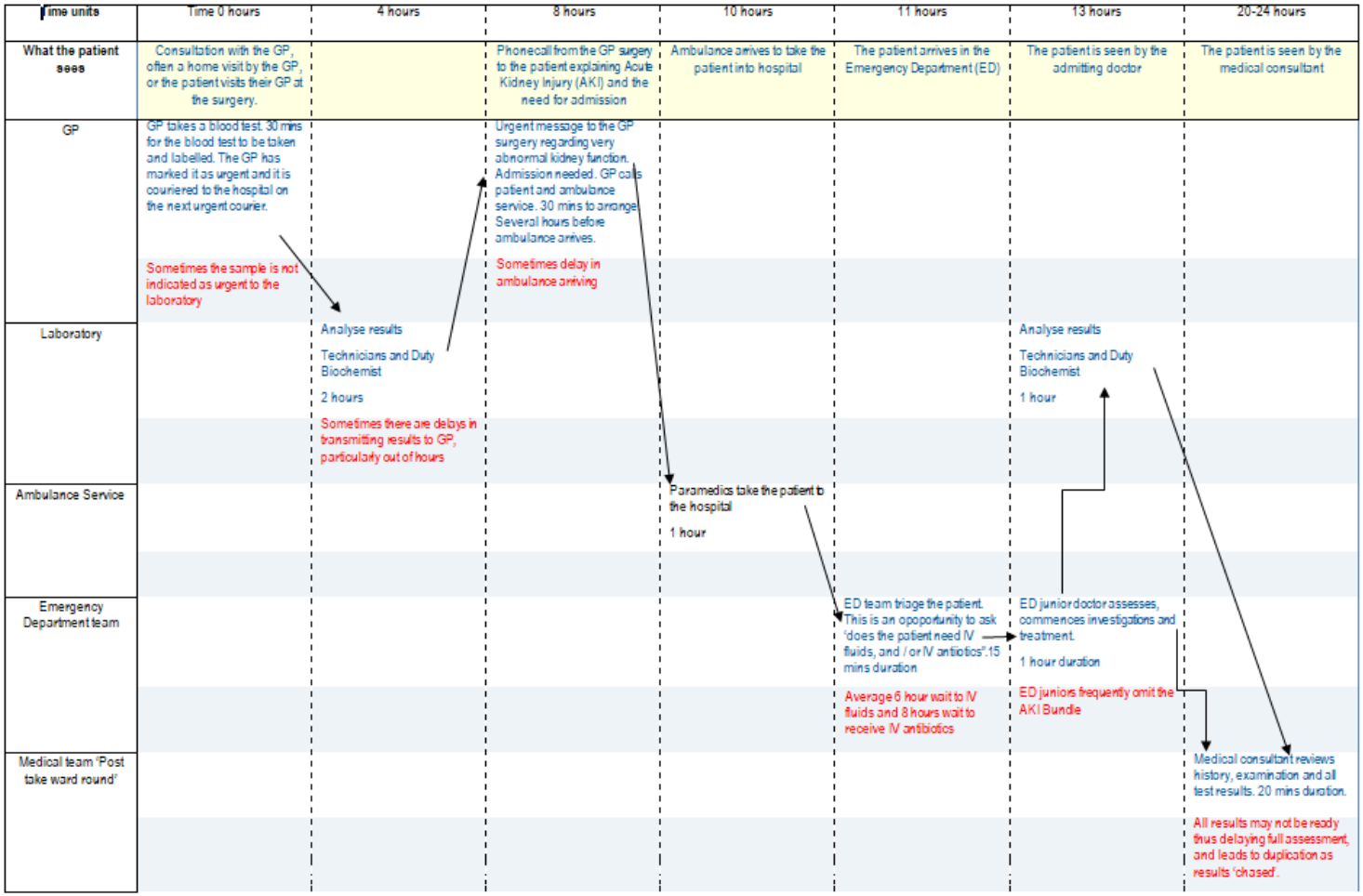
- enables you to create a visual picture of how the pathway currently works, capturing the reality of the process, exposing areas of duplication, waste, unhelpful variation and unnecessary steps.

- By involving a range of people from across the pathway, everyone can discuss the actual steps taken through the journey/pathway from their own perspective and take the time to consider what works well or less well from a patient perspective.

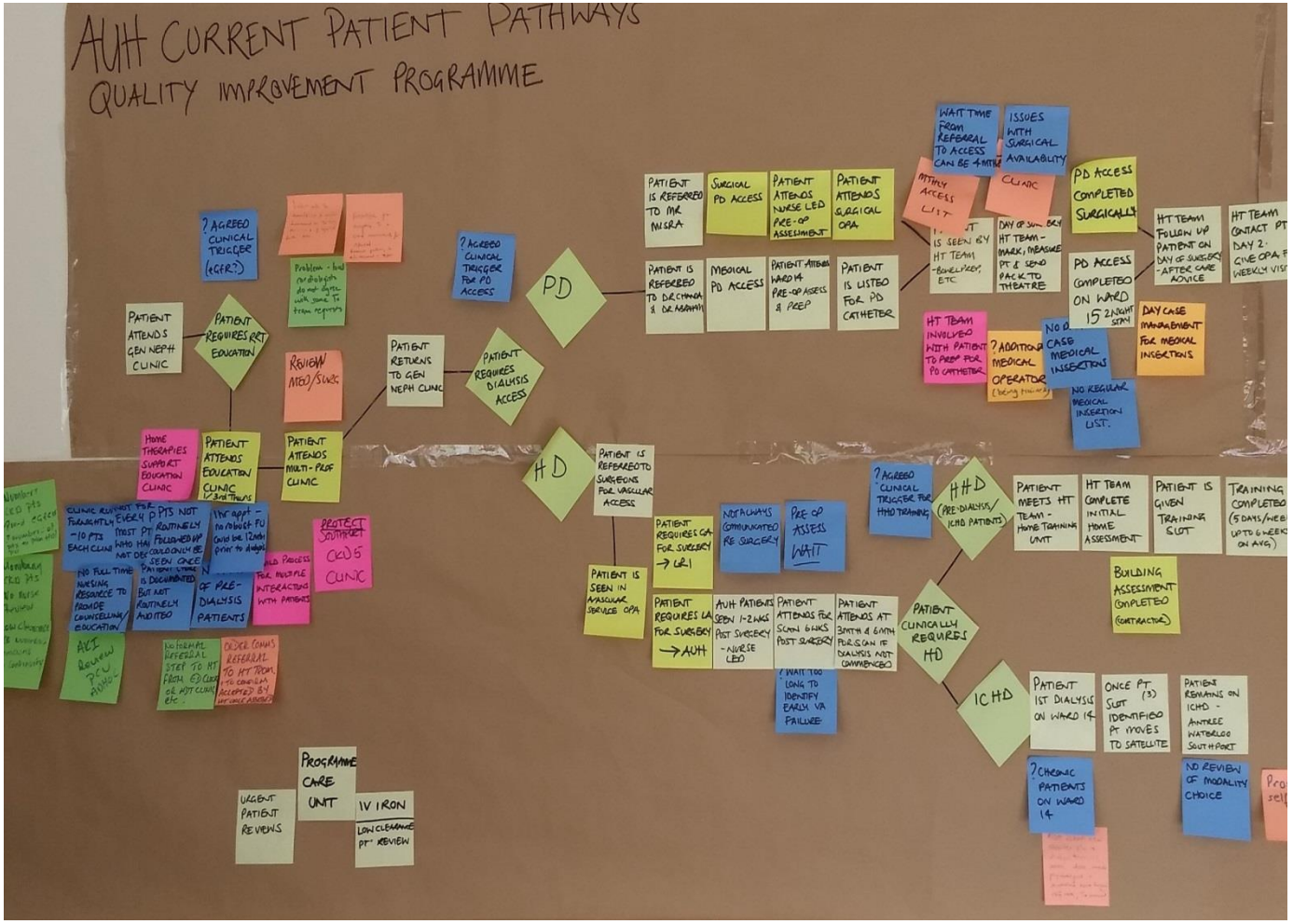
- Frustrations and challenges will be aired and it is crucial to consider how to address these frustrations and generate ideas for service improvement.

- helps to build good working relationships within a team and across functional and organisational boundaries – with everyone focused on making improvements that will have the biggest impact for better patient and staff experiences.

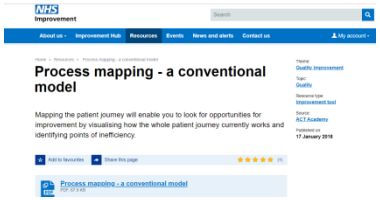
My ‘AKI in community’ process map (3 yrs ago!)



QI – process map

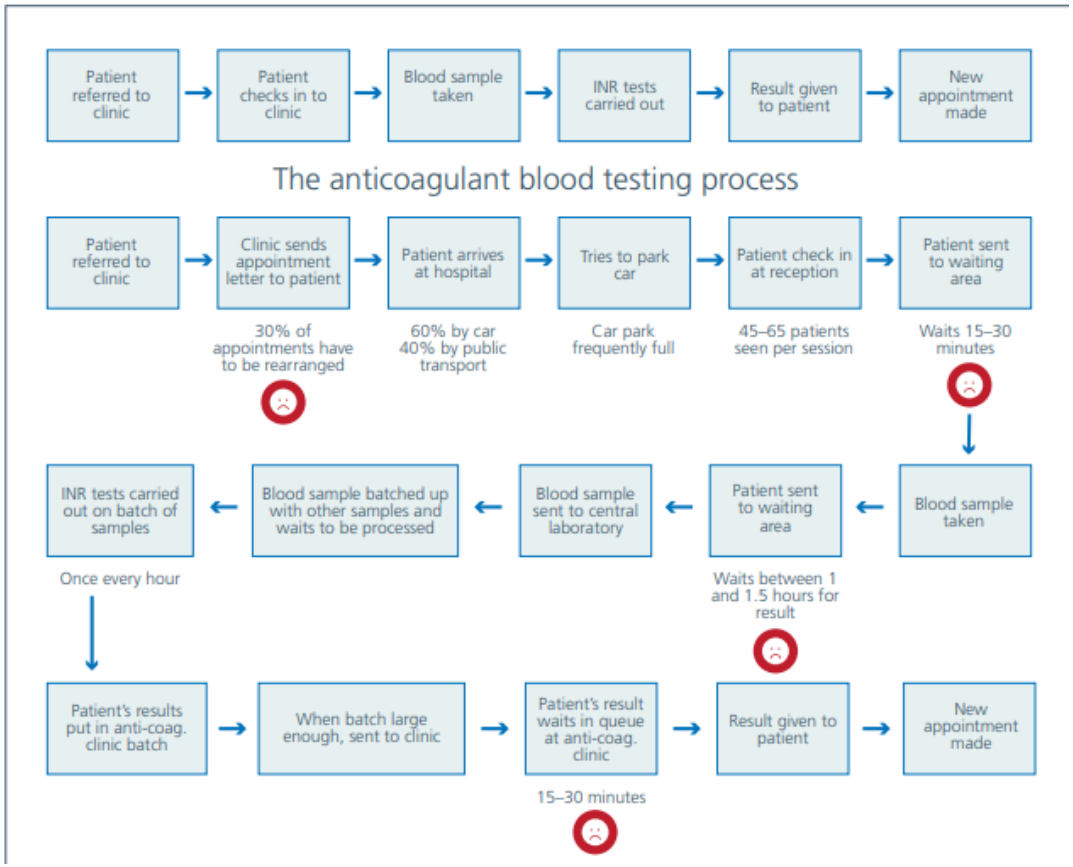


Process mapping

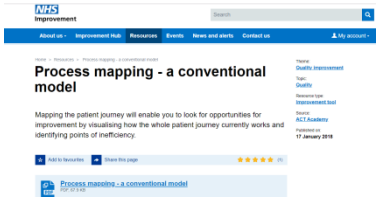


Below is an example of a high level map followed by a detailed process map, which looks at the anticoagulant blood testing process carried out in a major hospital.

Figure 3: The anticoagulant blood testing process



Process mapping



- Testing your ideas for improvement will help to show potential unwanted side effects of your changes.

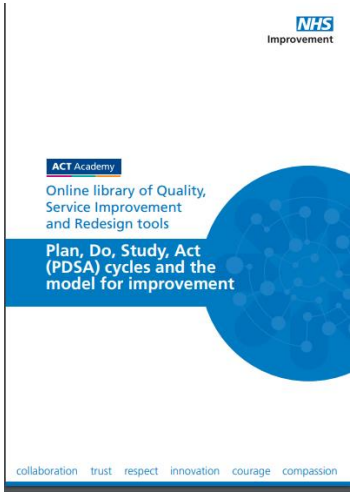
- Using the PDSA cycle will help you understand the potential impact of a change.

Suggested change ideas for this phase of work:

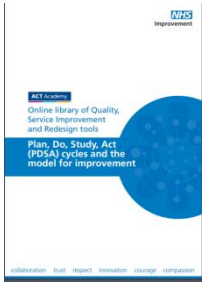
- Co-ordinate the patient process of care.
- Pre-plan and pre-schedule care at times to suit the patient.
- Reduce the number of times a patient has to travel to visit the hospital or surgery, including the number of outpatient appointments.
- Reduce unnecessary waits and times when work is piled up.
- Pool similar work together by sharing staff and resources and reduce the number of queues.
- Extend staff roles, possibly as a role redesign exercise.
- Undertake capacity and demand work to help you understand and deal with your bottlenecks.

Plan, Do, Study, Act (PDSA) cycles and the model for improvement

- Use plan, do, study, act (PDSA) cycles to test an idea by trialling a change on a small scale and assess its impact, building upon the learning from previous cycles in a structured way before wholesale implementation.



Plan, Do, Study, Act (PDSA)

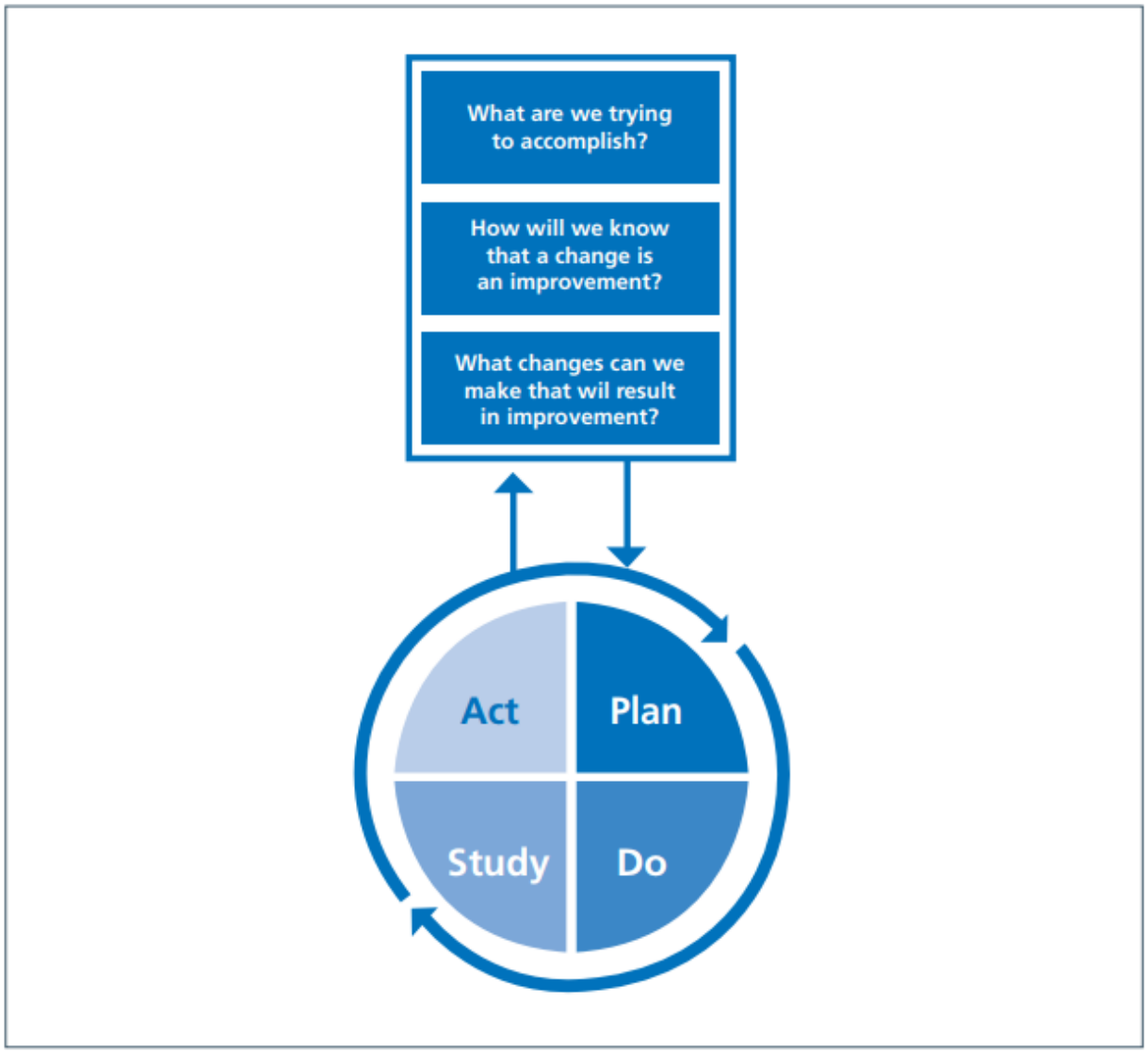


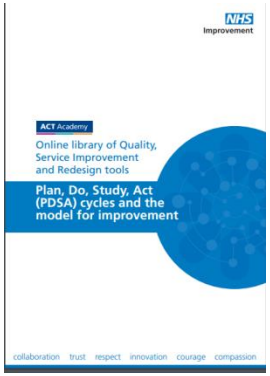
The model for improvement provides a framework for developing, testing and implementing changes leading to improvement.

It is based in scientific method and moderates the impulse to take immediate action with the wisdom of careful study. Using PDSA cycles enables you to test out changes on a small scale, building on the learning from these test cycles in a structured way before wholesale implementation.

Gives the opportunity to see if the proposed change will succeed and is a powerful tool for learning from ideas that do and don't work. This way, the process of change is safer and less disruptive for patients and staff.

Plan, Do, Study, Act (PDSA)

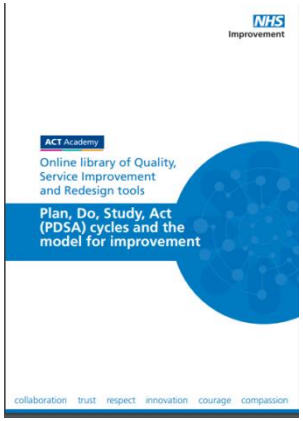




Plan, Do, Study, Act (PDSA)

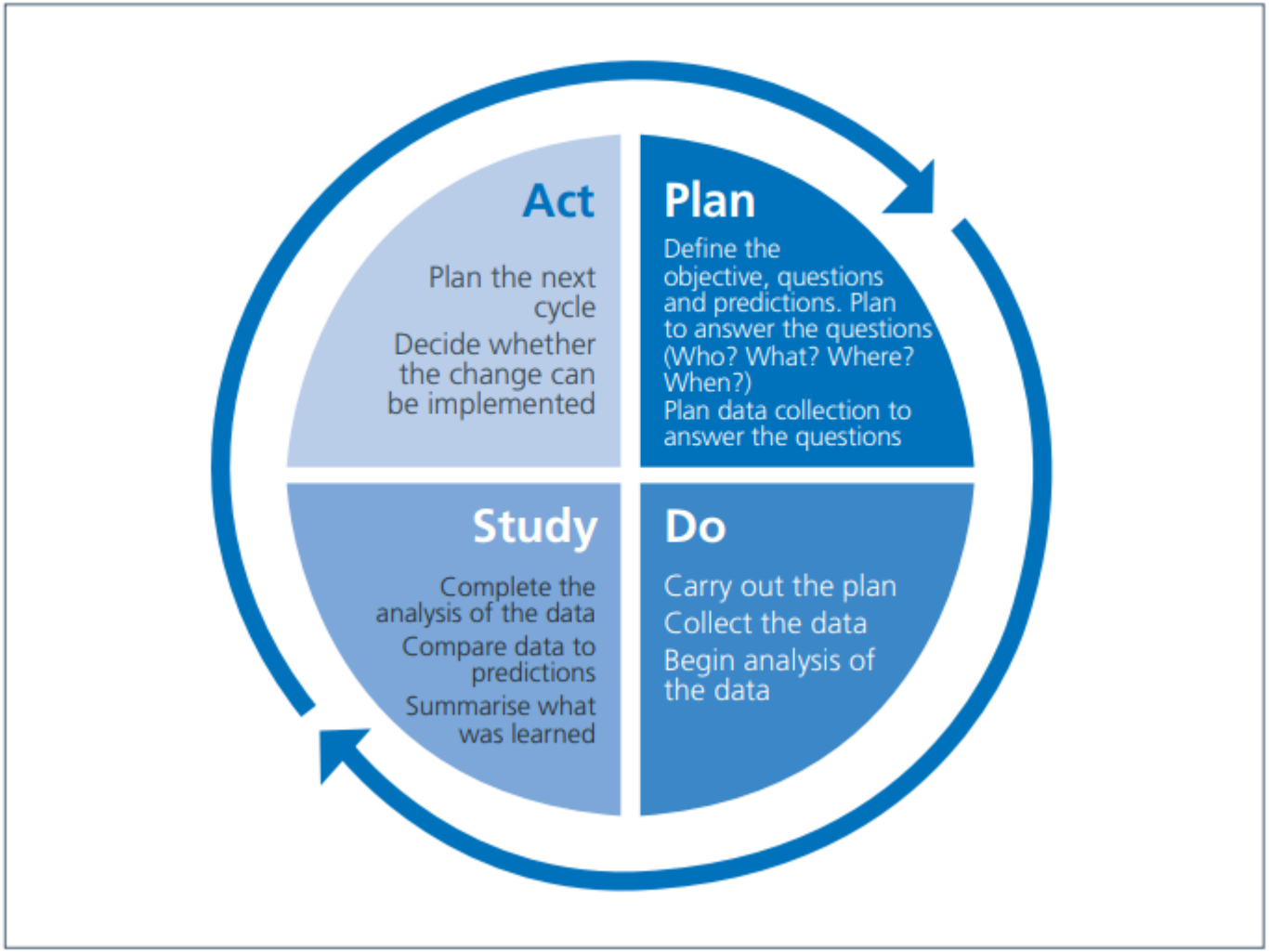
The four stages of the PDSA cycle are:

- Plan – the change to be tested or implemented
- Do – carry out the test or change
- Study – based on the measurable outcomes agreed before starting out, collect data before and after the change and reflect on the impact of the change and what was learned
- Act – plan the next change cycle or full implementation.

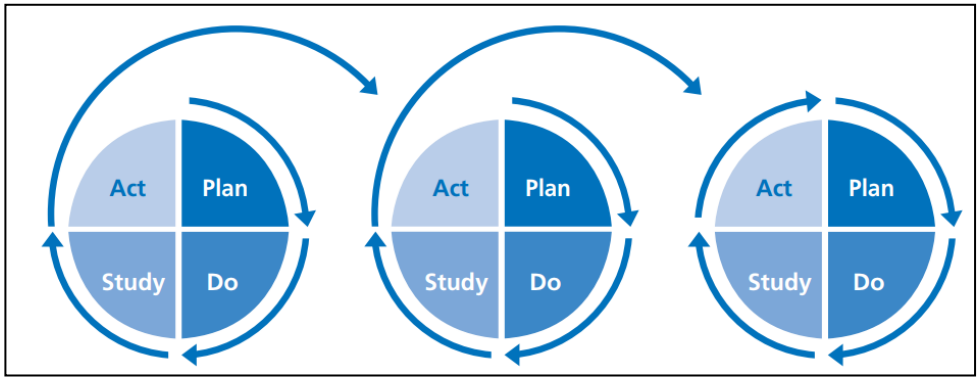


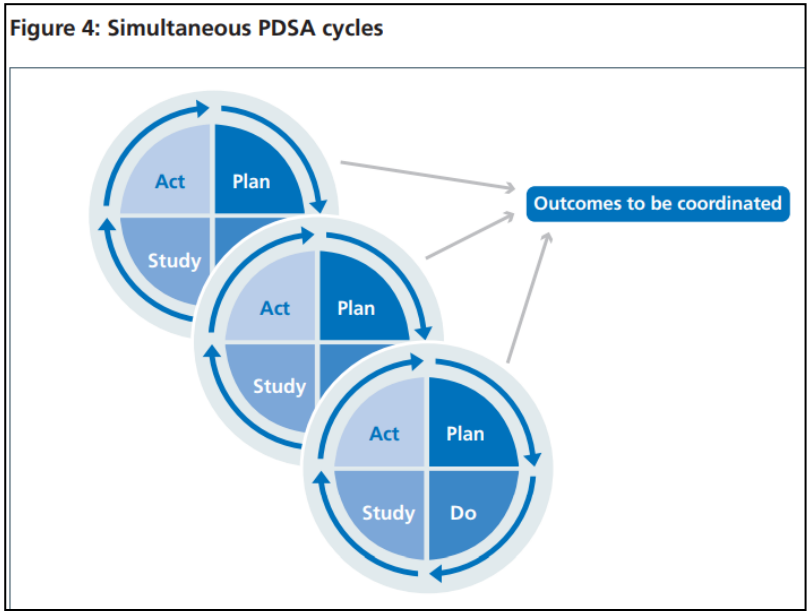
Plan, Do, Study, Act (PDSA)

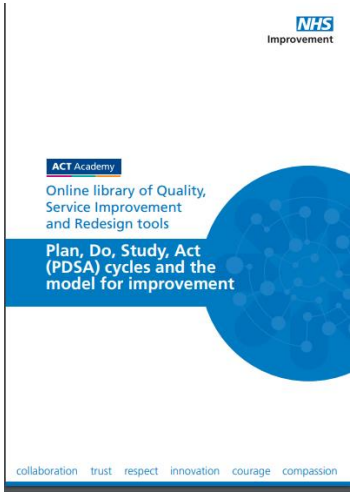
Figure 2: PDSA cycle



Plan, Do, Study, Act (PDSA)



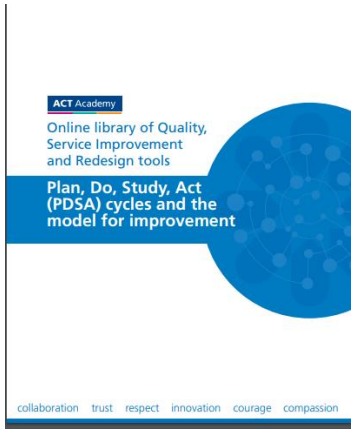


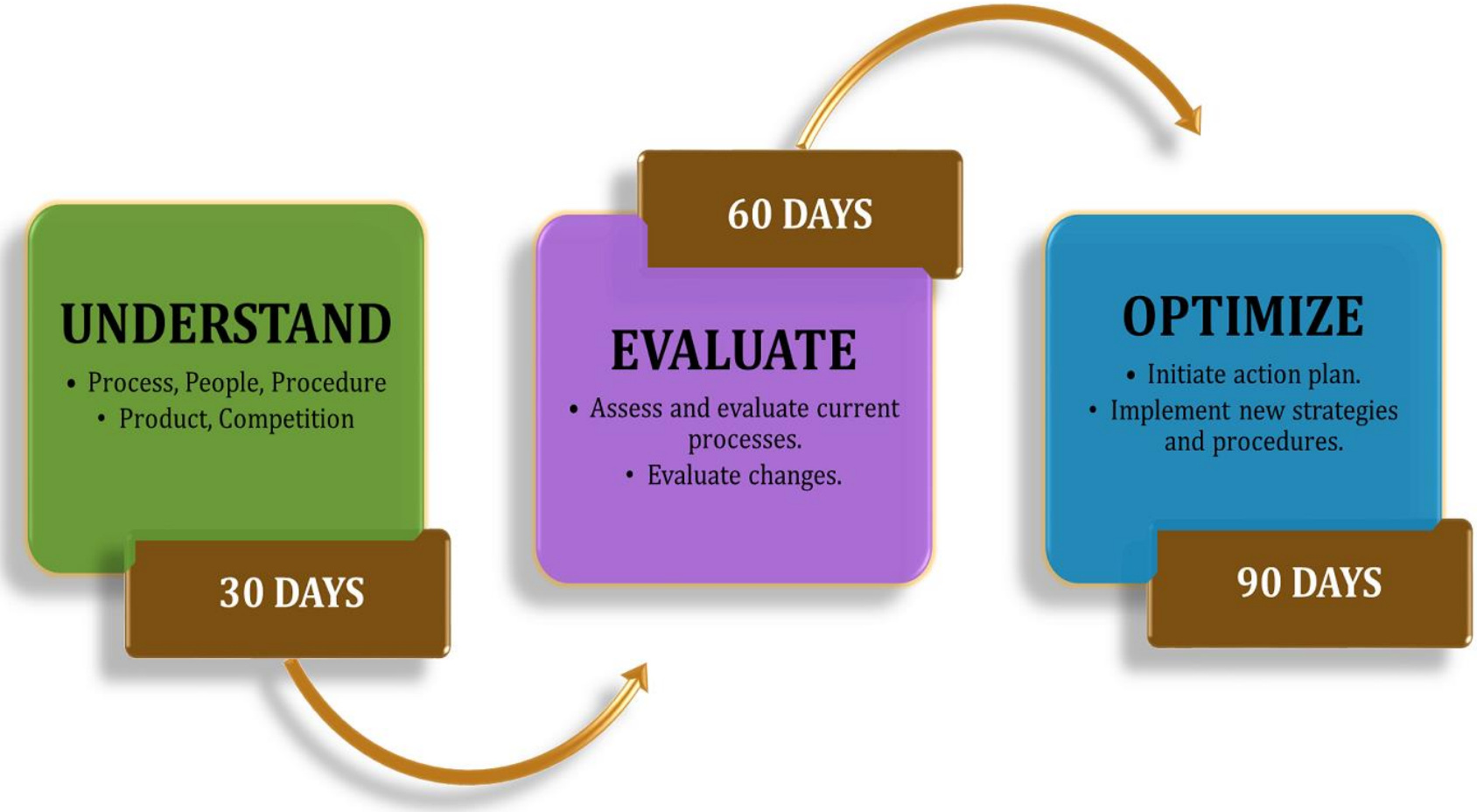


Plan, Do, Study, Act (PDSA)

TIPS

- Plan multiple cycles to test ideas.
- Test on a really small scale. For example, start with one patient or one clinician at one afternoon clinic and increase the numbers as you refine the ideas.
- Test the proposed change with people who believe in the improvement. Don't try to convert people into accepting the change at this stage.
- Only implement the idea when you're confident you have considered and tested all the possible ways of achieving the change.

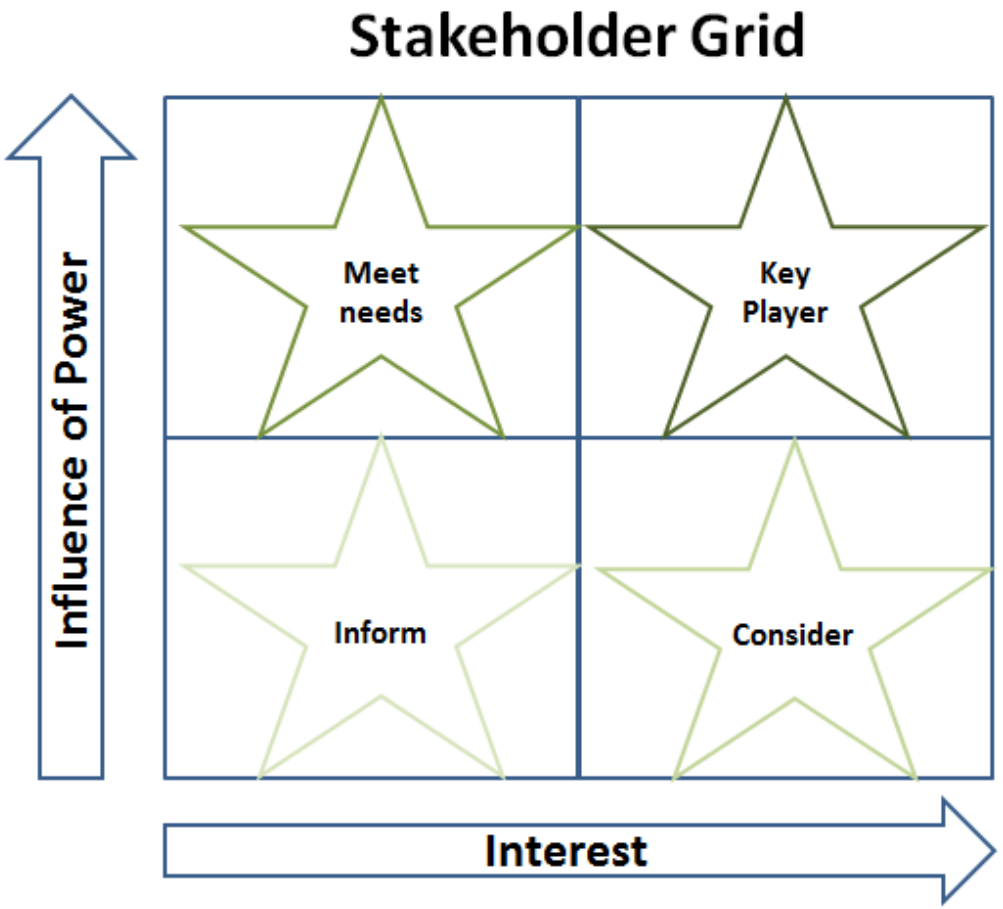




Unit feedback

- 1. Discuss your local strategy that will allow you to measure how many of your patients with an egfr<20 (or anticipated to reach esrf within 12 months) have had a documented discussion (aka decision) reached about transplantation.
- 2. Present how many patients (donors and recipients) have started the 18 week clock since 1 May
- 3. Discuss one aspect of involving patients you have started to do (or are planning to do differently)
- 4. Discuss one method that they have done or are planning to do, to raise profile of South West Team Transplant and its aims etc

Stakeholder Grid



QI – How to process map

1. Define and agree the process to be mapped

The objective is to get everyone's view of the issues and create:

» Problem Statement

» Target Statement

2. Identify and agree the metrics

Establish the Key Performance Indicators (measures) that will tell whether a process has improved

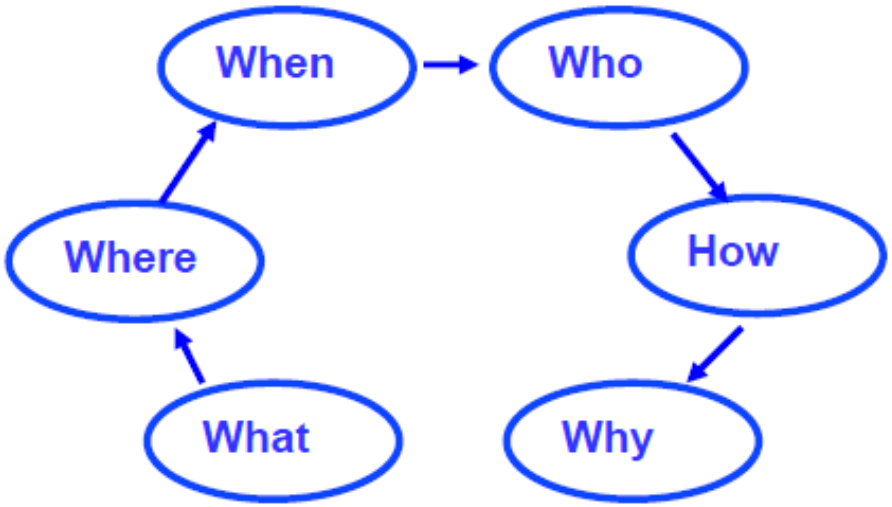
3. Identify a team and team leader

4. Map the current activities

Create a current state map, this is how the process currently runs. Record it as it is even if it is "not as it should be"

QI - How to build a map (2)

Use these simple questions to understand each step in the process



Share the work out

1- Scribe for main tasks

2- Scribe for "issues"

3- Scribe for "more information request"

If you can answer all 6 questions about every step then you understand that step

QI - Driver Diagram Template