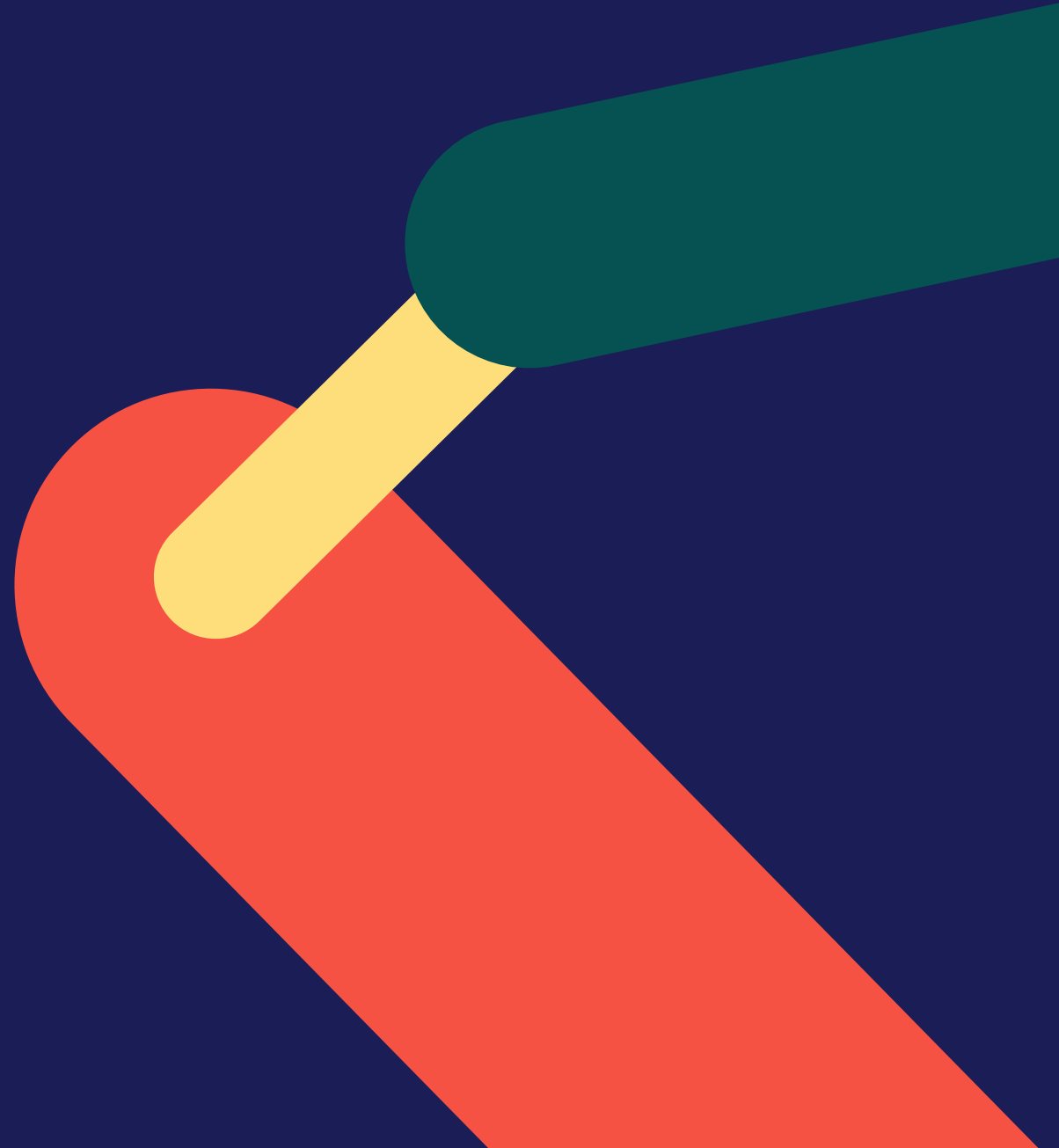


The PSC

Delivering Fast Effective Projects

Full Participant Pack

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Welcome to the programme

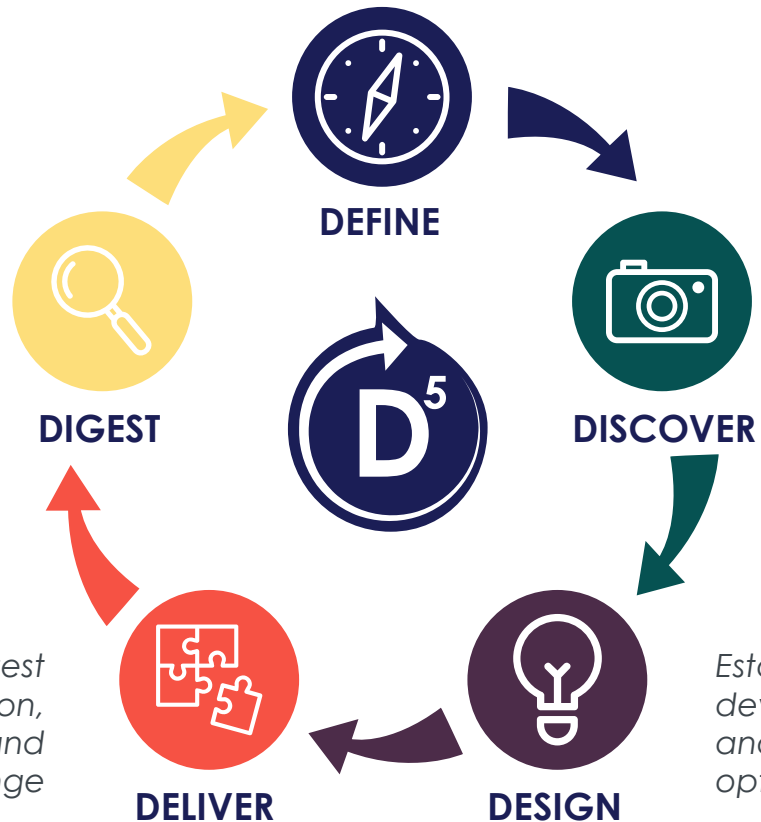
INTRODUCTIONS AND ICE BREAKER

- Housekeeping: Fire Exits, WC, Drinks, Register, Breaks
- Who are you?
- What are your objectives for this programme?
- An interesting fact about you

D5 uses an improvement cycle to deliver effective change

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.

Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

Today we will work on ‘Define’ - setting up our project

COURSE AGENDAS

Day 1 DEFINE

Arrival and coffee

Welcome to Fast Effective Projects

Introduction and set-up

M1 Launching the project

Break

M2 Structuring the problem and work planning

Lunch

M3 Engaging stakeholders

Break

M4 Developing hypotheses

Daily feedback

Close

Day 2 DISCOVER & DESIGN

Arrival and coffee

Introduction to Day 2

M5 Gathering data and conducting analysis

Break

M5 continued

Lunch

M6 Gathering data and interviewing

Break

M7 Plan Do Study Act

Daily feedback

Close

Day 3 DESIGN, DELIVER & DIGEST

Arrival and coffee

Introduction to Day 3

M8 Modelling and options appraisal

Break

M9 Developing insight and recommendations

Lunch

M10 Planning and implementing

Break

M11 Communicating recommendations and completing a project

Close

Contents

- **Module 1 – Launching the project**
- Module 2 – Structuring the problem and work planning
- Module 3 – Engaging stakeholders
- Module 4 – Developing hypotheses
- Module 5 – Gathering data and conducting analysis
- Module 6 – Gathering data and interviewing
- Module 7 – Process Improvement & Plan Do Study Act (PDSA)
- Module 8 – Modelling and options appraisal
- Module 9 – Developing insight and making recommendations
- Module 10 – Planning and implementing
- Module 11 – Communicating recommendations and completing a project

This module will prepare you to launch a project

OBJECTIVES AND INTRODUCTION

After this module I will:

- Understand what is meant by a fast, effective project
- Understand the need to invest sufficient time in ensuring the project scope is right
- Be aware of the elements of project scope: the problem definition, stakeholders, criteria for success, what's out of scope
- Be aware of other elements of a project kick-off which relate to the proposed approach – workplans, deliverables, governance, stakeholder engagement, information requirements, key meetings, project risks, and team working styles

The module includes two sections:

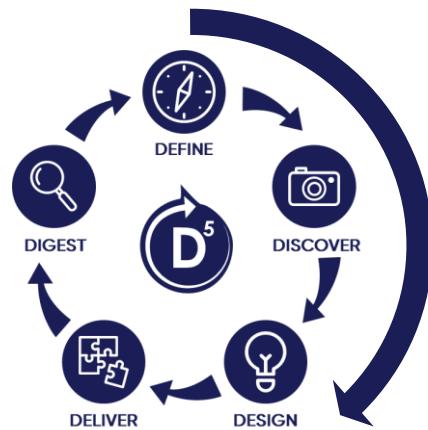
- Scoping the project
- Kicking off the project

The D5 method for fast effective projects can be adapted to apply to a wide range of different projects

D5 PROJECT SPECTRUM

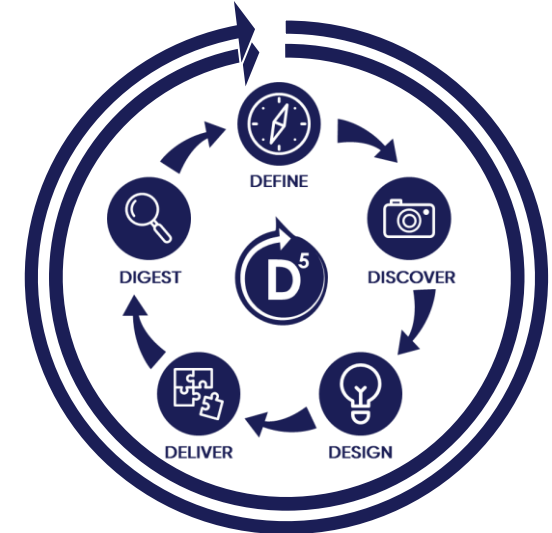
STRATEGIC RECOMMENDATIONS

DELIVERY AND CONTINUOUS IMPROVEMENT



Where the project is on the spectrum depends on...

Project aims
Involvement in implementation
Time to delivery
Feasibility of rapid improvement cycles



- The project is focused on **design of an evidence-based recommendation** or set of options.
- The project team is responsible for **developing realistic and achievable recommendations** to inform a decision making process, but may not be involved in the implementation of the recommendations.

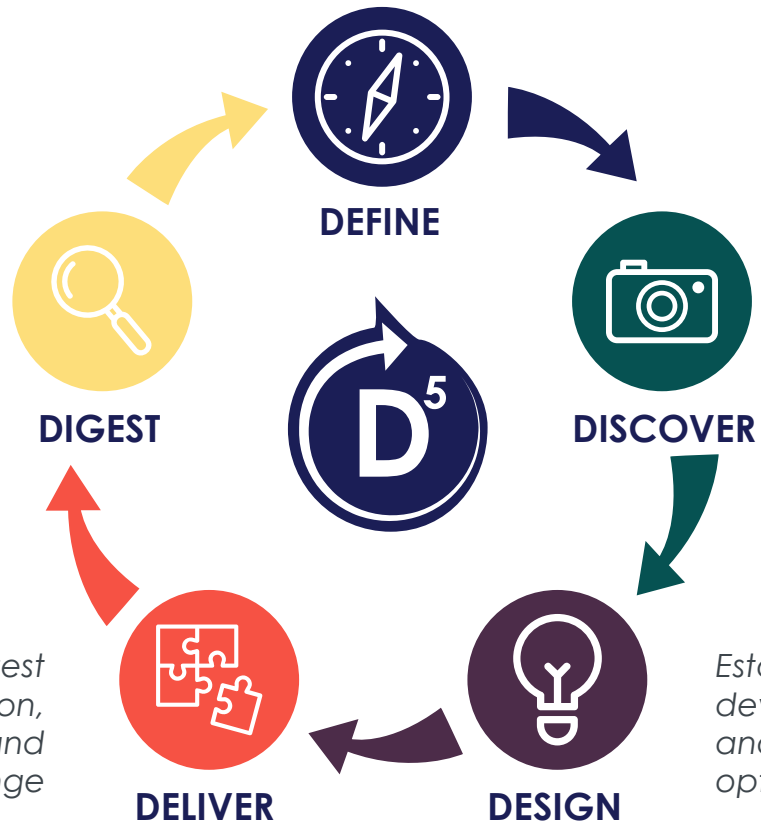
- The project is focused on **delivering a change**; this could be a new service model, pathway, or process.
- The team is involved in **implementing the options** and may use rapid improvement cycles to test and refine their recommendations

Problem solving and where the tools fit in

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view

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Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

Supporting the effective delivery of health services

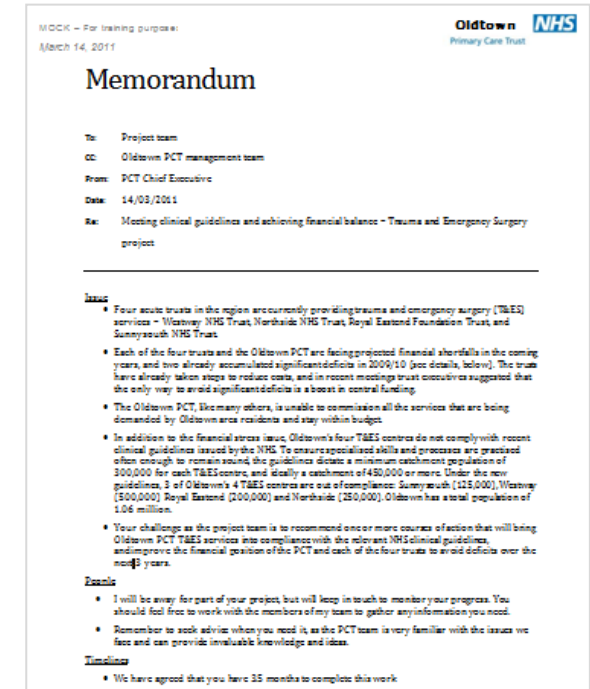
A CASE STUDY



Your project for the next three days is...

SCENARIO (1/2)

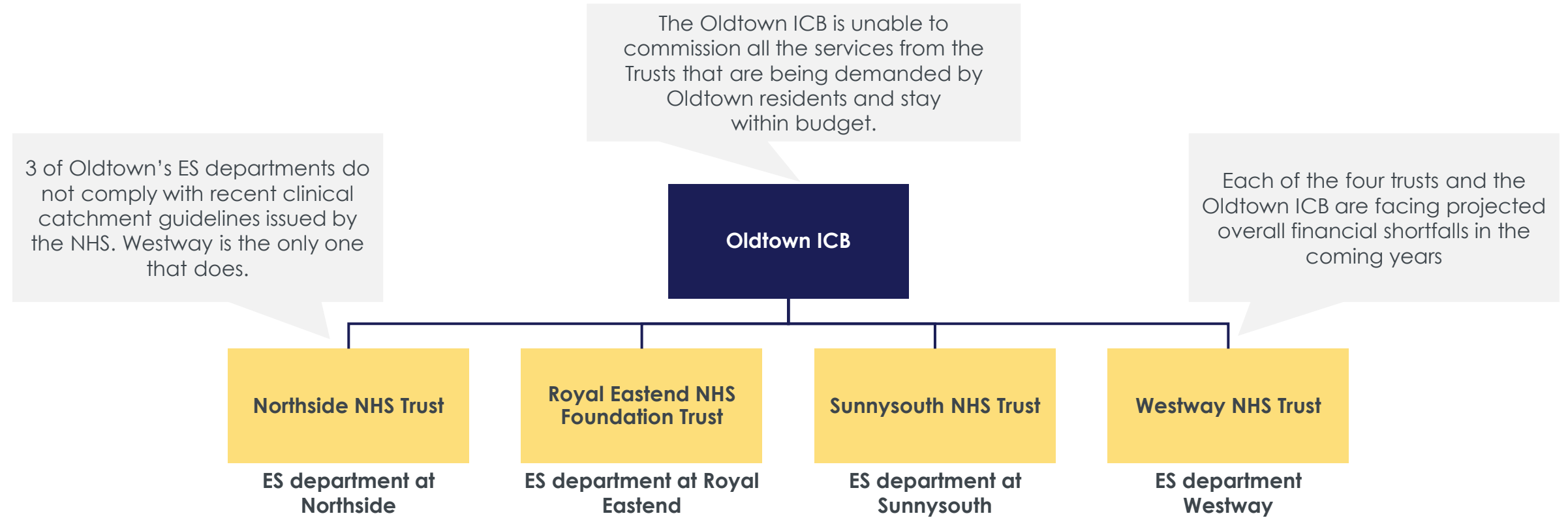
- You have all been seconded to work for a health-economy wide project team based at Oldtown ICB
- You are concerned with **meeting clinical catchment guidelines** and **achieving financial balance** for the ICB and the four trusts in the region
- You have come from a variety of NHS backgrounds in the local health economy; some from the four trusts in the region, others from departments in Oldtown ICB
- Despite the plurality of backgrounds, you are currently working for the ICB and committed to the best possible outcome for the local health economy, not just for a particular trust



To be read in
conjunction with the
kick-off memo

..what's the situation?

SCENARIO (2/2)



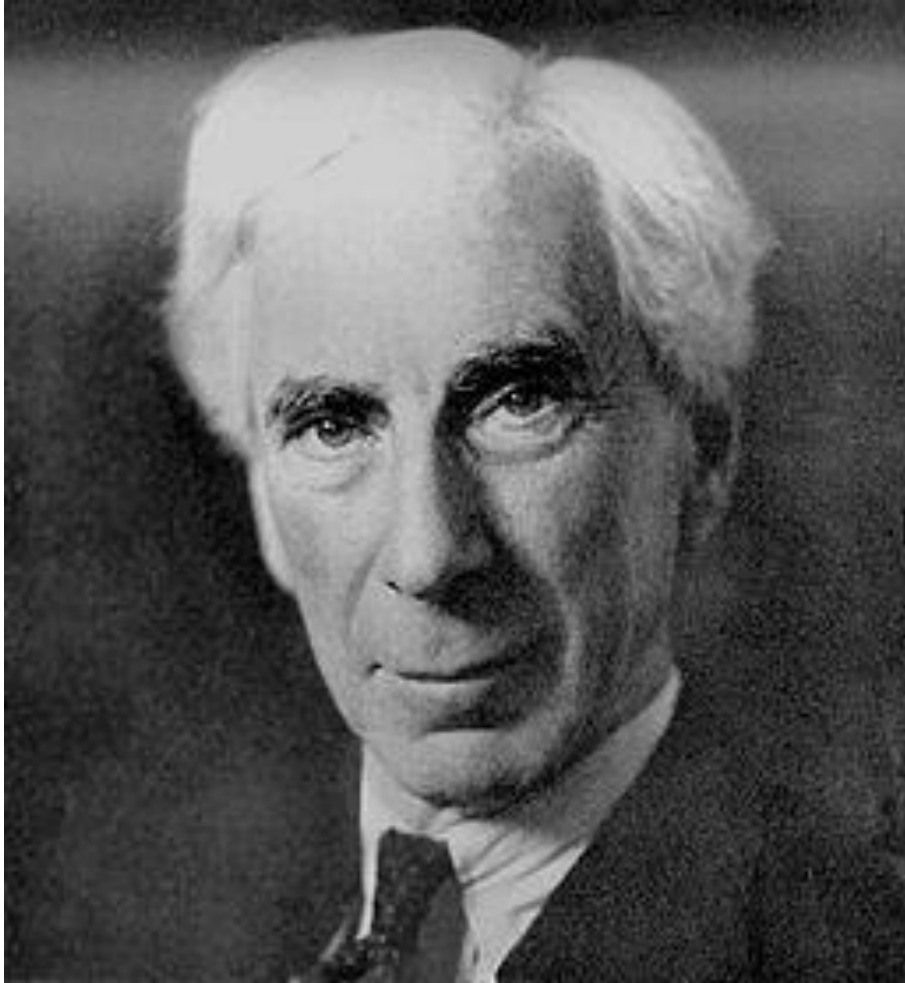
Your challenge as the project team is to recommend one or more courses of action that will bring Oldtown ICB emergency services into compliance with the relevant NHS clinical catchment guidelines, and improve the financial position of the ICB and each of the four trusts to avoid deficits over the next 3 years (i.e., by the third financial year)

Think through these criteria early in your work, and check in against them regularly

CRITERIA FOR LAUNCHING & RUNNING A SUCCESSFUL PROJECT

- The project has all of the team members, sponsor and other involved stakeholders named and committed to the project
- All team members can clearly articulate:
 - The purpose of the project, What the fundamental problem/ fundamental question to be resolved is
 - The proposed approach, What the team's role/ role of individuals within the team is within the project
- The approach (through to implementation) is clearly laid out in the planning pack (and can be easily picked up by new team members)
- All team members understand what capabilities they are likely to build through the project and how they are going to be performance-managed
- All team members are committed to working collaboratively to build an effective team through the project

Establish the fundamental question to be resolved



“The greatest challenge to any thinker is stating the problem in a way that will allow a solution”

Bertrand Russell, British philosopher (1872-1970)

Use a single page PDS to define your project

PROBLEM DEFINITION SHEET

Project Title:

1. Basic question to be resolved: As specific as possible and, within this, as succinct as possible – question should be time-bounded and refer to a specific organisation, department or process

2. Stakeholders, decision makers and project resourcing

- Who is the project lead, sponsor and project mentor?
- What type of project governance is needed to monitor quality, decide on plans and provide external challenge? (e.g., project board, steering group)
- Who are the key stakeholders you must engage with? Where do you expect the most support for this project to come from?
- Who are your delivery partners (e.g., information team)?

3. Desired outputs and criteria for success

- What are the key performance indicators (financial and non-financial) that will show the project has been successful and what targets are you aiming for?
- What specific end products are required?
- Goals should be (SMART): Specific, measurable, attainable, realistic and timely

4. Scope of the work

- What's included within the project and what's not? If it is out of scope, is it being reviewed elsewhere?

5. Outline timings and milestones

- When are the project steering groups or end of phase reviews?
- When are the key deliverables due?

6. Context

- Why is the work being done now?

7. Constraints and dependencies/interfaces

- Outline the key likely risks/constraints to the project and any interaction with other projects or work

Here is an example

WORKED EXAMPLE: PROBLEM DEFINITION SHEET

Project Title: Reducing readmissions and securing CQUIN payment

1. Basic question to be resolved: How can the Trust reduce 14 and 28 day readmission rates in diabetes, heart failure and COPD by 10% and 5% respectively in the next financial year, in order to improve patient outcomes and secure a £0.9m CQUIN payment?

2. Stakeholders, decision makers and project resourcing

- Clinical leads – Joe Brown (COPD), Emma Smith (CHF), Peter Jones (diabetes)
- General Manager (Renal, Urology and Specialist Medicine), Samir Green
- Jo Philips, Chief Nurse – Healthcare governance
- Paul Buller, COO

3. Desired outputs and criteria for success

- Quality – meet the 5% (28 days) and 10% (14 days) targets for all three disease groups (i.e., six separate targets)
- Delivery – metrics met within set ICB timings
- People – Improved patient experience
- Cost – achieves £0.9m CQUIN payment, and minimises additional costs incurred from non-payment of readmissions within 30 days

4. Scope of the work

- In scope
 - COPD, CHF, and diabetes emergency readmissions
- Out of scope
 - Elective care
 - Any other disease groups

5. Outline timings and milestones

- Bi-weekly steering group meetings
- Review of project success in 6 months time

6. Context

- Trust readmission rates are in 3rd quartile for peer group
- CQUIN indicator is a regional target
- Trust is facing pressure on bed utilisation
- Revised NHS Operating Framework: Payments will no longer be made for patients readmitted within 30 days

7. Constraints and dependencies/interfaces

- Any changes must be clinically appropriate
- No additional spending available - constraints

In small groups or pairs, develop a problem definition sheet using the template provided on the next slide

EXERCISE 1: WRITING A PROBLEM DEFINITION SHEET

- Identify the basic / governing question
 - *Does this effectively state the problem that the project is aiming to tackle?*
- Identify key decision makers and stakeholders
 - *Do this quickly the first time through, it's easy to spend time here*
- Highlight the project outputs and success factors (including Key Performance Indicators)
 - *How will you measure / know the problem is solved? Make sure this is quantifiable.*
 - *What will you do/produce?*
- Identify the key contextual issues for the project
 - *Does the “context” box explain why this project matters, and how it's different from similar projects before?*
- Note what is in / out of scope
- Identify what constraints or interdependencies might exist
 - *Note important risks here too*
- Consider potential milestones for the project
 - *How soon can you test or PDSA?*

20 minutes

PROBLEM DEFINITION SHEET (TEMPLATE)

Project Title:	
1. Basic question to be resolved:	
2. Stakeholders, decision makers and project resourcing <ul style="list-style-type: none"> ▪ XX 	3. Desired outputs and criteria for success <ul style="list-style-type: none"> ▪ XX
4. Scope of the work <ul style="list-style-type: none"> ▪ XX 	5. Outline timings and milestones <ul style="list-style-type: none"> ▪ XX
6. Context <ul style="list-style-type: none"> ▪ XX 	7. Constraints and dependencies/interfaces <ul style="list-style-type: none"> ▪ XX

Often you will need additional information to create a kick-off pack which ensures sponsor and team are fully aligned

TOOL: KICK-OFF PACK TEMPLATE

Project context

- Kick-off agenda
- Problem Definition Sheet (PDS)

Proposed approach

- Project deliverables/ project tracker
- Issue tree
- Information requirements
- Governance
- Stakeholder checklist
- Project workplan
- Key meetings
- Key risks

Project context

- Team composition and timing
- Team working: working styles, team norms and logistics

How to use the pack

- Use as a prompt rather than a rigid requirement
- Use the 'project scoping note' as the basis for the planning pack
- Use the kick-off pack in the team and sponsor kick-off to ensure everyone is aligned with project objectives and process

In small groups, use the provided kick-off pack to prepare to meet with your CEO

EXERCISE 2: ICB CHIEF EXECUTIVE OFFICER

- Your team has developed a kick-off pack (hand-out from faculty)
- In small groups or pairs, review the contents of this kick-off pack and decide what message to share with the CEO (10 min)
- Present your kick-off pack to the CEO (20 mins) – one CEO per group
- Debrief discussion (15 mins)

45 minutes

Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

What?

- What did you notice in your learning?
 - What surprised you?
 - What's different to what you've learnt about this before? What's the same?
 - What are you feeling about this cycle of learning?
-

So What?

- So what could this mean?
 - So what are the implications for you, for your project, for your role?
 - So what are your options for action?
-

Now What?

- Now what will you do?
 - By when?
 - How will you know when you've got there?
-

Appendix

You will find more tools and slides in this appendix, and others that we thought you might find useful. However, they don't form a core part of the course.

These are a variety of problem statements, showing how they are specific, and can change over the D phases

EXAMPLE PROBLEM STATEMENTS

- How can we reduce the waiting time for an outpatient echocardiogram to within 3 weeks by Nov 2025?
- How can we reduce expenditure on procurement for x department by 5% by March 2025 without reducing the quality of resources available to our team or the time it takes to order and receive them?
- What is the optimal way to train our new recruits so that the process requires fewer than 16 hours of manager time, gives our new recruits the skills they need to work independently within 3 months and costs less than £500 per recruit?
- How can we develop the capabilities of our existing team so that they can serve x new client group by Jan 2026, and will receive client satisfaction scores that are equal or higher than our current scores?

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Where are we in the case?

CASE RECAP

- There are four trusts in Oldtown ICB: Westway NHS Trust, Northside NHS Trust, Royal Eastend NHS Foundation Trust and Sunnysouth NHS Trust. Each of the trusts and the ICB is facing financial pressures in the coming years. Only one of the trusts, Westway, is currently complying with recent NHS clinical catchment guidelines regarding emergency services catchment population
- Your team is to recommend one or more courses of action to the ICB CEO to address these challenges
- Your team has defined the problem to be addressed as 'How can Oldtown ICB ensure that emergency services meet clinical catchment guidelines and contribute towards financial balance by end of FY3?'
- The CEO feels strongly that reconfiguration of emergency services is the only way forward to resolve the financial and clinical catchment guidelines issues.

Module 2 will prepare you to structure your problem and set up a work plan

OBJECTIVES AND INTRODUCTION

After this module I will:

- Understand how to disaggregate problems into core elements and translate this into a work plan
- Understand the importance of prioritisation – including which issues to focus on and where to expend team efforts

The module includes three sections:

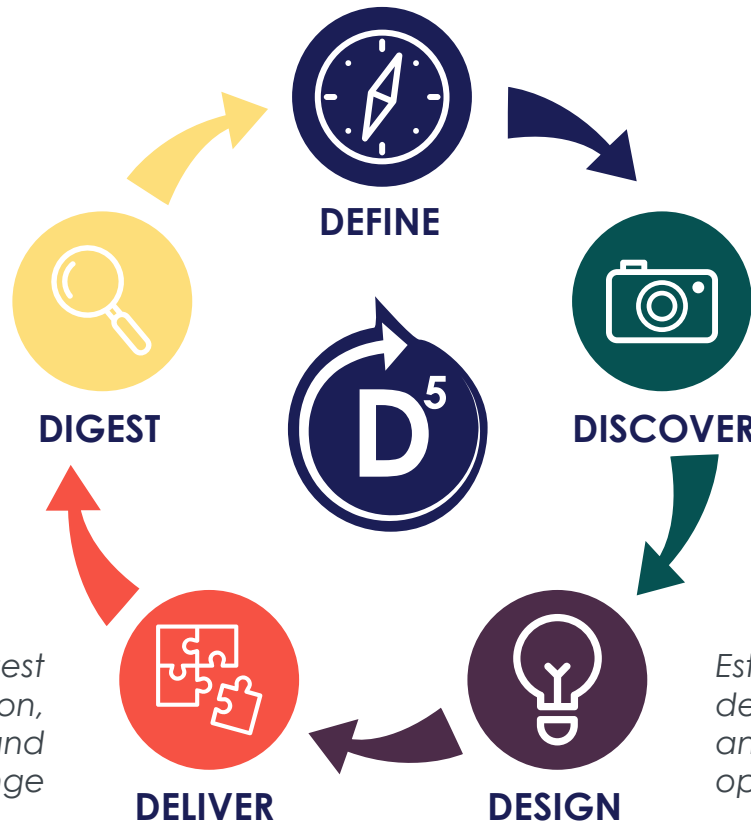
- Breaking down the problem with issue trees
- Assessing analytical priorities with 2x2 matrices
- Planning the work

Problem solving and where the tools fit in

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, **planning the work**, engaging with stakeholders to understand their view

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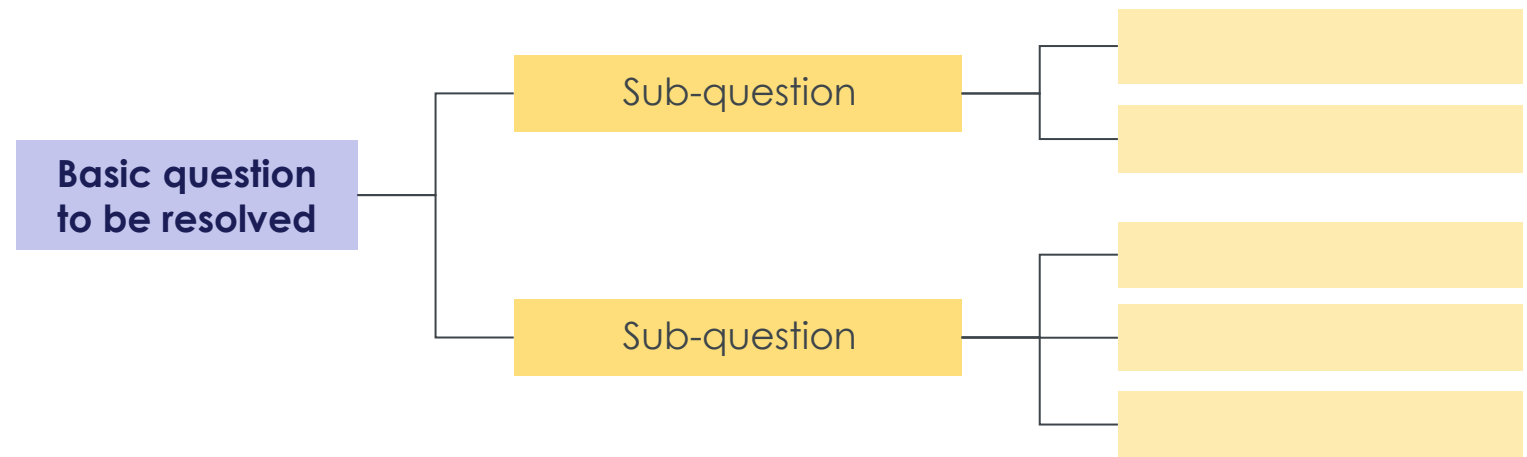
You can use an issue tree to disaggregate your question into effective workstreams

ISSUE TREES - INTRODUCTION

Why are issue trees important?

Once you've written the problem statement, the next step is to break the problem down into manageable chunks. The issue tree helps you to:

1. Break the work down into clear, separate workstreams
2. Give you confidence that you've looked at the full extent of the project



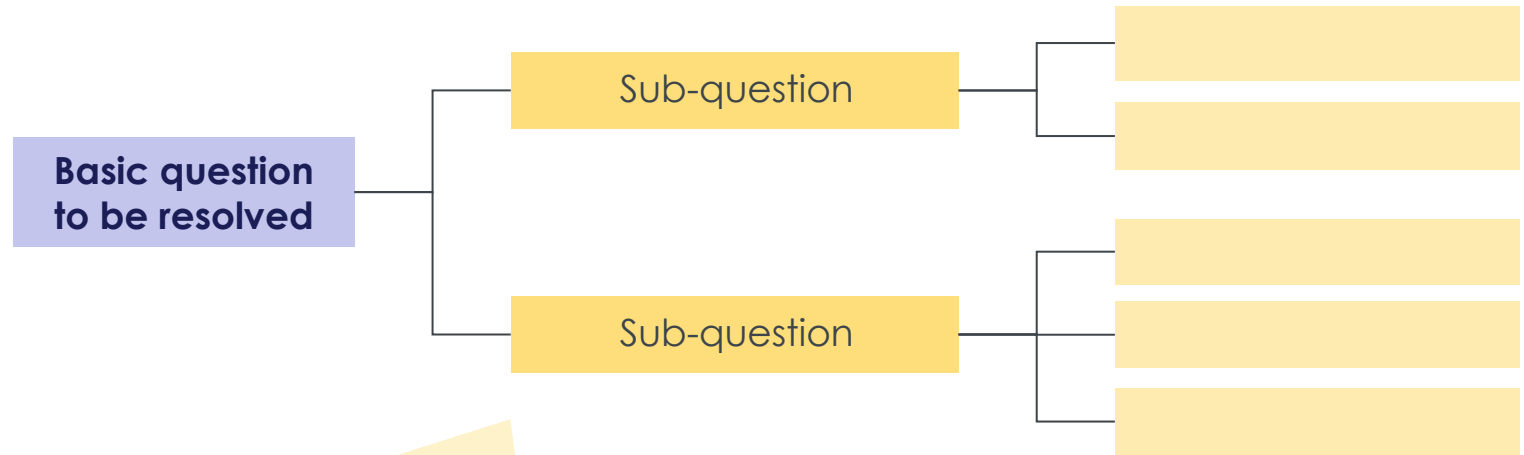
An issue tree sets out the ‘basic question to be solved’, and breaks it out into increasingly more specific questions

HOW ISSUE TREES WORK

An Issue Tree sets out the ‘basic question to be resolved’, and breaks it down into increasingly more specific questions.

The right-hand side of an Issue Tree shows a set of areas of potential experiments / solutions / analyses / workstreams

An Issue Tree works by setting out the ‘basic question to be resolved’ on the left-hand side of the page, then breaking out this question into increasingly more specific questions as you go from left to right



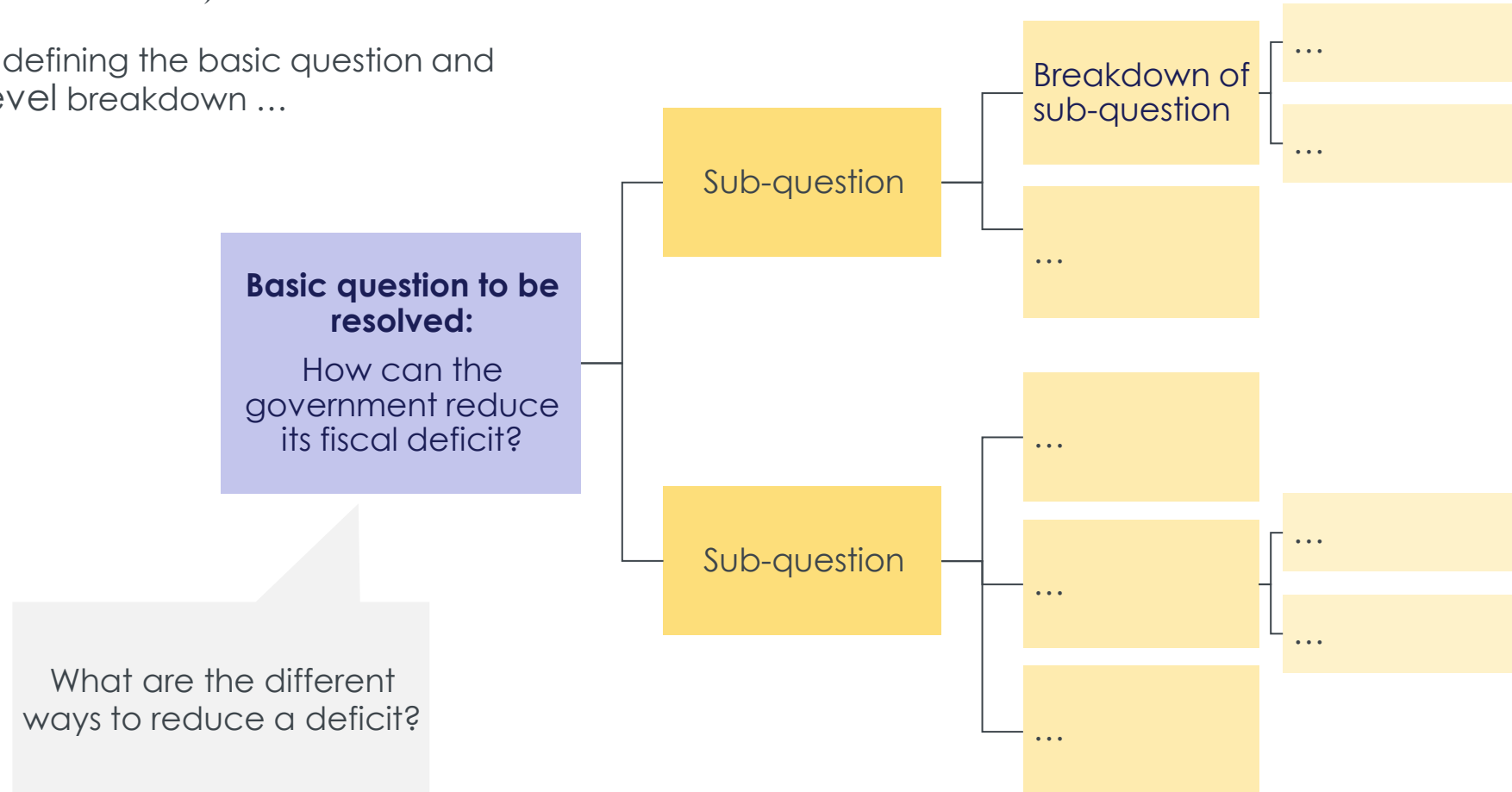
Good Issue Trees have questions at each level (vertical cut through the Tree) which:

- a) can be answered without reference to other questions in the same level (**M**utually **E**xclusive questions)
- b) when taken together, add up to the question to the left (**C**ollectively **E**xhaustive questions)

Start your issue tree by defining the basic question, and think about your first level breakdown

ISSUE TREE EXAMPLE (FISCAL DEFICIT)

Start your Issue Tree by defining the basic question and think about your first-level breakdown ...

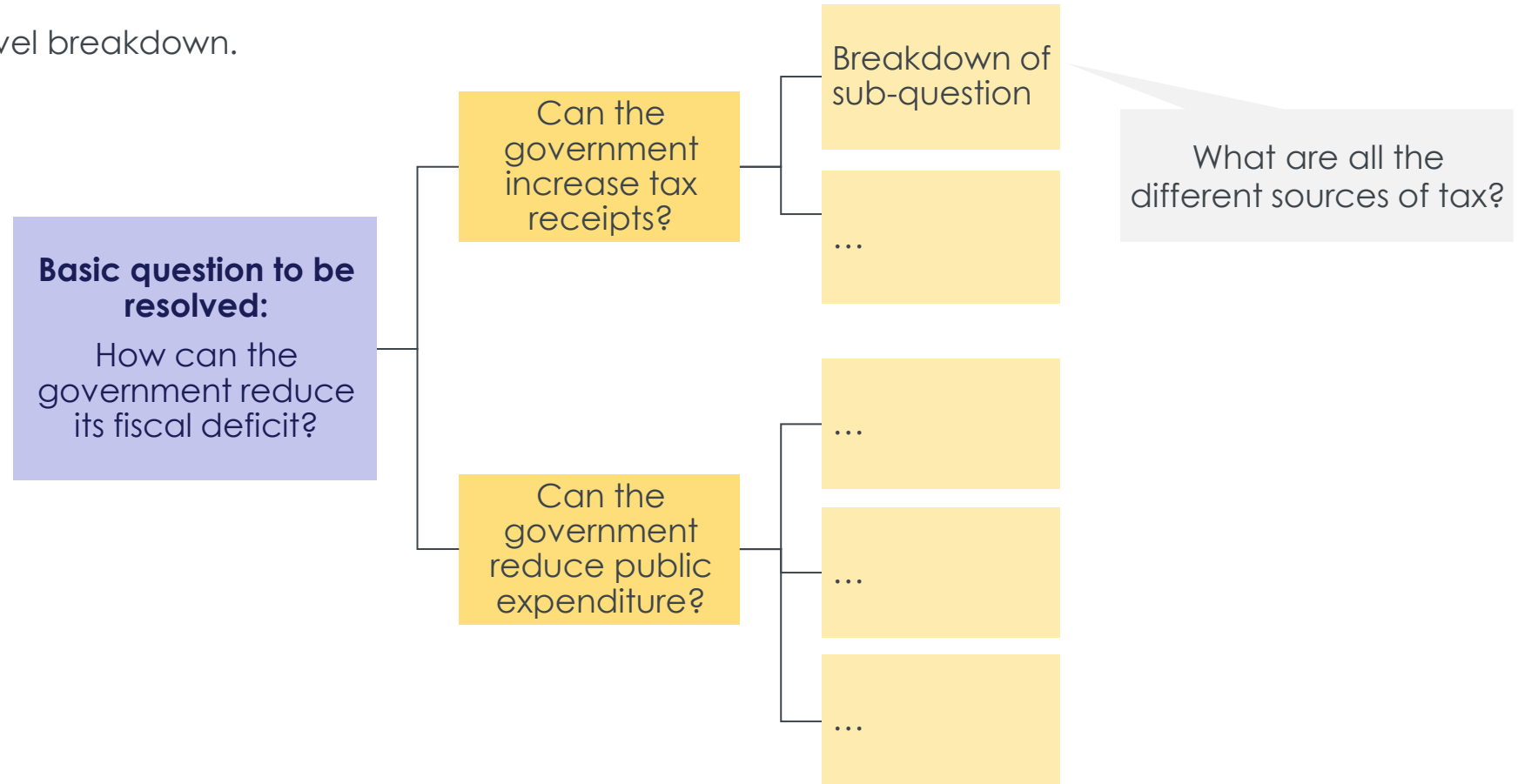


What are the different ways to reduce a deficit?

Then work through your second level breakdown

ISSUE TREE EXAMPLE (FISCAL DEFICIT)

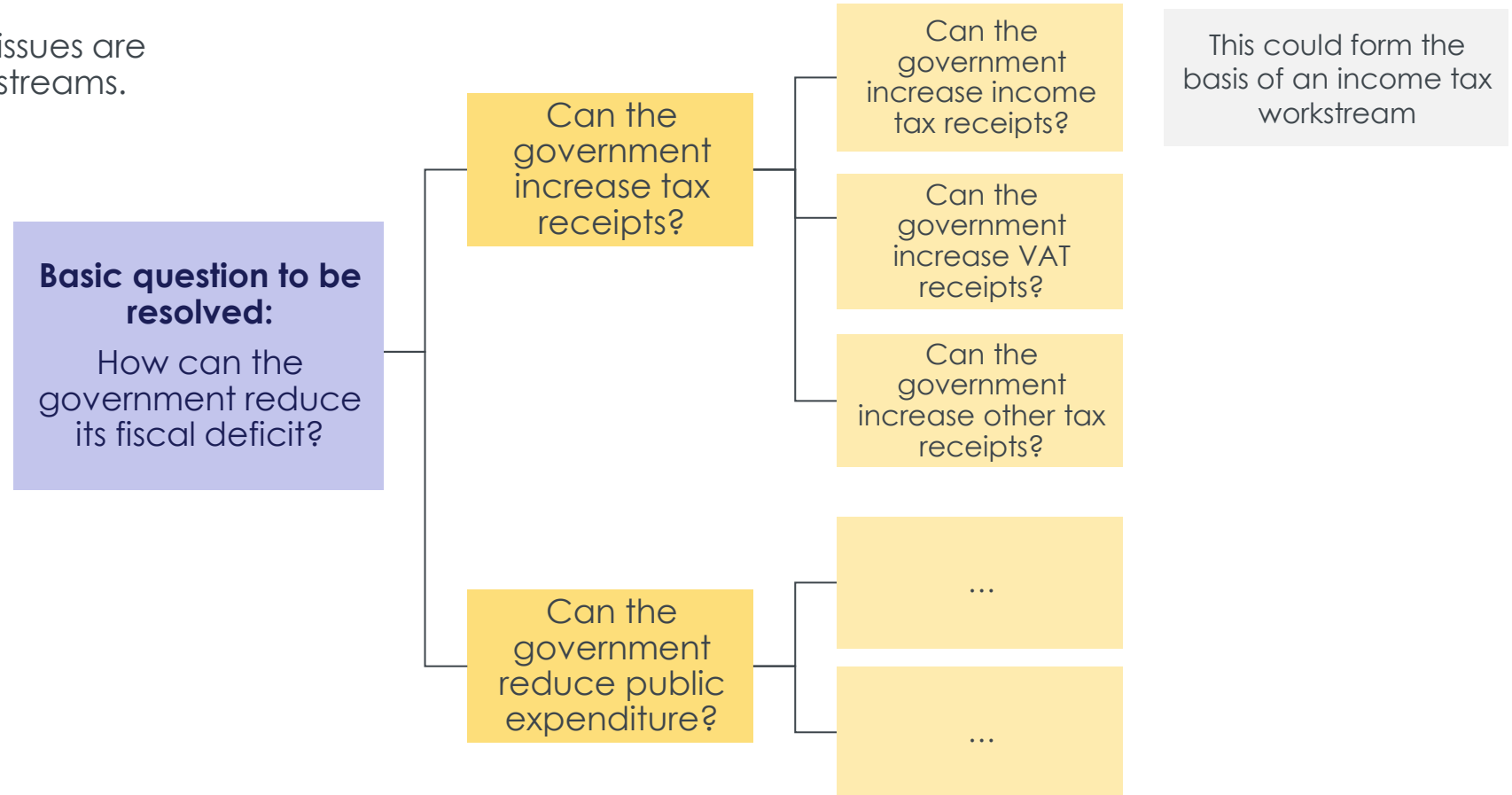
...then work through your second-level breakdown.



Stop breaking down when your sub-issues are sufficient to drive independent workstreams

ISSUE TREE EXAMPLE (FISCAL DEFICIT)

Stop breaking down when your sub-issues are sufficient to drive independent workstreams.



What happens if an issue tree is not MECE?

MECE ISSUE TREES

Implications if not

**Mutually
Exclusive**

- Workstreams become tangled together, with minor changes to one part of the answer affecting other parts of the problem solving

**Collectively
Exhaustive**

- Important analyses may be missed

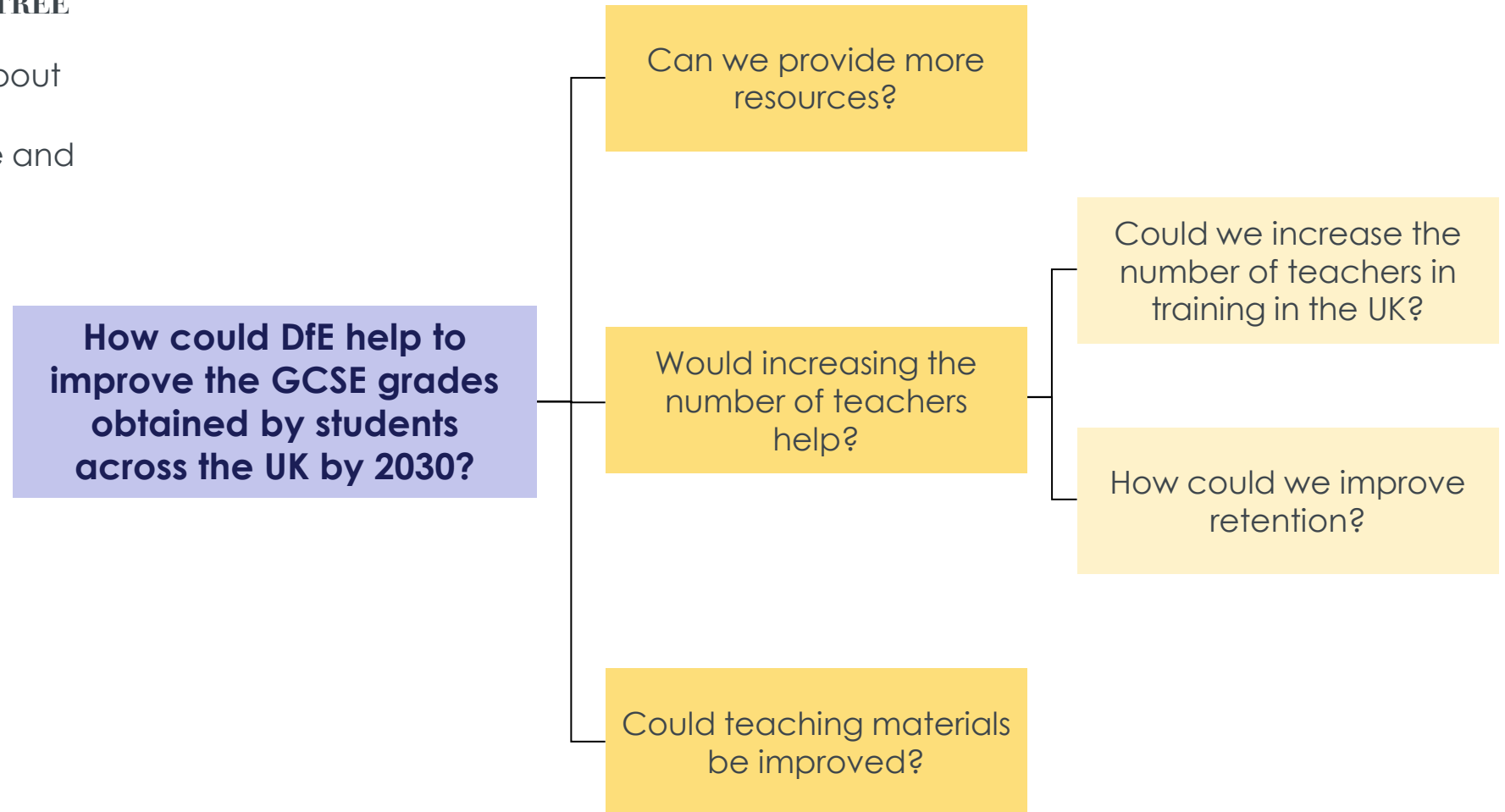
Conversely, a MECE issue tree implies that:

- All the questions at the right hand side collectively add up to the 'basic problem to be solved', without overlapping
- You have reached the right level of disaggregation when the questions are specific enough to assign resources to them

What's weak/ineffective about this tree? Is it MECE?

WORKED EXAMPLE: A WEAK ISSUE TREE

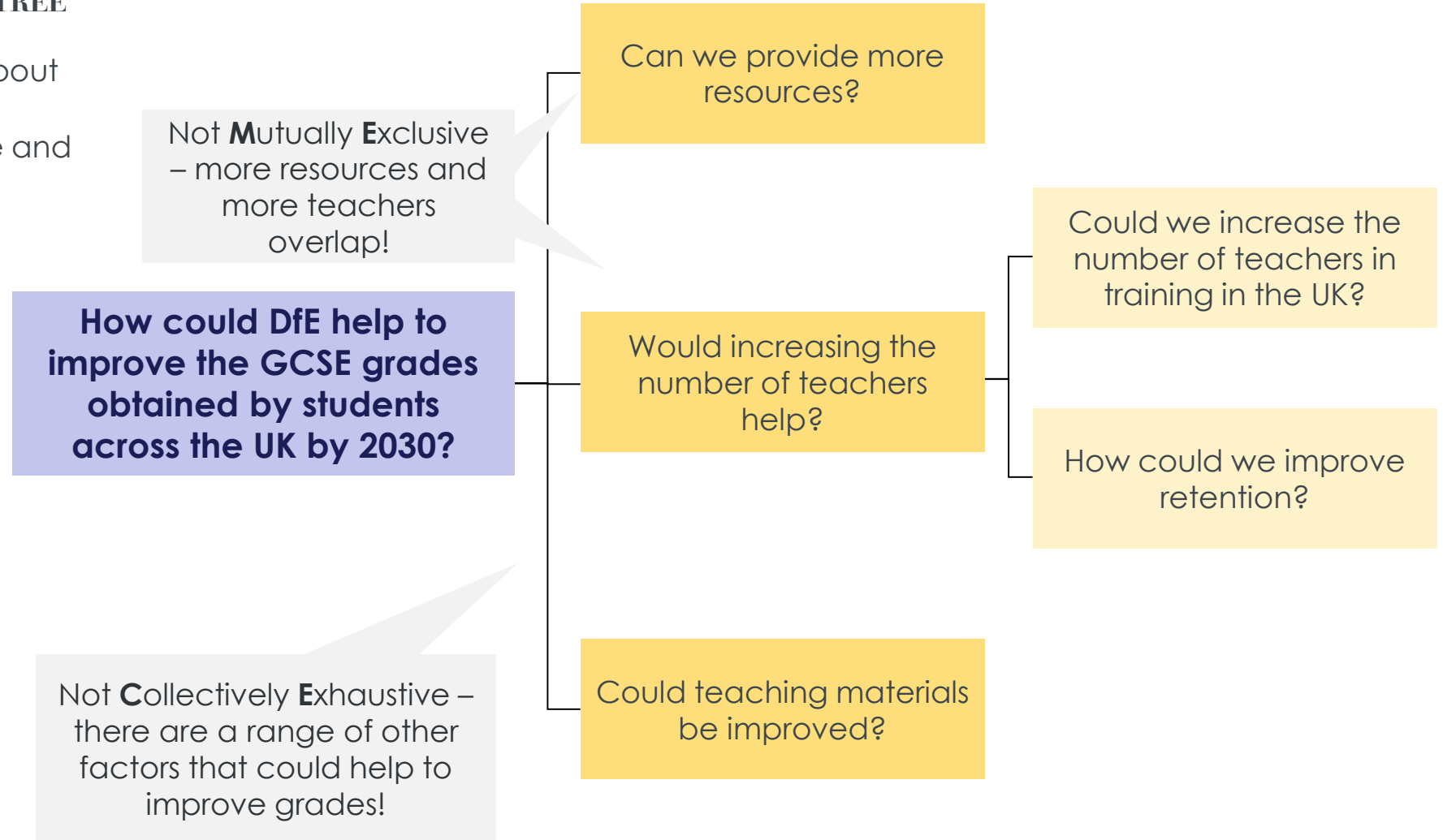
- What is weak or ineffective about this Tree?
- Is it 'MECE' (Mutually Exclusive and Collectively Exhaustive)?



What's weak/ineffective about this tree? Is it MECE?

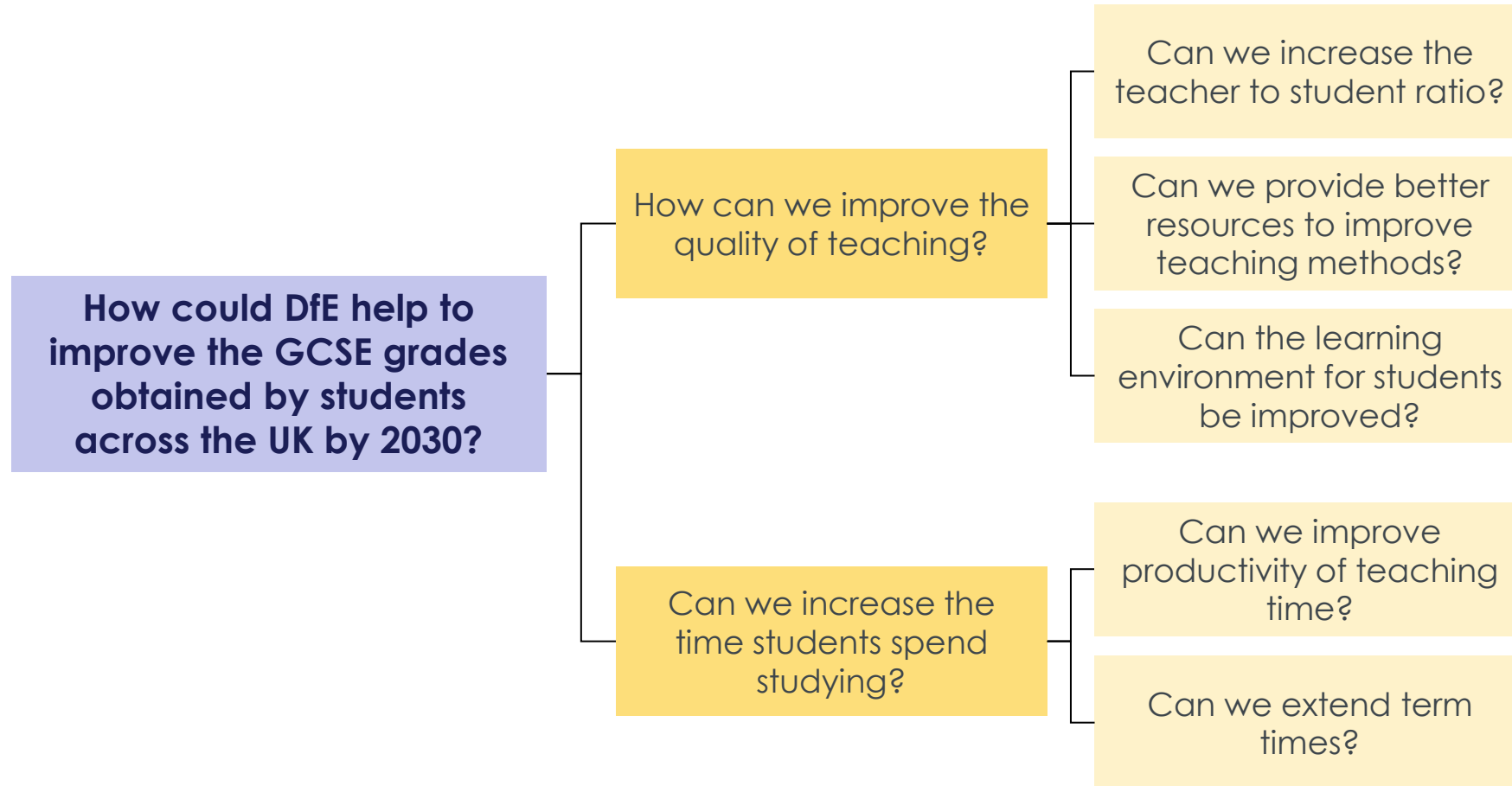
WORKED EXAMPLE: A WEAK ISSUE TREE

- What is weak or ineffective about this Tree?
- Is it 'MECE' (Mutually Exclusive and Collectively Exhaustive)?



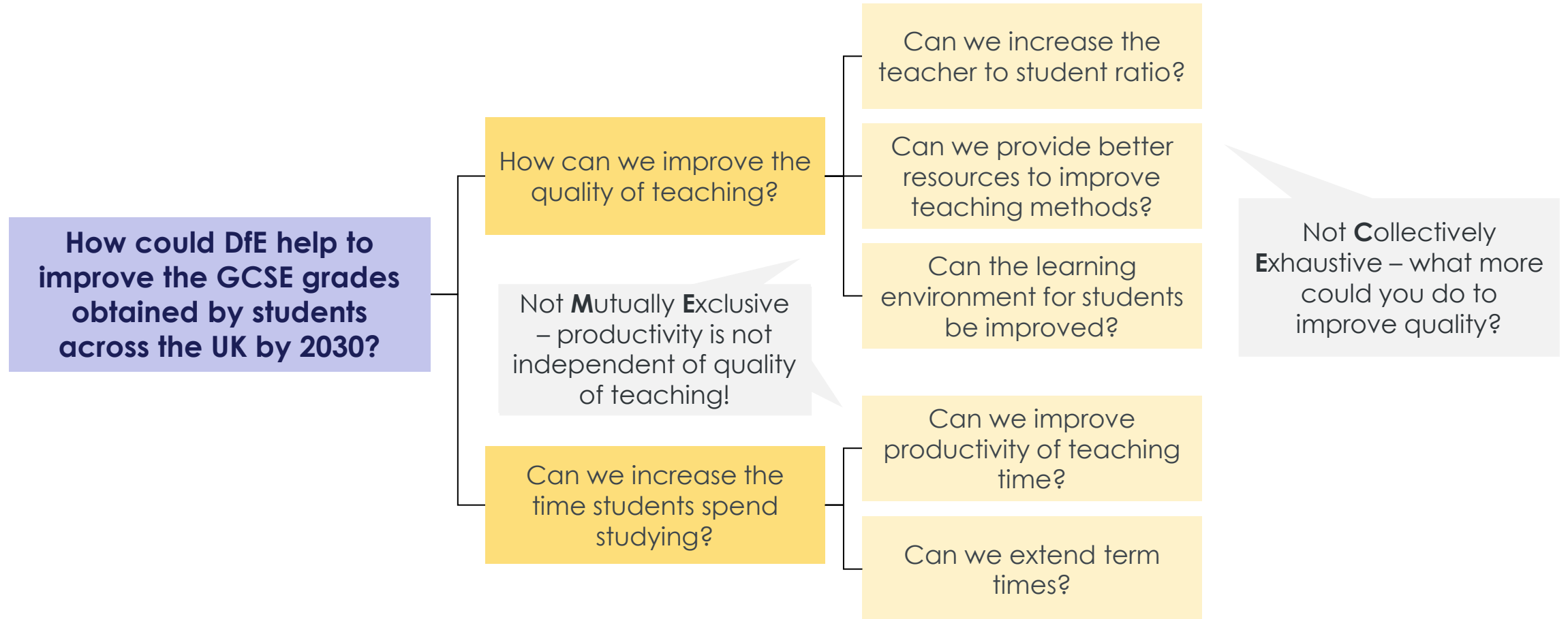
Is this one stronger / more effective? Why?

WORKED EXAMPLE: A STRONG ISSUE TREE



Is this one stronger / more effective? Why?

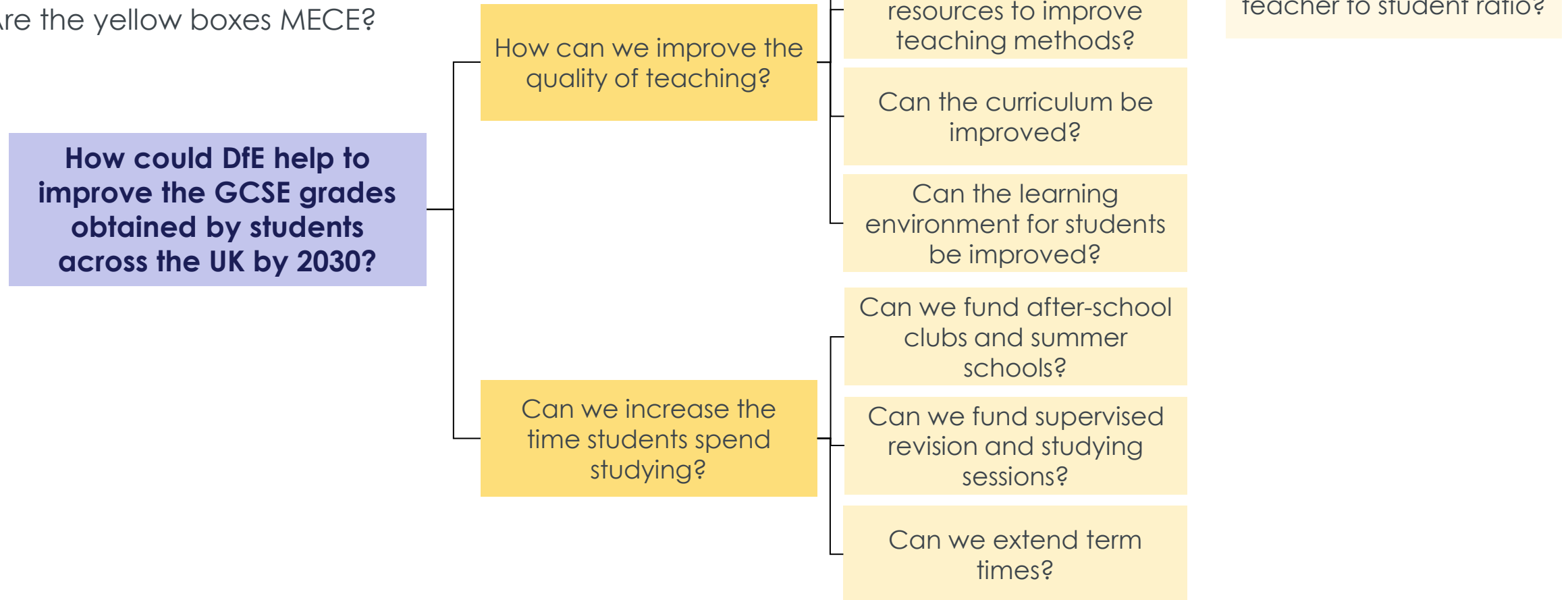
WORKED EXAMPLE: A STRONG ISSUE TREE



Is this one stronger / more effective? Why?

WORKED EXAMPLE: A STRONG ISSUE TREE

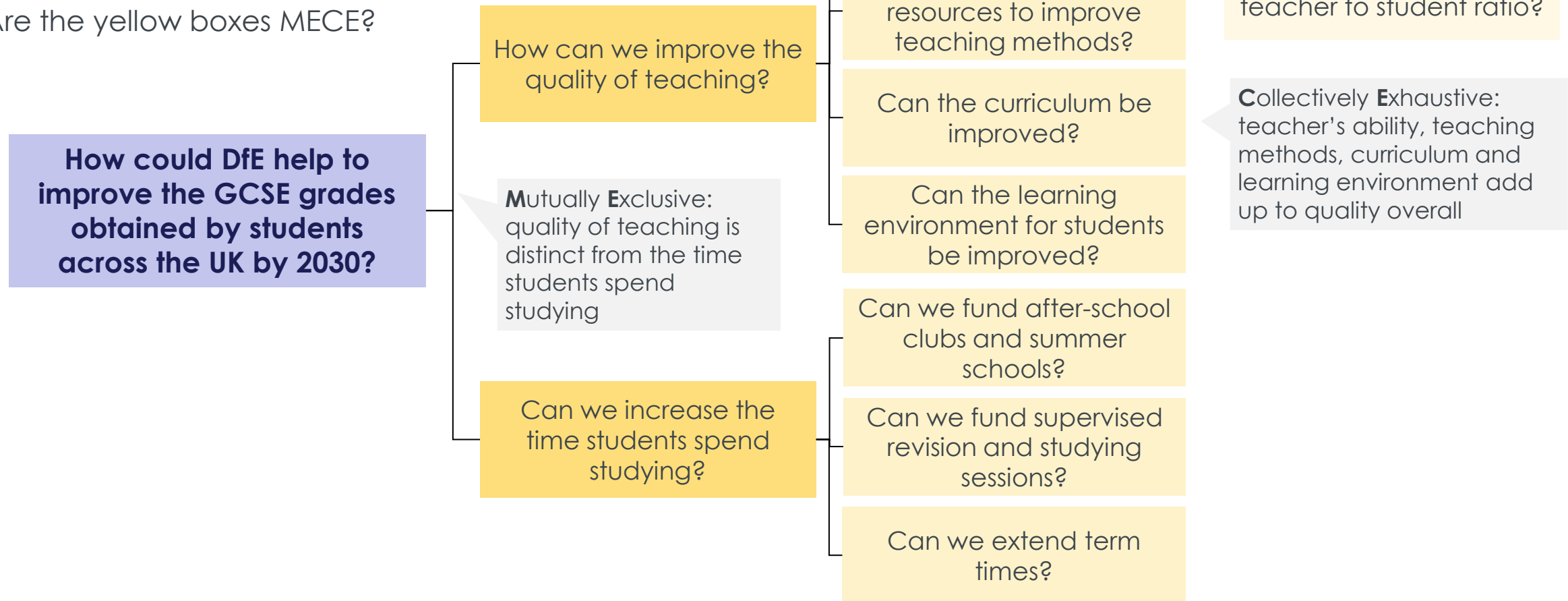
- How is this example stronger or more effective?
- How else could it be improved?
- Are the yellow boxes MECE?



Is this one stronger / more effective? Why?

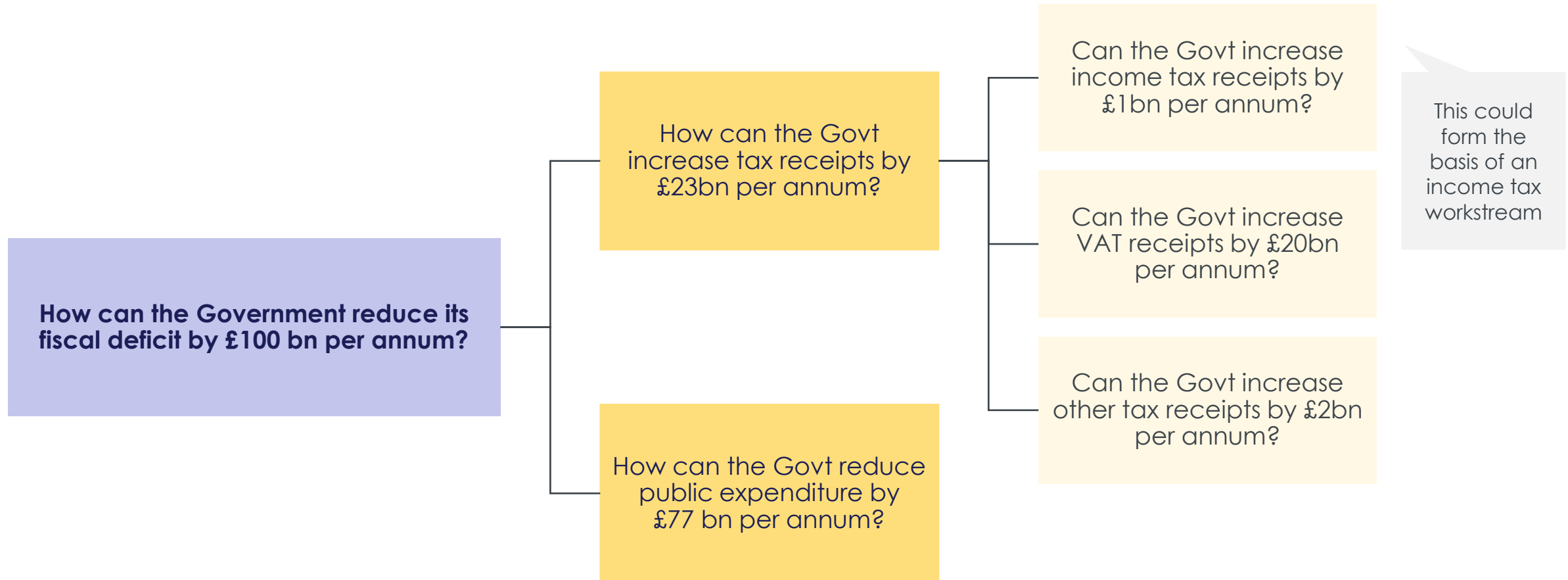
WORKED EXAMPLE: A STRONG ISSUE TREE

- How is this example stronger or more effective?
- How else could it be improved?
- Are the yellow boxes MECE?



Where appropriate, a MECE issue tree can work mathematically

ISSUE TREE – MATHEMATICAL EXAMPLE



A few things to keep in mind when using issue trees to structure your work

ISSUE TREES KEY POINTS

- 1. Keep iterating the tree throughout the project as you develop your answer** – the first draft of the tree will help unlock the key general questions and will lead to hypotheses which in turn allow the next iteration of the issue tree to be re-cut in a way which gets to the heart of the problem
- 2. Don't go beyond ~4 levels of the tree** – if you have many levels, you've probably gone into too much detail
- 3. Use established frameworks to ensure MECEness** – if the problem is on profit, the first level should probably be 'revenues' and 'costs'
- 4. Capture and challenge existing myths and preconceptions in your issue tree** – these are often referred to by stakeholders
- 5. Focus on content, not process** – “What data is available?” and “How should we evaluate options?” are not valid questions for solving the problem, whereas “By how much can productivity be improved?” is
- 6. There is no single right answer** – although it is important for the tree to be MECE, it does not need to be perfect and there are multiple “right answers”
- 7. Issue Trees are useful in making your case to stakeholders** – not to present to them, but to demonstrate thinking

In pairs or small groups, try developing your own issue trees to break down the clinical catchment guidelines question

EXERCISE 1: CASE STUDY – DISAGGREGATING THE PROBLEM WITH AN ISSUE TREE

In pairs or small groups:

- Look at “*Week 1 project issue tree (for discussion and completion)*”, to see how the team has structured the overall question
- Try developing your own sub-issue tree to breakdown the highlighted sub-question

“what can be done to ensure emergency services comply with clinical catchment guidelines?”

..Or if you prefer:

- Discuss (and log) the strengths and weaknesses of following 3 potential issue trees (spend 5 minutes on each issue tree, then move to the next)

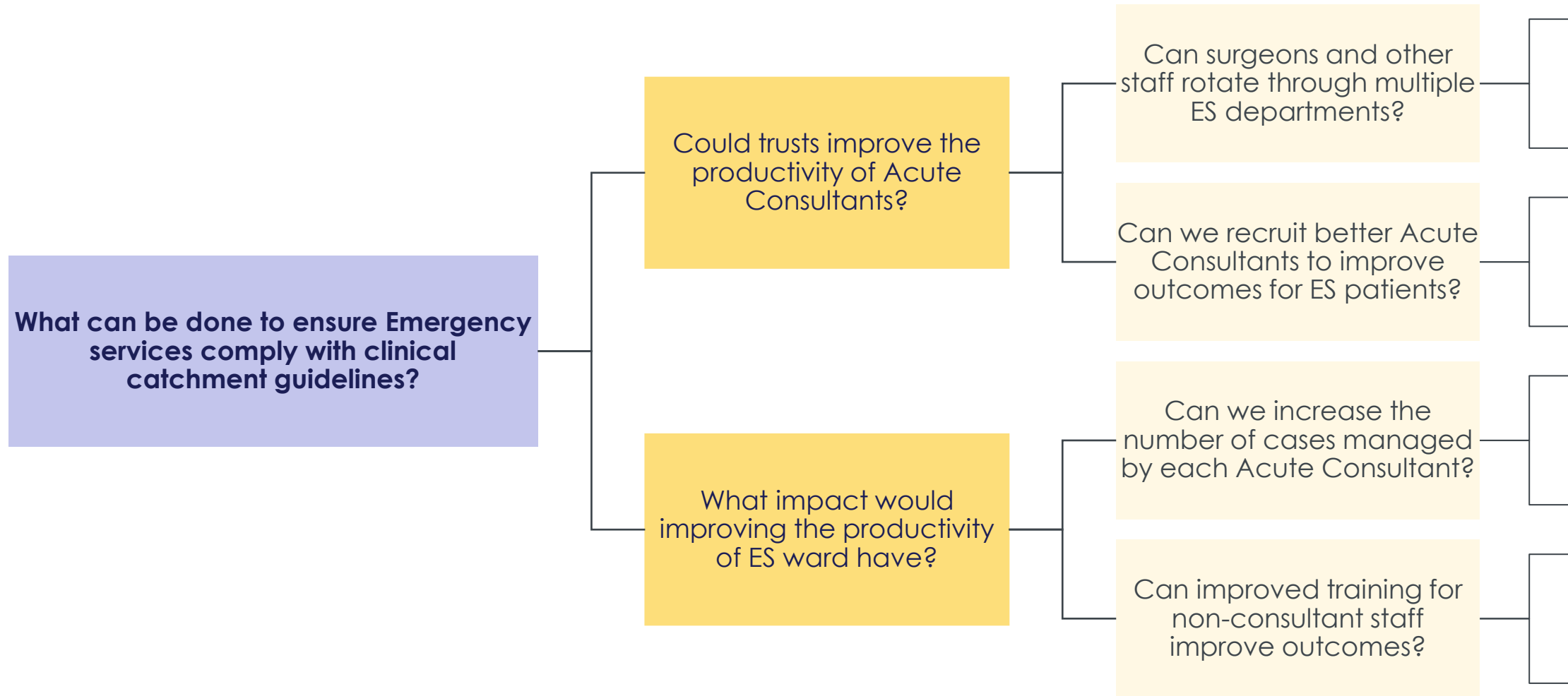
Then:

- As one group, compare your findings
- Pick the ‘best’ tree, and decide as a group why you think it is the ‘best’ one
- How might the ‘best’ tree be improved further?

**15 minutes in pairs or
small groups;
5 minutes together**

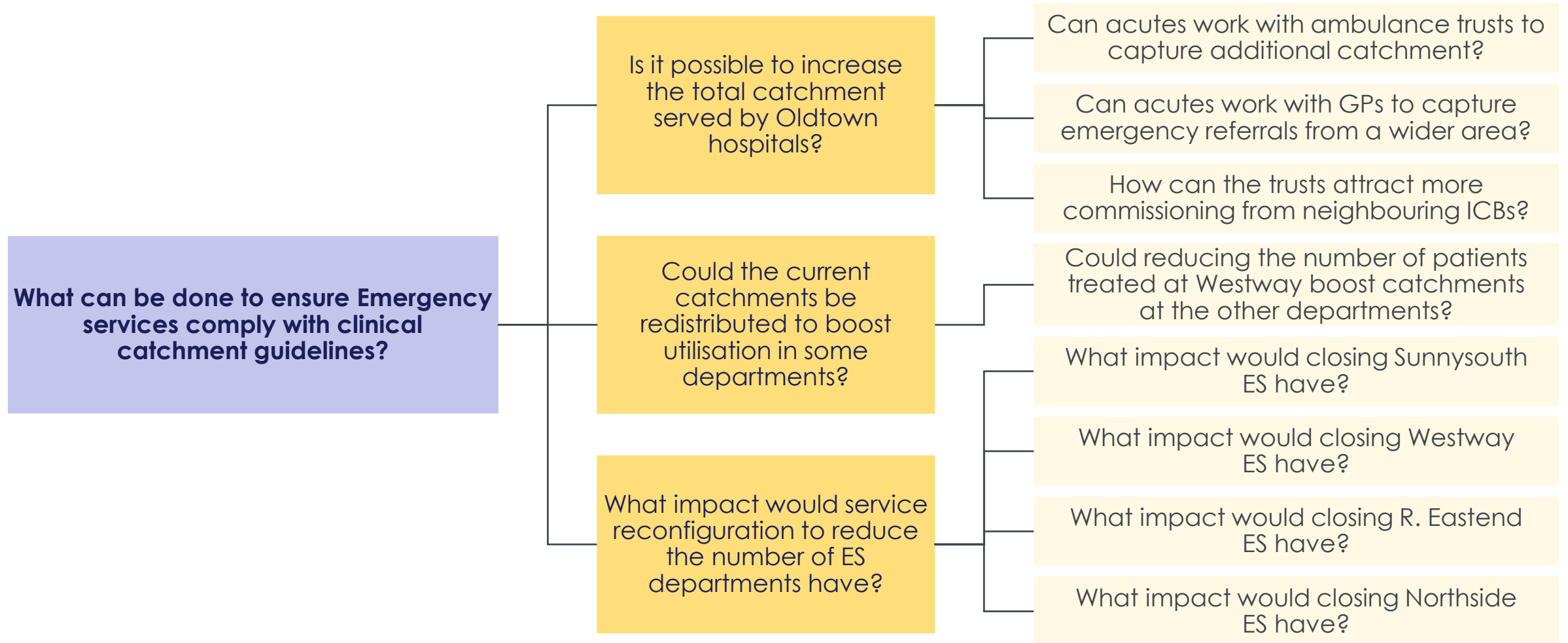
Ex 1b – log strengths & weaknesses of these 3 trees (1/3)

POTENTIAL ISSUE TREE #1: CLINICAL CATCHMENT GUIDELINES



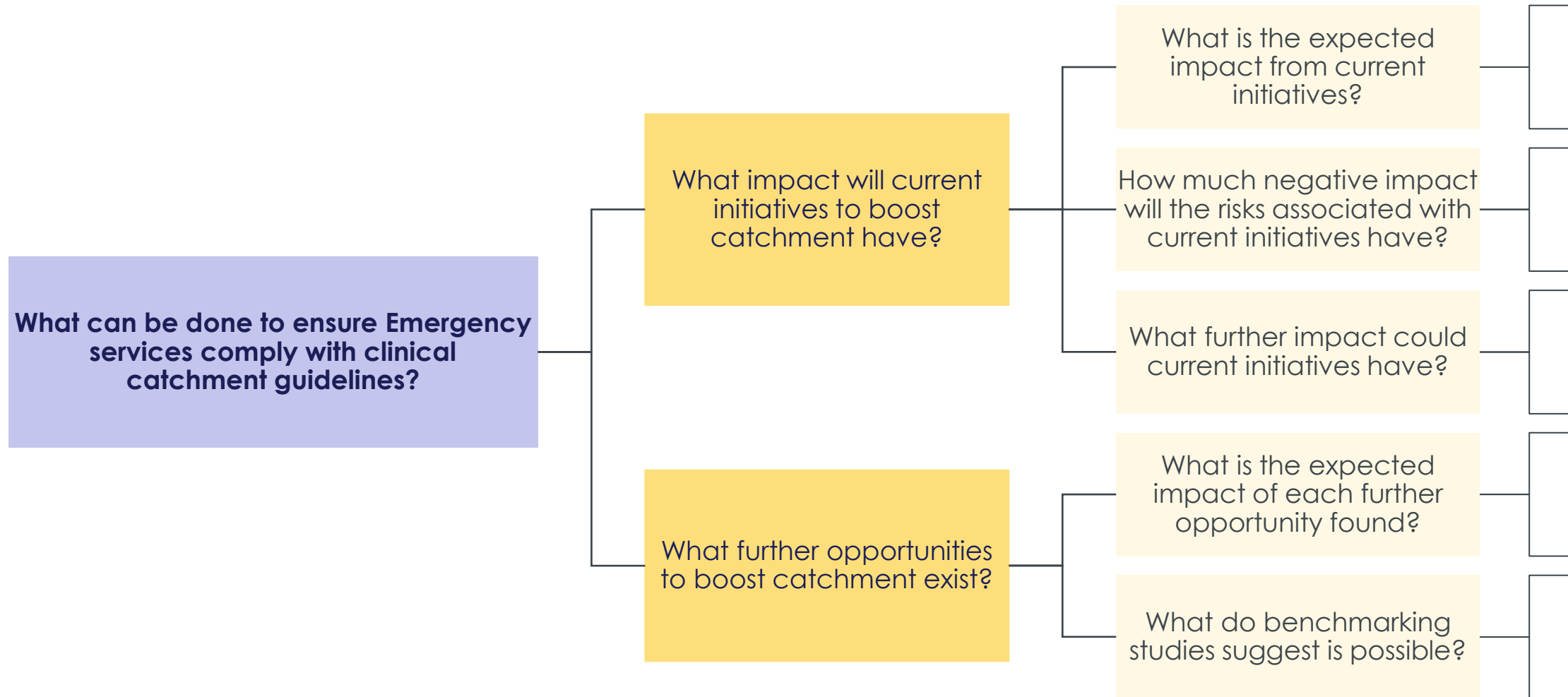
Ex 1b – log strengths & weaknesses of these 3 trees (2/3)

POTENTIAL ISSUE TREE #2: CLINICAL CATCHMENT GUIDELINES



Ex 1b – log strengths & weaknesses of these 3 trees (3/3)

POTENTIAL ISSUE TREE #3: CLINICAL CATCHMENT GUIDELINES

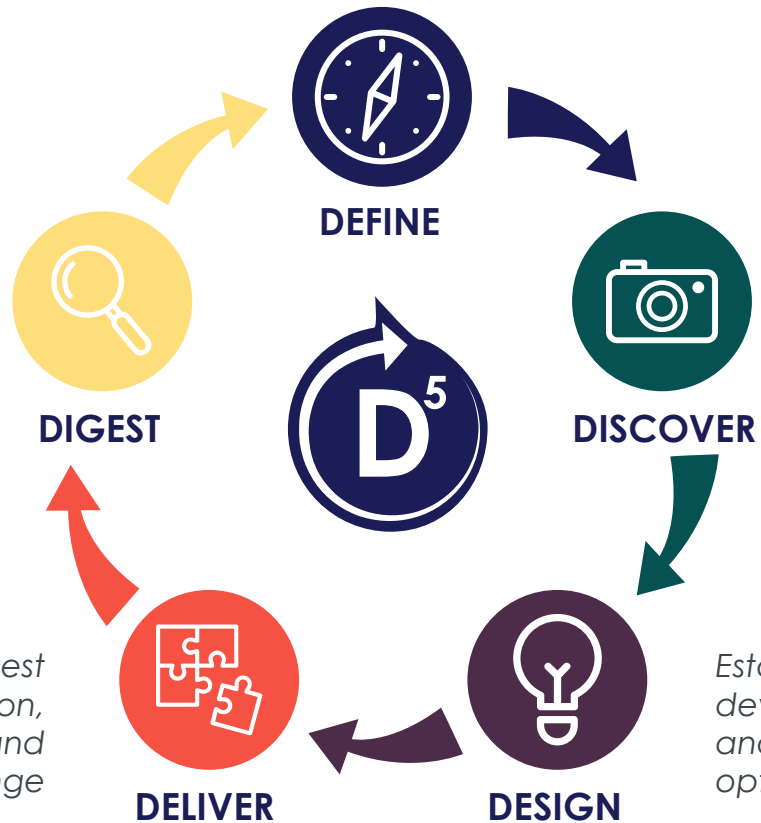


Problem solving and where the tools fit in

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Defining the problem to be addressed, setting the scope and KPIs, **planning the work**, engaging with stakeholders to understand their view

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Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

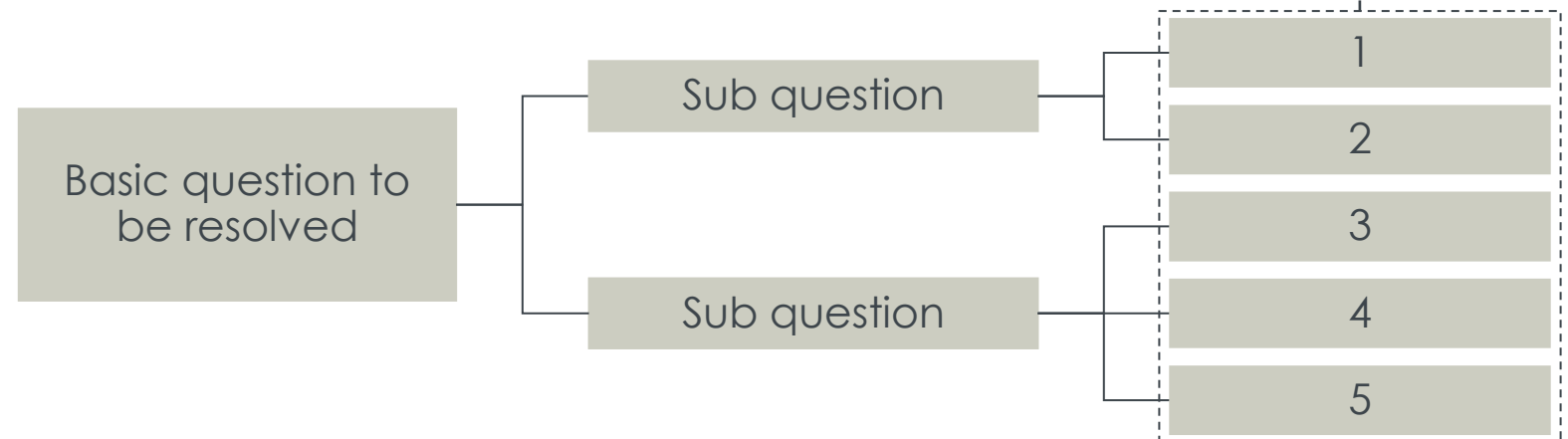
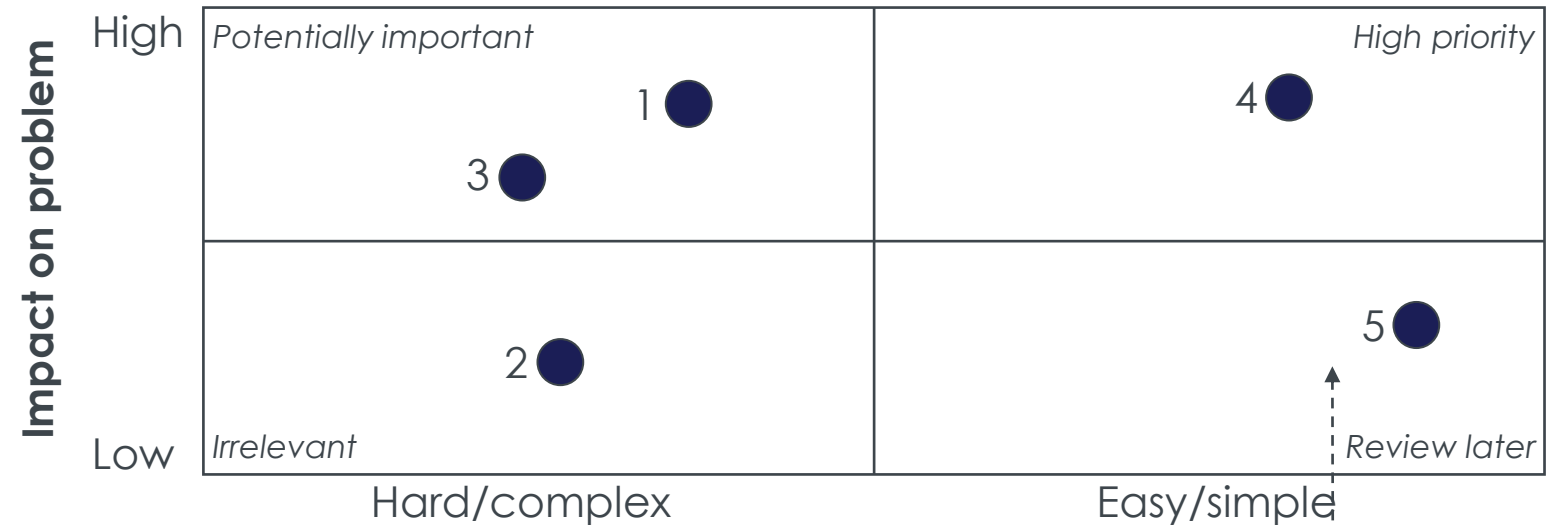
Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

You are unlikely to have the time/resources to address all of the actions in your issue tree, so will need to prioritise...

PRIORITISATION TOOL

Creating an issue prioritisation matrix

1. Develop a set of prioritisation criteria that are most appropriate to your project – e.g., timing vs impact, impact vs level of control, impact vs effort to assess
2. Develop a matrix using the criteria and take each question from the issue tree and put on the matrix
3. Focus your team's time on the questions that are most impactful and timely/within control (the top right hand corner of the matrix)



Use prioritisation to help you focus your activities

TIPS FOR PRIORITISING

- **Prioritise ruthlessly** – to make sure the team is focused on the aspects that matter most
- Use simple tests to **determine impact** when prioritising. If a back-of-the-envelope calculation shows that an area of cost is known to be small, don't waste time analysing how small – it won't matter
- Don't forget to include the **high impact analyses** required later in the problem solving– although they can wait a while, they still need to be done

Develop a prioritisation grid based on the clinical catchment guidelines issue tree from exercise 1

EXERCISE 2: PRIORITISING ISSUES

- Use the issue tree on clinical catchment guidelines
- In your groups, think about which dimensions you want to use and why
- For each branch of the tree, determine where it fits in the 2x2 matrix

**15 minutes in pairs or
small groups;
5 minutes together**

Now you've prioritised which work-streams to focus on, use them to plan and schedule your teams work

PLANNING AND TRACKING THE WORK

- Once you've written the actions needed from the issue tree, you can use these to create your work plan
- The work plan should incorporate the workstreams/actions that you have identified in the issue tree and show the timings for each of these

*Typical problems that arise when a **work plan** is not used:*

- *"We didn't know what the expected output of the work was meant to be"*
- *"We were unprepared for key meetings and struggled to meet deadlines"*

A “boat chart” or “project on a page” style work plan is a useful overview for both project leads and stakeholders

EXAMPLE ‘BOAT CHART’ PROJECT WORKPLAN

	September	October	November	December	January			
	Set-Up		Diagnosis and Option Development		Option Development and Review		Recommendations and Report Development	
Estimated Duration	1-2 weeks		~1.5 months		~1 month		2-3 weeks	
Key activities	<ul style="list-style-type: none"> Understand context Establish team working relationships Identify key stakeholders Put in data requests Set up interviews / fieldwork 		<ul style="list-style-type: none"> Conduct interviews with key stakeholder groups (see separate slide for initial list) Gather data and patient MI Determine analytical priorities and conduct analyses 		<ul style="list-style-type: none"> Collate and review findings Conduct follow-up interviews as appropriate 		<ul style="list-style-type: none"> Share recommendations Work with Steering Group to: <ul style="list-style-type: none"> – Influence key decision-makers – Develop outline action plan for implementation 	
Key meetings	<ul style="list-style-type: none"> First Steering Group meeting Kick off working team meeting 		<ul style="list-style-type: none"> Workshop to test and improve initial findings (October 21) Steering Group (first week of November) 		<ul style="list-style-type: none"> Workshop to develop options (early November) Steering Groups (first week December) 		<ul style="list-style-type: none"> Final Steering Group (last week December) Workshop improve options and agree recommendations (second week December) 	
End products	<ul style="list-style-type: none"> List of interviewees / fieldwork Interview guides Data request 		<ul style="list-style-type: none"> Initial findings report diagnosing strategic challenges 		<ul style="list-style-type: none"> Emerging recommendations report, including: <ul style="list-style-type: none"> – Interim list of options, with associated financial impact – SWOT analysis / risk assessment of delivering each option 		<ul style="list-style-type: none"> Final report 	

TIP: Start from the bottom right, then work up and across!

A risk log is useful to facilitate risk identification and mitigation

RISK LOGS

- **Risk:** A potential problem that has not yet happened, should be mitigated
- **Issue:** A problem that has arisen, requires action and resolution

No.	Risk description	Potential impact	Post-mitigation score		Total score	Mitigation / Action	Owner
			Impact (1 – low, 5 – high)	Likelihood (1 – low, 5 – high)			
1.	Unable to schedule interviews within time available	Information /views not accessed in time to inform recommendations	3	4	12	Contact interviewees as early as possible; draw on stakeholders to encourage prioritisation of this work	XX
2.	Analysis is inconclusive	Unable to generate evidence-based recommendations	4	1	4	Regularly review analyses and insights to ensure they are leading to logical conclusions	XX

Discussion: How do you use risk logs within your organisation? What would make them more effective?

Make sure your workplan is a simple, and useful document, which you can use to drive your project

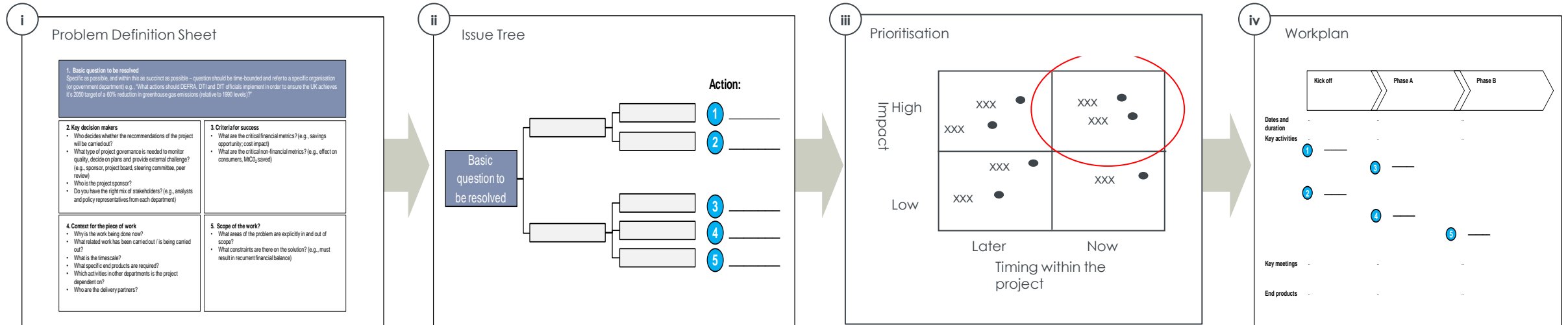
TIPS FOR WORK PLANNING

- Keep it simple – the purpose is to help the team achieve the project objectives on time and in full, running the work plan is not an objective in itself
- The primary use of the work plan often ends up as a communication tool to the stakeholders – so make sure it is easily understandable (avoid jargon and acronyms) and can be communicated on a single page

The tools link together through the project process

RECAP

To efficiently solve a problem, you need to know what the problem is, break it down into manageable chunks, and assign dated actions to them



Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

What?

- What did you notice in your learning?
 - What surprised you?
 - What's different to what you've learnt about this before? What's the same?
 - What are you feeling about this cycle of learning?
-

So What?

- So what could this mean?
 - So what are the implications for you, for your project, for your role?
 - So what are your options for action?
-

Now What?

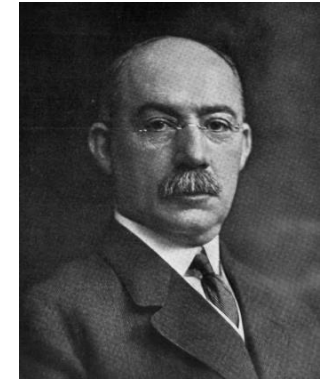
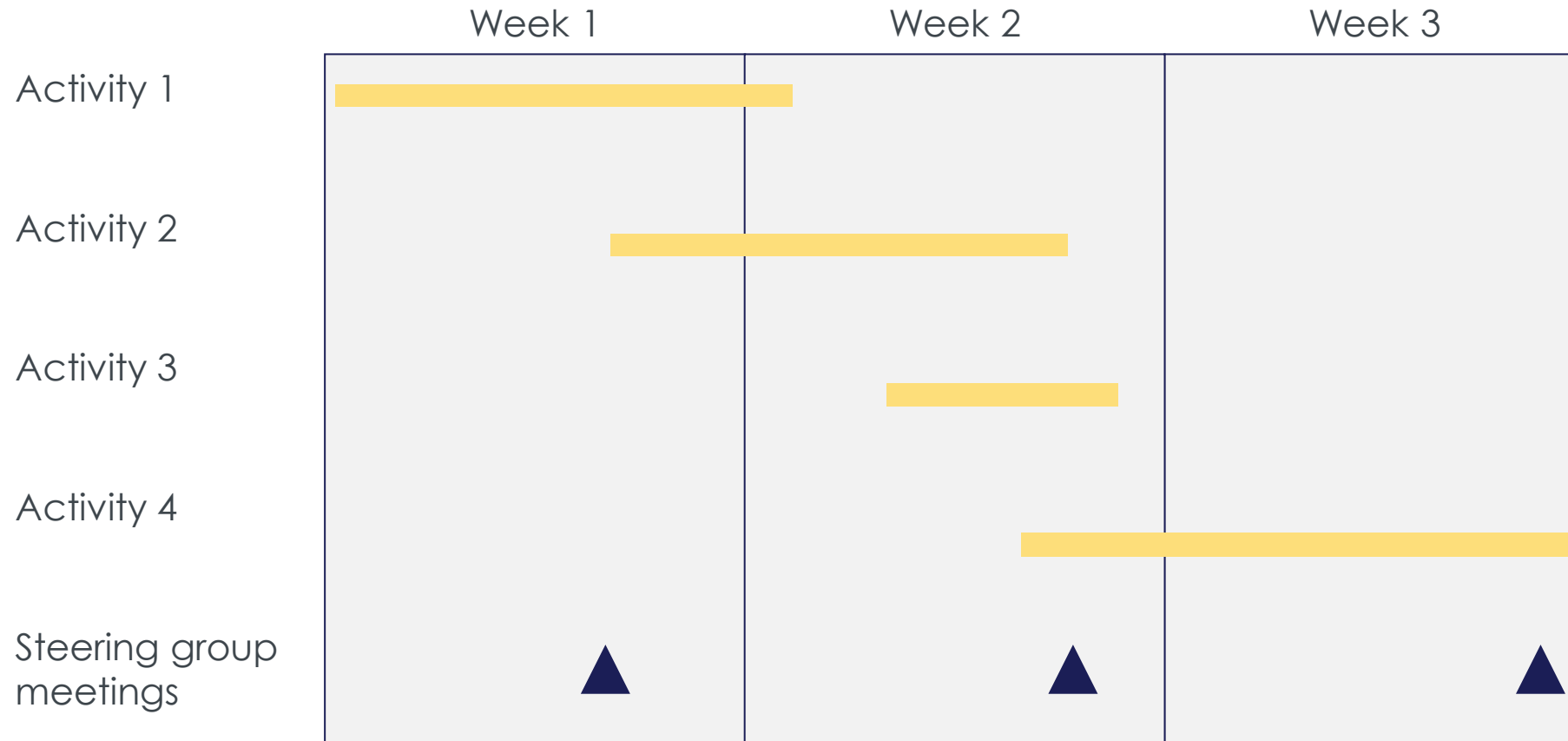
- Now what will you do?
 - By when?
 - How will you know when you've got there?
-

Appendix

You will find more tools and slides in this appendix, and others that we thought you might find useful. However, they don't form a core part of the course.

A Gantt Chart shows the comparative timelines for multiple activities, which may be inter-dependent

TOOL: GANTT CHART

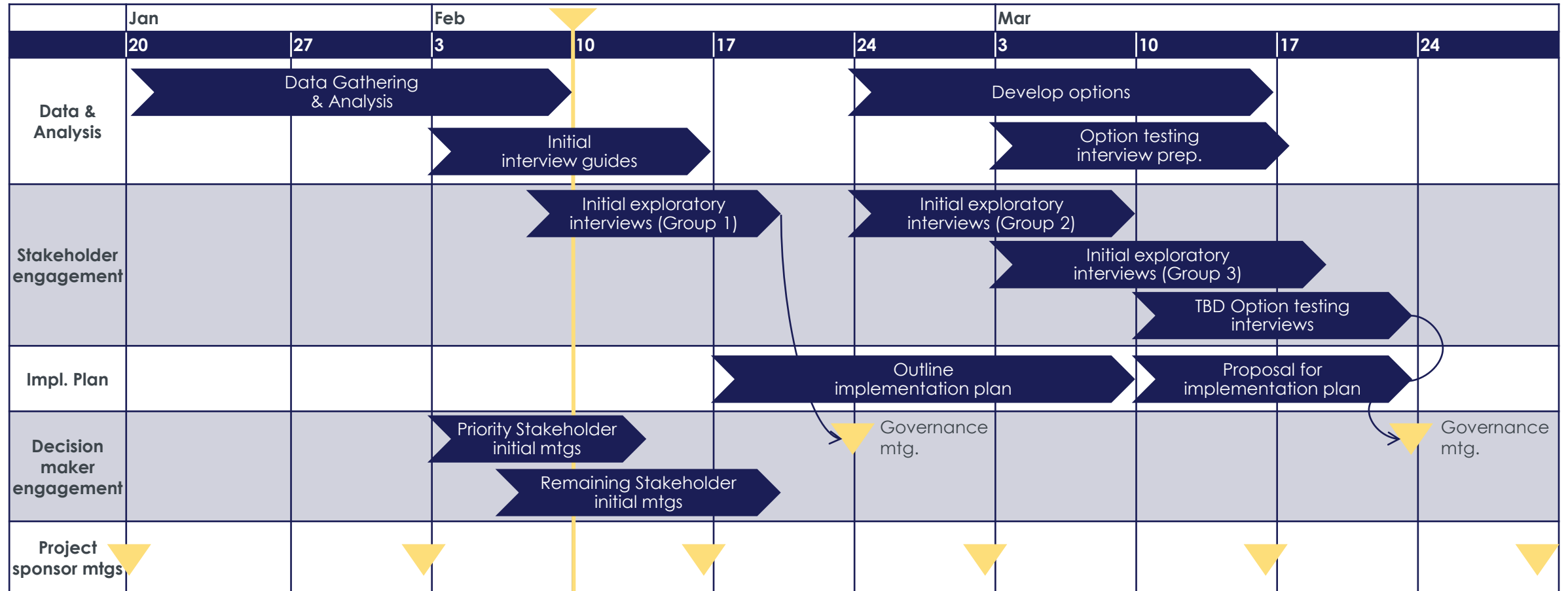


The most elegant schedules created by planning offices are useless if they are ignored

Henry Gantt, an engineer and management consultant from the 19th century

We have 3 core streams of work, supported by project sponsor meetings, and engagement with decision makers

EXAMPLE 'SIMPLE GANTT' PROJECT WORK-PLAN

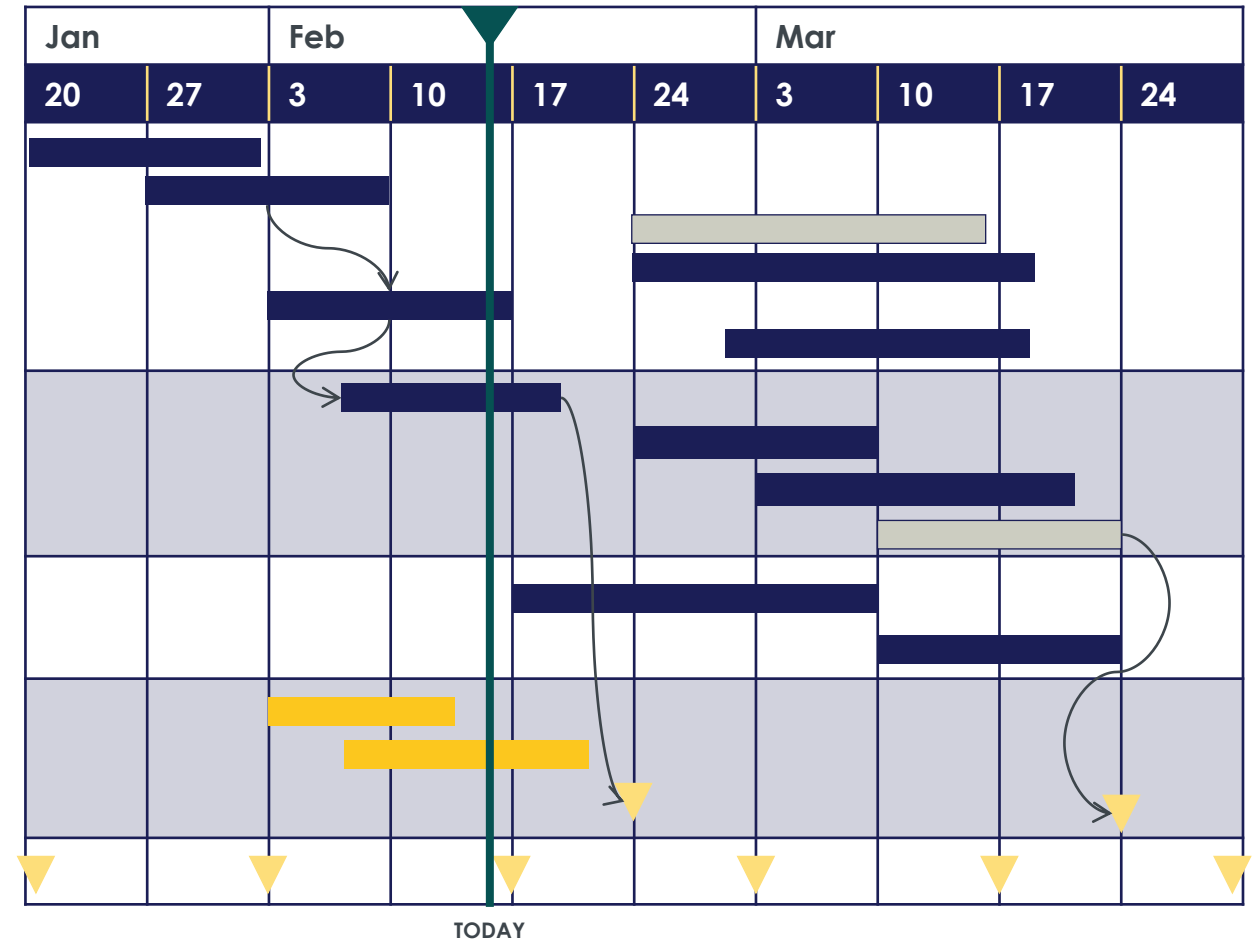


TODAY

We have 3 core streams of work, supported by project sponsor meetings, and engagement with decision makers

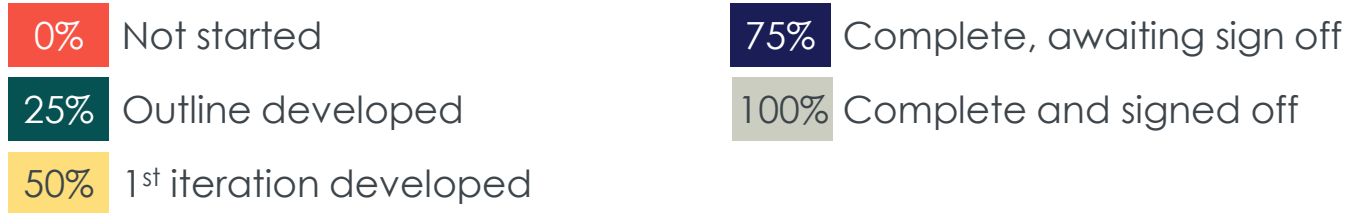
EXAMPLE 'SIMPLE GANTT' PROJECT WORK-PLAN

	Key activities	Resp.
Data & analysis	<ul style="list-style-type: none"> Data <ul style="list-style-type: none"> Gather data & patient MI Conduct priority analysis TBD – additional analysis Develop options Interview guide preparation <ul style="list-style-type: none"> Initial exploratory interviews Option testing interviews 	<ul style="list-style-type: none"> AT KF & AT tbd AT KF & AT
Stakeholder engagement	<ul style="list-style-type: none"> Initial exploratory interviews <ul style="list-style-type: none"> Group 1 Group 2 Group 3 Option testing interviews <ul style="list-style-type: none"> Groups tbd 	<ul style="list-style-type: none"> BS CT BS & CT CT tbd
Implementation planning	<ul style="list-style-type: none"> Outline implementation plan <ul style="list-style-type: none"> Develop risks and targets Proposal for implementation plan <ul style="list-style-type: none"> Write plan 	<ul style="list-style-type: none"> AT AT
Decision-maker engagement	<ul style="list-style-type: none"> Initial meetings with stakeholders <ul style="list-style-type: none"> 5 high priority 7 further before 17th Feb First governance session (20th Feb) Second governance session (date tbc) 	<ul style="list-style-type: none"> KF KF KF KF
Project sponsor mtgs	<ul style="list-style-type: none"> Fortnightly project progress catch-ups with Charlotte 	<ul style="list-style-type: none"> KF (+ALL)



Use a Deliverables Status Grid to track your progress towards project delivery

DELIVERABLES STATUS GRID

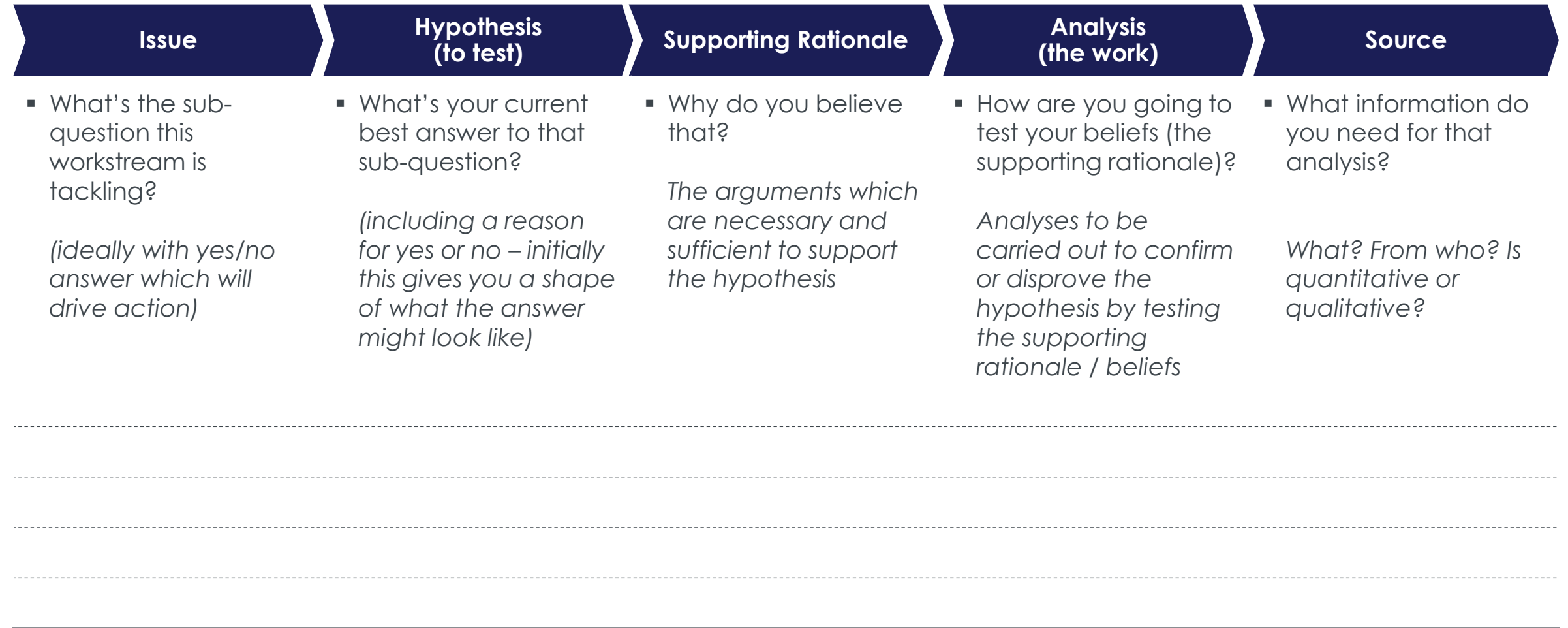


Status: Week X, Date

Deliverable Product	Progress	Required by	Comments
	100%		

It may be useful to also plan the issue analysis workstreams explicitly – including your current hypothesis

ISSUE ANALYSIS WORKPLAN - INTRODUCTION



e.g. an A&E performance improvement project workstreams might include data analysis and direct observation

ISSUE ANALYSIS WORKPLAN ILLUSTRATIVE EXAMPLE

Ref	Issue	Hypothesis (to test)	Supporting rationale / beliefs	Analysis (the work)	Data Source	Resp.	Time
	<i>What's the sub-question this workstream is tackling? (ideally with yes/no answer which will drive action)</i>	<i>The best current guess of how to answer or resolve the issue, including reason for yes or no)</i>	<i>Why do you propose or believe that? The arguments which are necessary and sufficient to support the hypothesis</i>	<i>Analyses to be carried out to confirm or disprove the hypothesis by testing the supporting rationale / beliefs</i>	<i>Where to obtain data / observations for the analysis</i>	<i>Who?</i>	<i>By when?</i>
D2.A	What is the current LOS performance and breaches (4 hour and ambulance)?	Current LOS performance is poor (below national average), costing the Trust 20k+ per month in fines	<ul style="list-style-type: none"> Trust is likely to have a mean stay above 2 hours, possibly above 3, and regular breaches, suggesting a process which is only capable of meeting the 4 hour target through frequent intervention. Ambulance waits are likely to be similarly prevalent. The cost of these will be 20k+ per month.. 	<ul style="list-style-type: none"> Count of breaches, calculation of fines. Analysis of distribution of LOS by patient segmentation, arrival time/day and ???(tbd) 	Trust data team	Dave	26-28 Aug
D2.B	What is the current capacity and demand over time (by patient "segment")?	Capacity is likely to be reasonably well aligned to demand - the Trust has a good understanding of when to expect a busy ED	<ul style="list-style-type: none"> Rare for waiting times to steadily increase over multiple shifts, suggesting capacity is roughly aligned with demand The "peak" has moved earlier over time, and the Trust has adapted to this 	<ul style="list-style-type: none"> Analysis of demand - # patients arriving per minute (or quarter hour), split by segment, and looking at time trends (daily, weekly, seasonal) Analysis of capacity - from staffing roster basis, plus agency supply records Comparison between demand and capacity over time 	Trust data team	Dave	26-28 Aug
D2.C	What is the overall flow through the ED? & Where are the bottlenecks ?	Believe that the majority of delays happen whilst patients are "in" / assigned to a cubicle. Other waits only occur when cubicles are blocked.	<ul style="list-style-type: none"> Only triage happens pre-cubicle, and that's only limited when the cubicles back up Even if there is waiting pre-cubicle, it can only be reduced by freeing up cubicle/doctor capacity 	<ul style="list-style-type: none"> Map the overall process Analysis of existing records of patient flow between steps Capture snapshot data, over multiple days, showing patient's "next step" Selected patient follows – what happened, and when during their stay 	Observation and staff discussion	Team - tbc	2 Sep

Contents

- Module 1 – Launching the project
- Module 2 – Structuring the problem and work planning
- **Module 3 – Engaging stakeholders**
- Module 4 – Developing hypotheses
- Module 5 – Gathering data and conducting analysis
- Module 6 – Gathering data and interviewing
- Module 7 – Process Improvement & Plan Do Study Act (PDSA)
- Module 8 – Modelling and options appraisal
- Module 9 – Developing insight and making recommendations
- Module 10 – Planning and implementing
- Module 11 – Communicating recommendations and completing a project

Where are we in the case?

CASE RECAP

- There are four trusts in Oldtown ICB: Westway NHS Trust, Northside NHS Trust, Royal Eastend NHS Foundation Trust and Sunnysouth NHS Trust. Each of the trusts and the ICB is facing financial pressures in the coming years. Only one of the trusts, Westway, is currently complying with recent NHS clinical catchment guidelines regarding emergency services catchment population
- Your team is to recommend one or more courses of action to the ICB CEO to address these challenges
- Your team has defined the problem to be addressed as 'how can Oldtown ICB ensure that emergency services meet clinical catchment guidelines while ensuring financial balance in emergency services by end of FY 3?'
- The ICB CEO feels strongly that reconfiguration of emergency services is the only way forward to resolve the financial and clinical catchment guidelines issues
- **Your team has developed an issue tree to dissect the clinical catchment guidelines challenge, isolating four high priority sub-questions related to closing acute emergency services**

Module 3 will prepare you to engage with stakeholders effectively throughout your project

OBJECTIVES AND INTRODUCTION

After this module I will:

- Be able to plan and prioritise stakeholder engagement
- Be aware of effective techniques for engaging with and influencing stakeholders
- Understand good interviewing technique

This module contains the following elements:

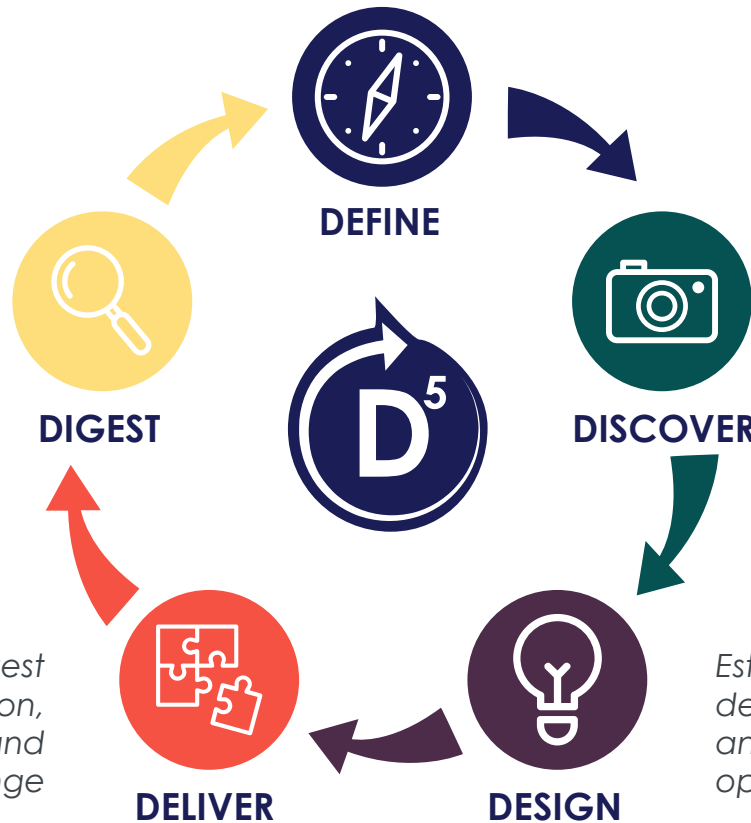
- Identifying and prioritising **who** needs to be influenced
- Understanding **how** to engage with and influence stakeholders:
 - Assessing stakeholder support
 - Understanding stakeholder perspectives
 - Building relationships
 - Influencing and negotiating techniques
- Planning for a potentially challenging meeting

Problem solving and where the tools fit in

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, **engaging with stakeholders to understand their view**

Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success



Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.

Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

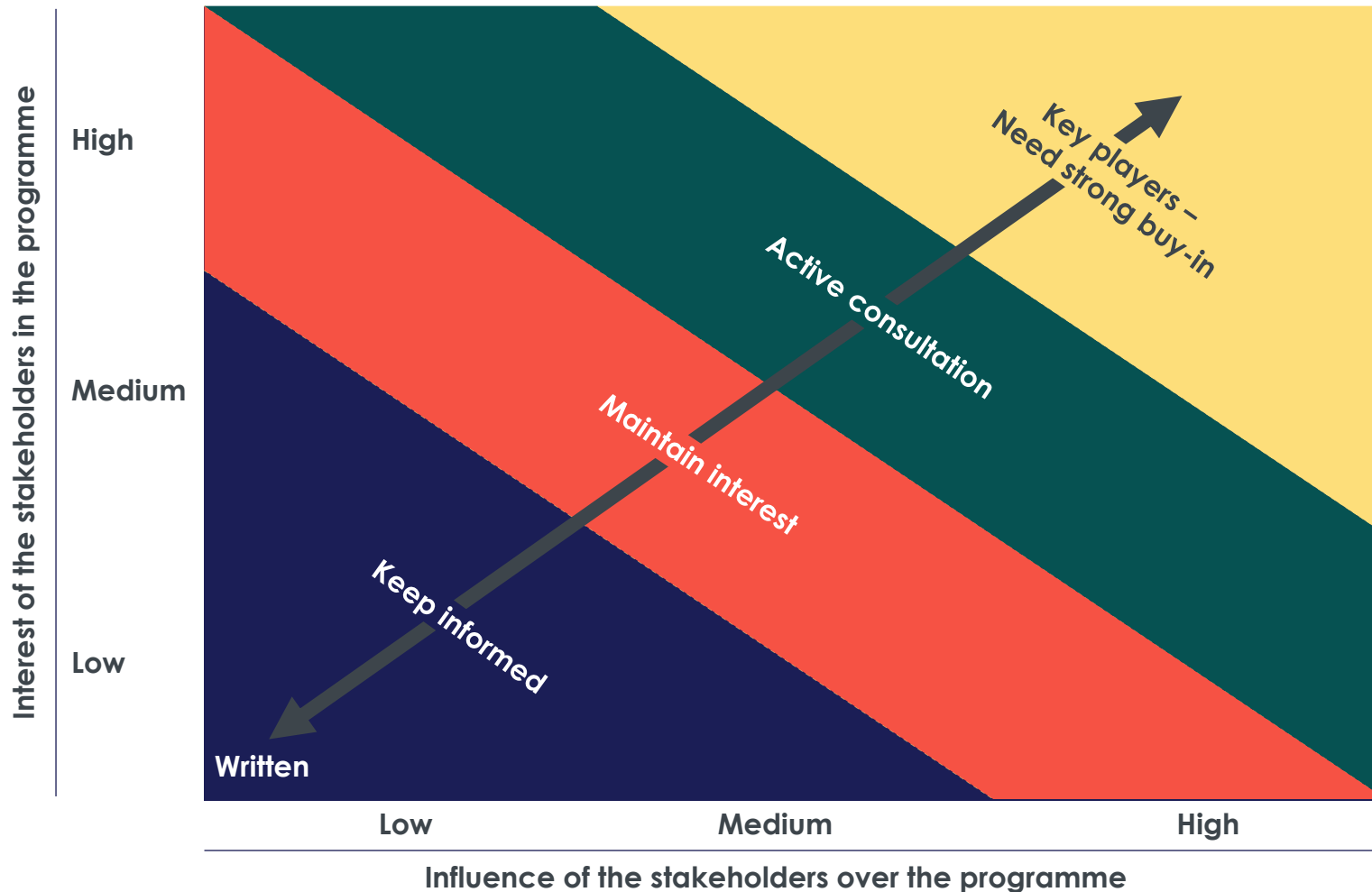
How to prioritise

OBJECTIVES AND INTRODUCTION

- For any given project, establish the full set of stakeholders, ideally as a group:
 - **Customers:**
 - **Approval/ Veto** (e.g., organisation's boards, consultation)
 - **Decision makers** (e.g., CEOs, steering groups)
 - **Influencers** (e.g., senior managers, project leads, Acute Directors – Finance, Clinical, Strategy, etc.)
 - **Reviewers** (e.g., experts, operational managers)
 - **Providers:**
 - **Data owners** (e.g., external organisations, analysts)
 - **“Do-ers”** (e.g., workstream leaders, analysts, managers)
- Shorten the long list down into a manageable size by assessing stakeholders for their current level of support and level of importance (use the influence/interest matrix on next slide)
- Review the matrix regularly as levels of support and degree of importance changes during the course of the project

Using an influence/interest matrix will help you think through how to interact with each key group

INFLUENCE/INTEREST MATRIX



Important questions:

- How will you access the data you need? Are there experts who you need to check it with?
- Do you have a guiding coalition of approvers, influencers and decision makers to help you successfully land your recommendations?
- If not, who should be in this coalition? Are they priorities for engagement already? (if not, they should be)
- Does the project governance include your most important stakeholders?

Sticky notes team working can be useful to work through the three stages to develop a stakeholder plan

WORKED EXAMPLE: STAKEHOLDER PRIORITISING AND MAPPING

Identify the stakeholders...



...Prioritise them...

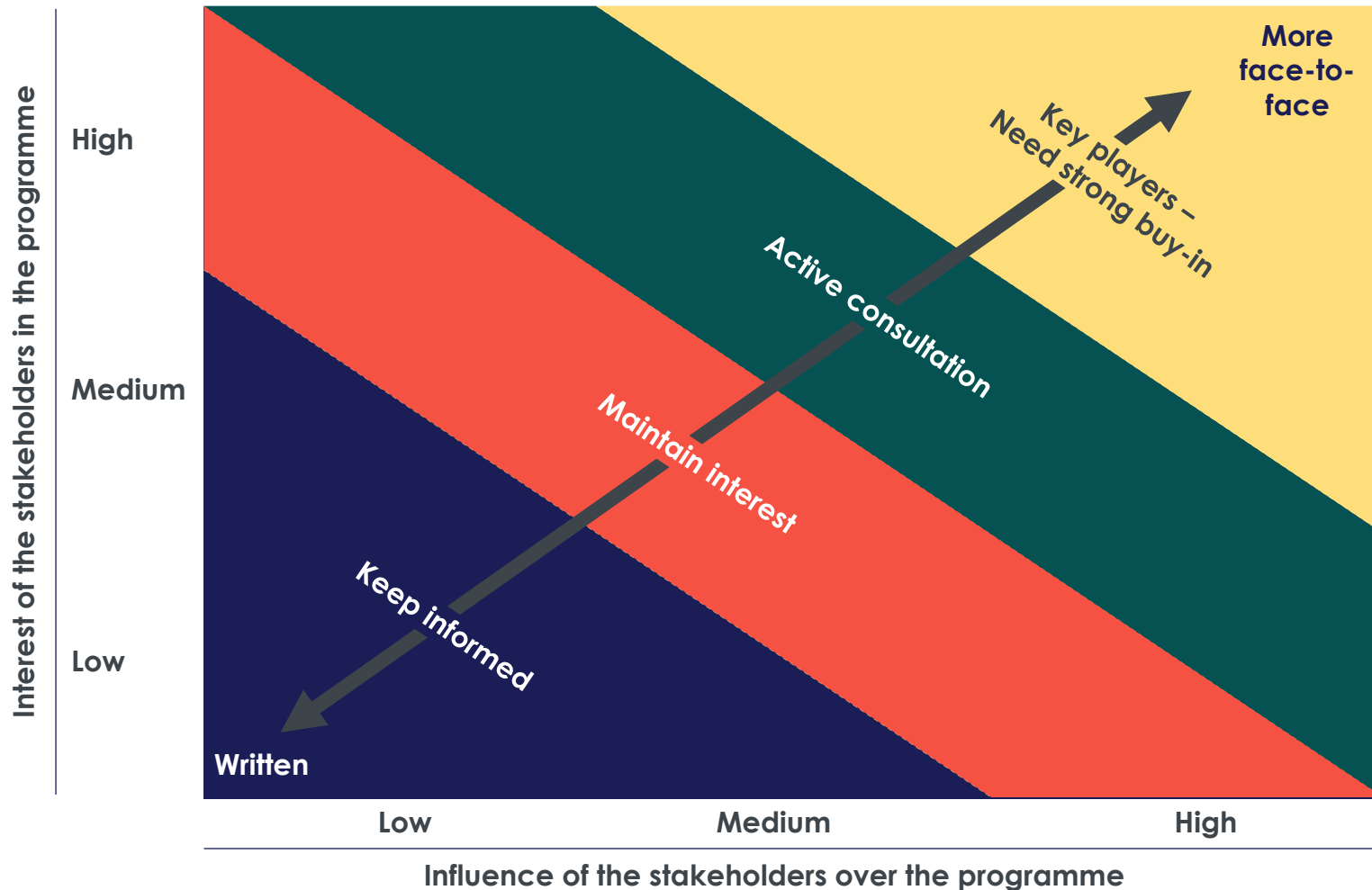


...Plan how to engage them

Group	Key people	Proposed engagement
Project board		
EU Experts & Commission		
UK modelling experts		
Other key modelling experts		
Data holders		
Other experts		
Political (domestic)		
Political (intl.)		

In small groups, develop a matrix and plan for key stakeholders in the case

EXERCISE 1: PLANNING FOR STAKEHOLDER ENGAGEMENT



In small groups, using the stakeholder prioritisation tools discussed earlier, develop a matrix and plan to engage key stakeholders your project

- Start by developing a list of all possible stakeholders for the clinical catchment guidelines project
- Then, use the matrix to sort and prioritise
- Complete the process by developing a brief plan for how you intend to engage each group:
 - What do you need from them?
 - What's the current gap between where they are and where you need them to be?
 - How to approach them?

15 minutes

The CEO has arranged for you to meet Northside's strategy director later today.....

CASE STUDY: A POTENTIALLY CHALLENGING STAKEHOLDER MEETING

Catherine M is the Strategy Director of Northside NHS Trust and, as such, is likely to be a key stakeholder for the project and for the implementation of any recommendations.

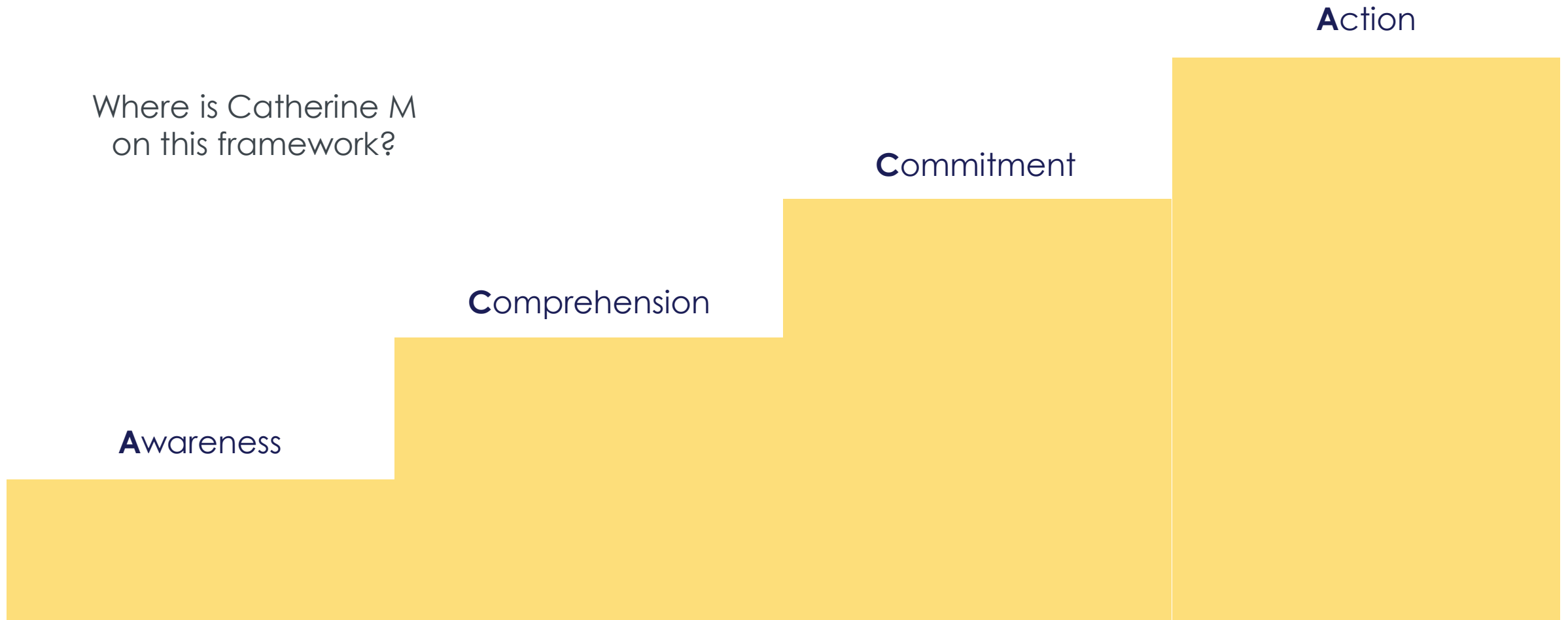
Catherine was overheard earlier in the day by the team expressing a lack of familiarity and distrust of the project team and the project as a whole. She is not aware that she was overheard. Catherine has had a negative experience with external project teams in the past.

Some information on Northside NHS Trust as background:

- 700 bed, single site DGH
- £2.1m surplus in the last financial year
- Excellent for 'Quality of Care' and Good for 'Use of Resources' in most recent CQC ratings
- Hosts MDHU (Military hospital)
- Provides healthcare for patients in the north west of the ICB
- Emergency services catchment: 250,000

What level of ACCA do we need from each of our stakeholders to ensure successful implementation?

(‘ACCA’) FRAMEWORK FOR STAKEHOLDER SUPPORT



Think through the content of the meeting and the key topics to cover

EXERCISE 2: INITIAL MEETING OUTLINE PREPARATION

Make an outline plan for your meeting with Catherine M, taking into account her level of interest, influence and support for the project. Use the following questions to support you in your planning:

- What phase of the project are we in and, thus, what are the most important things you would like to achieve in the meeting?
- Where does Catherine sit within the stakeholder prioritisation grid? What does this mean for the meeting?
- What are the key questions you would like to ask to help you answer your fundamental question on your PDS? (Use your issue tree to help)

10 minutes

Understanding the stakeholder perspective

THE TRUST EQUATION

$$\text{Trust} = \frac{\text{Credibility} + \text{Reliability} + \text{Intimacy}}{\text{Self-orientation}}$$

Component	Definition	Risks of ignoring element
Credibility	<ul style="list-style-type: none"> Words: Credentials plus honesty 	<ul style="list-style-type: none"> Being seen as a windbag
Reliability	<ul style="list-style-type: none"> Actions: Promises kept 	<ul style="list-style-type: none"> Being seen as irresponsible
Intimacy	<ul style="list-style-type: none"> Emotions: Feel comfortable talking to you about the sensitive, personal issues connected to the surface issue 	<ul style="list-style-type: none"> Not being seen as “human”, but instead as an automaton
Self-orientation	<ul style="list-style-type: none"> Motives: Know that you care about serving our interests 	<ul style="list-style-type: none"> Not seeming unselfish, but instead as manipulative

What are your working preferences? Your team's? Your stakeholders?

MYERS BRIGGS TYPE INDICATOR - PREFERENCES

- E**xtraversion
- Create a social and discursive environment using teams, taskforces, brainstorming and meetings
 - Use their presentation and interactive skills
 - Avoid assigning long solitary tasks

- S**ensing
- Be specific and practical
 - Argue with factual evidence and demonstrate feasibility
 - Make the most of their grasp of detail

- T**hinking
- Argue logically, analytically and objectively
 - Use their critical faculties
 - Remind them of human impact

- J**udging
- Be time-conscious and structured
 - Argue systematically
 - Avoid last minute changes
 - Use their management abilities

- I**ntroversion
- Expect less speaking up in meetings and create 'risk free' opportunities for them to say their piece
 - Be a good and patient listener
 - Assign autonomous pieces of work

- I**ntuiting
- Avoid detailed argument
 - Argue with theory and 'big picture' vision
 - Use their originality and ability to challenge

- F**eeling
- Demonstrate sensitivity to the impact plans have on people
 - Appeal to friendship; build alliances with them
 - Use their interpersonal skills

- P**erceiving
- Be flexible and willing to explore new avenues
 - Avoid tight deadlines, but police work and encourage end product focus
 - Use their ability to explore new areas

To get more information see: www.keirsey.com
And "Please understand me: Character and temperament types" by David Keirsey & Marilyn Bates

Split into two groups based on your E/I preference

EXERCISE 5 – MBTI PREFERENCES (1/2)

- In your two groups, discuss:
 - How do you like to work?
 - How do you find working with others?

Be prepared to summarise to the other group

3 minutes

Split each group into two groups based on your N/S preference (so there are four groups)

EXERCISE 5 – MBTI PREFERENCES (1/2)

- In your four groups, discuss:
 - How do you react to change?
 - What role do you play in change? – are you the instigator, do you ‘roll with it’
 - Where are you in change? – passenger or driver

- Be prepared to summarise to the other group

3 minutes

Which influencing styles are you most comfortable with? Which do you use most often?

TOOL: 10 POSITIVE INFLUENCING STYLES

Basis	Approach	Example
Facts	<ol style="list-style-type: none"> 1. Authority 2. Logic 3. Statements 4. Examples 	<ul style="list-style-type: none"> ▪ The ICB CEO has asked us to do this piece of work ▪ The evidence shows that a we can save the ICB £30 million over 5 years if we reconfigure... ▪ Please send us the 2007 travel time data ▪ Here's an Emergency Services configuration option appraisal from another ICB – please could you see what assumptions they made when doing your option appraisal?
Discussions	<ol style="list-style-type: none"> 5. Consultation 6. Exchanges 	<ul style="list-style-type: none"> ▪ What other factors should we be considering for this option? ▪ If you could send me the historic financial records, I can send the forecasts back to you as soon as we've done them
Relationships	<ol style="list-style-type: none"> 7. History 8. Sociability 9. Friendship 10. Values 	<ul style="list-style-type: none"> ▪ It's the same problem as last year – can you help me out again? ▪ Let's work out what should be in the summary over lunch ▪ I would really appreciate your help on making this work ▪ This would really make a difference to patient experience

Exercise: Identify your top 3 preferred influencing styles, and discuss

An interview with Catherine M

EXERCISE 4: PRACTISE YOUR STAKEHOLDER ENGAGEMENT SKILLS

- You have 10 minutes to prepare for your interview with Catherine M. Draw on the interview guide you made in Exercise 2 and consider your negotiating position, influencing techniques and the level of trust that Catherine M will currently have in you.
- The purpose of the interview is to obtain as much information as possible that is relevant to the case.

20 minutes

Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

What?

- What did you notice in your learning?
 - What surprised you?
 - What's different to what you've learnt about this before? What's the same?
 - What are you feeling about this cycle of learning?
-

So What?

- So what could this mean?
 - So what are the implications for you, for your project, for your role?
 - So what are your options for action?
-

Now What?

- Now what will you do?
 - By when?
 - How will you know when you've got there?
-

Appendix

You will find more tools and slides in this appendix, and others that we thought you might find useful. However, they don't form a core part of the course.

Why is planning important?

PLANNING STAKEHOLDER ENGAGEMENT

For each of your priority stakeholders, you will be looking to gain something different through engaging with them and therefore the associated challenge will vary, e.g.:

- **Data owners:** Data they maintain and an explanation of definitions used – likely to be relatively easy to achieve
- **Key influencers:** Support of recommendations – likely to be harder to achieve and may require a great deal of time before support is forthcoming

In both cases, however, you are much more likely to get the support you need if you can articulate what it is and plan how to achieve it

If you are unable to get direct access to key stakeholders such as Approval/Veto category, plan on finding allies to do so for you.

What should you do to develop a plan for each stakeholder?

PLANNING STAKEHOLDER ENGAGEMENT

In some cases, the answers will be obvious (e.g., just go and talk to the person) and a rigorous assessment isn't needed. But, if the situation is more complex, the following process can help

- 1. Start with a clear statement of what you need from the stakeholder.** You may choose to share this with them. Either way, if you are clear about what you need, you can plan your engagement around achieving it
- 2. Determine the gap between where the stakeholder is and where you need them to be.** People don't usually leap straight to support. Instead, they need to first know what you are doing, then understand why you are doing it and what the emerging recommendations are. Keep the ACCA framework in mind as you determine how much stakeholder support you need
- 3. Decide how to approach the person.** On which element of the trust equation are you weakest? Think through the best route to influence a stakeholder, if a direct approach would not work. Who do you know that the stakeholder trusts and with whom you have a good relationship? Before talking to the stakeholder, make sure you have a short explanation (a '30 second story') that explains your current hypotheses. Also, think through what they need from you and what you can offer them

Stakeholder engagement will have a different purpose during each phase of the project

ENGAGING STAKEHOLDERS AT DIFFERENT STAGES OF THE PROJECT

A stakeholder is anyone beyond the core team whose input is valuable to the project. Over the project cycle, there are three main phases of stakeholder engagement – each has a different objective and may well involve different stakeholders:

Phase 1:

Gaining buy-in to the scope and approach to the project

- Senior managers (e.g., hospital CEOs and Senior Departmental Directors) are important for gaining sign-off to the project scope. It is well worth focusing on what the project aims to deliver, rather than on the details of the analyses required. Data owners are also important during this phase – design the analyses with them to ensure the data needed is available

Phase 2:

Establishing the level of support of key stakeholders to the set of options being put forward

- Stakeholders will have different preferences for the options presented. Think through what real-life changes will result from each option (e.g., levels of investment, industry structure) and how your stakeholders will feel about these – be empathetic to their point of view before seeking to influence them. In assessing the acceptability of each option, set out the degree of support of decision-makers and those implementing the recommendations

Phase 3:

Gaining buy-in to implementation for the chosen option

- Once a decision has been made, the focus for engagement should turn to the stakeholders who will be implementing the decision – within and beyond senior managers

Tips for stakeholder engagement

PLANNING STAKEHOLDER ENGAGEMENT

- If you have a clear view on how to work with a stakeholder, just do it – the tools are there to help if you're in doubt
- Write down or plan for priority stakeholders and assign responsibilities within the team
- Track each stakeholder's level of support over time – remember that people can withdraw support as well as give it
- Ensure that your message to stakeholders is clear and consistent
- Give the right message to the right audience in a timely and effective way
- Obtain feedback and assess effectiveness of the communications process

Why is this important?

HOLDING AN EFFECTIVE STEERING GROUP MEETING (1/2)

Steering group meetings are a key opportunity to influence your key stakeholders. It is essential to plan carefully to ensure that you use their time effectively



Preparing for the meeting

- If planning and logistics are not your strength, delegate to someone who is experienced and good at organising
- While it is important to achieve the meeting's objectives, be prepared to be flexible if a more important objective is being achieved – e.g., if there is significant buy-in from a key stakeholder





How do you do it?

HOLDING AN EFFECTIVE STEERING GROUP MEETING (2/2)

- Be clear about what the objectives and outputs are for the meeting – design the discussion schedule and select the attendees to meet these objectives
- Determine any other ‘softer’ objectives that you have for the meeting – e.g., are there any relationships you want to build? Is there anyone that you want to influence? Develop tactics and **influencing approaches** to achieve these. Useful tactics to consider include:
 - **Send materials in advance:** This allows people to get familiar with the key issues and minimises the time spent presenting during the meeting
 - **Pre-meetings:** If you want to build alignment during the review, holding pre-meetings with the key attendees to show them the materials and discuss their concerns in advance of the meeting allows you to be prepared for the likely issues that will arise during the discussion
 - **Seating arrangements:** Think about who you need to influence during the meeting – e.g., seat yourself opposite the key person that you want to influence
- It is important to have professional logistics and planning for any review and meeting – having 50% of the people turn up to the wrong location or squeezed into a room that’s too small can ruin a meeting, no matter how good the content to be presented is
- Prepare the meeting well in advance, use a meeting agenda and work closely with assistants to ensure key decision makers attend and have key materials. At the end of the meeting, review the agenda and agree actions

Questions to determine your credibility, reliability, intimacy and self-orientation with a particular stakeholder, for a specific project

TRUST EQUATION - DETAILED QUESTIONS

Credibility	Reliability	Intimacy	Self-orientation
 <ul style="list-style-type: none">What is your professional experience in the subject matter?What are your academic and professional qualifications in the subject matter?Are your stakeholders aware of your qualifications and experience?Can you speak with expression and confidence (as opposed to monotonically) about your subject matter?	 <ul style="list-style-type: none">Have you delivered on specific commitments?Have your meetings had clear goals which have been subsequently met?Have you made yourself available to your stakeholder outside the immediate remit of your work?Is your stakeholder familiar with your organisation?	 <ul style="list-style-type: none">Have you felt comfortable talking with your stakeholder about difficult agendas?Do you understand and reflect the emotional component of your stakeholder's work?Do you feel comfortable sharing personal views about the work you are doing?	 <ul style="list-style-type: none">Are you aware of your stakeholder's broader concerns and priorities?Do you understand your stakeholder's political environment?Have you shared any advice which could help your stakeholder outside the remit of your immediate task?Have you discussed your stakeholder's perspective on common issues?

Not just for landing recommendations...

NEGOTIATING

Why is this important?

- Negotiation is not limited to landing recommendations with decision-makers – you may well need to negotiate throughout the project
- For example, you may need additional time with experts or data and information may be jealously guarded

What should I do?

Many people characterise themselves as either 'hard' or 'soft' negotiators. While it may seem attractive to pitch somewhere in between the two extremes, the approach itself is inefficient (and often ineffective)

The key to successful negotiation is to move from positional bargaining altogether and into 'principled negotiation', applying the following 4 principles:

1. Separate the people from the problem
2. Focus on interests, not positions
3. Create options for mutual gain
4. Insist on using objective criteria

You also need to know your alternatives – your Best Alternative To a Negotiated Agreement (BATNA):

- If the alternative is better than the point reached in the negotiation, then don't agree to the negotiated position
- Equally, if you can estimate the other side's BATNA, you'll know at what point they will walk away.

Negotiation principles & tips

TOOL: PRINCIPLED NEGOTIATION

Description

1. Separate the people from the problem	<ul style="list-style-type: none"> Where there are differences of opinion on particular issues, work through each clearly and openly and without attacking the other person
2. Focus on interests, not positions	<ul style="list-style-type: none"> Work through what you both actually want from the negotiation, rather than the positions that you may have initially adopted
3. Create options for mutual gain	<ul style="list-style-type: none"> Develop as many options as possible, you can decide which is best later. Look for shared interests and opportunities to advantage one side while not disadvantaging another
4. Insist on using objective criteria	<ul style="list-style-type: none"> Don't get into horse-trading, instead look for fair and recognised standards. If necessary, you can also go to a third party, as long as they are recognised by both sides as being objective

Tips:

1. Persevere, even if the other person keeps playing 'hard'
2. Stand your ground – never yield to pressure or manipulation
3. Ask plenty of questions – make the atmosphere one of shared problem solving, not combat
4. Make it easy for the other person to agree – if there are things that you can give them without causing yourself problems, do so

We all use a variety of soft skills in our day-to-day meetings and interactions with stakeholders

KEY SOFT SKILLS FOR INTERVIEWING & STAKEHOLDER ENGAGEMENT

Effective and attentive listening

- Keeping an open mind and being prepared for new information you weren't expecting
- Listening to what is said and also what is not said, in tone of voice and body language

Open and closed questions

- Closed questions: can be answered with "yes or no", useful for confirming agreement or facts but not when a more detailed answer is needed
- Open questions: cannot be answered with "yes or no", remember to use these to give the person space to say what they want, and to allow for unexpected information

Using a range of influencing styles

- Remembering to tailor your approach to:
 - The person you are speaking to
 - The context of the engagement or interview (e.g., where they sit in the prioritisation grid or organisational structure)
 - Your preferred style!

Note: we will look in more detail at interview guides in Module 6

Influencing is critical to most projects

INFLUENCING TECHNIQUES

Why are these useful?

- Having clear objectives and a plan for gaining the support of your stakeholders will increase your chances of successfully engaging with them
- However, the actual interactions need to go well or all your planning is in vain
- By effectively influencing people, you can convert your plan for gaining support into reality

What should I do?

1. Always influence with integrity – don't manipulate:
 - It can be tempting to manipulate, especially if you are in a relative position of power and need things to happen quickly
 - However, this is likely to undermine your effectiveness in the long-run – e.g., if you get a bad reputation or encounter the same person in another role when the power dynamics are different
2. Match your influencing approach to your audience – be empathetic:
 - Everyone has their own style of influencing others and everyone also has a preferred way of being influenced themselves (linked to their Myers-Briggs type)
 - Rather than just using your own style, try to think through what the other person will respond to best (e.g., a CEO is unlikely to have time to read a 180-page pack) and modify your style accordingly

Different influencing styles are shown in the **Positive Influencing Styles** tool

Contents

- Module 1 – Launching the project
- Module 2 – Structuring the problem and work planning
- Module 3 – Engaging stakeholders
- **Module 4 – Developing hypotheses**
- Module 5 – Gathering data and conducting analysis
- Module 6 – Gathering data and interviewing
- Module 7 – Process Improvement & Plan Do Study Act (PDSA)
- Module 8 – Modelling and options appraisal
- Module 9 – Developing insight and making recommendations
- Module 10 – Planning and implementing
- Module 11 – Communicating recommendations and completing a project

Where are we in the case?

CASE RECAP

- There are four trusts in Oldtown ICB: Westway NHS Trust, Northside NHS Trust, Royal Eastend NHS Foundation Trust and Sunnysouth NHS Trust. Each of the trusts and the ICB is facing financial pressures in the coming years. Only one of the trusts, Westway, is currently complying with recent NHS clinical catchment guidelines regarding emergency services catchment population
- Your team is to recommend one or more courses of action to the ICB CEO to address these challenges
- Your team has defined the problem to be addressed as 'How can Oldtown ICB ensure that emergency services meet clinical catchment guidelines while ensuring financial balance in emergency services by end of FY 3?'
- The ICB CEO feels strongly that reconfiguration of emergency services is the only way forward to resolve the financial and clinical catchment guidelines issues
- Your team has developed an issue tree to dissect the clinical catchment guidelines challenge, isolating four high priority sub-questions related to closing acute emergency services
- **You have learned from the Strategy Director at Northside that patients do not want their ability to access emergency services to be impacted**

Module 4 will help you develop hypotheses to clarify your thinking and synthesise recommendations efficiently

OBJECTIVES AND INTRODUCTION

After this module I will:

- Recognise the importance of constantly articulating and developing hypotheses
- Understand how to use a hypothesis tree to do this

The module includes:

- Introduction to hypothesis trees
- Developing insights

Problem solving and where the tools fit in

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.

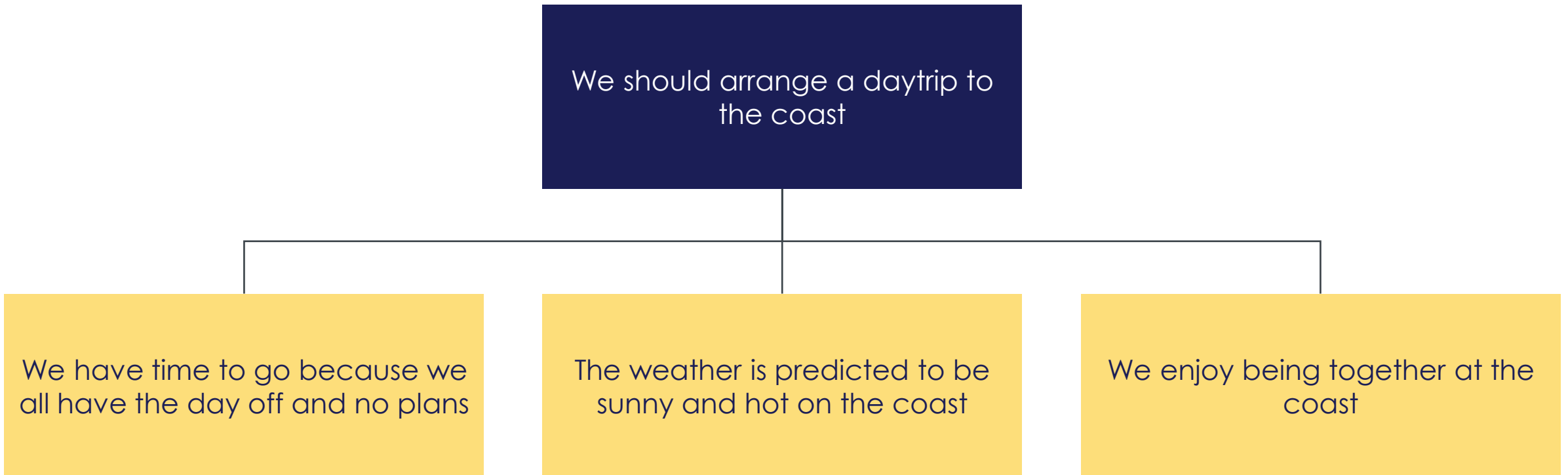
Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

Hypothesis trees help us order our thinking by proposing a likely answer to our PDS question and laying out the supporting facts

THOUGHT ORDERING WITH HYPOTHESIS TREES

We all propose solutions and use facts to support them every day in the hypothesis tree form



Use Hypothesis trees throughout your project, to clarify your thinking and synthesise recommendations

HYPOTHESIS TREES - PURPOSE

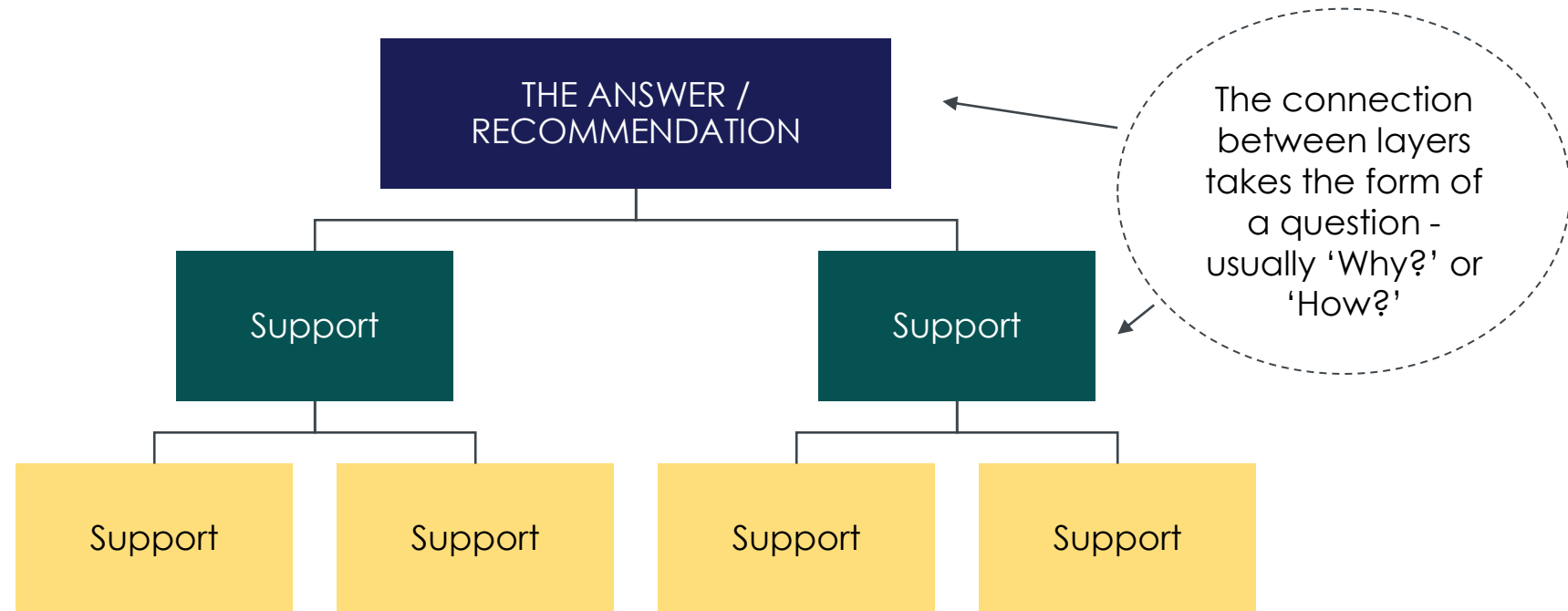
- The biggest trap you can fall into is leaving the development of insights and hypotheses until the end of the project. Hypothesis trees work by stating what you believe to be the best answer(s) or options(s) to the ‘basic question to be solved,’ then below each statement you add its supporting evidence. This is used to:
 - a) Clarify your thinking
 - b) Debunk myths
 - c) Synthesise recommendations – helping you to explain them to stakeholders
- The aim of a hypothesis tree is to organise your thoughts and highlight where the gaps in your logic are

Typical problems that arise when a **hypothesis tree** is not used:

- “We jumped to what we thought was the solution – it wasn’t”
- “It was hard to see how all the work tied together”

Hypothesis trees use the “pyramid principle” – the “answer” is only sufficient if the support is sufficient

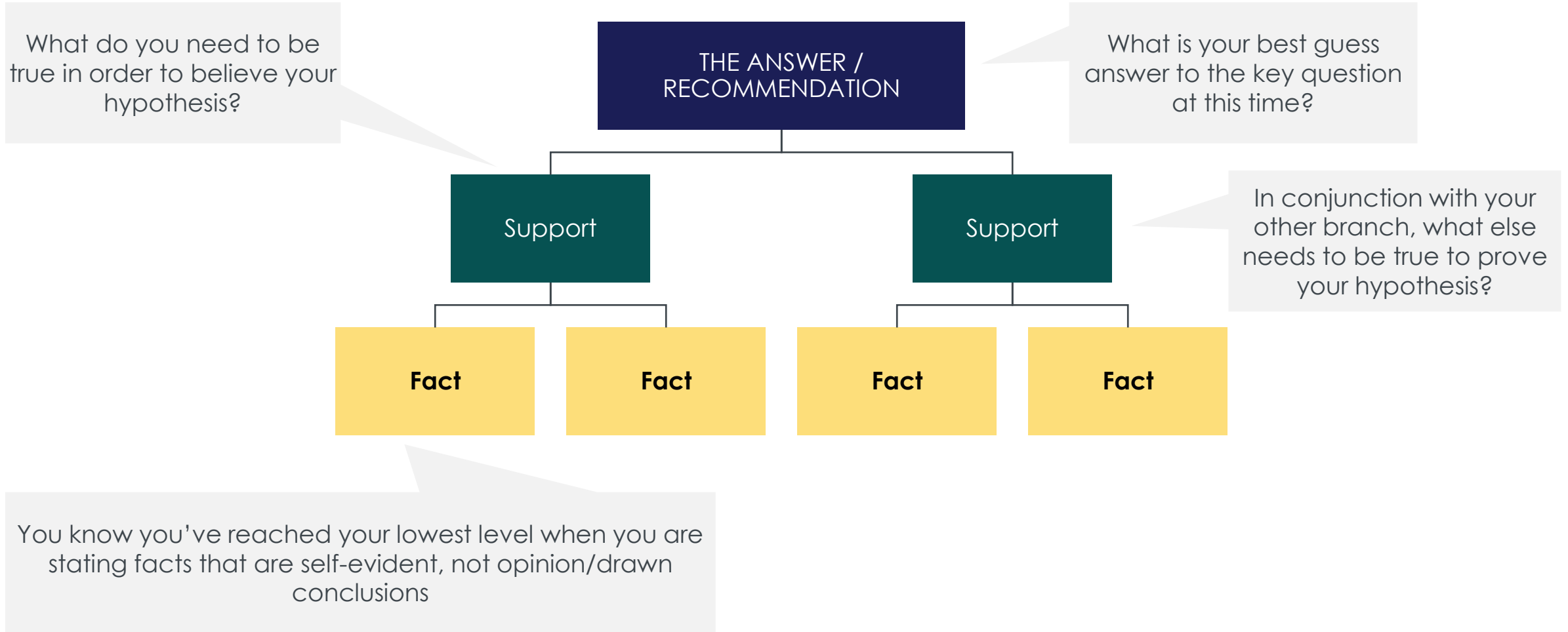
HYPOTHESIS TREES - INTRODUCTION



1. Ideas at any level in the pyramid must always be summaries of the ideas grouped below
2. Ideas in each grouping must always be the same kind of idea
3. Ideas in each grouping must always be logically ordered

You can test your tree at each level of support

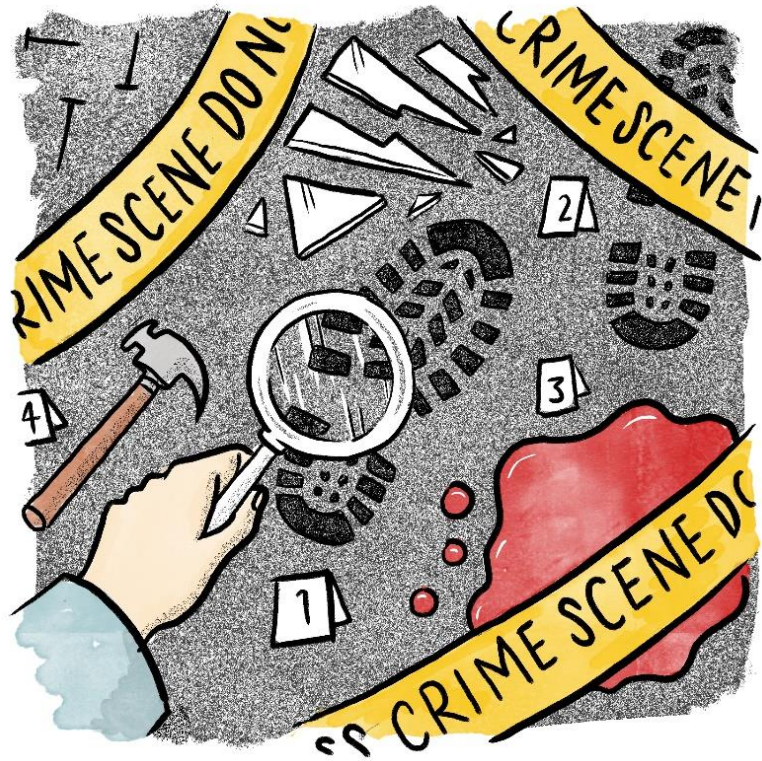
HYPOTHESIS DEVELOPMENT



Hypothesis testing is common in many professions – we will look at three examples

HYPOTHESIS TESTING EXAMPLES

Hypothesis testing in criminal justice



Hypothesis testing and medical diagnosis



Hypothesis testing and the scientific method



How do criminal investigators use exhaustive vs hypothesis based processes?

EXAMPLE 1: HYPOTHESIS TESTING AND CRIMINAL JUSTICE



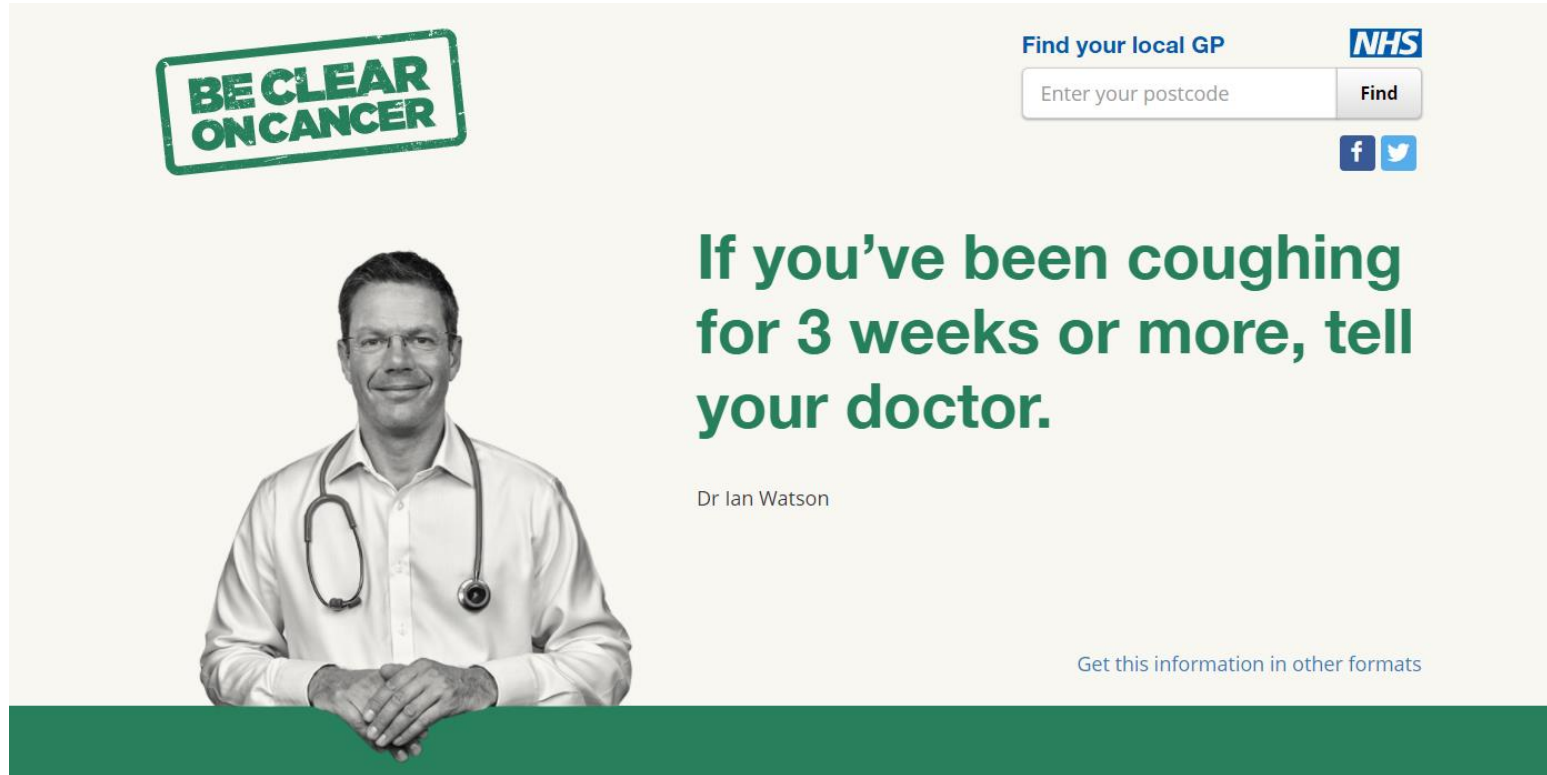
When investigating a crime, what steps do investigators take that are exhaustive, for example, not hypothesis-based)?

What steps do investigators take that are **hypothesis-based**?

Once hypotheses are formed, **how are these tested** in the criminal justice system?

How do GPs diagnose their patient's illness?

EXAMPLE 2: HYPOTHESIS TESTING AND MEDICAL DIAGNOSIS



The advertisement features a green stamp in the top left corner that reads "BE CLEAR ONCANCER". In the top right, there is a search bar with the text "Find your local GP" and "NHS" above it. The search bar contains the placeholder text "Enter your postcode" and a "Find" button. Below the search bar are social media icons for Facebook and Twitter. The central text, in a large green font, says "If you've been coughing for 3 weeks or more, tell your doctor." Below this text is a photo of Dr Ian Watson, a man with a stethoscope around his neck. At the bottom right of the advertisement, there is a link that says "Get this information in other formats".



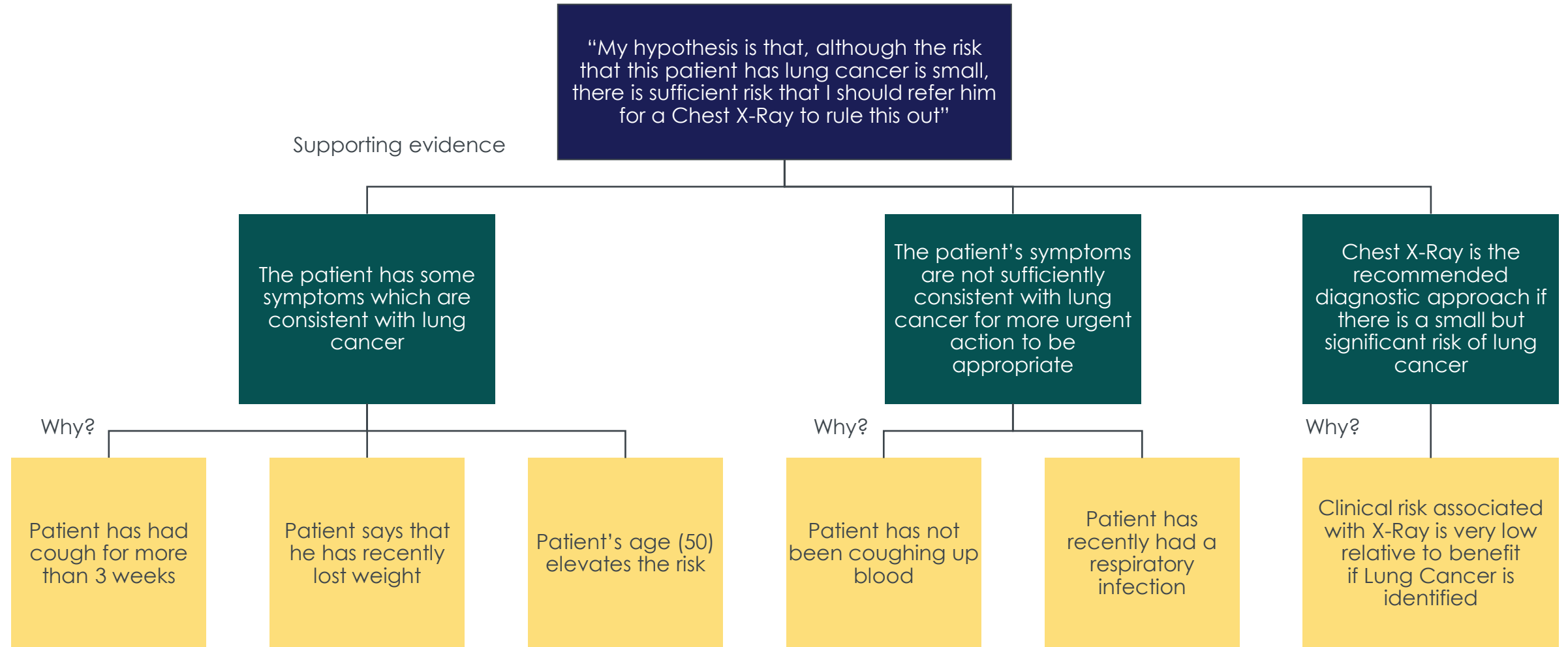
A 50-year old man sees this advert and presents to his GP, stating that he has a cough that he has had for more than 3 weeks, and that he is worried that it is not getting better.

How might the GP **diagnose the cause** of the problem?

What hypotheses might the GP test, and how might he/ she **test these**?

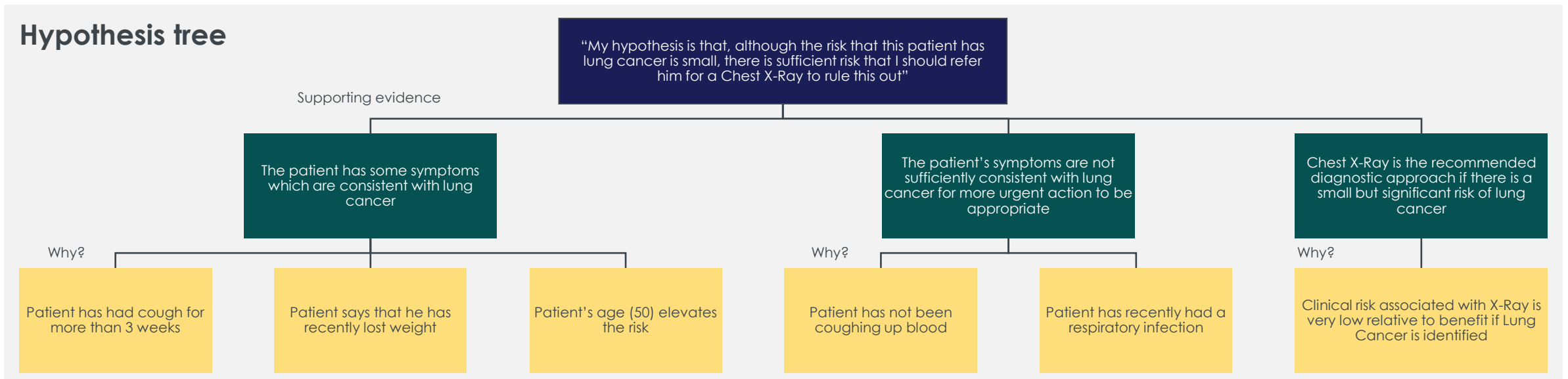
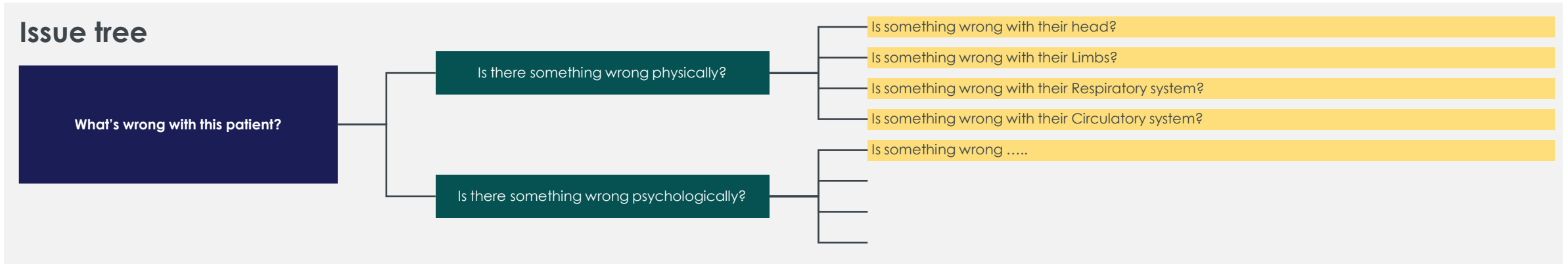
The GP can use a hypothesis tree to rule out an unlikely (but high risk) diagnosis

HYPOTHESIS EXAMPLE: MEDICAL DIAGNOSIS RISK



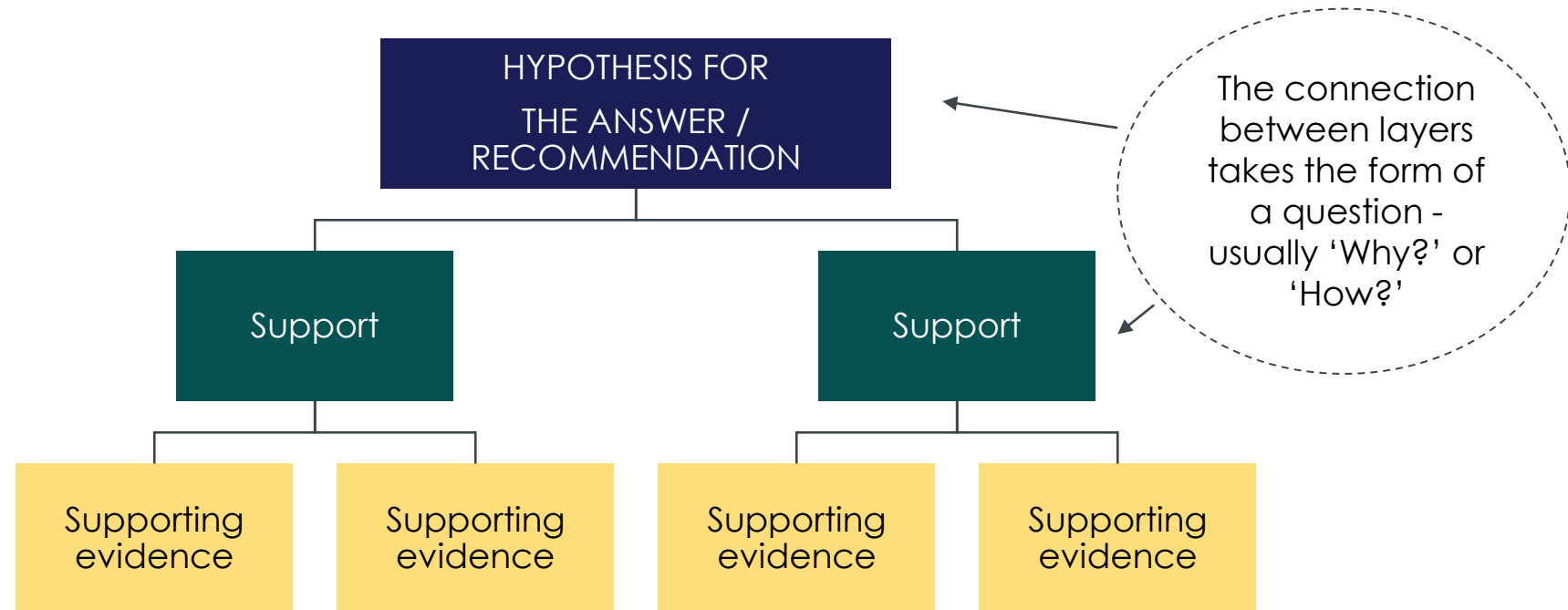
Using purely an issue tree on its own would take more time and effort than using a hypothesis based approach

ISSUE VS HYPOTHESIS TREES: MEDICAL EXAMPLE



Recap: How to structure a hypothesis tree

HYPOTHESIS TREES - INTRODUCTION



1. Ideas at any level in the pyramid must always be summaries of the ideas grouped below
2. Ideas in each grouping must always be the same kind of idea
3. Ideas in each grouping must always be logically ordered

Now, create your own hypothesis tree, this time for the “financial balance” question for Oldtown

EXERCISE 1: HYPOTHESIS TREES

Based on the case so far, and the evidence on the following page, create a hypothesis tree which addresses this question:

“How can financial balance be restored to the four Oldtown emergency services?”

35 minutes

The following points and evidence may help you construct your hypothesis tree:

EXERCISE 1: HYPOTHESIS TREE EVIDENCE

- Reconfiguration of the emergency services may reduce costs in the longer term
- Opportunities to increase revenues are insignificant and should be discounted
- The health economy may realise further savings through improved scale of remaining sites
- Site chosen for emergency services closure may achieve savings
- Improving bed utilisation may increase efficiency
- Aside from bed utilisation, improving efficiency of other patient-facing activities may result in savings
- Savings on Trust overheads may be possible
- Savings on variable costs, such as drugs and consumables, and on staff costs might be achievable
- Other health economies have achieved ~90% bed utilisation for general medicine/surgery, ~60% maternity and oncology
- Other trusts have saved ~20% on each of Finance, HR and IT costs by using shared service providers
- Some of the trusts have excess capacity on their estates which could either be sold or leased to other organisations

Hypothesis trees will help you clarify your thinking and synthesise recommendations efficiently

TIPS FOR WRITING HYPOTHESIS TREES

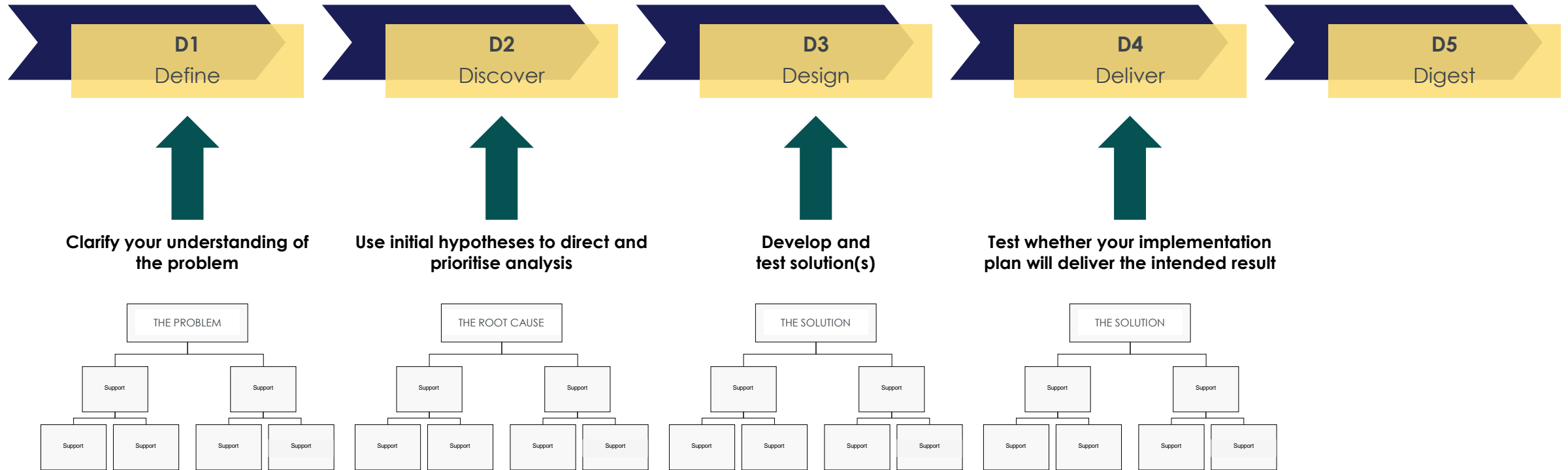
- As with the issue trees, make sure you capture and challenge existing myths and preconception as these may well be brought up by stakeholders
- To avoid confusion with issue trees, set up hypothesis trees to run from the top to the bottom of the page, with the highest level answer at the top, and each stage below it providing supporting evidence
- Think of the hypothesis tree as the building blocks of your argument – if a piece is missing, then the argument doesn't stand up

The finished hypothesis tree can then help you create your 'storyboard' for engaging with stakeholders. However, remember to think about your audience's preferred style

Using hypotheses through the project process

HYPOTHESIS TREES THROUGH THE PROJECT PHASES

To efficiently solve a problem, you need to know what the problem is, understand the root causes, and design and test your proposed solution. You can use a hypothesis tree to support ALL of these stages.



Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

What?

- What did you notice in your learning?
 - What surprised you?
 - What's different to what you've learnt about this before? What's the same?
 - What are you feeling about this cycle of learning?
-

So What?

- So what could this mean?
 - So what are the implications for you, for your project, for your role?
 - So what are your options for action?
-

Now What?

- Now what will you do?
 - By when?
 - How will you know when you've got there?
-

Appendix

You will find more tools and slides in this appendix, and others that we thought you might find useful. However, they don't form a core part of the course.

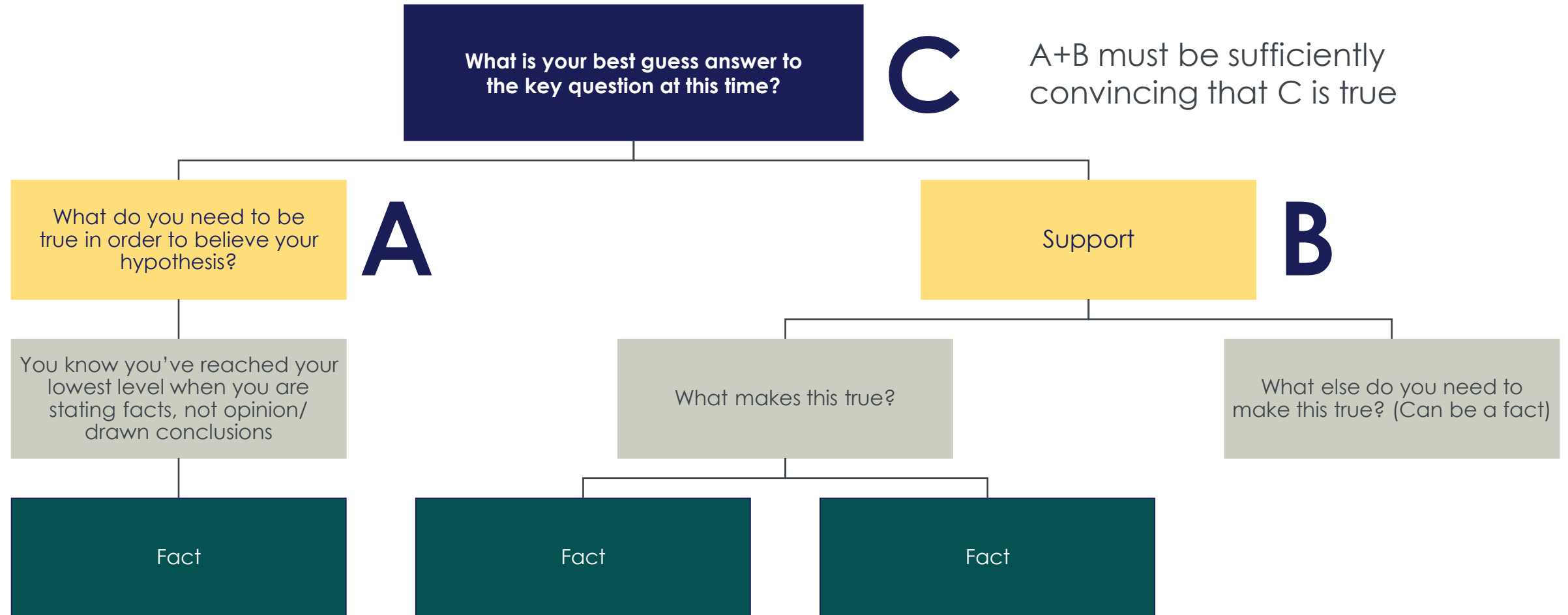
Hypothesis trees are used throughout the problem solving cycle and they become more certain as more analysis is completed

HYPOTHESIS TREES THROUGHOUT THE PROBLEM SOLVING CYCLE

- **Early** in the project you are likely to have little supporting evidence. Use hypothesis trees to:
 - Structure your project workstreams
 - Make sure the project analyses test the supporting arguments
 - Trees do NOT have to be correct at this stage. They are only designed to give you an efficient way to analyse information
- **During** the project you are likely to disprove some hypotheses and develop new ideas to test. Use hypothesis trees to:
 - Communicate why previous ideas have been disproved
 - To scope additional analyses needed to test new ideas
 - Your tree is becoming more confirmed at this stage
- **At the end** of the project you will need to synthesise your findings together into a recommendation. Use hypothesis trees to:
 - Bring together your findings into a structure recommendation based on robust analysis
 - Your tree is now confirmed and is designed to make your supporting evidence transparent

Your hypothesis is only as strong as your supporting evidence

EXAMPLE HYPOTHESIS TREE



Use the problem solving tools together to ensure the approach is rigorous and interdependencies addressed

TOOLS

Strategy implementation area: Demand and Capacity Planning

1. Question to be resolved
How can we manage demand, capacity and clinical income proactively in order to achieve the clinical activity mix we want within the next 3 years?

2. Delivery stakeholders and team resourcing

- Project Lead
- Key stakeholders: Executive Team and Senior Managers
- Delivery stakeholders whose support will be critical to success
 - Estates
 - Operational Team
 - Strategy team
 - Commissioners and external provider partners

3. Desired outputs and criteria for success

Two main criteria for success

- Finance and activity plans align
- Successful demand management and sufficient capacity to meet planned demand systems

We will need to do this while meeting our financial plan each year

5. Outline timings and milestones

- Key questions for board by 14 January
- Delivery plan and assurance for Exec team on 2 February
- Alignment of clinical strategy and 15/16 activity plan in time for next year's planning cycle

7. Constraints and dependencies/interfaces

Internal dependencies

- Clinical strategy
- Estates strategy
- Workforce planning
- Emergency services
- Local services

External dependencies

- Commissioning plans
- Other organisational plans
- Changing landscape
- Demographic changes

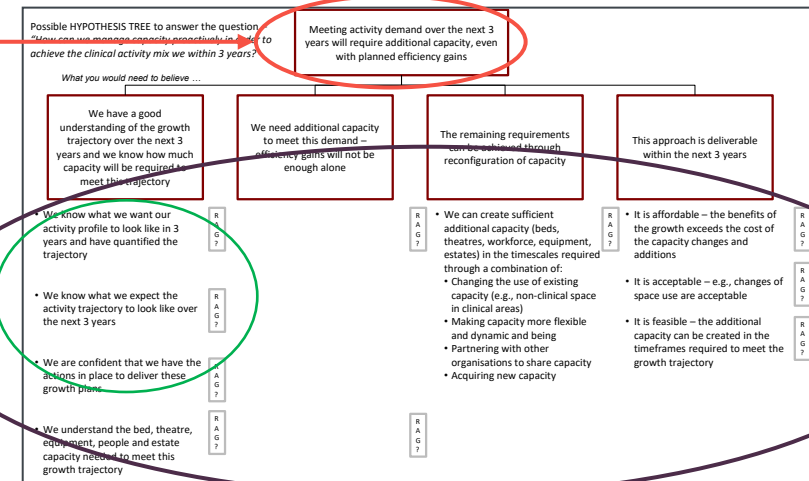
4. Scope

- Recommend that this is seen as an enabler across all strategic areas
- There is a large influencing scope for this work – see stakeholders and dependencies
- The scope for direct delivery is limited to (i) facilitating the process for merging the financial plan and clinical strategy; (ii) coordinating demand and capacity management between the rest of the organisation

6. Context

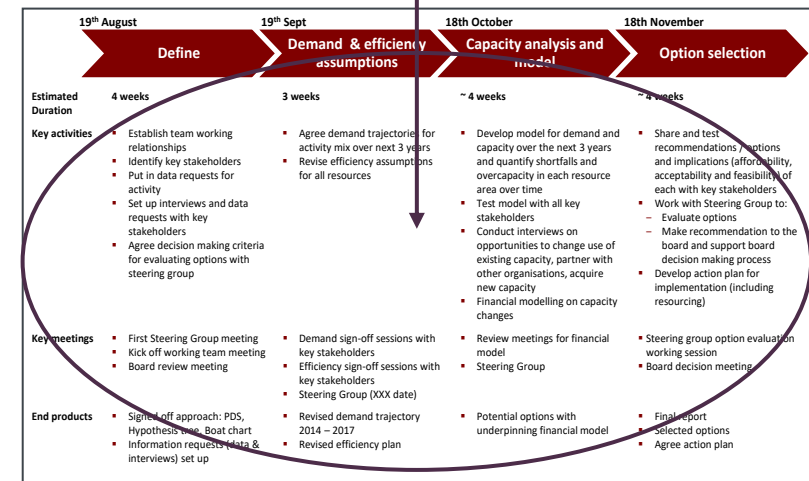
- Clinical strategy plan describe objectives for clinical activity but this is not yet linked into financial/activity plans for services
- Some work already underway on capacity planning
- Major financial/productivity challenge for organisation
- Increasing appetite and need for more transformational solutions (i.e. different models and geographies) to deliver increased capacity
- Uncertain commissioner landscape – both in terms of finances/affordability and configuration of providers

1. Ensure hypothesis is fully answering the strategic question



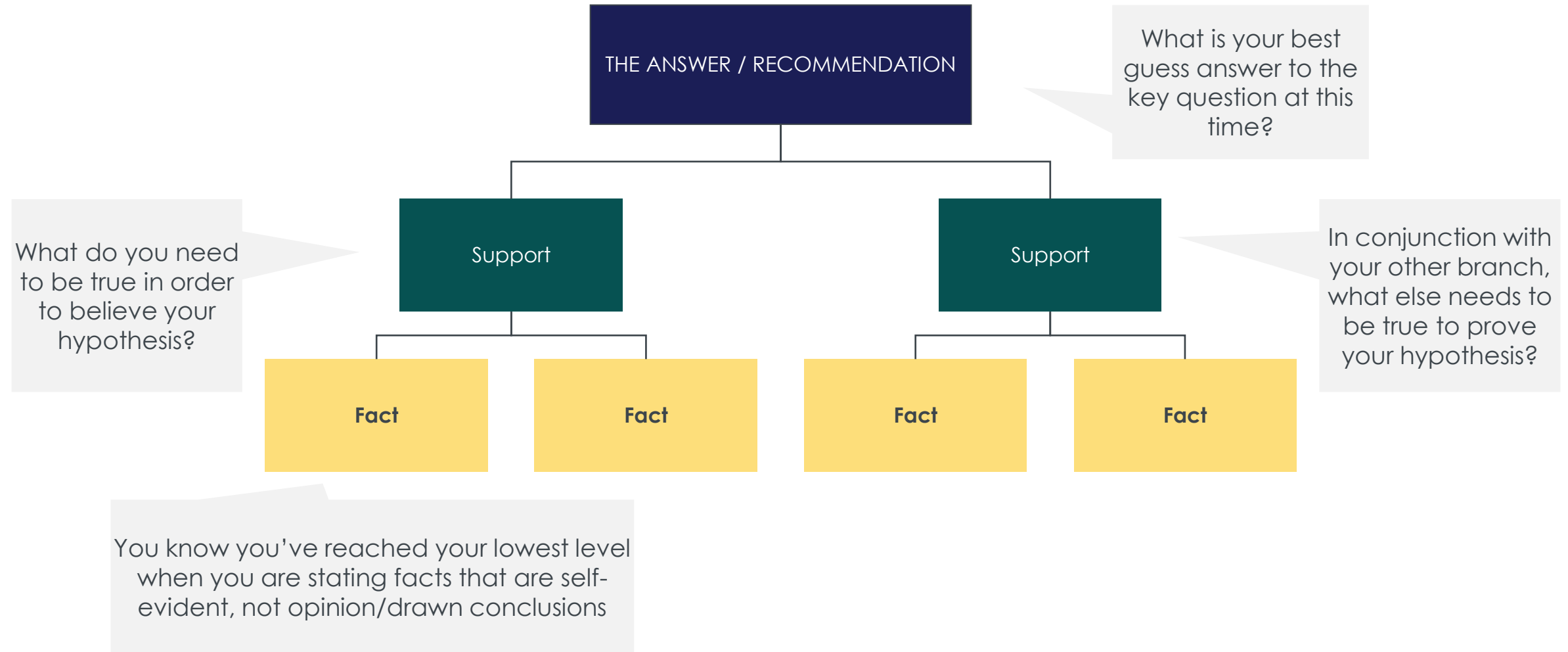
2. Check that the PDS has identified all of the critical interdependencies and that the hypotheses reflect these interdependencies

3. Make sure the boat chart plan captures the critical actions (including interdependency actions)



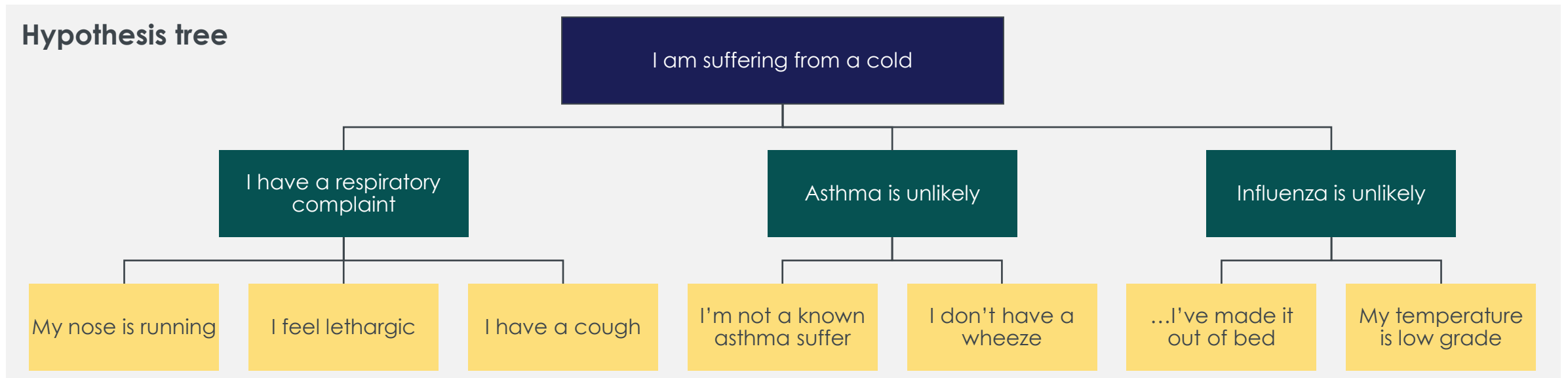
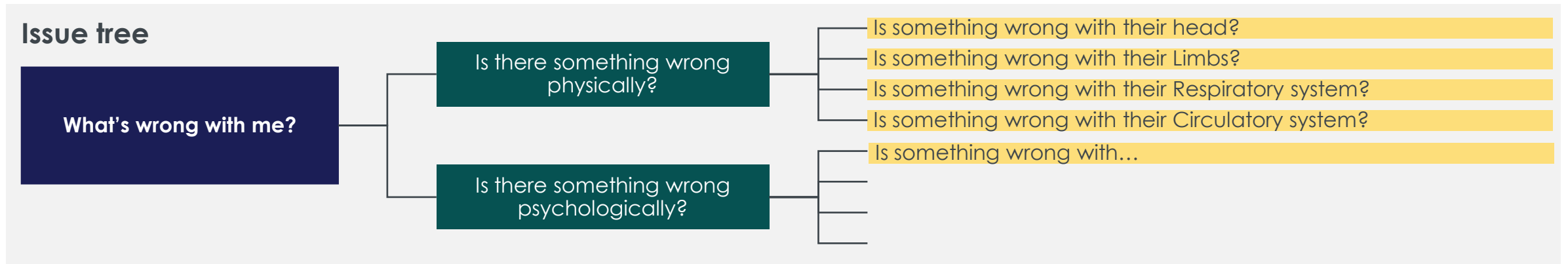
We can develop an early hypothesis by asking ‘what would need to be true for me to believe this?’

EARLY / STRAWMAN HYPOTHESIS DEVELOPMENT



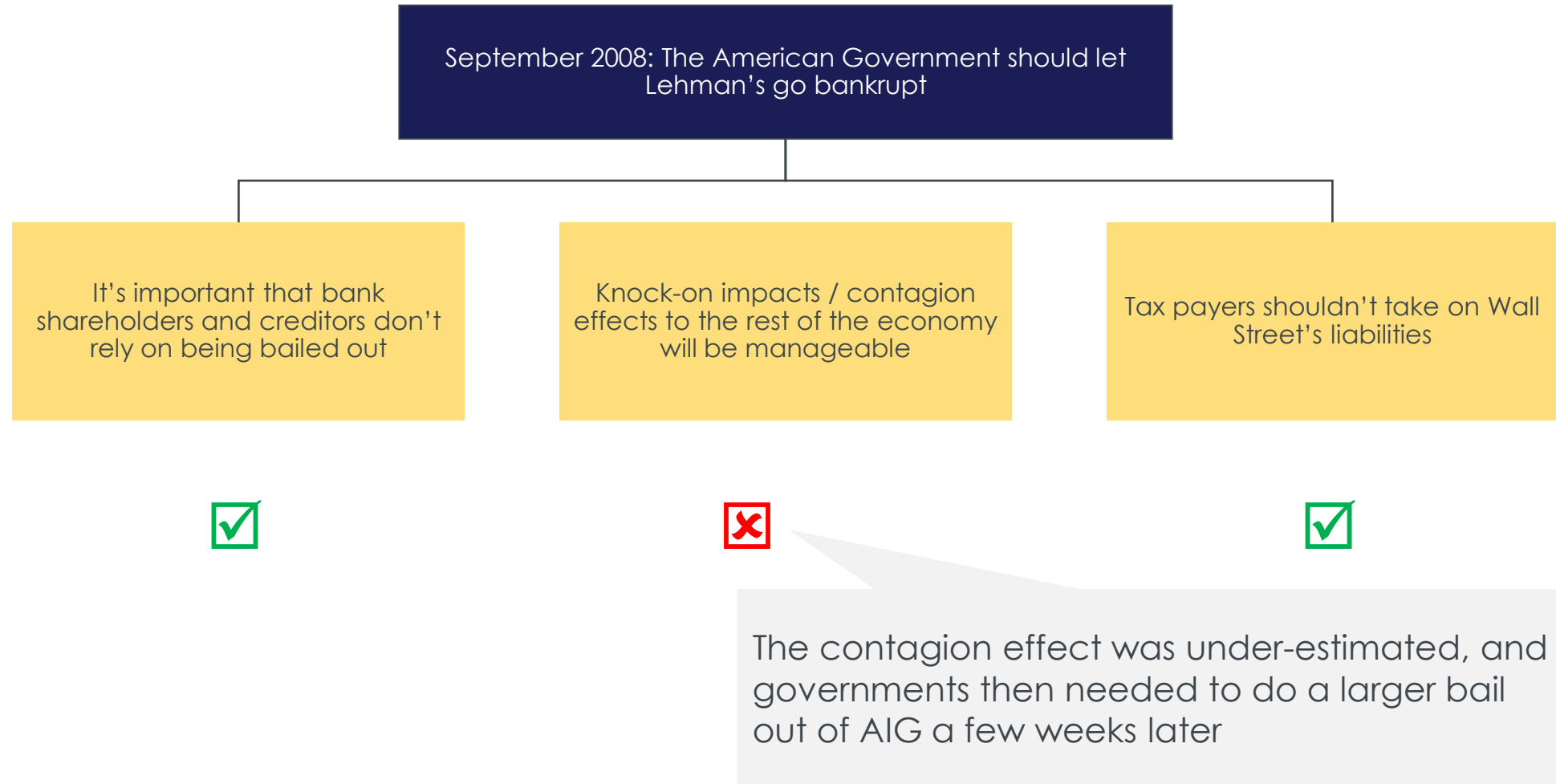
Using purely an issue tree on its own would take more time and effort than using a hypothesis based approach

ISSUE VS HYPOTHESIS TREES: MEDICAL EXAMPLE



Time may change confidence in the supporting evidence for a hypothesis and recommendation

HYPOTHESIS TREE EXAMPLE 3: DISPROVEN



When based on the PDS, the hypothesis tree can give you an indication of the likely (but unsubstantiated) answer on Day 1

ANSWERS FROM HYPOTHESIS TREES

Possible HYPOTHESIS TREE to answer the question –
 “How can we manage capacity proactively in order to achieve the clinical activity mix we within 3 years?”

What you would need to believe ...

Meeting activity demand over the next 3 years will require additional capacity, even with planned efficiency gains

We have a good understanding of the growth trajectory over the next 3 years and we know how much capacity will be required to meet this trajectory

- We know what we want our activity profile to look like in 3 years and have quantified the trajectory
- We know what we expect the activity trajectory to look like over the next 3 years
- We are confident that we have the actions in place to deliver these growth plans
- We understand the bed, theatre, equipment, people and estate capacity needed to meet this growth trajectory

We need additional capacity to meet this demand – efficiency gains will not be enough alone

- We can estimate and deliver efficiency improvements over the next 3 years in the following areas:
 - LOS (and hence the number of beds required by service to meet the activity trajectory)
 - Theatre productivity improvements
 - Clinical and non-clinical workforce productivity improvements
 - Equipment productivity improvements (e.g., imaging)
- Accounting for these efficiency improvements, there is insufficient capacity planned to meet the growth trajectory and we can quantify the shortfalls and overcapacity in each resource area over time

The remaining requirements can be achieved through reconfiguration of capacity

- We can create sufficient additional capacity (beds, theatres, workforce, equipment, estates) in the timescales required through a combination of:
 - Changing the use of existing capacity (e.g., non-clinical space in clinical areas)
 - Making capacity more flexible and dynamic and being
 - Partnering with other organisations to share capacity
 - Acquiring new capacity

This approach is deliverable within the next 3 years

- It is affordable – the benefits of the growth exceeds the cost of the capacity changes and additions
- It is acceptable – e.g., changes of space use are acceptable
- It is feasible – the additional capacity can be created in the timeframes required to meet the growth trajectory

RAG-rating each component at an early stage helps focus attention on those which are significant to solving your problem, and high-risk.

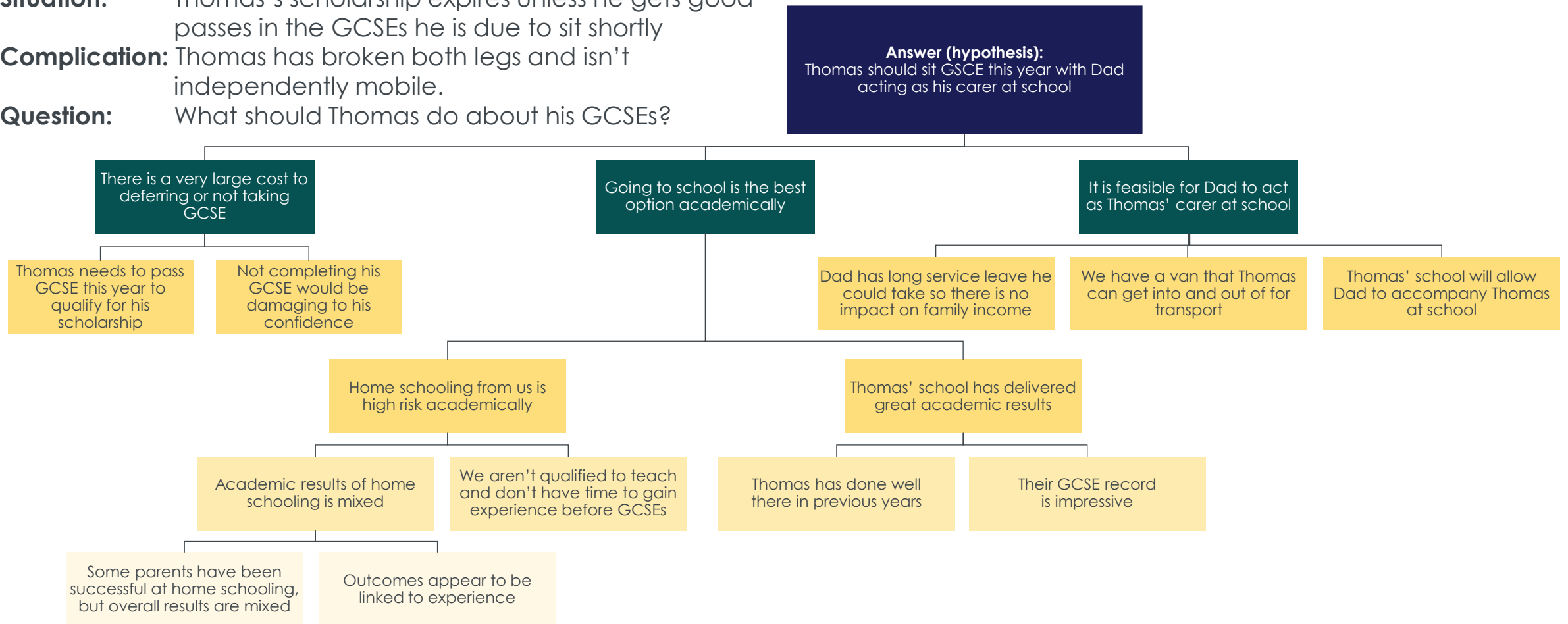
“Situation, Complication, Question, Answer” can be a quick way to move to thinking about your hypothesis

HYPOTHESIS TREE EXAMPLE 4: SITUATION, COMPLICATION, QUESTION, ANSWER

Situation: Thomas's scholarship expires unless he gets good passes in the GCSEs he is due to sit shortly

Complication: Thomas has broken both legs and isn't independently mobile.

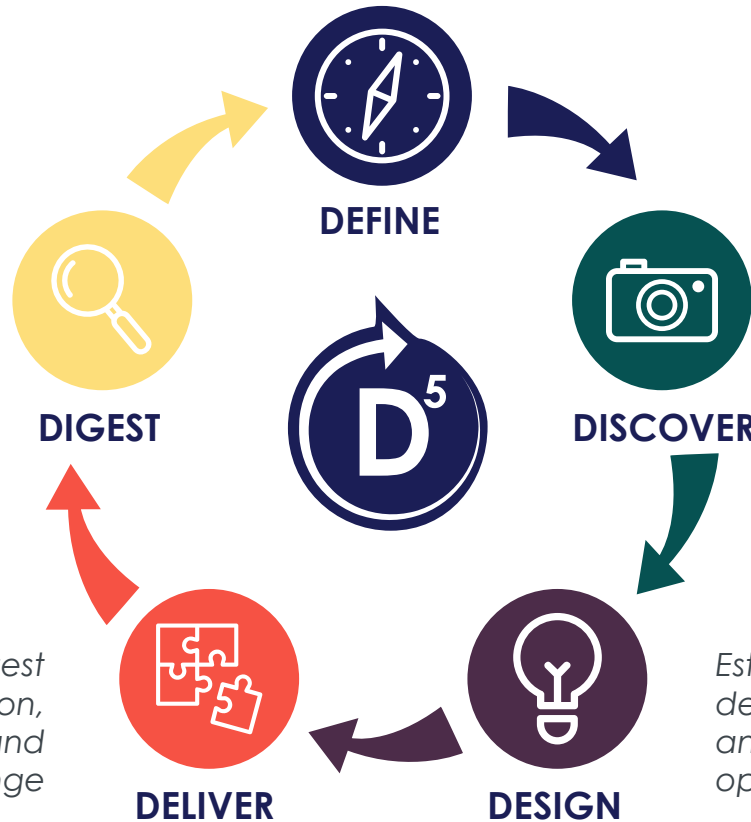
Question: What should Thomas do about his GCSEs?



Day 1 Wrap Up

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.

Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

Today we have covered Define, and started to Discover and Design

DAY 1 KEY LEARNINGS

We have learned how to:

- Define the problem to be addressed
- Set KPIs to measure our success
- Break down the problem and create a prioritised workplan
- Plan stakeholder engagement
- Understand our influencing style
- Develop an initial set of hypotheses

Before you go home....

END OF DAY 1 TASKS

Write on two post-it notes, and take them to the board:

- 1 memorable tool or insight from today's training
- 1 outstanding question, tool, or area you would like to revisit tomorrow

Day 2 introduction & teachback

On day 1, we covered planning projects and initial development of insight

DAY 1 TOPICS

- Module 1: Project launch
 - Problem Definition sheet
 - KPIs
- Module 2: Work planning and problem structuring
 - Issue trees
 - Prioritisation with 2x2 matrices
 - Boat work plan
 - Risk logs
- Module 3: Engaging stakeholders
 - Stakeholder prioritisation and mapping
 - ACCA framework: awareness, comprehension, commitment, action
 - Trust equation
 - MBTI
 - Positive influencing tactics
 - Negotiation skills
- Module 4: Developing insight
 - Hypothesis trees

5 mins, in pairs

Select a topic that you think you need to revise, your partner should spend two minutes explaining it back to you

On Day 2, we discover the current state, develop insight and design solutions

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.

Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

Today we will work on ‘Discover’ and ‘Design’

COURSE AGENDAS

Day 1 DEFINE

Arrival and coffee

Welcome to Fast Effective Projects

Introduction and set-up

M1 Launching the project

Break

M2 Structuring the problem and work planning

Lunch

M3 Engaging stakeholders

Break

M4 Developing hypotheses

Daily feedback

Close

Day 2 DISCOVER & DESIGN

Arrival and coffee

Introduction to Day 2

M5 Gathering data and conducting analysis

Break

M5 continued

Lunch

M6 Gathering data and interviewing

Break

M7 Plan Do Study Act

Daily feedback

Close

Day 3 DESIGN, DELIVER & DIGEST

Arrival and coffee

Introduction to Day 3

M8 Modelling and options appraisal

Break

M9 Developing insight and recommendations

Lunch

M10 Planning and implementing

Break

M11 Communicating recommendations and completing a project

Close

Today we will cover some core methods that can be used to discover the current state, starting with data analysis

CORE METHODS TO DISCOVER THE CURRENT STATE



Contents

- Module 1 – Launching the project
- Module 2 – Structuring the problem and work planning
- Module 3 – Engaging stakeholders
- Module 4 – Developing hypotheses

Module 5 – Gathering data and conducting analysis

- Module 6 – Gathering data and interviewing
- Module 7 – Process Improvement & Plan Do Study Act (PDSA)
- Module 8 – Modelling and options appraisal
- Module 9 – Developing insight and making recommendations
- Module 10 – Planning and implementing
- Module 11 – Communicating recommendations and completing a project

Where are we in the case?

CASE RECAP

- There are four trusts in Oldtown ICB: Westway NHS Trust, Northside NHS Trust, Royal Eastend NHS Foundation Trust and Sunnysouth NHS Trust. Each of the trusts and the ICB is facing financial pressures in the coming years. Only one of the trusts, Westway, is currently complying with recent NHS clinical catchment guidelines regarding emergency services catchment population. Your team was commissioned to recommend one or more courses of action to the ICB CEO to address these challenges.
- The ICB CEO feels strongly that reconfiguration of emergency services is the only way forward to resolve the financial and clinical catchment guidelines issues
- You have learned from the Strategy Director at Northside that patients do not want their ability to access emergency services to be impacted
- **Your team developed the hypothesis that financial stress can be alleviated by reducing costs through reconfiguration and other initiatives – and you wish to test this**

Module 5 will focus on gathering data for analysis

OBJECTIVES AND INTRODUCTION

After this module I will:

- Have a good working knowledge of the Excel functions that are most commonly used to analyse datasets
- Be aware of the potential pitfalls associated with datasets, including risks from datasets which are based on small samples of data and/or from biased data samples
- Have practised data analysis skills on excel

The module includes three sections:

- Introduction to Excel functions and formatting
- Gathering data
- Data analysis: travel times question

Gathering data and analysis is usually part of the Discover phase

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



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Why do we use Excel?

ANALYSIS VS MODELLING

- **Quantitative analysis: what is happening now?**
 - Answering questions such as “how many”, “what proportion”, “how frequently”
 - Calculating averages, variation, correlations

Covered in module 5

- **Modelling: what would happen if...?**
 - Projecting into the future
 - Testing alternative scenarios
 - Considering uncertainty / sensitivity

Covered in module 8

Get started by opening the “Excel – Participant Workbook - The PSC” file, and familiarising yourself with Excel

EXERCISE 1: BASIC EXCEL FEATURES

- Have a play at:
 - Checking what the tab bar does
 - Identifying where the formula bar is
 - Trying out some simple shortcuts (don't use the mouse!)

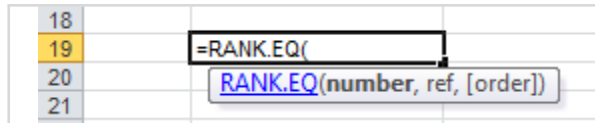
N.B. These are keyboard shortcuts for Windows versions of Excel – Mac OS keyboard shortcuts are slightly different

Shortcut	Action	Shortcut	Action
Ctrl Z	Undo	Shift+Space	Select row
Ctrl S	Save	Ctrl+Space	Select column
Ctrl F	Find	Ctrl-Shift-arrow	Select data row/column
Ctrl C	Copy	F2	Enter cell; show precedents
Ctrl V	Paste	F4	Repeat
Ctrl X	Cut	F9	Re-calculate sheet
Ctrl A	Select “all” – data area	Ctrl+[Trace precedent, helpful for QAing
Alt	Control menu	Win	... try out E, L, D, arrows
Alt...	Find your own shortcuts!		

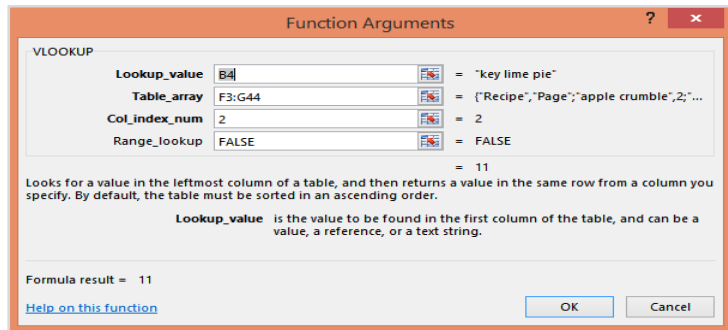
1-5 minutes

If you have a question or challenge with Excel, the prompt, function arguments window and the internet will answer it

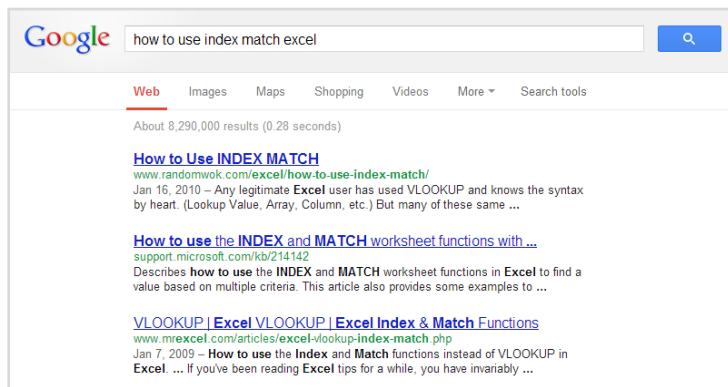
EXCEL – WHERE TO FIND OUT MORE



Double-clicking/editing a formula in a cell or the formula bar will open a reminder prompt of the available functions that start with those letters, and once you've typed "(" a prompt for the required function arguments



Clicking fx in the formula bar will open a "Function Arguments" window for the selected function, and a link to Excel's own Help pages



A search using a quality search engine will yield many sites with advice on solving common and rare Excel problems

Complete the exercises on Tab “1. Formatting”

EXERCISE 1: FORMATTING IN EXCEL

Number formats:

- Number of decimal places
- Dates
- Thousand commas

Wrap text

Sorting

Borders

Print area

Page setup

Insert column or row

Hide column or row

Insert worksheet

Use the Excel workbook
“Excel – Participant Workbook – The PSC”

Complete the exercises on the tab “1. Formatting”

Did you use:
Custom Sort? Format painter?
Set print area?

10 minutes

Complete the exercises on Tab “2. Functions”

EXERCISE 2: USEFUL EXCEL FUNCTIONS

= (tells Excel to calculate a result)

Algebraic functions: +, -, *, /

Sum

Average

Vlookup

\$\$

If

Countif

Sumif

Max

Pivot tables

Use the Excel workbook
“Excel – Participant Workbook – The PSC”

Complete the exercises on the tab “2. Functions”

TIPS:

- Double click the fill handle to copy a formula downwards
- Use \$\$ to “lock” a cell reference within a formula
- To select a range, select the first cell, then CTRL-SHIFT-ARROW to the bottom/end

10 minutes

Optionally, for those with more experience - complete the exercises on tab “3. more functions”

EXERCISE 3: ADVANCED EXCEL FUNCTIONS

Compound Annual Growth Rate (CAGR)

Standard Deviation
(use .P or .S not the pre-2007 “STDEV”)

Arithmetic Mean

Percentile

Median

Countifs

Sumifs

Averageifs

Index / Match

Transpose

Rank

Use the Excel workbook
“Excel – Participant Workbook – The PSC”

Complete the exercises on the tab “3. More Functions”

TIPS:

For countif (and related formulae), the criteria needs to be a text string
e.g. =countif(range,">"&B\$114)

BONUS:

spot the “tricks” used in this workbook template

When working with spreadsheets, sense check your figures, use good discipline, and ensure accurate presentation

5 PRINCIPLES FOR 'BULLET-PROOF' ANALYSIS

Principle

What this looks like in practice...

1. Sense-check all figures

- Use comparable figures, where available – e.g.:
 - Same month last year
 - Previous month this year
 - Other datasets
- “Triangulate” any calculation using different approaches
- Check for impossible numbers – e.g., fractions of people, negative times

2. Use good spreadsheet discipline

- Plan first, before you start working in Excel
- Lay out assumptions clearly
- Reference original /raw datasets used, linking directly where possible
- Show workings for all calculations, and use helper columns to split long formulae
- Colour code raw inputs and calculated outputs

3. Ensure presentation is accurate

- Check all tables and charts are fully and correctly labelled, including:
 - Relevant age
 - Relevant population
 - Relevant time period
 - Unit
- Check data in charts matches data in tables

Questions for group discussion

EXERCISE 2: UNDERSTANDING DATA LIMITATIONS

“48 hours before the US election, an opinion poll shows that the Republican candidate will win 52% of the vote and the Democratic candidate 48% of the vote”

1. How certain is it that the republican will win?
2. What factors govern that level of certainty?
3. What parallels can you draw with data gathering within the trust?

15 minutes

How would you estimate journey times?

EXERCISE 5: GATHERING DATA

Returning to our example of potential reconfiguration of emergency services:

- The Director of Strategy at Northside has suggested that if one of the hospitals in the local health community stops providing emergency services, some patients would have longer journey times for those services
- Patients who live furthest from hospital will face even longer journey times, which would increase the risk of unfortunate incidents

As a group:

- Brainstorm 5 possible ways of estimating current journey times and the potential magnitude of any increase in journey times (10 minutes)
- Share your 5 methods of estimating journey times with the full group. Discuss the types (and magnitude) of inaccuracies that might be present in each method of estimating, specifically referencing the types of inaccuracies discussed in the opinion poll example

20 minutes

Next steps in the case...

CASE PROGRESS

- As the team moves forward with research, they learn that patients also do not want their ability to access emergency services compromised through reconfiguration
- In fact, driving time is the major concern for most people, with a majority suggesting they should not have to travel more than 30 minutes to access emergency services
- The team sets about investigating ways to reconfigure services while minimising additional driving time
- The team discusses some options for estimating the impact several reconfiguration options will have on the driving times for patients across the ICB region, **and settle on the use of an available drive time database from the Dept for Transport**

The supplied database gives travel times to each of the 4 departments, from each zone in Oldtown

EXERCISE 4: SOURCE DATA FOR ANALYSIS OF TRAVEL TIMES

For each zone of Oldtown, the table shows:

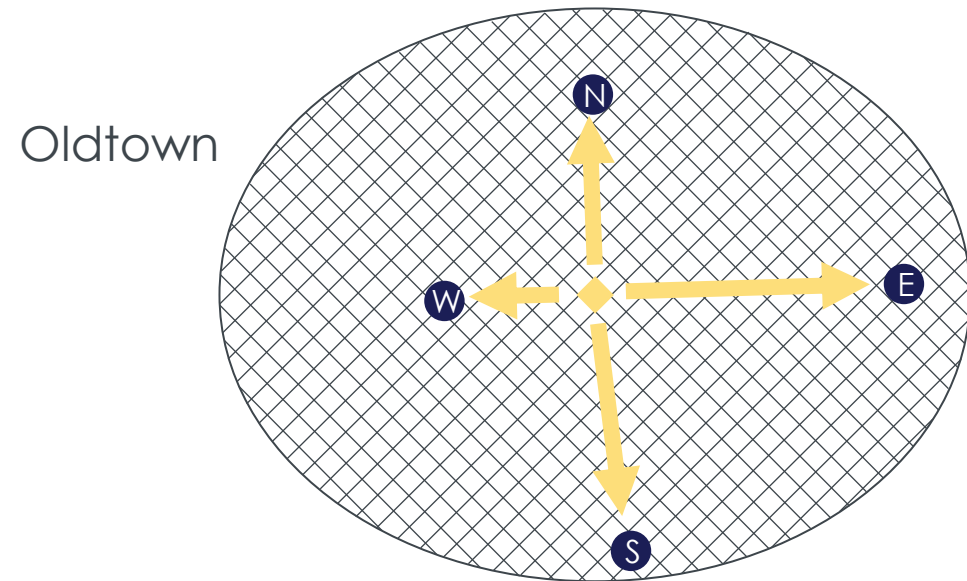
- Population of zone
- Travel time to each site

Start by thinking about someone who lived in zone 1

- Which site would they go to?
- Why?
- How would you express that mathematically?
- Which Excel function could you use?

Travel times (minutes) between each electoral ward and each of the four hospitals.

Electoral ward number	Electoral ward population	Sunny South NHS Trust	Westway NHS Trust	Royal Eastend Foundation Trust	Northside NHS Trust
Zone 1	6,486	35.4	21	29.7	31.4
Zone 2	6,239	28	13.6	21.2	29.5
Zone 3	4,824	27.9	13.6	22.3	29.4



Turn to tab “5. Travel times” in “Excel – Participant Workbook – The PSC” file and answer these three questions

EXERCISE 4: ANALYSIS OF TRAVEL TIMES DATA

1. What **proportion** of the population currently travels **less than 15 minutes** to access emergency services?
2. The ICB is considering de-commissioning emergency services from one of the four hospitals: Northside, Royal Eastend, Westway and Sunnysouth. For each of those four de-commissioning scenarios, **how many people** would have their travel time to the nearest emergency services department increase by **more than 10 minutes**?
3. For each potential de-commissioning scenario, **how many people** would have **to travel more than 30 minutes** to access their nearest emergency services department?

Faculty tips:

- Plan your working first, on paper
- Use helper columns
- Don't hard code variables

45 minutes

What have we covered in this module?

RECAP

- How to use some simple Excel functions (and where to look to learn more on this)
- How to do simple formatting of Excel sheets (and, again, where to look to learn more)
- Statistical issues with data sources: sample size and random errors; systematic errors
- Asking for expert input to maximise the likelihood of selecting the best available data source and to make sure that known limitations are understood
- How to make sure that data analyses are easy to QA
- Reasons to be cautious about asserting the “significance” of statistical findings if key pieces of evidence are missing

Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

What?

- What did you notice in your learning?
 - What surprised you?
 - What's different to what you've learnt about this before? What's the same?
 - What are you feeling about this cycle of learning?
-

So What?

- So what could this mean?
 - So what are the implications for you, for your project, for your role?
 - So what are your options for action?
-

Now What?

- Now what will you do?
 - By when?
 - How will you know when you've got there?
-

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Where are we in the case?

CASE RECAP

- The ICB CEO feels strongly that reconfiguration of emergency services is the only way forward to resolve the financial and clinical catchment guidelines issues
- You have learned from the Strategy Director at Northside that patients do not want their ability to access emergency services to be impacted
- Your team also developed the hypothesis that financial stress can be alleviated by reducing costs through reconfiguration and other initiatives – and you wish to test this
- **Data analysis suggests that closing Sunny South would have the least impact on patient travel time**

This module focuses on interviewing, and gathering information from people and research

OBJECTIVES AND INTRODUCTION

After this module I will:

- Understand the principles of good interviewing
- Have practised interviewing, received and reflected on feedback on my style and technique
- Be prepared to research best practice

This module incorporates four elements:

- Preparing an interview guide
- Practise conducting an interview
- Debrief on interview and feedback on interviewing techniques
- Discussion of researching best practice

Interviewing and data gathering is usually part of discover, but is also part of stakeholder engagement throughout

THE D5 APPROACH

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Whilst this often starts as interviewing, it may also need analysis or research

CORE METHODS TO DISCOVER THE CURRENT STATE



Good stakeholder interviewing requires preparation, interview skills, and thoughtful follow up

KEY PRINCIPLES FOR GOOD INTERVIEWING

Before the interview

- **Prepare an interview guide in advance ...** avoids getting sidetracked
- **Use the issue tree and hypothesis tree as the basis for the interview guide ...** keeps the interview focused on the issues that need to be covered
- **Use a mix of open and closed questions ...** balances the need for specifics against the opportunity to explore unexpected issues
- **Consider how you will summarise or (when appropriate) quantify your interview data ...** so you record your information appropriately
- **Agree a lead interviewer and main scribe ...** avoids leaving the interview without the key points captured

During the interview

Cover the main elements of the interview guide ... avoids missing key elements (however, exploring unexpected areas can bear fruit so judgement is needed)

After the interview

Write up the interview immediately ... interviews stack up quickly and the outcome of each interview can inform the next

In certain circumstances, stakeholder interviews generate data which can be quantified objectively

TRANSLATING QUALITATIVE DATA TO QUANTITATIVE MEASURES AND BENEFITS

When should you be careful about turning interview outputs into quantitative measures?

- If the interviews were expert interviews (not all experts are equal), or with an unrepresentative subset of stakeholders
- If interviewees reference both robust primary research and anecdotes, be careful about “quantifying anecdotes” unless there is underpinning evidence to support them
- If the questions asked were open rather than closed, or were asked differently in different interviews

Why use quantitative measures?

- Quantitative measures can provide a measure of the weight of a view (was this a statement from one stakeholder, or from many?)
- Using quantitative measures provides a mechanism to measure the benefits of project activities

Additional insights about the relative frequency of particular views can be provided by quantifying response rates. How?

- Qualitative data can be grouped thematically, coded and then presented as quantitative data
- An example of an interview quantification process can be seen below:



Interviews and surveys can also quantify information by using tailored scoring grid

EXAMPLE: VIVA SCORING GRID FOR THE PSC'S DEVELOPMENT PROGRAMMES

Has the mentee achieved...	0. Little or no evidence	1. Basic evidence	2. Strong evidence	3. Best practice
A well managed and delivered project	No structured approach used during the project	A problem definition and structure developed and to some degree used to shape the project workstreams	Project tools used effectively through the project (e.g., problem definition, issue/hypothesis trees, CI tools, prioritisation)	Project tools used effectively and appropriately to ensure project resources focused on reaching an insightful outcome (in time and to budget)
A set of evidence-based recommendations	Recommendations not underpinned with evidence nor robust analysis/modelling; little confidence in the recommendations reached	Clear project recommendation with some supporting analysis and evidence; some confidence among senior leadership of the recommendations reached	Clear project recommendations that have been developed from objective and rigorous analysis (quantitative and qualitative)	Clear project recommendations based on a coherent 'theory of change', with supporting root cause data analysis (quantitative and qualitative); recommendation selected from a set of options based on credible analytical models
Stakeholder engagement	Stakeholders unsupportive of the project approach and its recommendations	Stakeholders have been engaged through the process, however, are not supportive of the recommendations	Stakeholders have been engaged effectively throughout the process and are largely supportive of the project recommendations	Stakeholders have been engaged effectively throughout the process and are fully committed to the project recommendations
Project impact	No Key Performance Indices (KPIs) established, no project impact achieved, nor expected to be achieved	KPIs established; however, no evidence as to how these will be achieved from the project	Quantified KPIs set up, current state established, and being tracked; confidence that recommendations will deliver some impact against KPIs	Quantified KPIs (financial and service improvement) set up and tracked; clear evidence of sustained improvement already achieved, and confidence of further improvements
Personal development	No evidence of skill or confidence level improvement in the CI skills	Some evidence of skill and confidence level improvement in the CI skills through the programme	Strong evidence that the candidate has developed confidence and competence across a range of CI skills	The candidate is confident and competent across the range of CI skills; and has identified opportunities to apply and develop skills in next project

Prepare for, and conduct an interview with the ICB Medical Director

EXERCISE 1: CONDUCTING AN INTERVIEW

Scenario:

- The team has been interviewing various staff members at the ICB and four acute trusts as part of evidence-gathering
- The ICB Medical Director is curious about your work and volunteered to be interviewed (see the kick-off memorandum for more information about this role)

Interview preparation and practice:

- Take 20 minutes in small groups to develop your questions (from your current hypothesis) and to think through any negotiating points – e.g., is the ICB Medical Director likely to be coming in with a set position? What could you do in the interview to manage this?
- Assign one or more members of the team to act as interviewers; the remainder will observe and debrief on what worked based on the influencing and trust equation models
- Don't forget to give the ICB Medical Director a brief overview of your current position

35 minutes

After this interview, what are the implications for our working hypothesis?

EXERCISE 2: DEBRIEF AND FEEDBACK

After each interview, especially where key information is gathered, it's important to assess what the implications are for your working hypothesis

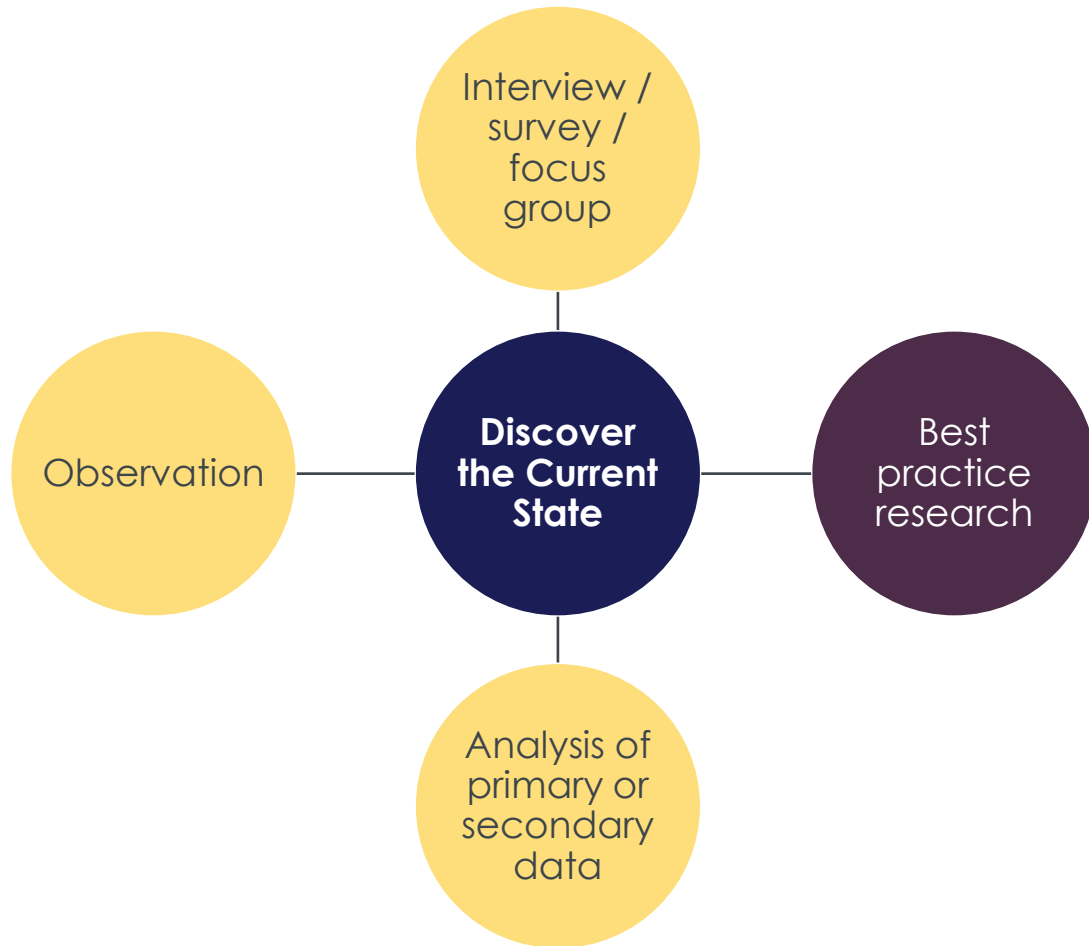
With regards the ICB Medical Director:

1. What did we learn from them?
2. What seemed to be positive/negative about our working hypothesis?
3. What do you think this means?
4. How can we test this assumption?
5. What should our response be now?
6. If there really is a better option for improving public health and meeting the financial stress issue, what might this say about our initial assumptions and working hypotheses?
7. Why did we choose those assumptions/hypotheses?
8. If we go back to the ICB CEO, what do we expect him to say?

10 minutes

As part of discover, it's also valuable to explore best practice beyond the project area

RESEARCH AVENUES



How could you discover best practice?

- Similar processes?
- Other geographies?
- Related activities?
- Asking the service user?
- ...?

Where might you look?

- Internet sites
- Internet searches
- Professional bodies & publications
- Ask people
- ...?

Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

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-

Appendix

You will find more tools and slides in this appendix, and others that we thought you might find useful. However, they don't form a core part of the course

Interview Guide Structure

Ideally sent in advance to interviewee(s)

Context for the interview

- Who the interviewers are
- Purpose of the project, including basic question to be resolved
- Length of the interview
- Where and how the results will be presented
- How the interview will be recorded (e.g., notes taken, non-attributable quotes used)

Main questions

- Questions as per interview guide
- Check if there are additional issues that interviewee would like to raise
- “What is the one thing that we should take back to our team?”

Summarise, thank interviewee and wrap-up

- Summarise key themes to check understanding
- Thank for time and agree any next steps

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- You have learned from the Strategy Director at Northside that patients do not want their ability to access emergency services to be impacted
- Your team also developed the hypothesis that financial stress can be alleviated by reducing costs through reconfiguration and other initiatives – and you wish to test this
- Data analysis suggests that closing Sunny South would have the least impact on patient travel time
- The ICB Medical Director has raised a number of concerns about reconfiguration: (a) meeting clinical catchment guidelines is not a necessity, but an important factor to consider along with other clinical outcomes; (b) the investment required to reconfigure emergency services could be instead used to improve the ICB's commissioning of services.

This module focuses on fast experimental cycles, and is a chance to practise hypothesis thinking

OBJECTIVES AND INTRODUCTION

After this module I will:

- Understand the basic principle of plan-do-study-act cycles
- Be aware of tools that can be used to support process improvement within these cycles

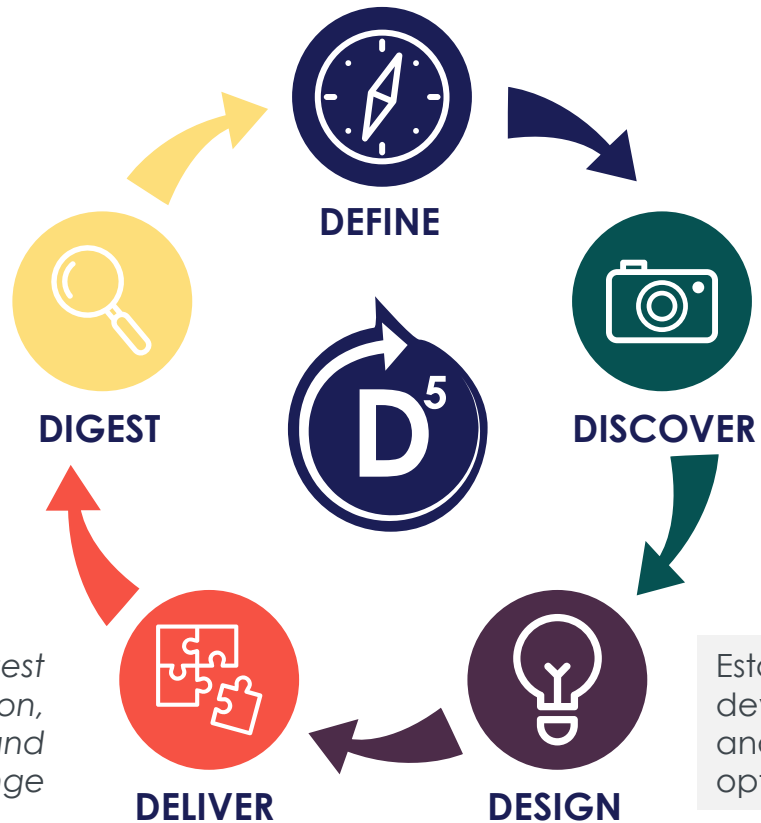
This module includes:

- Plan do study act (PDSA) cycles

Problem solving and where the tools fit in

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Westway is making some big claims about productivity improvements – you can visit St.Saviours to find out more...

SCENARIO

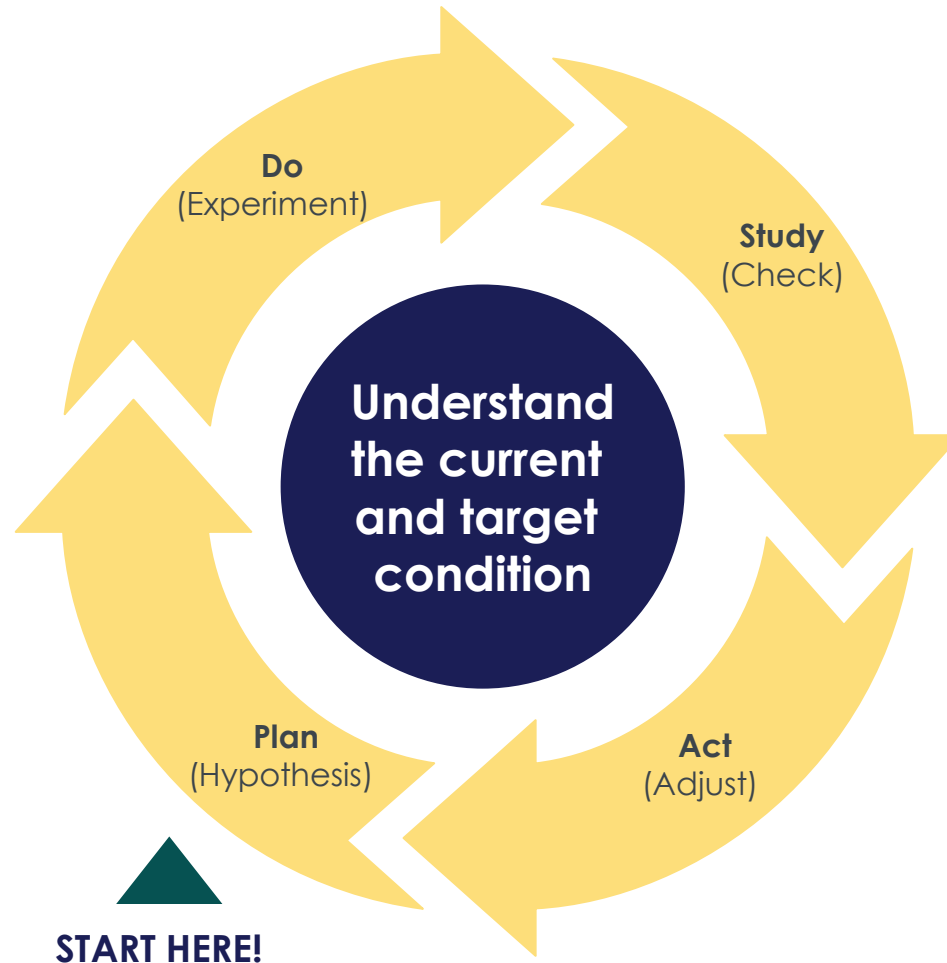
- The Chief Executive at Westway is claiming that they will make major productivity improvements over the next year which will improve the financial position of the trust
- The planned improvements are:
 - A 25% improvement in theatre productivity
 - An increase in outpatients utilisation from 65% to 80%
 - 97% of oncology patients being seen within 2 weeks (currently 91%)
 - A saving of 20% of administration costs
 - An 18% improvement in pharmacy productivity
 - A 12% reduction on non-elective length of stay
 - A 1/3 reduction in MRSA rates
 - An increase in screening for dementia so that >90% of patients are assessed (currently 83%)
- The ICB CEO is sceptical these improvements will be achieved and wants your team to investigate the validity of the claims
- You have decided to visit St Saviour's, a trust which is known for its focus on continuous improvement, to see whether it is possible to make such large changes

PDSA is based on the scientific method of iteratively testing hypotheses, until the obstacle is overcome

PDSA: PLAN, DO, STUDY, ACT

- Trial the change
- Record any problems
- Observe the impact of your change (the new "current condition")

- Confirm the objective
- Clarify your "test" – what's the problem/obstacle/root cause you will impact and predictions that impact
- Plan the trial (what, who, when, where)



“I have two jobs – one to deliver care, one to improve the delivery of care”

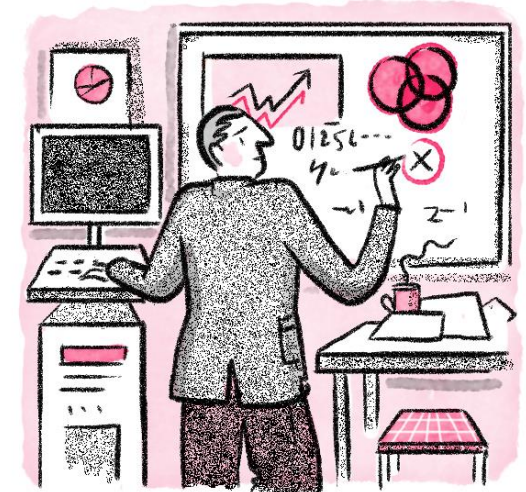
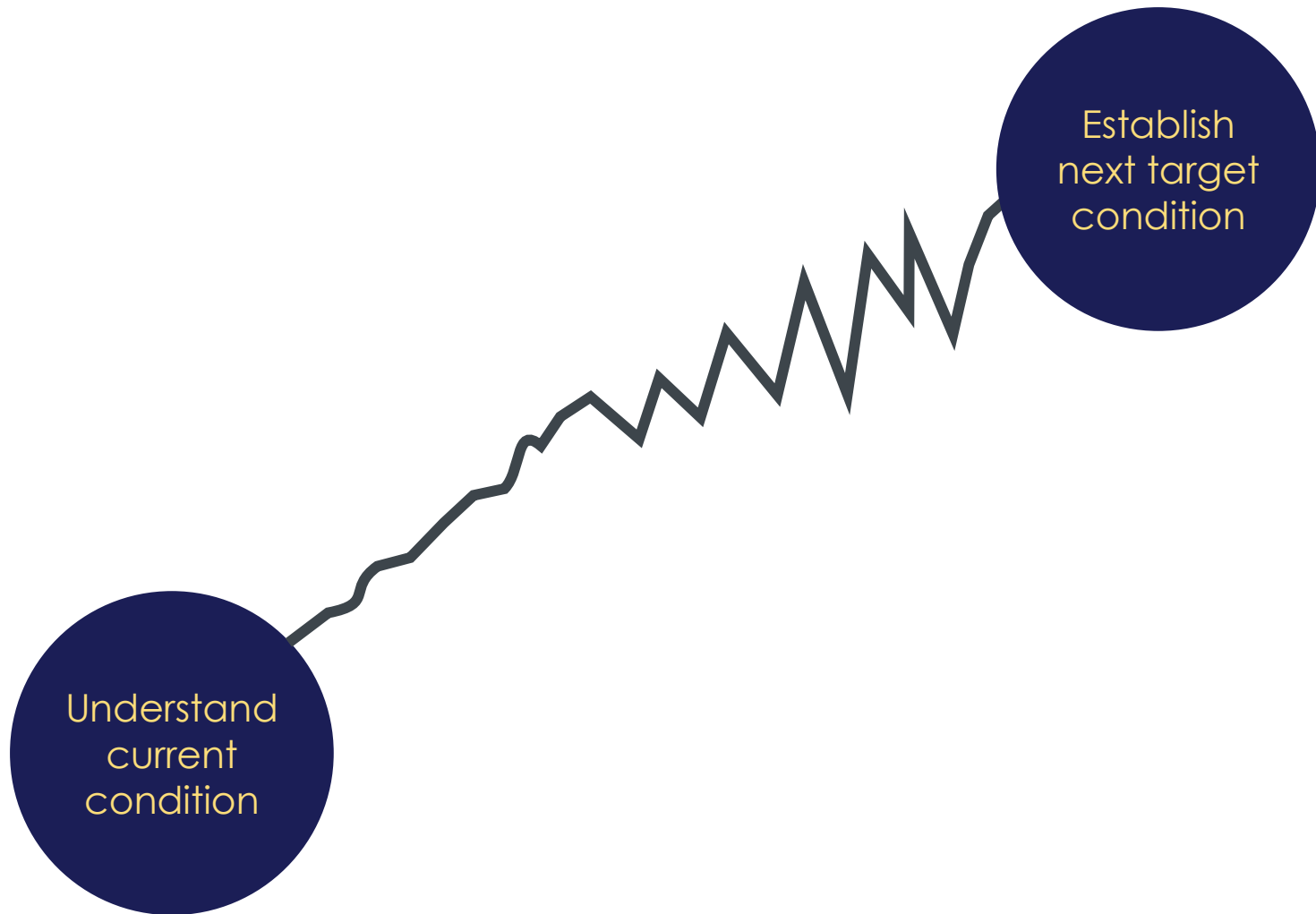
- Consultant, NHS Trust

- Check if the impact / results matched your predictions
- If not, study what actually happened, and the root causes of under-performance

- Adopt – if effective, standardise, embed and share
- Adjust – if not, could you adjust the change and PDSA again?
- Abandon – if not, pick something else to PDSA instead

Your improvement plan will be an “agenda of experiments” targeting the causes of your performance gap

EXPERIMENTS RARELY GO TO PLAN...



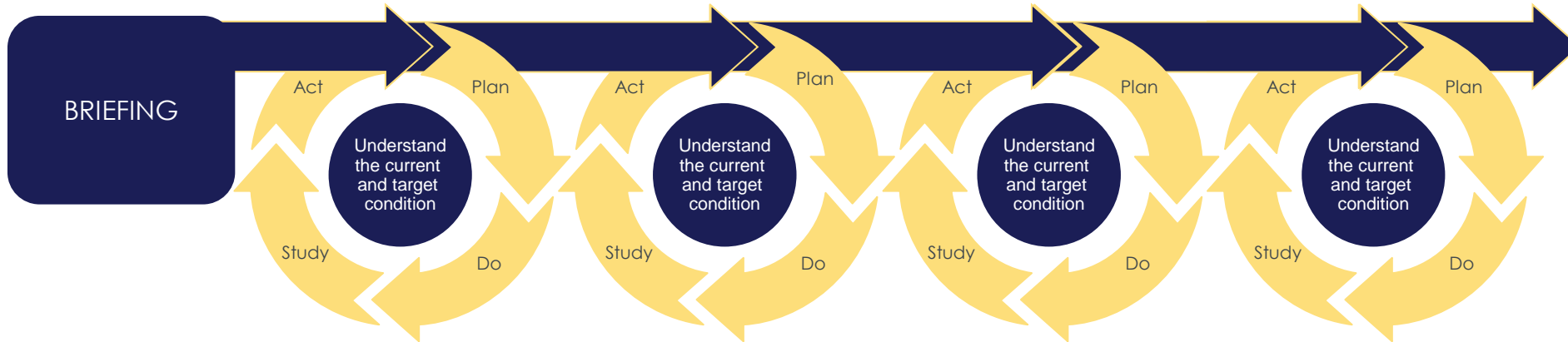
Look for activities which do not “add value” and might be reduced or eliminated

WASTE IDENTIFICATION: ‘TIMWOOD’ EXAMPLE

Transportation	Moving material/product from one place to another	File movement sheets are completed each time the case is moved
Inventory	Material / product waiting to be processed	Space and storage – multiple locations for cases
Motion	Excess movement and/or poor ergonomics	Staff walking miles to carry out tasks
Waiting	Delays caused by shortages, approvals, downtime)	Opportunity for ‘cherry picking’ cases
Over-production	Producing more than is needed	Unnecessary output
Over-processing	Adding more value than the customer is willing to pay for	Admin staff create manual spreadsheets for everything
Defects/Rework	Correcting mistakes	No quality checks are completed

Let's see how PDSA is used to iteratively improve performance of an individual process

PDSA SIMULATION: HOW IT WORKS



We will run cycles of PDSA, each time “Doing” for 5 minutes

1. “DO” the process
2. “STUDY” the current process and your performance:
 - How are you currently performing?
 - What do your observations tell you?
 - Can you identify any waste by thinking through TIMWOOD?
3. Consider possible options to move towards your required level of performance, propose ONE adjustment to “ACT” on in that cycle, and predict its effect
4. “PLAN” your next change, set up that change to the process, and “DO” it again
 - In the following “STUDY” phases, also decide whether to keep the change, or revert!

...the current process has significant potential for improvement...

PDSA SIMULATION: SITUATION BRIEFING

- One team member is a junior staff member, joining a new team
 - Your handover has been left for you in a bag on your new desk, as your predecessor is on vacation
 - They have left a note telling you that you need to process 15 requests or questions every 5 minutes
 - Key rule: you MAY NOT sort the incoming cards
- The other two team members act as observers, and aim to record facts...
 - # cases processed
 - Quality (# right first time, rework, # rejected)
 - lead time
 - detailed timings,
 - observed waste, variability, inflexibility, etc.

2 minutes
to read and
attempt to
understand the
work instructions,
then **first**
simulation:
5 mins

...between each simulation round, record your outcomes on the tracker, and use PDSA to structure your improvements



PDSA SIMULATION: SITUATION BRIEFING

Performance tracking

For each round, record on a flipchart:

R	# required	# good	# rejected	comments
1	15			
2	15			
3	15			
4	15			
5	15			

Improvement cycles 1, 2, 3, 4, 5....

Use a flipchart to record your team's actions against the PDSA phases for each cycle:

Plan	Do	Study	Act
?	?	?	?
?	?	?	?

Keep track of your hypothesis testing and progress with this template

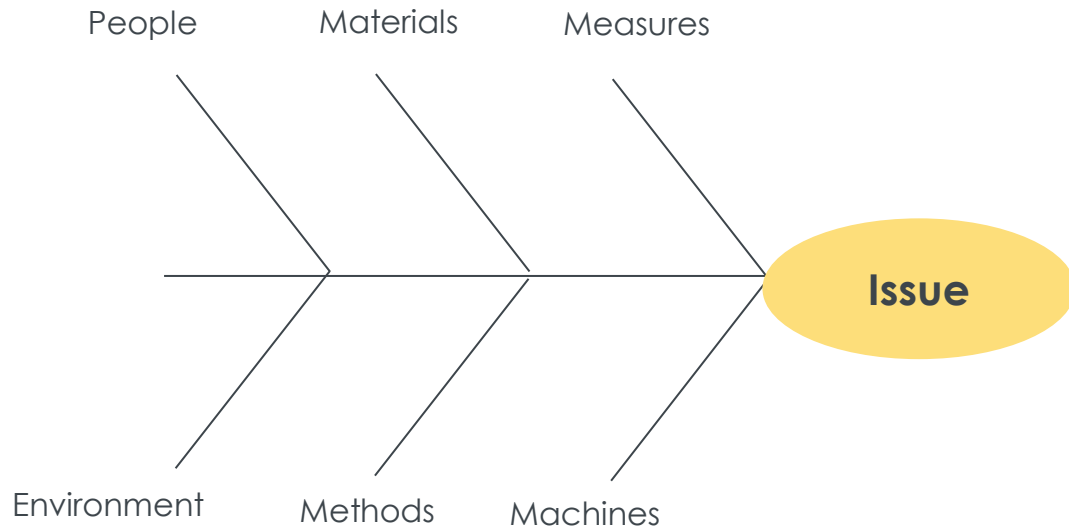
PDSA RECORD SHEET

Cycle	Hypothesis tested	Plan	Result	Study
1	To be agreed...	To be agreed...	To be agreed...	To be agreed...
2				
3				
4				
5				
6				
7				
8				

Use root cause analysis to understand the underlying reason why a problem occurs

ROOT CAUSE ANALYSIS

1 Ishikawa (Fishbone Diagram)



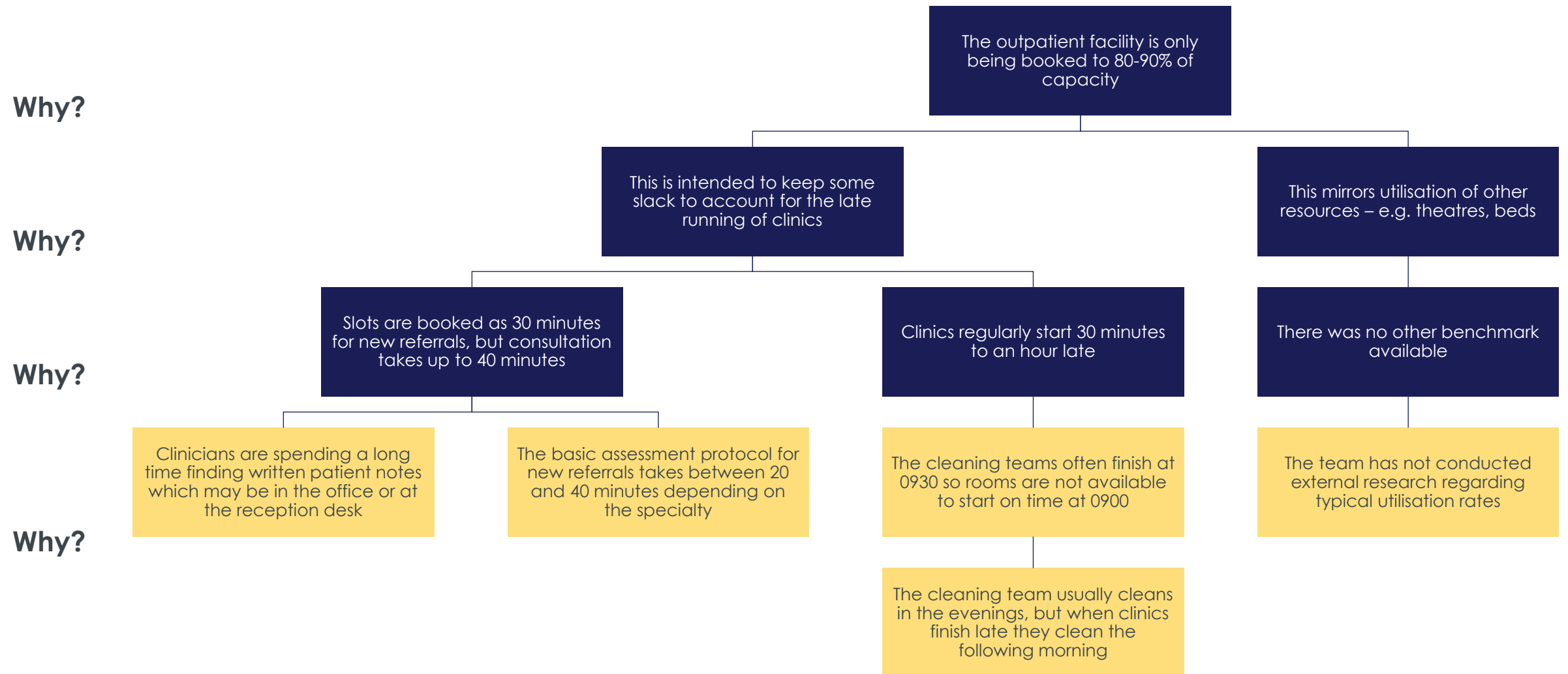
2 5 Whys



Fixing the symptom solves today's problem. Fixing the root cause solves it in the long term.

Why is this outpatient facility only being booked to 80-90% capacity?

EXAMPLE: ROOT CAUSE ANALYSIS



What did you learn?

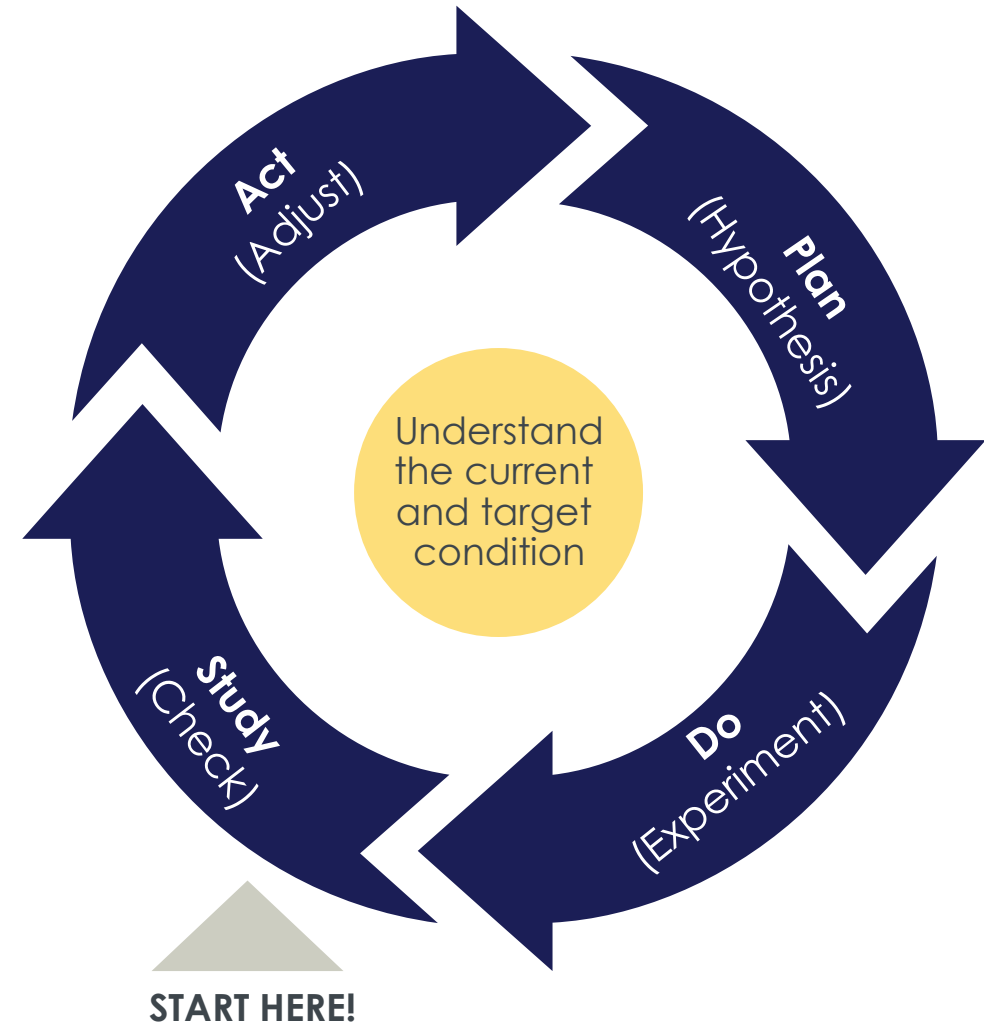
PDSA SIMULATION DEBRIEF

Reflection

In your teams, discuss :

- What happened in your team?
- What improvements did you achieve?
- How did you identify the potential for these improvements?
- What did you learn about the PDSA cycle?
- What was hard? What was easy?

Two minutes per team to summarise to the whole group



What opportunities are there for improvement within a Trust?

WHAT OPPORTUNITIES ARE THERE FOR IMPROVEMENT WITHIN A TRUST?

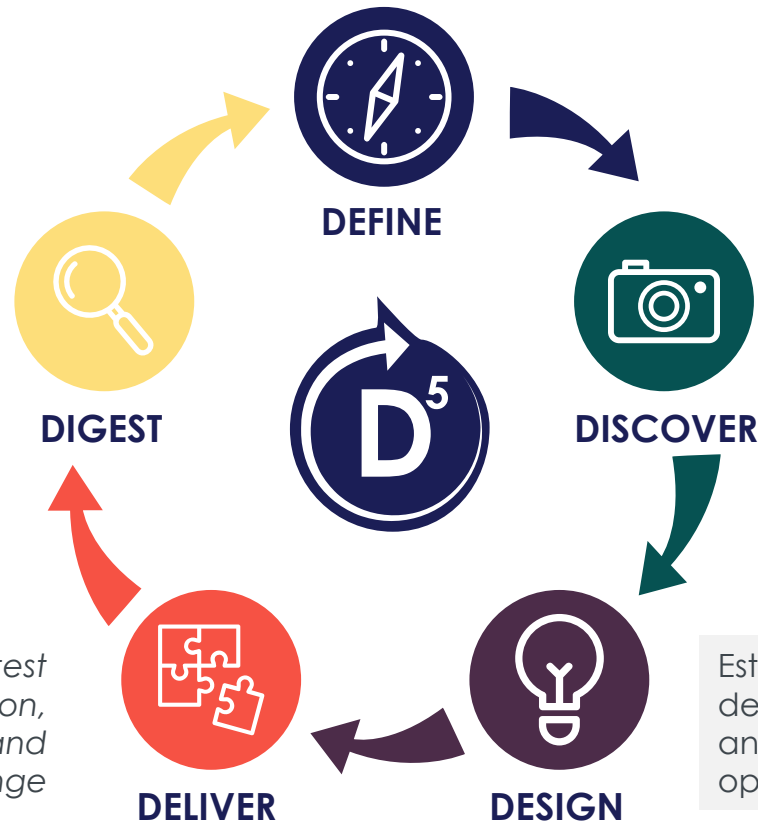
- The Chief Executive at Westway is claiming that they will make major productivity improvements over the next year, which will improve the financial position of the trust
- The planned improvements are:
 - A 25% improvement in theatre productivity
 - An increase in outpatients utilisation from 65% to 80%
 - 97% of oncology patients being seen within 2 weeks (currently 91%)
 - A saving of 20% of administration costs
 - An 18% improvement in pharmacy productivity
 - A 12% reduction on non-elective length of stay
 - A 1/3 reduction in MRSA rates
 - An increase in screening for dementia so that >90% of patients are assessed (currently 83%)
- **At the start of the module, how realistic did you think these claims were?**
- **Have your views changed? How? Why?**
- **Which aspects of your own work would be open to this improvement approach? List 2 or 3**

5 minutes

DAY 2 WRAP UP

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.

Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

Today, we have covered elements of ‘discover’ and ‘design’

DAY 2 KEY LEARNINGS

We have learned how to:

- Perform basic analysis with Excel
- Interview effectively
- Use PDSA cycles to rapidly test changes and improve a process

Before you go home....

END OF DAY 2 TASKS

Write on two post-it notes, and take them to the board:

- 1 memorable tool or insight from today's training
- 1 outstanding question, tool, or area you would like to revisit tomorrow

Day 3

introduction & teach back

On day 2, we explored a variety of methods to discover the current state and design solutions and answers to our question

DAY 1 & 2 TOOLS

- Module 1: Project launch
 - Problem Definition sheet
 - KPIs
- Module 2: Work planning and problem structuring
 - Issue trees
 - Prioritisation with 2x2 matrices
 - Boat work plan
 - Risk logs
 - Deliverables tracker
- Module 3: Engaging stakeholders
 - Stakeholder prioritisation and mapping
 - ACCA framework
 - Trust equation, MBTI, positive influencing tactics
 - Negotiation skills
- Module 4: Developing insight
 - Hypothesis trees
- Module 5: Gathering data and interviewing
 - Best practice interview techniques
- Module 6: Gathering data and analysis
 - Basic Excel functions
 - Excel analysis
- Module 7: Plan-Do-Study-Act
 - PDSA cycles
 - Root cause analysis

5 mins, in pairs

Select a topic that you think you need to revise, your partner should spend two minutes explaining it back to you

On Day 3 we will finish establishing a vision for the future state and move on to deliver and digest the outcomes

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.

Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

Today we will look at the transition from options to recommendations, delivery and learning

COURSE AGENDAS

Day 1 DEFINE

Arrival and coffee

Welcome to Fast Effective Projects

Introduction and set-up

M1 Launching the project

Break

M2 Structuring the problem and work planning

Lunch

M3 Engaging stakeholders

Break

M4 Developing hypotheses

Daily feedback

Close

Day 2 DISCOVER & DESIGN

Arrival and coffee

Introduction to Day 2

M5 Gathering data and conducting analysis

Break

M5 continued

Lunch

M6 Gathering data and interviewing

Break

M7 Plan Do Study Act

Daily feedback

Close

Day 3 DESIGN, DELIVER & DIGEST

Arrival and coffee

Introduction to Day 3

M8 Modelling and options appraisal

Break

M9 Developing insight and recommendations

Lunch

M10 Planning and implementing

Break

M11 Communicating recommendations and completing a project

Close

Contents

- Module 1 – Launching the project
- Module 2 – Structuring the problem and work planning
- Module 3 – Engaging stakeholders
- Module 4 – Developing hypotheses
- Module 5 – Gathering data and conducting analysis
- Module 6 – Gathering data and interviewing
- Module 7 – Process Improvement & Plan Do Study Act (PDSA)
- **Module 8 – Modelling and options appraisal**
- Module 9 – Developing insight and making recommendations
- Module 10 – Planning and implementing
- Module 11 – Communicating recommendations and completing a project

Where are we in the case?

CASE RECAP

- The ICB CEO feels strongly that reconfiguration of emergency services is the only way forward to resolve the financial and clinical catchment guidelines issues
- You have learned from the Strategy Director at Northside that patients do not want their ability to access emergency services to be impacted
- Your team also developed the hypothesis that financial stress can be alleviated by reducing costs through reconfiguration and other initiatives – and you wish to test this
- Data analysis suggests that closing Sunny South would have the least impact on patient travel time
- The ICB Medical Director has raised a number of concerns about reconfiguration: (a) meeting clinical catchment guidelines is not a necessity, but an important factor to consider along with other clinical outcomes; (b) the investment required to reconfigure emergency services could be instead used to improve the ICB's commissioning of services
- The team has visited St Saviour's and seen the potential for service improvement through productivity and efficiency gains

This module will introduce modelling to generate projections and scenarios to support option appraisal

OBJECTIVES AND INTRODUCTION

After this module I will:

- Understand the basic principles of best practice model design
- Understand how to check the quality of an existing model
- Know how to generate “projections” so that they are robust, easy to understand, and can be used to quantify different scenarios for stakeholders
- Know how to use “projections” to evaluate the financial implications of a set of options
- Know how to perform option appraisals in situations where each option has non-financial impacts (e.g., Quality of care) as well as financial impacts

This module includes:

- An introduction, which explains where option development and appraisal might fit within a project
- An overview of techniques for incorporating non-financial factors into quantitative appraisals
- Exercise 1, which looks at methodologies for multi-criteria option appraisal
- Exercise 2, where you produce a projected profit & loss statement for Northside & Eastside
- Exercise 3, where you produce or review a model of the profit & loss position for the whole health economy for the reconfiguration options where Emergency services are discontinued from one site

What are we trying to achieve when developing options?

DEVELOPING THE OPTIONS – WHAT?

What are the outputs?

A set of credible options, for which the costs, benefits and the implementation challenges are well understood by stakeholders

Plenty of projects fail because the options are superficial or not thought through.

You need to turn your analysis and insights into credible options which decision makers can understand and support, knowing that the detailed work behind each has been done well.

Agree which options to work with, then detail each option and test its suitability, feasibility and acceptability

DEVELOPING THE OPTIONS – HOW?

1. **Agree (with key decision makers) which options should be taken forward**
2. **For each option, establish the difference from the ‘business as usual’ scenario** by carrying out a quantitative cost / benefit analysis using a spreadsheet model. Work with stakeholders to ensure that you have covered all the major costs and benefits. For costs and benefits which cannot be quantified (e.g., wider impact on society), use interviews with experts to make a qualitative judgement (e.g., red, amber or green assessment)
3. **Develop objective criteria to compare options.** Bear in mind
 - **Suitability:** Refer to your hypothesis and issue trees – to what extent does the option solve the basic problem
 - **Feasibility:** Establish the barriers to successfully implementing the policy (e.g., cost, time to implement, conflict with other policies)
 - **Acceptability:** Test with stakeholder groups (doctors, nurses, patients, etc.)
4. **Test your assessment widely with key stakeholders** (and if you think an option should be discounted, say so)

A Pugh Matrix can be used to give a semi-quantitative evaluation of multiple factors for a range of options

EVALUATING OPTIONS: PUGH MATRICES

- A Pugh matrix will provide a semi-quantitative evaluation of each idea or option – you will be able to rank them according to the final score
- This ranking depends on the weightings you select – if you change the weightings you will get a different result
- You can use this tool to challenge your thinking as well as to prioritise your ideas

Ideas / Options	Weighting	1. Increase productivity of existing wards	2. Expand into mothballed wards	3. Build new ward	4. Build new department	5. Outsource additional demand
Time to delivery					+ 2	++
Longevity of solution					- 1	-
Disruption						
Financial impact						
Overall Benefit						

Your weightings could be based on rankings (1, 2, 3, 4) or a set scale (e.g. 1-10)

Use a simple scoring system to capture differences e.g. - - to ++ or -2 to +2

Example: Where should Oldtown University allocate the funding it received from a recent donation

PUGH MATRICES: WORKED EXAMPLE

It is worth repeating: this ranking depends on the weightings you select – if you change the weightings you will get a different result
 This table records your weighting and scores, but does not contain the calculation for the overall benefit – you will need to do that elsewhere.

Criteria / consideration	Weighting	Increased tutor salary	Increased contact hours	New student bar	Digital learning system	Marketing Campaign
Tutor satisfaction	25%	3	2	-2	0	0
Student satisfaction	20%	2	3	3	2	-1
Increase in students	30%	0	2	3	1	3
Environmental impact	15%	0	0	-2	-1	-1
Speed of change	10%	3	3	0	1	2
Overall Benefit						

When comparing & evaluating different options, it is often useful to turn KPIs into financial measures

MONETISING QUANTITATIVE METRICS

- Whilst assessing different options, it is often useful to turn KPIs into financial measures. This can help to objectively determine the value of different options.
- You need to:
 - **Understand the cost drivers** associated with a KPI – e.g., Reductions on a process time KPI may equate to reductions in number of staff needed to manage a case, number of rooms/beds/ accommodation required
 - **Avoid double counting benefits** from improvements – e.g., If one KPI is reduction in staff sickness and another is reduction in number of staff, then the combined saving will be lower than the individual saving
 - Be aware of whether performance improvements result in:
 - **Cashable savings** – deliver a direct financial benefit, meaning that cash resources can be spent elsewhere
 - **Non-cashable savings** – deliver a benefit that does not free up cash resources to spend elsewhere. This may be because costs are non-divisible – you cannot close 0.3 wards, a contract has locked in the cost of providing a service, the improvements are non-financial (e.g., Quality of service)
- You may need to:
 - **Convert qualitative measures** into financial savings using proxy values (see appendix)
 - Allow for costs and benefits being spread over **multiple years** (see appendix)

What's next in the case?

SCENARIO

- A number of options for future configuration of services in the local health community have been suggested by stakeholders. The full list of options is now:
 - No reconfiguration of emergency services
 - Emergency services discontinued from one hospital
 - Emergency services discontinued from two hospitals
- The ICB CEO has raised his concern that there is not a sufficiently robust process in place for evaluating the differences between the options detailed above
- He points out that other health communities in similar situations have developed and published scoring systems for option appraisal

What factors would you include? How would you agree them? What process would you suggest for deciding?

EXERCISE 1: FACTORS TO BE INCLUDED IN THE EVALUATION OF OPTIONS

- 10 minutes of discussion in break-outs of the following questions:
 - What factors should be considered when evaluating the different options?
 - What input should be used when considering if/how to weight the different factors?
 - What process should the ICB's Board go through to formally decide between different options?

- Create a basic/outline Pugh Matrix listing the factors to consider when evaluating options, whether to use weightings and, if you choose to, what weightings you would give them (you are only evaluating reconfiguration options at this stage, not alternatives)

- 10 minutes of plenary discussion on conclusions

10 minutes**10 minutes****10 minutes**

Why do we use Excel for modelling?

ANALYSIS VS MODELLING: MODELLING

- **Quantitative analysis:
what is happening now?**

- Answering questions such as “how many”, “what proportion”, “how frequently”
- Calculating averages, variation, correlations

Covered in module 5

- **Modelling:
what would happen if...?**

- Projecting into the future
- Testing alternative scenarios
- Considering uncertainty / sensitivity

Covered in module 8

- What is a model?
 - A representation, imitation or prototype
 - Can be used to project what would happen if conditions remained as they are, or if assumptions were changed
 - Can be used to try out different configurations and options and see how this affects an output
 - Can be used to test uncertainty or sensitivity
- Models are appropriate when you:
 - Have quantifiable inputs
 - Have a clear set of quantifiable assumptions
 - Want a numerical output
- Which scenarios can you think of where a model would or would not be appropriate?

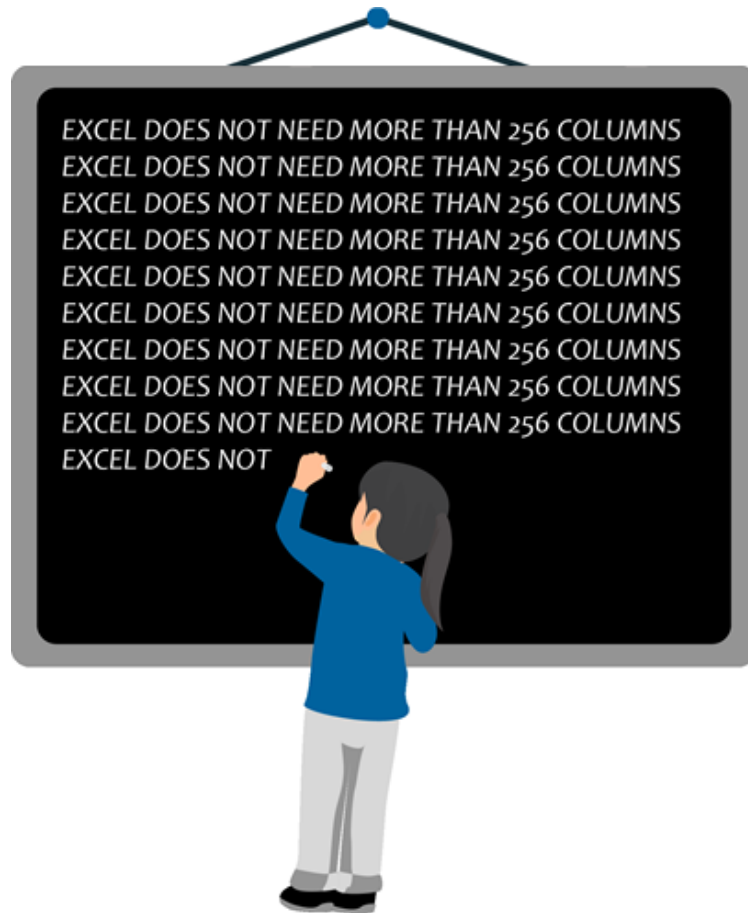
Why do we use projections in Excel?

FINANCIAL ASSESSMENTS

- We normally use projections to answer the question “what if”?
- For example, if Northside made a surplus (profit) of £2m in FY 0, what might its profit be in FY 3 if we make assumptions X, Y and Z?
- **But**, while projections/ forecasts can be made to *look* flashy and robust, they should always be treated with caution and caveats:
- Caveat 1: an Excel model will only give a meaningful projection if:
 - It is based on accurate raw data
 - It has reasonable assumptions
 - The mechanics of the model work
- Caveat 2: An Excel model cannot be any more accurate than its least accurate assumption. Understanding the potential scale of errors around key assumptions is critical

Think first! Models do not need to be elaborate and complex, but they do need careful planning

HOW TO: DESIGN A SPREADSHEET MODEL



- Do not switch on your computer!
- Agree the purpose of the model, and how it fits into the project
- Plan the analytical approach out on paper using schematic diagrams (next slide)
- Identify the data required
- Define the outputs needed

Excel models require careful execution to be meaningful, useful, easy to understand and share

EXCEL TIPS

1. An Excel model will only give a meaningful projection if:

- It is based on accurate raw data
- It has reasonable assumptions (e.g., inflation rate, population growth rate)
- The mechanics of the model work

2. The model will only be useful if it easily shows the impact of:

- Any changes in input data
- Any changes in assumptions (e.g., key sensitivities)

3. Lay out your model in an easy-to-follow format, and include:

- Input data (and show the source of the data)
- Assumptions (and show the source of each assumption)
- The “Engine” (this should include formulae, **and no hard-coding**)
- Answers / outputs / sensitivities

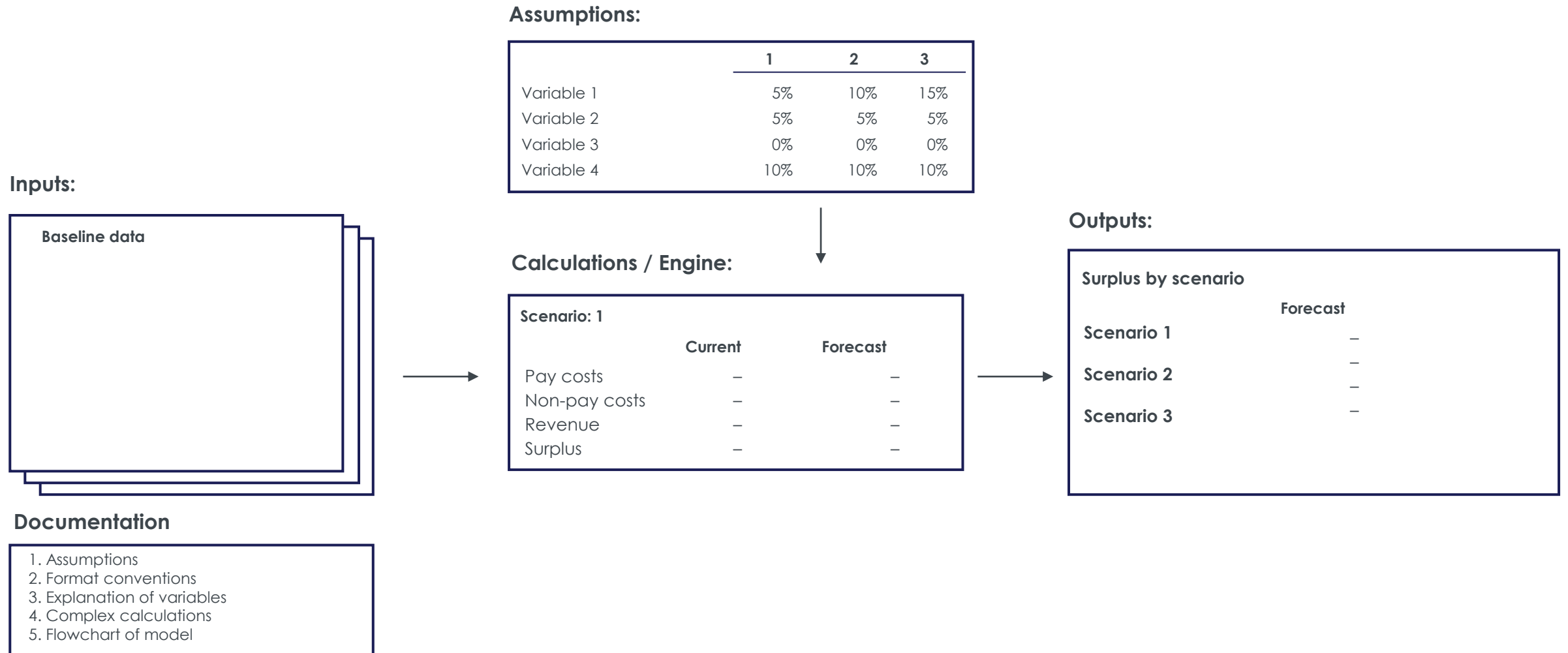
4. Always start by sketching a flow chart or “wiring diagram” that shows how input data and assumptions combine to give outputs. This makes it easy for others to identify what assumptions have been made, and for the mechanics of the model to be checked for accuracy against the flow chart

5. Use the first worksheet of the model to describe to the user how the model works, what inputs it needs, and what assumptions are made

Warning! Recording the source is essential: a couple of months later it is impossible to recall where the data came from...

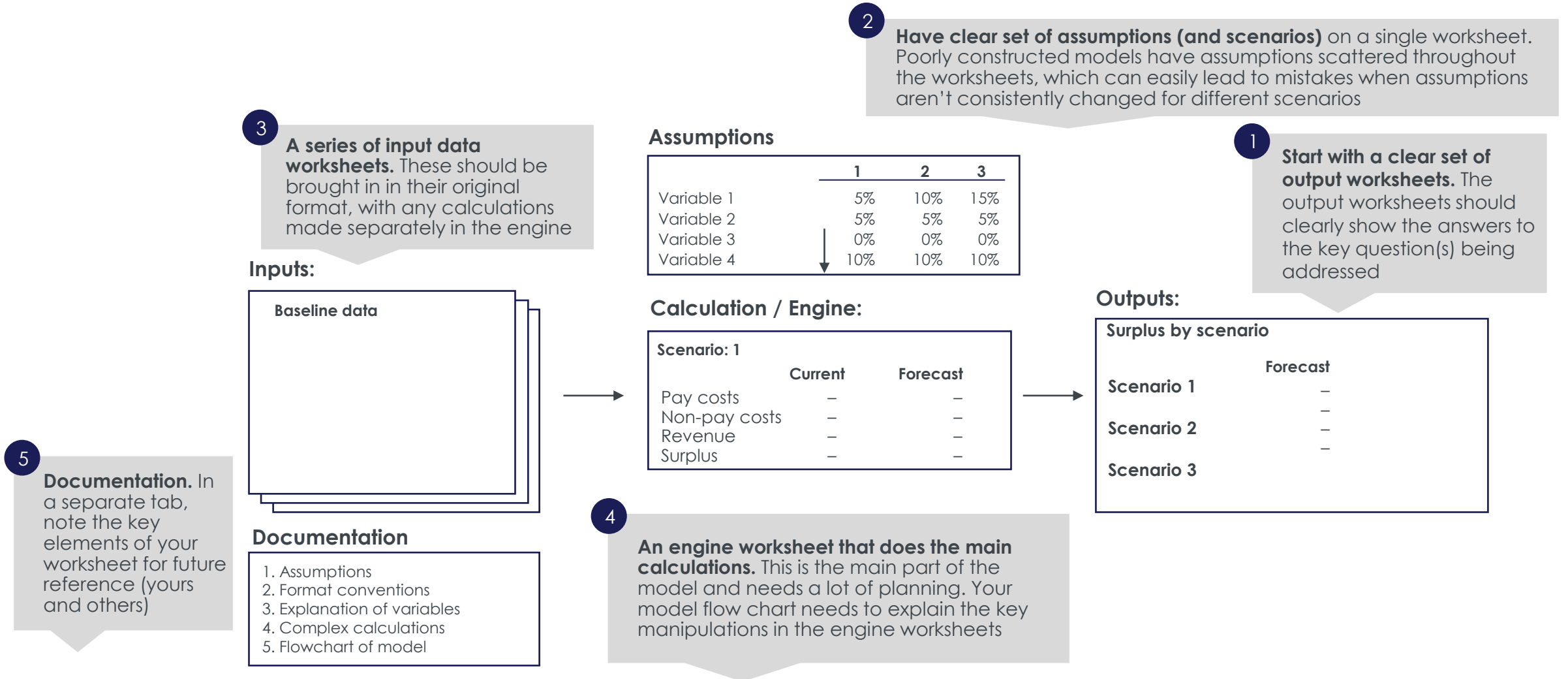
Sketch your model wiring diagram first – understand outputs, inputs, assumptions and plan the calculations

MODEL WIRING DIAGRAM: THE DIFFERENT ELEMENTS OF A MODEL



Sketch your model wiring diagram first - understand outputs, inputs, assumptions and plan the calculations

MODEL WIRING DIAGRAM: THE DIFFERENT ELEMENTS OF A MODEL



There are no quick and easy ways to QA a model. However, failure to do so can result in nightmare scenarios!

BEST PRACTICE STEPS TO QUALITY ASSURING (QA-ING) A MODEL

1. 'Sense check' all figures
2. Limit hard-coding
3. Keep a log of everything you do
4. Build in error checks

You can use the checklist in the appendix to ensure you follow best practice when making or checking models



For the next exercise, you can choose whether to build a model from scratch, or use our template

EXERCISE 2A (BASELINE PROJECTION) - OPTIONS

For the next exercise, you can choose either:

- Open file “Excel - FY1 Data for model - The PSC”, and build a projection model from just the raw data
- Open file “Excel - Template model - The PSC”, and fill in a template projection model we have built for you

In this exercise we will make a projection of Northside’s surplus

EXERCISE 2: PROJECTION OF A PROFIT AND LOSS STATEMENT FOR NORTHSIDE

- **Situation:** Managers at the ICB and at Northside are concerned that, although Northside earned a surplus in FY 1, the financial outlook is challenging and Northside may slide into deficit (and similarly for the other Trusts, but we’ll look at Northside first)
- **Question: Will Northside continue to earn a surplus over the next five years?**
 - Baseline financial data is provided in the workbook “Excel - FY1 Data for model - The PSC”
 - NHS England has forecast growth in income and expenditure for Trusts in the Oldtown area as follows:

Don't forget to start with a wiring diagram!

Growth	FY1 to 2	FY2 to 3	FY3 to 4	FY4 to 5	FY5 to 6
Clinical income	3.5%	3%	2.5%	2%	1.5%
Other income	2%	2%	2%	2%	2%
Pay expenditure	6.05%	4%	1.92%	1.54%	1.2%
Non-pay expenditure	3%	2%	2%	2%	2%

20 minutes

- If you finish Northside move on to projection the other 3 Trusts

If you’re stuck:

- The file “Excel – Template model - The PSC” contains a suggested model structure
- Complete the assumptions in tab “AssumptionsBaselineGrowth”
- Write out the calculation you need to do to work out future years’ income and expenditure, and enter this in “Projections Baseline”

What have you calculated? How certain are you of this?

EXERCISE 2 CONTINUED – DISCUSSION OF PROJECTED SURPLUS/DEFICIT FOR NORTHSIDE

- What do you project Northside's surplus/deficit will be in FY 3? What about FY 5
- How certain can you be of these projections?
- How easy would it be for others to check the accuracy of your projection? What could you do to make your projection easier to check/quality assure?
- How sensitive is the projection to changes in the assumptions about the future?
- What would you need to know to be able to advise the management of Northside and of the ICB as to the financial sustainability for Northside?

10 minutes

NHS hospitals' income projections tend to be within +/-2% for a given year, due to the many causes of certainty

WORKED EXAMPLE: COMMON CAUSES OF UNCERTAINTY IN NHS FINANCES

Certainty is less than indicated by # decimal places shown

- There are numerous sources of uncertainty in any given year:
 - How many people get ill?
 - Can the hospital easily react to unexpected changes in demand?
 - If the ICB /Acute Trust have savings/productivity improvement plans how effective are they at implementing these?
- In practice, hospitals tend to only be within +/- 2% of income projection for any given year (e.g., if £100 million organisation, surplus/ deficit position likely to be correct only to nearest £2m)
- Therefore forecasting 3 years in advance, accuracy is likely to be further compromised (nearest £5-10 million)

NOTE: There is a strong tendency towards balanced budgets in the NHS, with quality of care being flexed in response to ongoing surpluses/ deficits – this adds another level of uncertainty to the projections, since no change in behaviours is built in

Typically, both financial costs and benefits are spread over multiple years – make sure you allow for this

FINANCIAL COSTS AND BENEFITS

Payback Period

- **How many years does it take to pay back the initial investment?**
- *Example:* I invest 200k in Year 1, I makes savings of 50k per year, therefore the payback period is $200 / 50 = 4$ years
- *Pros:* a simple method
- *Cons:* does not account for income after the payback period and ignores discounting (the return if the money had been invested elsewhere) and inflation/deflation

Rate of Return

- **What is the ratio of the yearly income from the investment to the initial investment?**
- *Example:* I invest 200k in Year 1 and make savings of 50k per year, therefore the rate of return is $50 / 200 = 25\%$ per annum
- *Pros:* relatively simple to calculate, useful for comparing to financing costs
- *Cons:* ignores pattern of cash flows

NPV

- **What is the current (present) value of all required investments and future returns on investment?**
- Net Present Value (NPV) is the difference between the present value of cash outflows (investments made and cash inflows (returns on investment). If the NPV of a project is positive, then the project's return on investment is positive.
- *Pros :*NPV accounts for the fact that the value of money changes over time by applying a discount factor: £1,000 now is worth more than £1,000 in five years time, owing to inflation and other potential returns (opportunity cost).
- *Cons:* A more complicated calculation, which is sensitive to the reliability of future cash inflows and discount factor.

Management would now like to understand the financial implications of closing ES at one site

EXERCISE 5: RECONFIGURATION PROJECTION

Situation:

The management of the ICB would like to explore the financial implications of:

- Stopping provision of emergency services at one of the four sites at the beginning of FY 3
- Assuming the emergency services activity that was previously provided at this site would in future be performed at other hospitals, per your activity flow calculations

Question:

- **What would the financial implications of closing one site's ES for the health economy as a whole?**
- Your stakeholders would like to see this year-by-year out to FY 6, for each of the four closure scenarios (East, North, South, West) – start with East

To answer this question you will need the following sources of information:

- *Baseline financial projections from FY 1 to 6 (you produced these for Northside in the previous exercise; the workbook also contains FY1 baselines for the other Trusts)*
- *Catchment area/ activity shift estimates for each reconfiguration option (you produced these in the travel time exercise, a summary is provided on the assumptions tab)*
- *Notes from interviews with the Chief Financial Officers of the Trusts (next slide)*

Interviews with the 4 Trusts' CFOs provided a number of useful inputs for your model

EXERCISE 5 SOURCE INFO: INTERVIEWS WITH TRUST CHIEF FINANCE OFFICERS

- A Trust's clinical income is split between emergency and planned treatment. Emergency services account for **45%** of clinical income at Northside, **40%** at Royal Eastend, **30%** at Sunnysouth and **60%** at Westway
- Emergency services income is paid on contracts based on activity. If reconfiguration causes 20% of Trust A's activity to shift to Trust B then Trust B's ES income will increase by 20%
- Emergency services expenditure is also linked to activity, but there are some economies of scale:
 - Financial analysis from an ES reconfiguration in Ruralshire ICB showed that costs rose by only **£0.85m** for each **£1m** increase in Emergency services income: **£0.6m** in pay costs and **£0.25m** in non-pay costs
 - The Chief Finance Officers of the Oldtown Trusts believe that approximately the same scaling factor would apply here, i.e. that a Trust's pay costs would increase/decrease by 60% of any increase/decrease in their ES income, and their non-pay costs by **25%**
- The CFOs believe there would be further ongoing savings across the Oldtown health economy as a result of reconfiguration, due to reduction in emergency services rotas and associated operational savings. They estimate these to be **£5m p.a.** for pay expenditure and **£2m p.a.** for non-pay
- Reconfiguration is likely to require public consultation. The Ruralshire reconfiguration faced considerable public opposition from the area around the hospital that ceased Emergency Services. The earliest a reconfiguration could take place is the start of FY 3
- There will be a number of one off costs associated with re-configuration, these could be as much as **£3m** split roughly equally between pay and non-pay expenditure

What are the financial implications of reconfiguring Emergency Services in this way?

EXERCISE 5 - ACTIONS

1. Identify the input data and assumptions you would use for the model from the three sources
2. Update your wiring diagram to include scenario assumptions, an additional engine, and a new output tab to show how you will combine existing data and assumptions of into producing an assessment of financial implications
3. EITHER
 - Try creating your own model, continuing from the projection you built in exercise 2
 - OR
 - Use the suggested template in “Excel – Template model - The PSC” – the next tabs are “Assumptions Reconfiguration” and “Projections S1 Close East” then “Outputs”
 - OR
 - Examine the file “Excel – Solution model - The PSC” and see how its design compares to yours, using “trace precedent” to see how the calculations flow back from the output
4. Discuss as a group how the model works; limitations; best practice
5. Update your Pugh Matrix to compare ‘do nothing’ with these four scenarios

10 mins

20 mins

10 mins

40 minutes

Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

What?

- What did you notice in your learning?
- What surprised you?
- What's different to what you've learnt about this before? What's the same?
- What are you feeling about this cycle of learning?

So What?

- So what could this mean?
- So what are the implications for you, for your project, for your role?
- So what are your options for action?

Now What?

- Now what will you do?
 - By when?
 - How will you know when you've got there?
-

Appendix

You will find more tools and slides in this appendix, and others that we thought you might find useful. However, they don't form a core part of the course.

Why do we use models in Excel?

ANALYSIS AND MODELLING

- **Quantitative analysis: what is happening now?**
 - Answering questions such as “how many”, “what proportion”, “how frequently”
 - Calculating averages, variation, correlations

Covered in module 5

- **Modelling: what would happen if...?**
 - Projecting into the future
 - Testing alternative scenarios

Covered in module 8

- **What is a model?**
 - A representation, imitation or prototype
 - Can be used to project what would happen if conditions remained as they are, or if assumptions were changed
 - Can be used to try out different configurations and options and see how this affects an output
- **Models are appropriate when you:**
 - Have quantifiable inputs
 - Have a clear set of quantifiable assumptions
 - Want a numerical output
- **Appropriate scenarios to use a model:**
 - How many beds do I need in a new ward?
 - How many consultants do I need to recruit in the next 5 years?
- **What a model cannot tell you:**
 - Will patient satisfaction increase if I build a new ward?
 - How will I attract and retain my workforce?

Use this checklist to QA any model

BEST PRACTICE STEPS TO QUALITY ASSURING (QA-ING) A MODEL

Rules for creating a model	Questions for checking a model	
'Sense-check' all figures	Does the raw data have obvious errors? Do the outputs look reasonable?	
Limit hard-coding	Are any numbers hard-coded (written in rather than calculated) other than the raw data and assumptions	
Keep a log of everything you do	Are all changes logged?	
Build in error checks	Are there error checks in place – e.g. columns summing up correctly?	
Separate assumptions from inputs and calculations and label each tab clearly	Are there separate input and assumptions tabs?	
Write down your data sources	Are all data sources clearly stated?	
Include a wiring diagram	Is there a wiring diagram and/or a record of the modelling logic?	

Whilst assessing different options, it is often useful to turn KPIs into financial measures.

MONETISING QUANTITATIVE METRICS


- **Whilst assessing different options, it is often useful to turn KPIs into financial measures. This can help to objectively determine the value of different options**
- **To do this, you need to understand the underlying cost drivers associated with each KPI. For example:**
 - For a process time KPI (e.g., case conclusion time), a reduction in process time may lead to a reduction in benefit costs, it may reduce the number of staff required to manage each case, it may reduce other costs associated with each case (e.g., accommodation costs for participants)
 - However, the sequence by which these savings are realised needs to be fully understood (e.g., if participants receive a fixed amount of benefits regardless of the time taken to conclude their case, a reduction in case time will not realise any savings from this source)
 - It is also important to avoid double counting associated with inter-related improvements (e.g., if one project is reducing number of participants, and another is reducing benefits each participant receives, then the combined savings will be lower than the sum of projected individual project savings)

Be careful when translating performance improvements into financial savings - are they cashable, and when?

TRANSLATING PERFORMANCE IMPROVEMENTS INTO FINANCIAL SAVINGS

- Performance improvements do not always result in financial savings:

 **Cashable savings** – deliver a direct financial benefit, meaning that cash resources can be spent elsewhere

 **Non-cashable savings** – deliver a benefit that does not free up cash resources to spend elsewhere

- Efficiency savings may be non-cashable because – e.g.:
 - They focus on non-financial improvements (e.g. Quality of the service)
 - Costs are non-divisible (e.g., you can't reduce headcount by 0.5 people)
 - Contracts lock-in the cost of a product/service
- If your project has a financial goal, it is important to ensure there is a link to the improvement you want to see and the financial benefit that this will deliver. Using an issue tree mathematically can help to map where expected savings come from and how they collectively add up to the high-level goal

Note of caution

Be careful when projecting savings from improvement activities, as benefits often take longer to realise than expected. For example, a hospital that reduces the length of stay of patients should reduce the need for beds. However, the cash benefit is only generated once the bed has been closed and payments for the associated costs are ceased

Proxy values for particular goals can be used to turn qualitative measures into financial measures

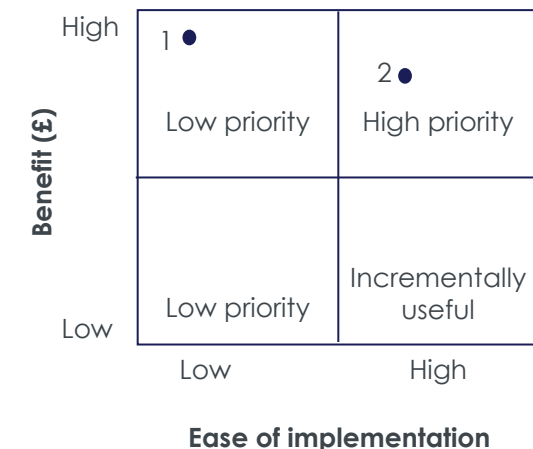
MONETISING QUALITATIVE METRICS

- Whilst assessing different options, it is often useful to turn qualitative measures into financial measures. This can help to objectively determine the value of different options
- This is achieved by putting proxy values on a particular goal
- Once the value of different options is considered, they can be compared against each other using a prioritisation matrix

NB – It is important to sense-check expected monetary benefits from options as realisation of benefits is often harder to achieve than initially expected

Example

Intervention	Description of benefit	Current incidence	Reduction in incidence with intervention	Cost of each incidence without intervention	Benefit of each intervention
Repairs to problems with a patient's house	Fewer hospital admissions from falls	2,000	30%	£2000	£1.2m
Weekly community support sessions for at-risk patients	Improved wellbeing, improved mental health. Reduced use of social services.	1,000	5%	£20,000	£1m



NPV is a rigorous way of comparing the value today of a future stream of expenditure and income

INVESTMENT DECISIONS USING NET PRESENT VALUE (1/2)

- Net present value (NPV) is a method for understanding the value today of a cash investment that will realise benefits over a period of time, taking into account alternative investment opportunities
- NPV is used to determine whether a project is worth doing
- It is based on the principle that money you have today is worth more than money you will gain in the future. Therefore, estimates of future cash-flows should be discounted
- Generally, investments with a positive NPV should be carried out, but those with a negative NPV should not. However, where investments are aimed at delivering a non-financial benefit (e.g., better quality healthcare), investments are usually NPV-negative
- **To calculate NPV, you need:**
 - A discount rate (r) which is usually your alternative investment (e.g., inflation + the interest rate from bank)
 - The initial investment cost $-C_0$
 - The cash flows each year from your investment C
 - Time (e.g., the # of years since the initial investment) T
- It is calculated using the following formula:

$$NPV = -C_0 + \sum_{i=1}^T \frac{C_i}{(1+r)^i}$$

Discuss: Is this investment a good idea?

INVESTMENT DECISIONS USING NET PRESENT VALUE (2/2)

A simplified example

- We have the option of investing £500k (-C₀) in a temporary Hospital Outreach centre, to treat patients near to home
- It will last for 3 years (T) and bring in £200k per year (C) in additional income for the Hospital
- If we had put the money in the bank, it would generate 10% interest. Our discount rate (r) is therefore 10%

Initial investment is £500k

Year	Cash flows (£)	Discount factor to 2019 equivalent	Discounted cash flows (£)
2019	- 500,000	-100%	- 500,000
2020	200,000	110%	181,818
2021	200,000	121%	165,289
2022	200,000	133%	150,263
Net present value			-2,630

Future cash-flows are worth less the further in the future they are

NPV is the sum of discounted cash-flows

NB: The =NPV() formula in Microsoft Excel doesn't quite work as it applies the discount rate to the initial investment outflow and discounts subsequent cash-flows too much. Therefore it is best avoided!

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- **Module 9 – Developing insight and making recommendations**
- Module 10 – Planning and implementing
- Module 11 – Communicating recommendations and completing a project

Where are we in the case?

CASE RECAP

- The ICB CEO feels strongly that reconfiguration of emergency services is the only way forward to resolve the financial and clinical catchment guidelines issues
- You have learned from the Strategy Director at Northside that patients do not want their ability to access emergency services to be impacted
- Your team also developed the hypothesis that financial stress can be alleviated by reducing costs through reconfiguration and other initiatives – and you wish to test this
- Data analysis suggests that closing Sunny South would have the least impact on patient travel time
- The ICB Medical Director has raised a number of concerns about reconfiguration: (a) meeting clinical catchment guidelines is not a necessity, but an important factor to consider along with other clinical outcomes; (b) the investment required to reconfigure emergency services could be instead used to improve the ICB's commissioning of services
- The team has visited St Saviour's and seen the potential for service improvement through productivity and efficiency gains
- Separately, financial modelling has shown that each scenario has a surplus – ranging from 3.87 million from closing Westway's ES, to 6.66 million for Eastend, 9.73 million for Northside, and 12.43 million from closing Sunny South
- **But ... catchment analysis shows that closing SunnySouth's, Royal Eastend's or Northside's ES will divert patients to Westway's ES – without sufficient increases at the other sites. Only closing Westway's ES will take all three remaining sites over 300,000 catchment (See hidden solution tab in your Excel files)**

This module returns to hypotheses, to translate analysis into “so what”, credible options and powerful insight

OBJECTIVES AND INTRODUCTION

After this module I will:

- Understand how to translate analyses into insight, extracting the “so whats” of each analysis/ piece of information
- Appreciate that not all data needs to be included in the final recommendation, only what is relevant
- Understand how to perform option appraisals in situations where each option has non-financial impacts (e.g., quality of care) as well as financial impacts
- Understand how to communicate recommendations effectively, providing arguments to underpin the case to be made to stakeholders (especially decision makers)
- Have reviewed how to treat different types of analytical insights – quantitative vs. qualitative, those of different quality
- Have revisited the use of hypothesis trees and the iterative process in hypothesis development

This module includes:

- Recap on prioritisation and hypothesis trees
- Forming and communicating recommendations
- Presentation to the ICB CEO

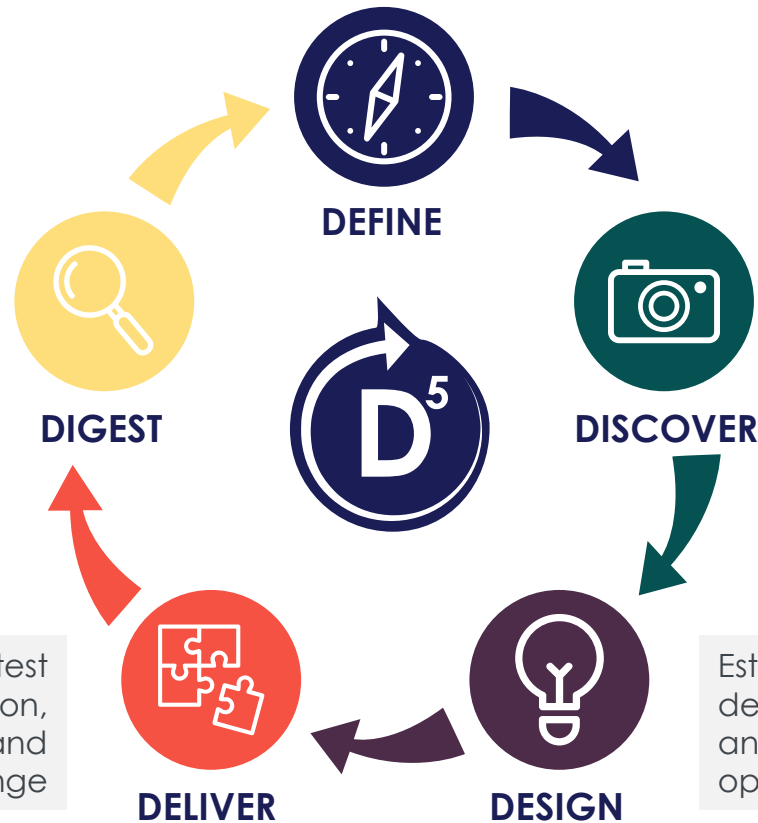
Typically this is the bridge from Design to Delivery

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view

Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.



Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

There are a number of techniques for groups and individuals to generate options and recommendations

DIFFERENT TECHNIQUES FOR GENERATING RECOMMENDATIONS

Group problem-solving

Group generate recommendations collectively, e.g., by:

- Using PinPoint exercise to generate, group and prioritise potential specific recommendations or improvement opportunities
- Consult with an expert regarding what they think the right recommendation would be given the specific circumstances

Individual problem-solving

One person leads on generating recommendations, e.g., by:

- Creating a “strawman” of specific recommendations for solving the problem for the team and/or stakeholders to comment on and refine iteratively
- Providing group with a set of generic strategic recommendations to test which one's seem most applicable (and why)

In either case, it is important that the recommendations are tested – against:

- What could be achieved if nothing was out of scope – the “nuclear” options
- Whether they are likely to meet “suitability, feasibility and acceptability” criteria

A group may identify insights, and group them to create the hypotheses of key recommendations for discussion

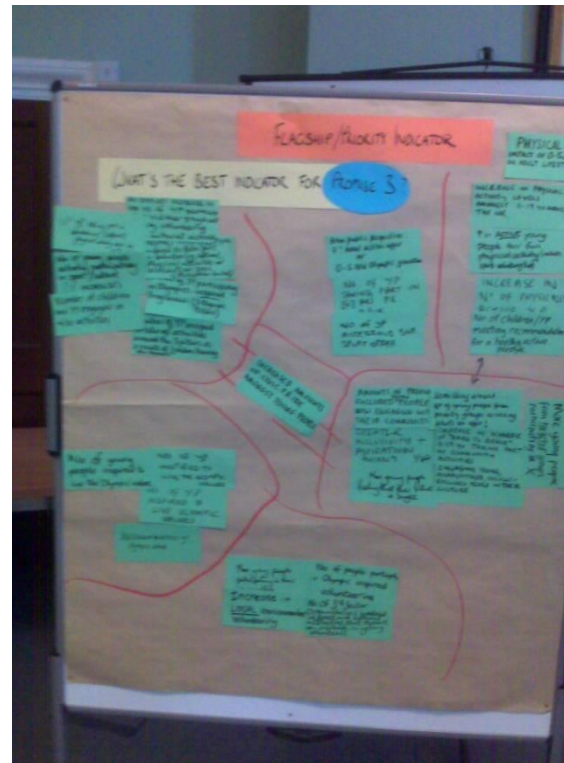
WORKED EXAMPLE: INSIGHT GENERATION AND PRIORITISATION

Step 1:

Have each member of the team identify 3 insights (“improvement opportunities” in this example) and share these with the group...

Step 2:

... Group similar insights together and draw out key recommendations



Step 3:

... Vote on which groupings are viewed as most important....



Step 4:

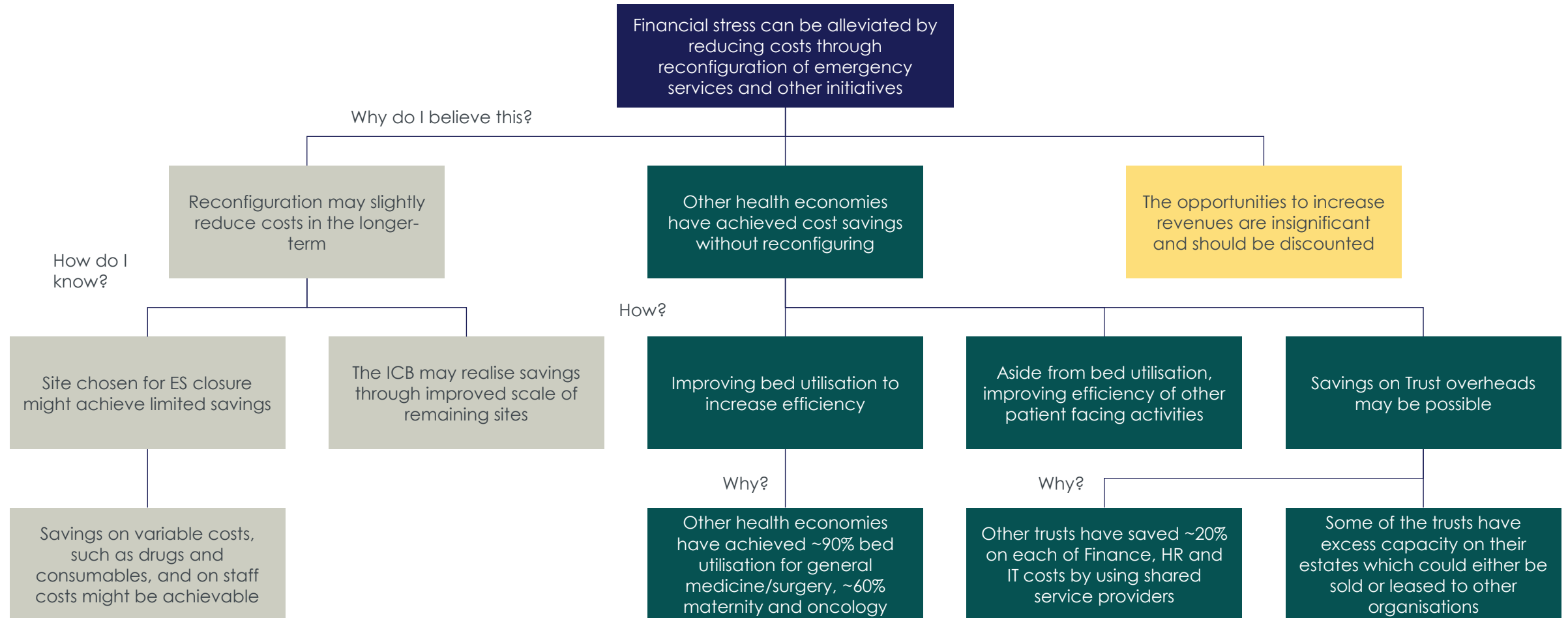
... Generate a list of key recommendations (often as one or more hypothesis trees)

What's next in the case?

The working hypothesis will need to be revisited...

RECAP: HYPOTHESIS TREE FROM MODULE 4

Q: How can Oldtown ICB and four acute trusts achieve financial balance over the next 3 years?



Review all the project information (some of which is new) to generate a hypothesis of your recommendation

EXERCISE 1: MAKING A RECOMMENDATION

Scenario

- To date, the team have two working hypotheses, one for each of the sponsor's stated objectives:
 - Reconfiguration of emergency services is the only way to meet clinical catchment guidelines and this option would require public consultation
 - Financial stress could be alleviated, either by reducing costs through reconfiguration of emergency services and/or by other cost-saving initiatives
- The team is now facing a dilemma – the reconfiguration (and going to public consultation) option meets both of the sponsor's stated objectives but, as we learned from the ICB Medical Director, there may be options that would have a more positive impact on the local population's health and offer improved value for money
- The broader team have been working on various analyses around these two hypotheses, and given the dilemma, decide to have a working session to review all the analysis and insight and agree which options to take forwards, based on a new or revised hypothesis

Exercise:

In small groups:

- Review the new key insights / facts (one card pack for each group)
- Use these insights and other case information to create a hypothesis recommendation (and supporting facts)

After lunch we will:

- Present your final recommendation to the ICB CEO
- As a group, review the example hypothesis tree and reflect on how you will use hypotheses in the future

**40 mins in small groups
(& 30 mins lunch can
take flexibly)**

Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

What?

- What did you notice in your learning?
- What surprised you?
- What's different to what you've learnt about this before? What's the same?
- What are you feeling about this cycle of learning?

So What?

- So what could this mean?
- So what are the implications for you, for your project, for your role?
- So what are your options for action?

Now What?

- Now what will you do?
 - By when?
 - How will you know when you've got there?
-

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- The team conducts interviews, travel times analyses, financial modelling and visits to trusts outside the area in order to understand the current situation and test options for the ICB strategy.
- The team notices that since compliance with clinical catchment guidelines may no longer be the focus, several options for alleviating the financial stress are still available and compatible with the improved commissioning proposed by the ICB Medical Director and other local experts.
- Based on their experiences at St Saviour's, the team has recommended that the ICB should adjust its commissioning of cancer pathways and structure its acute commissioning to incentivise productivity improvements at each of the trusts.
- **The ICB CEO has commissioned you to support the Trusts to implement productivity improvements.**

This module will focus on implementation challenges

OBJECTIVES AND INTRODUCTION

After this module I will:

- Understand how to prioritise to maximise the likelihood of successful delivery
- Understand how to define and measure benefits from implementation
- Be confident about identifying and mitigating risks and issues during implementation
- Understand how to engage stakeholders to buy-into your findings and commit to your implementation plan
- Enable your stakeholders to work with you to overcome barriers to successful delivery

This module includes:

- Prioritisation matrices
- KPIs: leading and lagging indicators
- The “influence model” of behavioural change
- Planning for implementation

Problem solving and where the tools fit in

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



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Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

You will likely need to prioritise between a range of improvement ideas

PRIORITISING CHANGE

- Prioritisation matrices were introduced in Module 2
- When prioritising changes you need to balance the impact of the change with the ease of implementation
- Top tips for prioritising change:
 - Select some quick wins that are easy to implement and will demonstrate that change is possible
 - Once you have demonstrated that change is possible you can move to higher impact ideas that are more difficult to implement and need your stakeholders to believe they can succeed

How would you prioritise implementation of eight changes Westway are suggesting?

EXERCISE 1: PRIORITISING CHANGES AND PLANNING DELIVERY

- In pairs, read through the current plans and projected savings for eight proposed changes at Westway (next slide) and place them onto a prioritisation matrix of ease x impact
- Discuss as a group which actions you would recommend taking and in which order

15 minutes

These are the current plans and projected savings for the eight identified initiatives

EXERCISE: PROPOSED CHANGES AT WESTWAY TRUST

	Planned improvement	Implementation plans	Projected saving
A	A 25% improvement in theatre productivity	Map the current system Apply PDSA cycles to understand causes of inefficiency and make incremental improvements	£750,000
B	An increase in outpatients utilisation from 65% to 80%	Use text reminders to reduce DNA rates Publish data on utilisation Further plans to be developed with team	£1.5m
C	90% of oncology patients being treated within 62 days of consultant referral (currently 88%)	Develop standard referral procedure for other Trusts so that patients are not referred late in the 62-day window Further plans to be developed with team	£9,000 (in Q2)
D	A saving of 20% of administration costs	Awaiting first meeting	£1m
E	An 18% improvement in pharmacy productivity	Map the current system Apply PDSA cycles to understand causes of inefficiency and make incremental improvements	Unknown
F	A reduction in non-elective upper GI and urology bed days – target 370 bed days	Map the current system Apply PDSA cycles to understand causes of inefficiency and make incremental improvements	£70,000
G	A 1/3 reduction in MRSA rates	Put a screening flag above every patient's bed Publish ward-level data	£210,000
H	An increase in screening for dementia so that >90% of patients are assessed (currently 83%)	Integrate screening into inpatient admission form (currently a separate form)	£150,000

It is important to identify the right indicators – try to balance between “lagging” and “leading”

USING INDICATORS TO PLAN FOR IMPLEMENTATION

An **Indicator** is any information that can help predict future events

- **Lagging indicators** follow events
 - Lagging indicators are usually more accurate
 - Lagging indicators are useful to confirm/deny trends
 - For example, annual financial reports give a picture of how an organisation performed over the past year
- **Leading indicators** help to anticipate future events
 - Leading indicators are usually less accurate than historical data
 - Useful for taking action before events happen
 - If you know the rate-limiting step in a process, measuring its effectiveness against a target can give advance information that downstream processes will be affected
 - For example, the number of people booked on flights arriving at an airport (e.g., during a sporting event) would be a leading indicator of the required capacity at border control
- Each has advantages; a **combination of both lagging and leading indicators is usually the most effective**



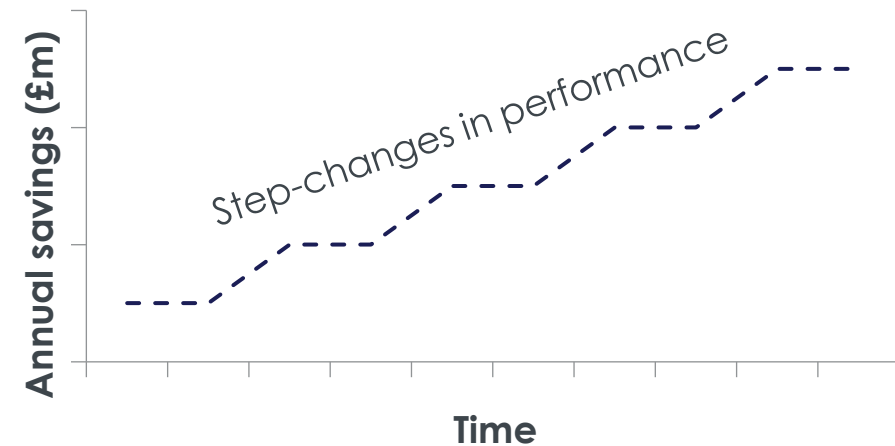
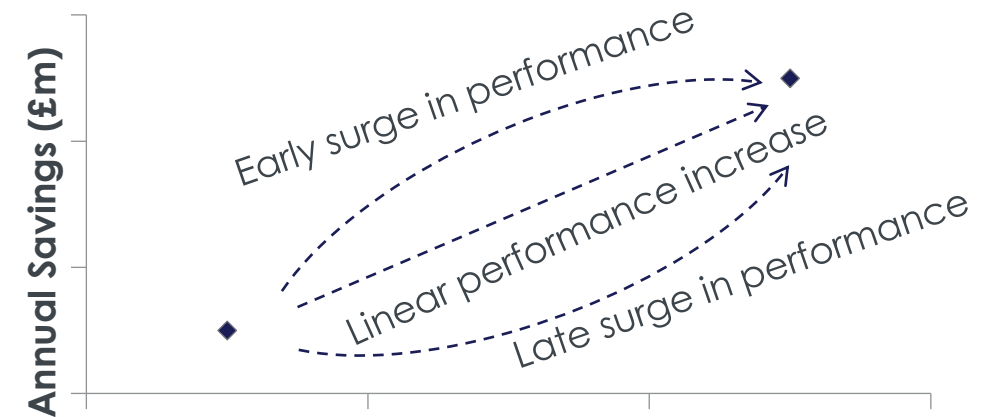
Only using lagging indicators is like only looking in the rear-view mirror



Ensure you understand the trajectory that you expect performance to take as you carry out your implementation

SETTING TRAJECTORIES

- At the beginning of an implementation, it is vital to understand the trajectory that you expect performance to take as you carry out your implementation
- This process is usually undertaken with stakeholders to build consensus around expectations
- Trajectories can be built bottom-up (e.g., by adding up savings identified by different business units)
- Or they can be built top-down (e.g., executive team saying “each business unit will make £xm savings”)
- Different trajectories:
 - Early surges in performance (caused by, e.g., implementing quick wins)
 - Late surges in performance
 - Linear performance increase
 - Step-changes (caused by, e.g., specific interventions at set points in time)



In order to measure and track benefits, you must have certain structures and processes in place

PROCESSES AND STRUCTURES TO TRACK AND MONITOR BENEFITS

Questions you should ask yourself

- Which KPIs do we need to track? Which are lagging and which are leading?
- What is the baseline? What are the targets? Can we measure these with – e.g., RAG ratings?
- How will we calculate it?
- When will the information be produced? Who by? Do they have the skills, capabilities and resources to do so?
- Where will the information be displayed?
- Who will review it? How often?
- How will changes be made to the project once the information has been reviewed?
- Are we confident that the set of actions arising will realise the benefits?

It is also important to be aware of the potentially negative effects of implementing certain KPIs...

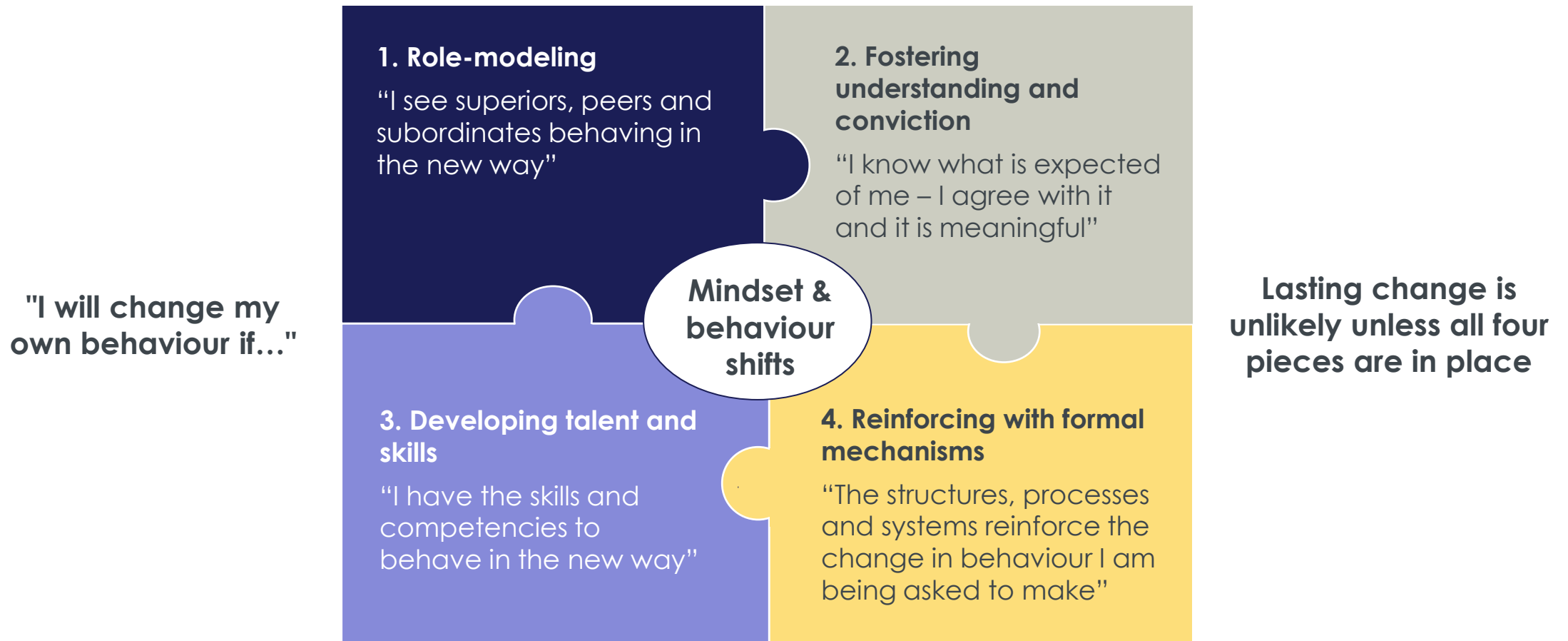
MailOnline

GPs ban advance appointments to meet NHS target

PATIENTS are being banned from booking advance appointments with GPs so surgeries can meet a Government 48-hour waiting time target, it emerged yesterday.

The Influence Model gives four components that must be in place to shift mindsets and behaviours

THE INFLUENCE MODEL: COMPONENTS OF EFFECTIVE CHANGE



Each component can be broken down into a number of more actionable categories

THE INFLUENCE MODEL: ACTIONS FOR CHANGING BEHAVIOUR

"I will change my own behaviour if..."



Use the prompts below to guide your reflection

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Appendix

You will find more tools and slides in this appendix, and others that we thought you might find useful. However, they don't form a core part of the course.

Use an implementation plan checklist to keep on track

TOOL: IMPLEMENTATION PLAN CHECKLIST

Implementation plan objectives Who is going to do what and by when? And what ongoing requirements are there from the team?	
Agreed course of action	<ul style="list-style-type: none"> Option selected and rationale agreed
Implementation plan	<ul style="list-style-type: none"> Key steps Clear governance and responsibilities Performance management Resource requirements Key risks and mitigation Timetable
Next steps	<ul style="list-style-type: none"> Set of questions for the Steering Group to test implementation progress Remaining steps for project team

Good outcome

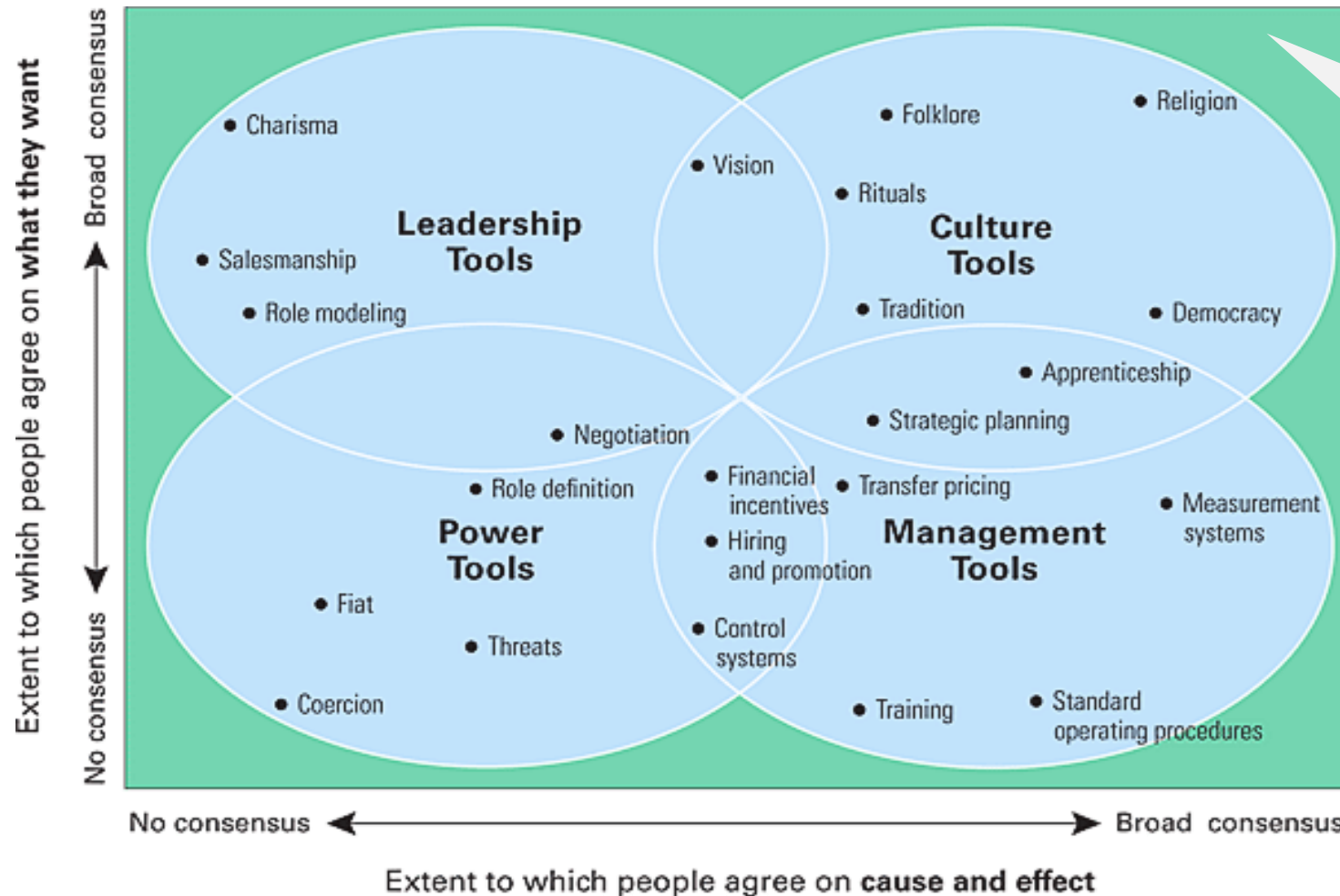
- Clear ownership of the implementation plan by the identified individuals
- Good understanding by the responsible individuals of what the priorities are and plan to mitigate any risks
- Clear handover of the project from the team to the responsible department(s)

Problem / warning signs

- No clear commitment / ownership from individuals responsible for implementing
- No agreed milestones to review progress of implementation
- Project outputs never looked at

The extent to which people agree on what they want and cause & effect determines which tools are effective

THE TOOLS OF COOPERATION AND CHANGE



Where would you place organisations that you have worked with? And on this basis, what approaches are likely to be most effective?

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- Based on their experiences at St Saviour's, the team has recommended that the ICB should adjust its commissioning of cancer pathways and structure its acute commissioning to incentivise productivity improvements at each of the trusts
- The ICB CEO has commissioned you to support the Trusts to implement productivity improvements
- **Having overcome initial implementation problems, the team has successfully achieved process improvements in specific areas of Westway Trust and is now handing over the programme to the internal Change Team**

This module focuses on communicating recommendations and wrapping up a project effectively

OBJECTIVES AND INTRODUCTION

After this module I will:

- Understand the importance of reflecting on and learning from a project
- Understand how to wrap-up a project so that it is sustainable
- Understand how to communicate project outcomes to senior stakeholders

This module includes:

- Discussion of the concept of 'Digest'
- Wrapping up a project and learning for future work

Problem solving and where the tools fit in

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



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Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Use the Digest phase to track benefits and ensure the project outcomes are sustainable

DIGEST PHASE – REVIEW QUESTIONS

Review the benefits achieved – using the structure you set up during delivery

The Digest phase is often overlooked, but is essential to ensure that:

- Your project has delivered the intended benefits
- You learn from the successes and challenges of each phase
- You can ensure your work is sustainable



Key questions to ask during the Digest phase:

- Is there a robust tracking system in place? Are the plans from the Design phase being followed?
- Is performance being communicated widely enough?
- Is a suitable review schedule established?
- Is everything done that was proposed?

Typical project evaluation questions

- Was the project well managed and delivered?
- Is there a set of evidence-based recommendations?
- Were stakeholders appropriately engaged
- How has project impact compared to target?
- How have team members developed?

Projects can be assessed using FEP's viva framework – three delivery strands and two outputs

FEP VIVA FRAMEWORK

Has the mentee achieved....	0. Little or no evidence	1. Basic evidence	2. Strong evidence	3. Best practice
A well managed and delivered project	No structured approach used during the project	A problem statement and issue tree developed and to some degree used to shape the project workstreams	Project tools used effectively through the project (e.g., problem statements, issue trees, prioritisation, hypothesis trees)	Project tools used effectively to ensure project resources focused on reaching an insightful outcome (in time and to budget)
A set of evidence-based recommendations	Recommendations not underpinned with evidence nor robust analysis/modelling; little confidence in the recommendations reached	Clear project recommendation with some supporting analysis and evidence; some confidence among senior leadership of the recommendations reached	Clear project recommendations that have been developed from objective and rigorous analysis (quantitative and qualitative)	Clear project recommendations based on a coherent 'theory of change', with supporting root cause data analysis (quantitative and qualitative); recommendation selected from a set of options based on credible analytical models
Stakeholder engagement	Stakeholders unsupportive of the project approach and its recommendations	Stakeholders have been engaged through the process, however, are not supportive of the recommendations	Stakeholders have been engaged effectively throughout the process and are largely supportive of the project recommendations	Stakeholders have been engaged effectively throughout the process and are fully committed to the project recommendations
Project impact	No Key Performance Indices (KPIs) established, no project impact achieved, nor expected to be achieved	KPIs established; however, no evidence as to how these will be achieved from the project	Quantified KPIs set up, current state established, and being tracked; confidence that recommendations will deliver some impact against KPIs	Quantified KPIs (financial and service improvement) set up and tracked; clear evidence of sustained improvement already achieved, and confidence of further improvements
Personal development	No evidence of skill or confidence level improvement in the fast-pace project skills (list on following page)	Some evidence of skill and confidence level improvement in the fast-pace project skills through the programme	Strong evidence that the candidate has developed confidence and competence across a range of fast-pace project skills	The candidate is confident and competent across the range of fast-pace project skills; and has identified opportunities to apply and develop skills in next project

Capture Lessons Learned and/ or Benefits & Concerns (Bs & Cs) for every project

LESSONS LEARNED

- Every improvement effort offers lessons
- It is what we do with these lessons that matters: turning “lessons identified” into “lessons learned”
- For successful projects, we want to document our efforts and conclusions to repeat the success
- If not successful, we want to document what went wrong to prevent repeating the same mistakes
- The availability of this type of information can greatly accelerate the results from future efforts

Even a quick 5-10 minutes with the team can capture benefits and concerns

LESSONS LEARNT FROM THE PROJECT: EXAMPLE

Key benefits

- “It has been a real multidisciplinary effort”
- “We have eliminated some preconceptions”
- “Weekly team meetings are great; monthly Exec input is really valuable”
- “We now appreciate what impact our jobs have on other people in the process”

Key concerns

- “Project is very big and, hence, it’s difficult to stay motivated for such a long time”
- “There’s lots more to do”
- “It would be nice to see the numbers shift – we need to consolidate the gains”
- “Success will be dependent on long term, cultural change”

Think about solution replication – but don't underestimate the power of the journey / process

SOLUTIONS REPLICATION AND FUTURE OPPORTUNITIES

- You will have learned lots through the project process which may be applicable to others across the organisation
- No-one likes to re-invent the wheel!
- So do ask:
 - Where else could the solution(s) be applied?
 - Who else needs to hear about the solution?
 - Who else could learn from our methodology and process?
- But do be aware that much of the learning comes from the doing – don't underestimate the power of the process!

In your small groups reflect on what you have learnt from the case study

EXERCISE 1: WHAT HAVE YOU LEARNT?

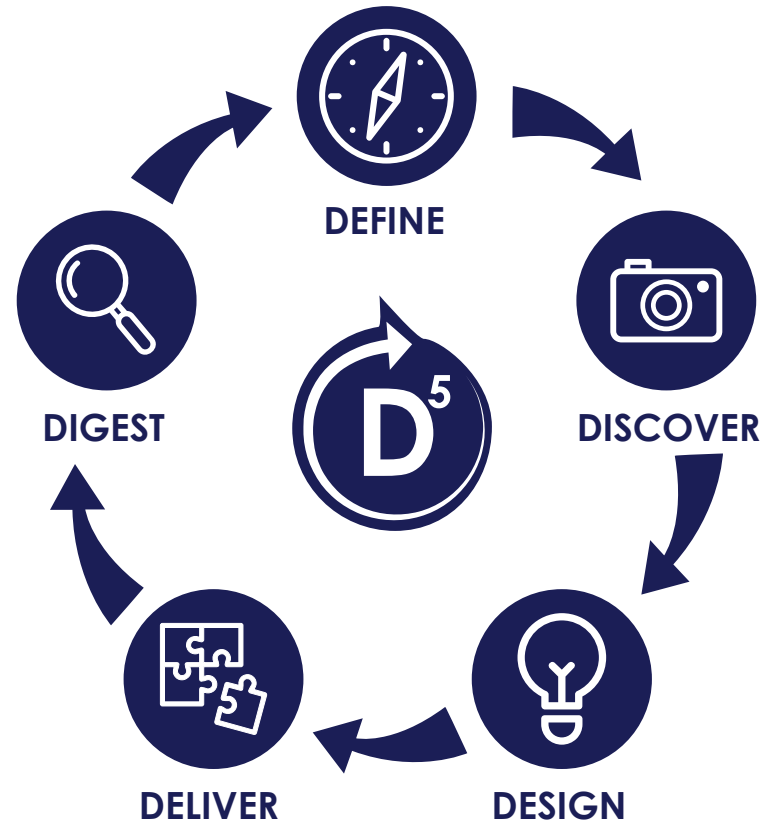
- How effective was the project approach?
 - Was the project well managed and delivered?
 - Is there a set of evidence based recommendations?
 - Were stakeholders appropriately engaged
 - Have you achieved the impact you had planned (refer back to your PDS)?
 - How have team members developed?
- What have you learnt from the outcomes of the project and how will you engage others, including your senior stakeholder, in what you have learnt?

15 minutes

Before any meeting, report or presentation, think about the purpose and aims – what do you want to achieve?

COMMUNICATION - PURPOSE

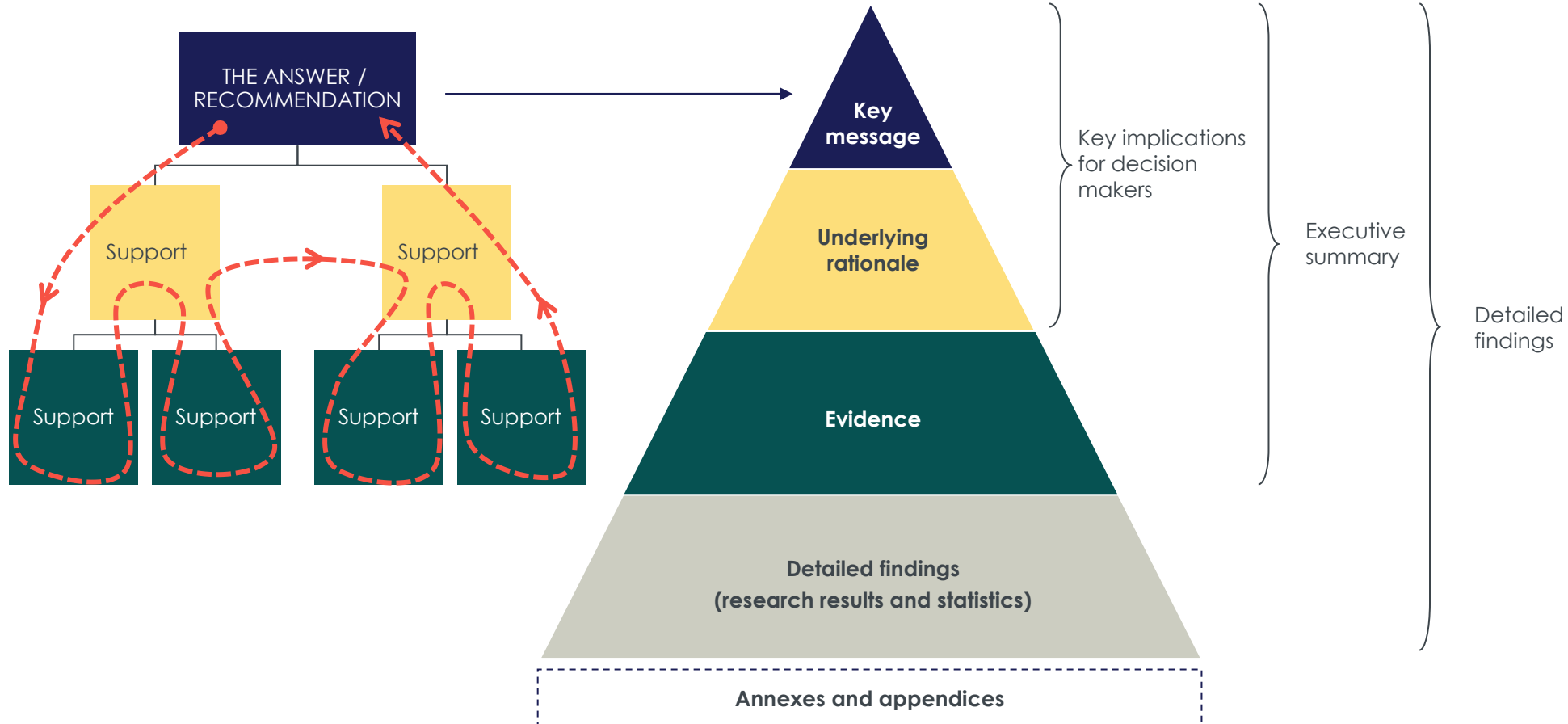
- Understanding?
- Feedback?
- Comments?
- Agreement?
- Decisions?



Your hypothesis tree will help you structure your communication for your audience

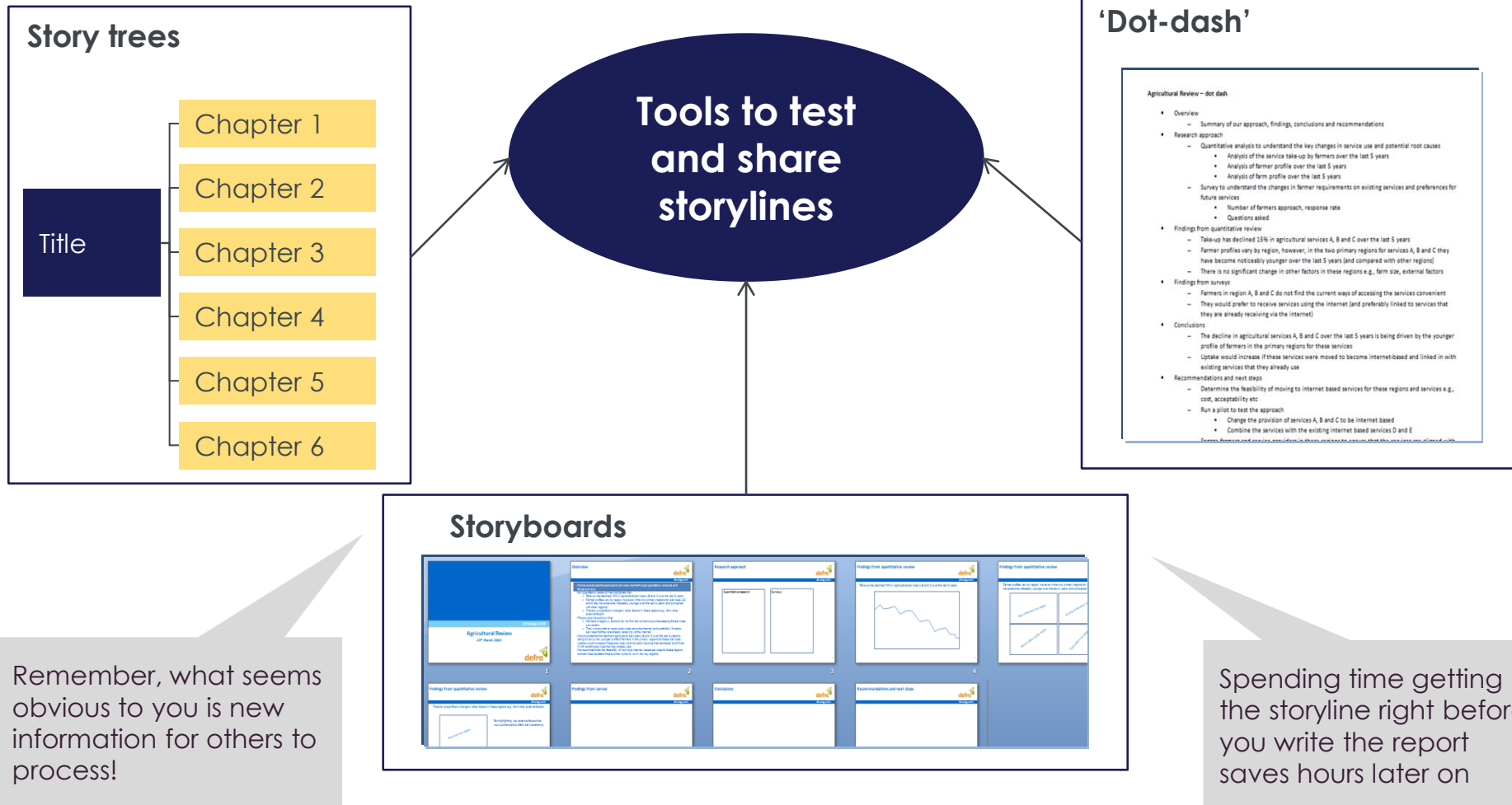
EXAMPLE: TARGETING COMMUNICATIONS

'1-3-25' structure



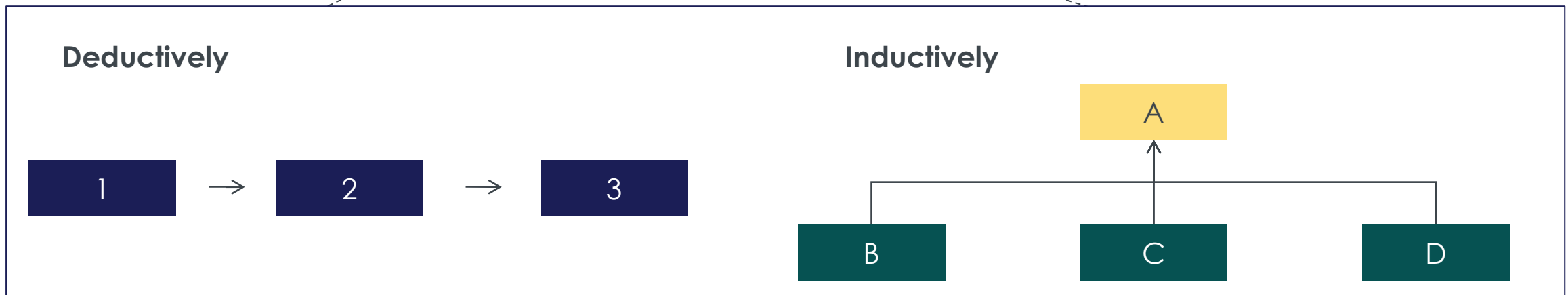
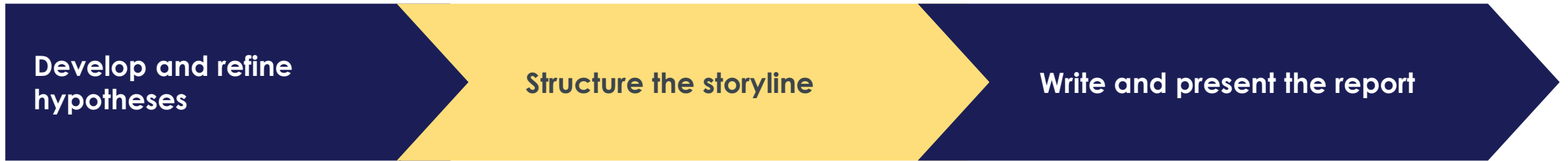
Once you know how you want to communicate your story, draft it out and share with others to test the flow & content

TOOLS FOR STORYLINING



Structure a compelling storyline using your hypotheses, then write the report or presentation

DEVELOPING A COMPELLING STORY FLOW – INDUCTIVE VS DEDUCTIVE



A lot of wasted time and effort can be saved by holding back on writing the report until you know what really needs to be in it . . .

How can you effectively communicate to senior stakeholders?

EXERCISE 2: Q&A SESSION ON STAKEHOLDER ENGAGEMENT

- You need to prepare for your final meeting with the ICB CEO and Trust Chief Executive and you will be developing a presentation for this. Before you start to develop this, think about the audience, what does the CEO want to know?
- Q&A session – how can I effectively communicate to senior stakeholders? (15 mins)



15 minutes

Consider the impact at two levels – communicating the overall story, and the effectiveness of each visual aid

WRITTEN COMMUNICATION BEST PRACTICES (REPORTS & PRESENTATIONS)

Compelling, effective documents:

1. Use the 'house' style and templates
2. Use summaries –an executive summary and major sub-sections (SCQA or SBAR are both very effective)
3. Use hypotheses trees to structure the 'story'
4. Are focused – make sure the 'so what' is clearly articulated on each slide or diagram
5. Keep presentation pages simple:
 - one message per slide
 - one slide per message

Compelling (or “killer”) charts and slides:

1. Understandable:

- Clear enough for the reader to understand in 10 seconds or less
- Contains no unnecessary information

2. Memorable:

- Sticks in the mind
- Referred to as 'that chart...'

3. Appropriate:

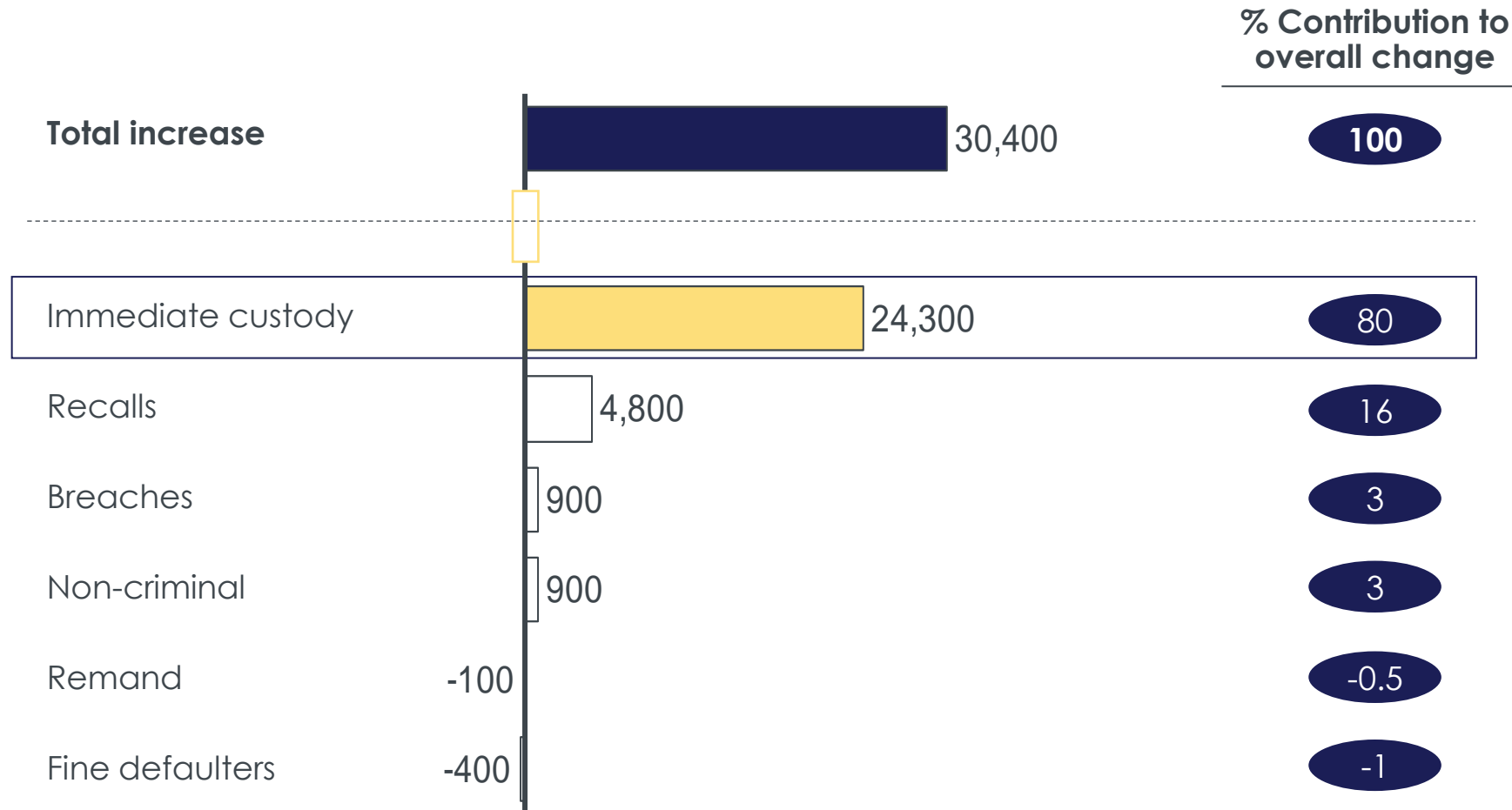
- Provides visual summary of argument
- Conveys message more effectively than table

4. Simple:

- Use colour, and font size changes, sparingly

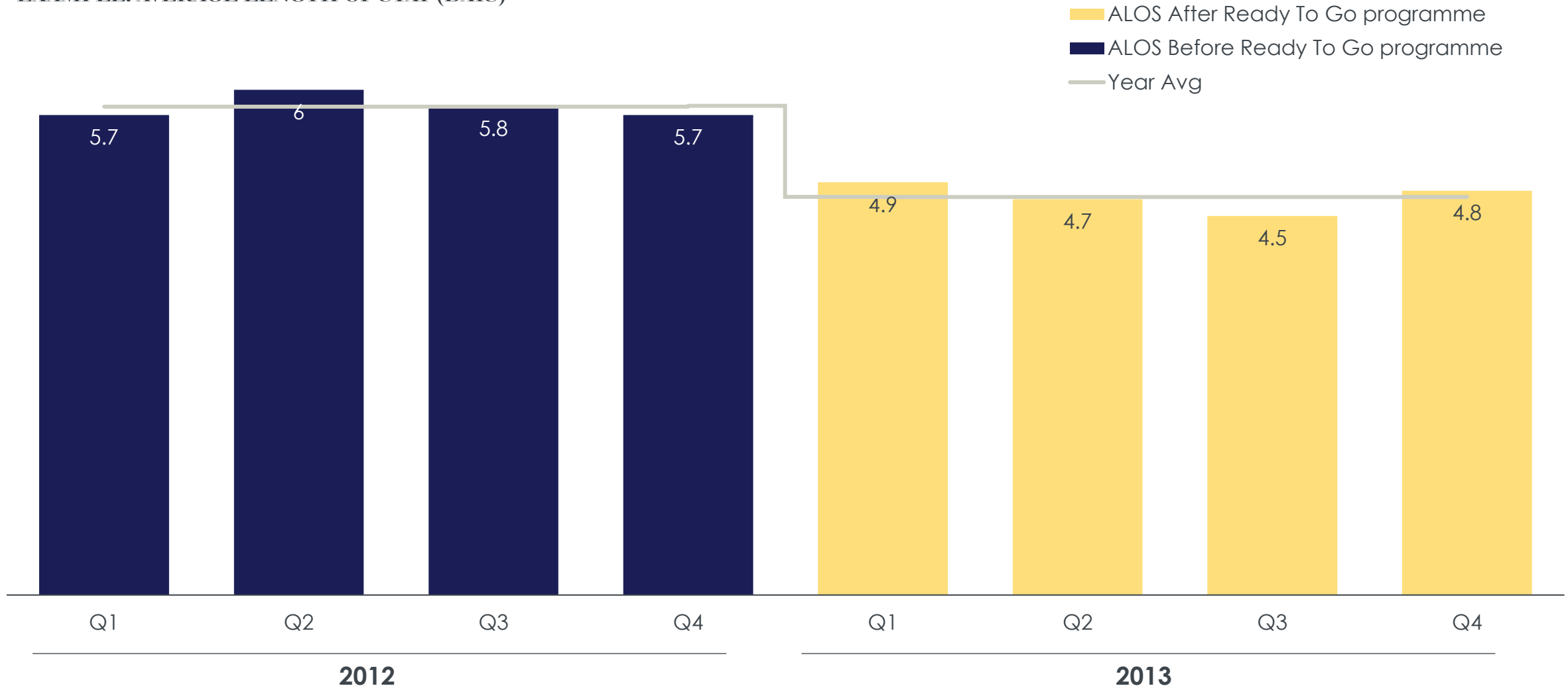
80% of prison population growth is due to an increase in the number of people sentenced to immediate custody

EXAMPLE: CHANGE TO PRISON POPULATION BY CUSTODY TYPE, JAN. 1995–MAR. 2007



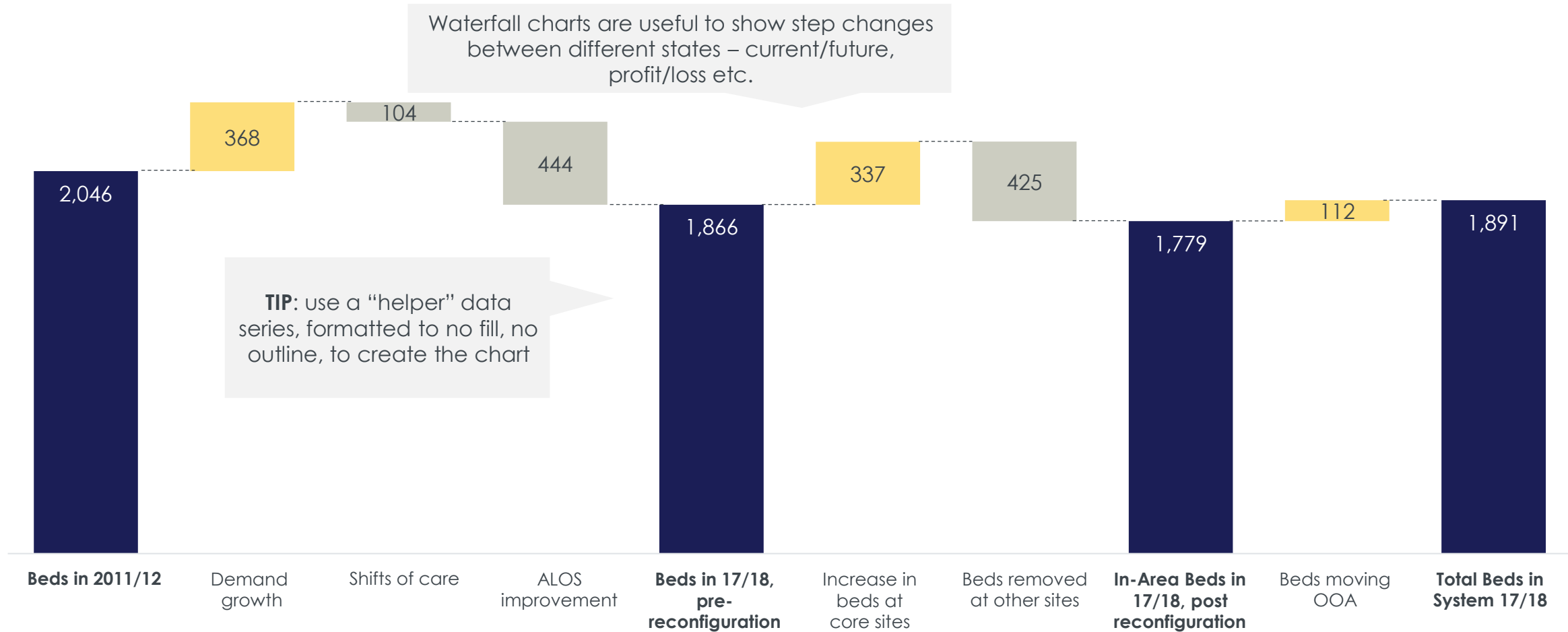
The Trust used “Ready to Go” methods to reduce Avg. Length of Stay (ALOS) for emergency admissions from 5.8 to 4.7 days (18%)

EXAMPLE: AVERAGE LENGTH OF STAY (DAYS)



We expect reduced bed demand over the next 6 years, and reconfiguration option X is sufficient for that demand

EXAMPLE: BED DEMAND 2011-2017, WITH CHANGES UNDER OPTION X, # BEDS



Finally, prepare one slide using these best practice principles

EXERCISE 3: PREPARING SLIDES FOR COMMUNICATION

- Develop one slide for your one of:
 - Your final meeting with the CEO
 - The end of your project
 - The end of this course
- Share your slide and vote for the best one

10 minutes

10 minutes

20 minutes

Use the prompts below to guide your reflection

USE ADAPTIVE ACTION TO REFLECT ON YOUR LEARNING

What?

- What did you notice in your learning?
 - What surprised you?
 - What's different to what you've learnt about this before? What's the same?
 - What are you feeling about this cycle of learning?
-

So What?

- So what could this mean?
 - So what are the implications for you, for your project, for your role?
 - So what are your options for action?
-

Now What?

- Now what will you do?
 - By when?
 - How will you know when you've got there?
-

Appendix

You will find more tools and slides in this appendix, and others that we thought you might find useful. However, they don't form a core part of the course.

How will you tell if a project has been effectively “digested”?

FINISHING THE PROJECT: DESIRED OUTCOMES

What does a ‘good’ outcome from this phase look like?



- You have tried and tested your ideas and identified a successful solution (or solutions) to your problem
- You have written and presented/ handed over your final report containing a sustainable action plan that everyone is bought in to and that has enthusiastic champions
- This plan has been widely communicated
- Individuals responsible for delivering the plan understand what they need to do and by when and have the capabilities to do so
- You have received positive feedback from the sponsor on the role and impact of the team
- You have captured the lessons learnt and recommendations for improving future projects

What are the ‘problem’ warning signs?



- There is no clear end date, project keeps drifting indefinitely on
- The team is unclear as to what impact the project is having
- The sponsor is not fully engaged in the findings and are not personally committed to ensuring implementation
- Team members are rolling on to other projects without completing remaining aspects of project or lessons learnt

At the end of a medium to large project, it is worth facilitating a group feedback session with the sponsor to capture and share lessons

Each section of the report should follow a similar structure, corresponding closely to the hypothesis tree

STRUCTURING THE REPORT

Each section of the report should follow a similar hierarchical structure. This structure corresponds closely to the different levels of the hypothesis tree:

[xxx] = relevant tier of hypothesis tree

1. The Key Message [Assertion]:

- 1-2 sentence headline – what's changed and why
- Priority placement – e.g., use bold or put first

2. The Underlying Rationale [Support/Argument]:

- 3-5 reasons for believing the key message, each explained in 1-2 sentences
- Place immediately below key message, in bullets or with numbers

3. The Evidence [1st tier Support/ Data]:

- The high level statistical trends that contributed to your rationale
- Can be listed in exec summary as sub-bullets or second order numbers

4. Detailed Statistics [2nd tier Support/ Data]:

- The underlying data points that drives the trend
- Presented either as text, set out as further sub-bullets, or in tables / charts

5. Annexes and Appendices:

- Spreadsheet tables and models
- Technical notes to analytical or modelling process
- List of sources, interviewees, etc.,

NOTE: not all sections will require the use of each level of the hierarchy e.g., some projects may only need a short summary of the evidence and no statistics

Writing effectively – guiding principles

GUIDING PRINCIPLES FOR WRITING EFFECTIVELY

Do's

- **Language:** Use
 - Clear and simple – e.g., short words
 - Concise sentences
 - Active verbs
 - Consistent tenses (e.g., present where still applicable, past for discrete analyses)
 - 3rd person, not 1st person
- **Structure:** Use
 - Signposts (i.e., highlight how points link together and back to main argument)
 - Bold is for headings, italics is for emphasis
- **Acronyms:** Provide full name in first instance, with acronym in brackets
- **Footnotes:** Footnote technical terms or re-write in plain English
- **Labelling of charts and tables:** Should be
 - Consistent
 - Precise
 - Colour coded according to traffic light/ BRAG (Black; Red; Amber; Green) to indicate quality
- **Caveats:** Positively present what can be known, by keeping caveats clear and brief, placing them after the message

Don'ts

- Assume any prior knowledge by reader
- Use jargon
- Be overly descriptive – focus on answering the customer's questions
- Cross-reference more than is absolutely necessary
- Footnote for internal purposes e.g., referencing file names
- Forget to proof-read

Deductive story-telling takes the audience sequentially through the problem solving logic

DEDUCTIVE STORY-TELLING



SCR provides structure to a story following the deductive method, engaging the audience and getting the key points across ...

- **Situation:**
A brief description of the current situation
- **Complication:**
Why there is an issue with the current situation
- **Resolution:**
What does the analysis reveal – what's known and what remains unknown (or question & answer)

A deductive story might flow: Situation, Complication, Question & Answer (or Resolution)

EXAMPLE: STORYLINE FOR EXPLAINING INCREASE IN PRISON POPULATION

Situation:

The prison population in England & Wales increased 60% between 1995 and 2007

Complication:

While all elements of the prison population have increased, different elements have increased at different rates. Two segments of the prison population have been responsible for almost all of the increase:

- Those sentenced to immediate custody by the courts (80%)
- Those recalled to prison for breaking the conditions of their release (16%)

Question:

What have been the factors underlying the increase in these two segments?

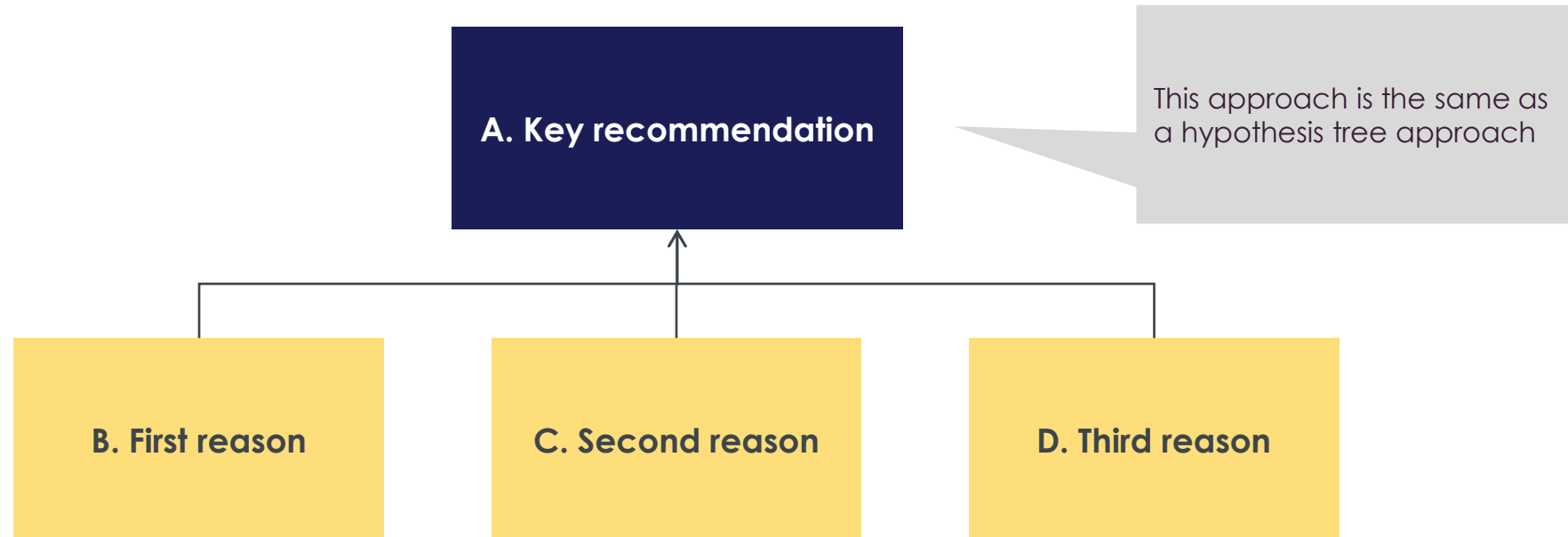
Resolution:

The analysis shows that three factors have principally driven the increase in the prison population:

1. The mix of offences committed has become more serious, requiring custodial sentences
2. Agents within the criminal justice system have become more risk averse, preferring custodial sentences and not releasing prisoners as early as they might
3. Changes to the law, including minimum sentence requirements and recall requirements, have forced additional behavioural changes

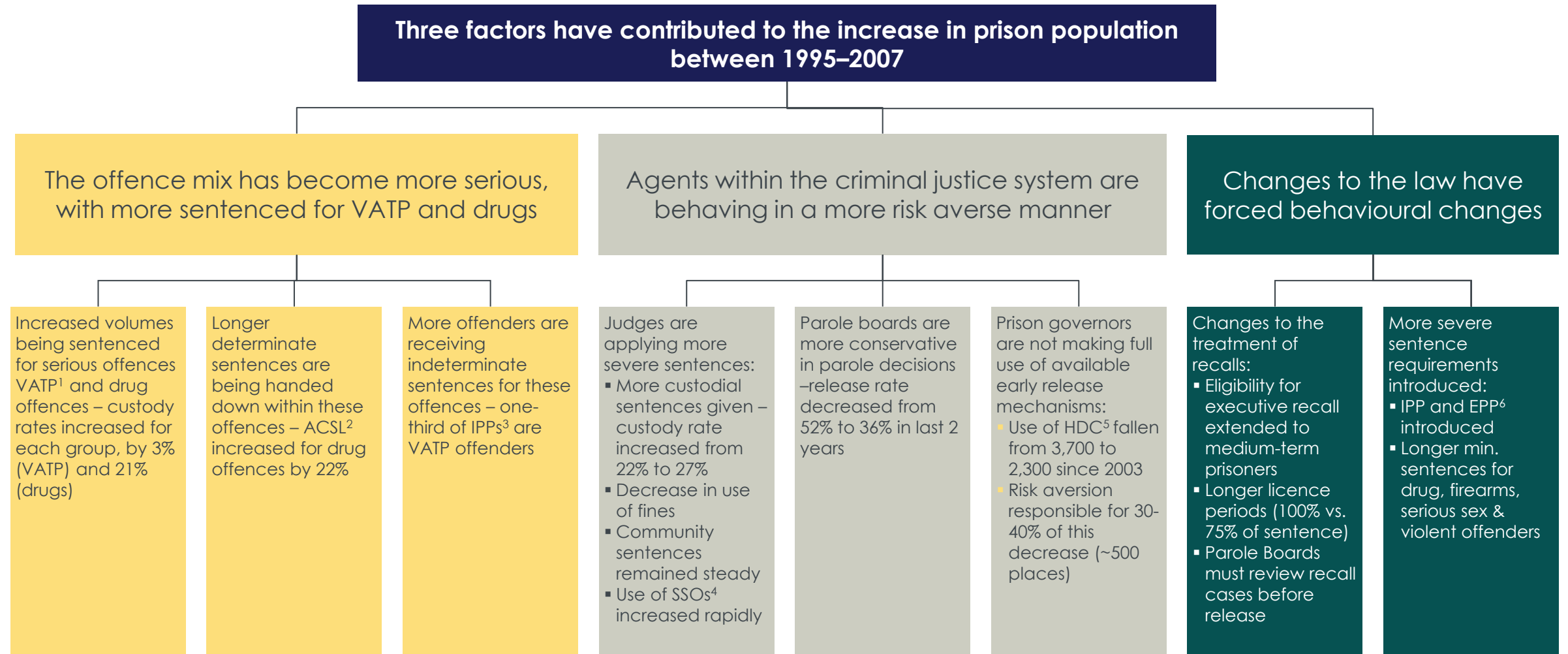
Inductive story-telling is the reverse - it tells the audience the key message and then provides the logical rationale

INDUCTIVE STORYTELLING



What are the underlying causes for the increase in the prison population 1995-2007?

EXAMPLE: HYPOTHESIS TREE



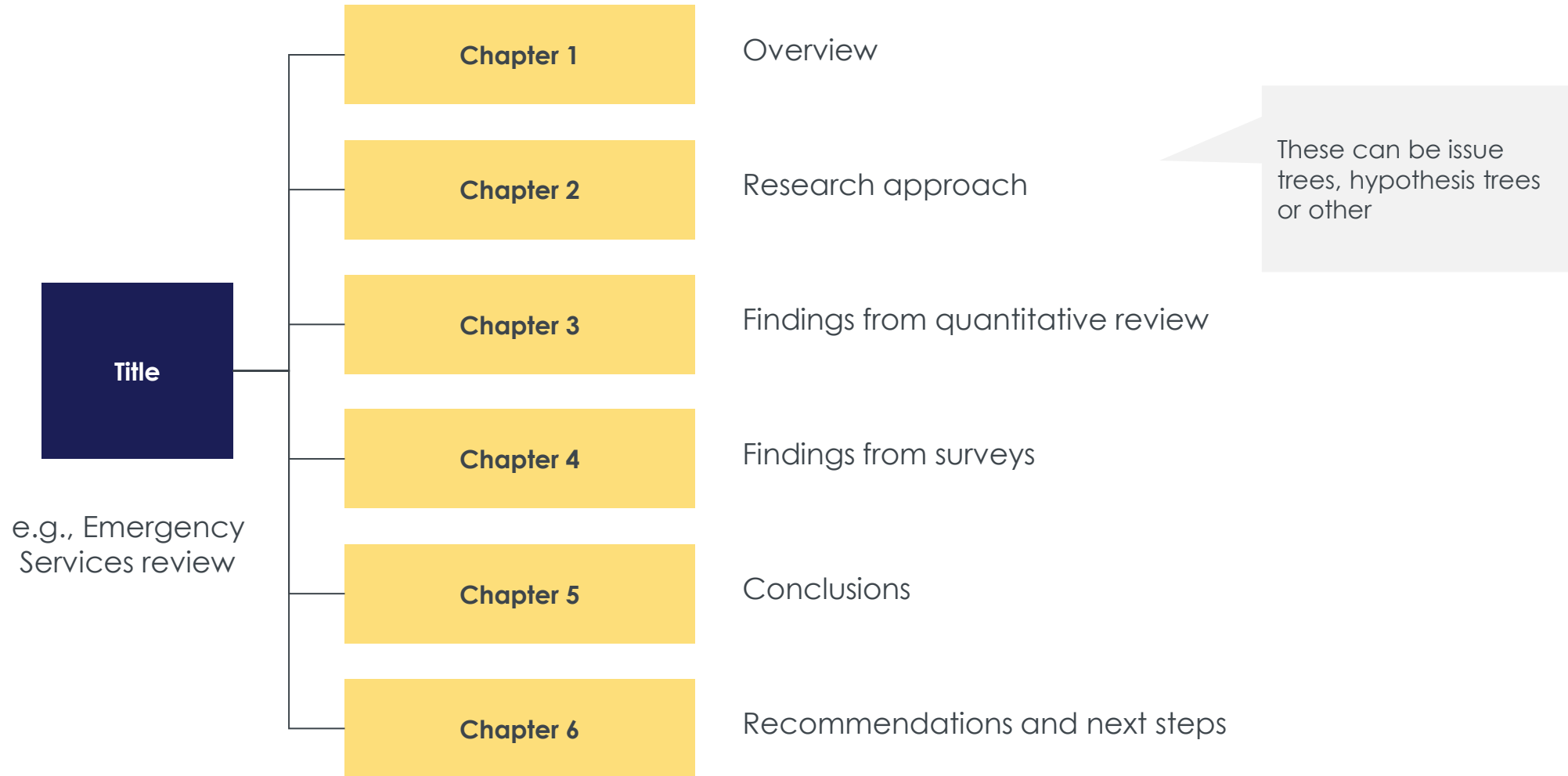
A story may combine both – e.g. an inductive overarching structure, but with deductive arguments within it

COMPARING THE TWO APPROACHES

	Deductive storytelling	Inductive storytelling
What is it?	<ul style="list-style-type: none">▪ Deductive reasoning is typically the way people problem solve▪ Deductive points derive from each other, and typically end in a 'therefore'	<ul style="list-style-type: none">▪ Inductive reasoning presents the key actions/recommendations before the underlying argument▪ It groups (synthesises) patterns and similarities
When is it used?	<ul style="list-style-type: none">▪ Problem analysis is typically deductive – e.g., SCR, Findings/conclusions/ recommendations▪ Essential when the audience is unable to understand the action/recommendation without prior explanation	<ul style="list-style-type: none">▪ Adverts, magazine articles
Note of caution!	<ul style="list-style-type: none">▪ Can be pedantic and tedious to read (particularly if you put in every point)	<ul style="list-style-type: none">▪ It is more difficult to do well than deductive reasoning (as it is a more creative process)

Trees are a good way of visually testing the structure of your story, but not of testing the flow or sharing it

STORY TREES



A bulleted list or “dot-dash” uses the tree structure, with clear levels, but in an easily readable way

DOT-DASH

A ‘dot dash’ lays out the key elements of your story in a way that can be easily read by someone else and clearly shows how well your story flows

- Agricultural Review – dot dash
- Overview
 - Summary of our approach, findings, conclusions and recommendations
 - Research approach
 - Quantitative analysis to understand the key changes in service use and potential root causes
 - Analysis of the service take-up by farmers over the last 5 years
 - Analysis of farmer profile over the last 5 years
 - Analysis of farm profile over the last 5 years
 - Survey to understand the changes in farmer requirements on existing services and preferences for future services
 - Number of farmers approached, response rate
 - Questions asked
 - Findings from quantitative review
 - Take-up has declined 15% in agricultural services A, B and C over the last 5 years
 - Farmer profiles vary by region, however, in the two primary regions for services A, B and C they have become noticeably younger over the last 5 years (and compared with other regions)
 - There is no significant change in other factors in these regions e.g., farm size, external factors
 - Findings from surveys
 - Farmers in region A, B and C do not find the current ways of accessing the services convenient
 - They would prefer to receive services using the internet (and preferably linked to services that they are already receiving via the internet)
 - Conclusions
 - The decline in agricultural services A, B and C over the last 5 years is being driven by the younger profile of farmers in the primary regions for these services
 - Uptake would increase if these services were moved to become internet-based and linked in with existing services that they already use
 - Recommendations and next steps
 - Determine the feasibility of moving to internet based services for these regions and services e.g., cost, acceptability etc
 - Run a pilot to test the approach
 - Change the provision of services A, B and C to be internet based
 - Combine the services with the existing internet based services D and E

The name ‘dot dash’ just indicates that the skeleton of the story is laid out in bullet points

It is generally easier for one person to develop a dot dash and then share and test with others. However, once the dot-dash is agreed, it is a useful tool for being able to share report sections between different team members

A bulleted list or “dot-dash” uses the tree structure, with clear levels, but in an easily readable way

DOT-DASH

1

2

3

4

5

6

7

You can either sketch this out on paper or use blank slides in PowerPoint to map it out

A storyboard can either be developed by an individual or a group. Doing it as a group, on flipchart paper or Miro can be a great way of bringing everyone's insights on the project together

Once the storyboard is complete, it can be easily shared out between the different members of the team (as the slide structure has been already sketched out).

Day 3 WRAP UP

We've now introduced you to the whole of the D5 cycle, ready for you to practice & learn more on your projects

THE D5 APPROACH

Defining the problem to be addressed, setting the scope and KPIs, planning the work, engaging with stakeholders to understand their view



Frequent review of improvement cycles, evaluating the outcomes of a project, identifying improvements and communicating success

Using quantitative and qualitative data and tools to discover the current state of a process or service, best practice and/or the root causes of a problem.

Using rapid improvement cycles to test changes, planning for implementation, engaging stakeholders in implementation and delivering a sustainable change

Establishing a vision for a future state: developing strategic recommendations and/or specific changes using design tools, options generation & evaluation

What have you learnt over this training course?

GROUP DISCUSSION: LESSONS LEARNT OVER THE COURSE

Please share:

1. A valuable insight from the course
2. Something you will commit to doing differently in the future

Before you leave....

END OF DAY 3 TASKS

- Complete your reflection forms from today's modules
- Complete the following feedback form to rate your confidence with different elements of project work, and provide feedback on the overall training course
 - **Link to post-course survey:** <https://forms.office.com/e/WJFJpRbDRi>
 - **You can also follow the QR code** below to access the form:



You can scan the QR code with a **mobile device camera** to access the form

