

How do services 'improve' themselves?

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Usual approaches to change in a complex environment

↓
**Trial & Error?
Chaos**

**Too much action,
not enough thinking**

**Macho management
Just going ahead and
doing it**

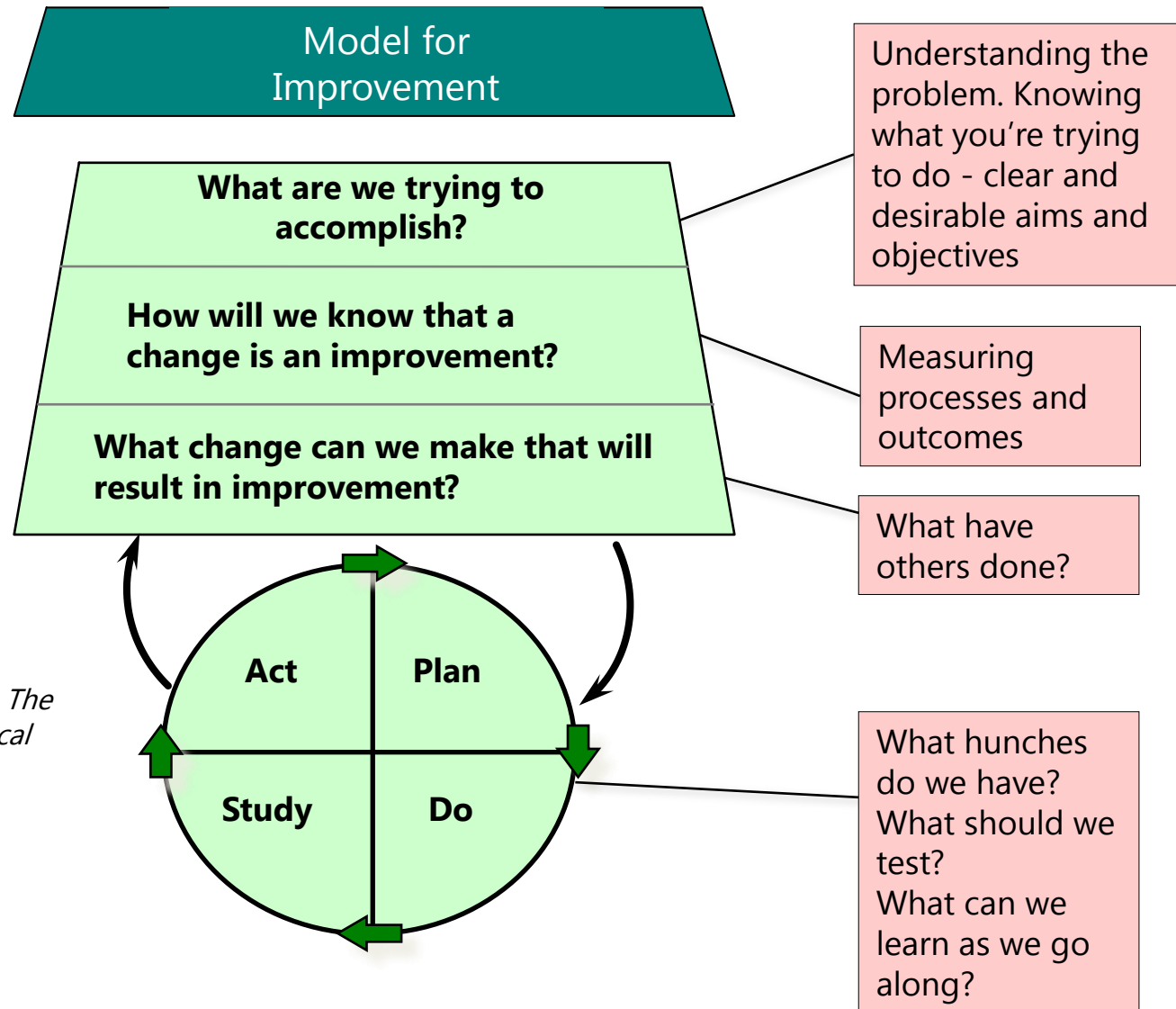
↓
**Detailed prior study?
Paralysis**

**Too much thinking
not enough action**

**“We can’t do anything
until we know exactly
what to do...”**

↓
“Trial and Learning” Approach

The Model for Improvement: an overview



Langley G, Nolan K, Nolan T, Norman C, Provost L, (1996), *The improvement guide: a practical approach to enhancing organisational performance*, Jossey Bass Publishers, San Francisco

Question 1

What are you trying to accomplish?

Made up of 3 stages/tasks/elements

- Being clear about what is the **problem** (*i.e. what is going wrong*)
- **Analysing/diagnosing** the issues before you start (*i.e. not rushing headlong in*)
- Defining your **aim** (*i.e. what are you going to do about it?*)

Key points about problem statements

- One or two sentences
- Non-judgmental
- Not the solution
- Not a symptom
- People agree with you!

Diagnosing the problem before you start

Some tools for 'diagnosing' your problem

Existing data/information

- Routinely collected data
- National/local surveys
- **Local/national audit data**

New (easy to collect) data/information

e.g. brief survey e.g. ask staff to write down 2 reasons why they are not routinely collecting outcome measures

Some tools for 'diagnosing' your problem

The 5 Whys

We often jump to either 'the symptom' of the problem, OR 'the solution'

Problem: We are not collecting outcome measures

WHY? Because we forget

WHY? Because there is a lot of paperwork

WHY? Because we keep getting new forms to complete

WHY? Because our paperwork has not been reviewed

WHY? Because we hadn't got around to doing it ...

And addressing the core problem will solve a lot more than just meeting the outcome measures target!

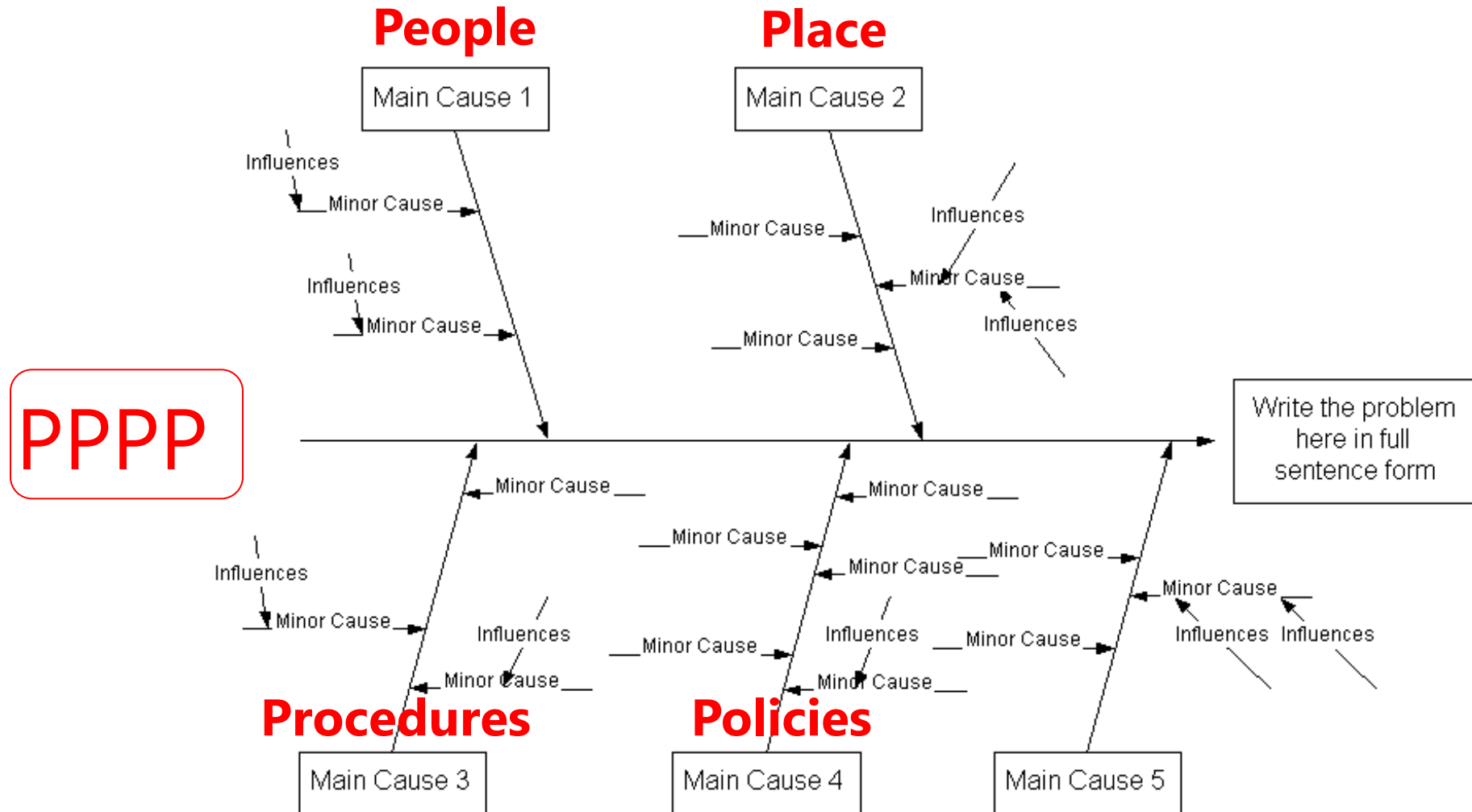
Some tools for 'diagnosing' your problem

Brainstorming

- Be aware of the impact of hierarchy on people's willingness to contribute
- Make sure everyone has a voice i.e. consider using post-it notes
- Encourage people to think 'outside the box'
- Do not judge

Some tools for generating or organising your data

Ishikawa/Fishbone diagram



Some tools for organising your data

The Pareto Principle

- ‘The 80-20 Rule’
- ‘The Law of the Vital Few’
- For many phenomena, 80% of the consequences stem from 20% of the causes
- Observation that 80% of income in Italy went to 20% of the population

Vilfredo Pareto, 1906

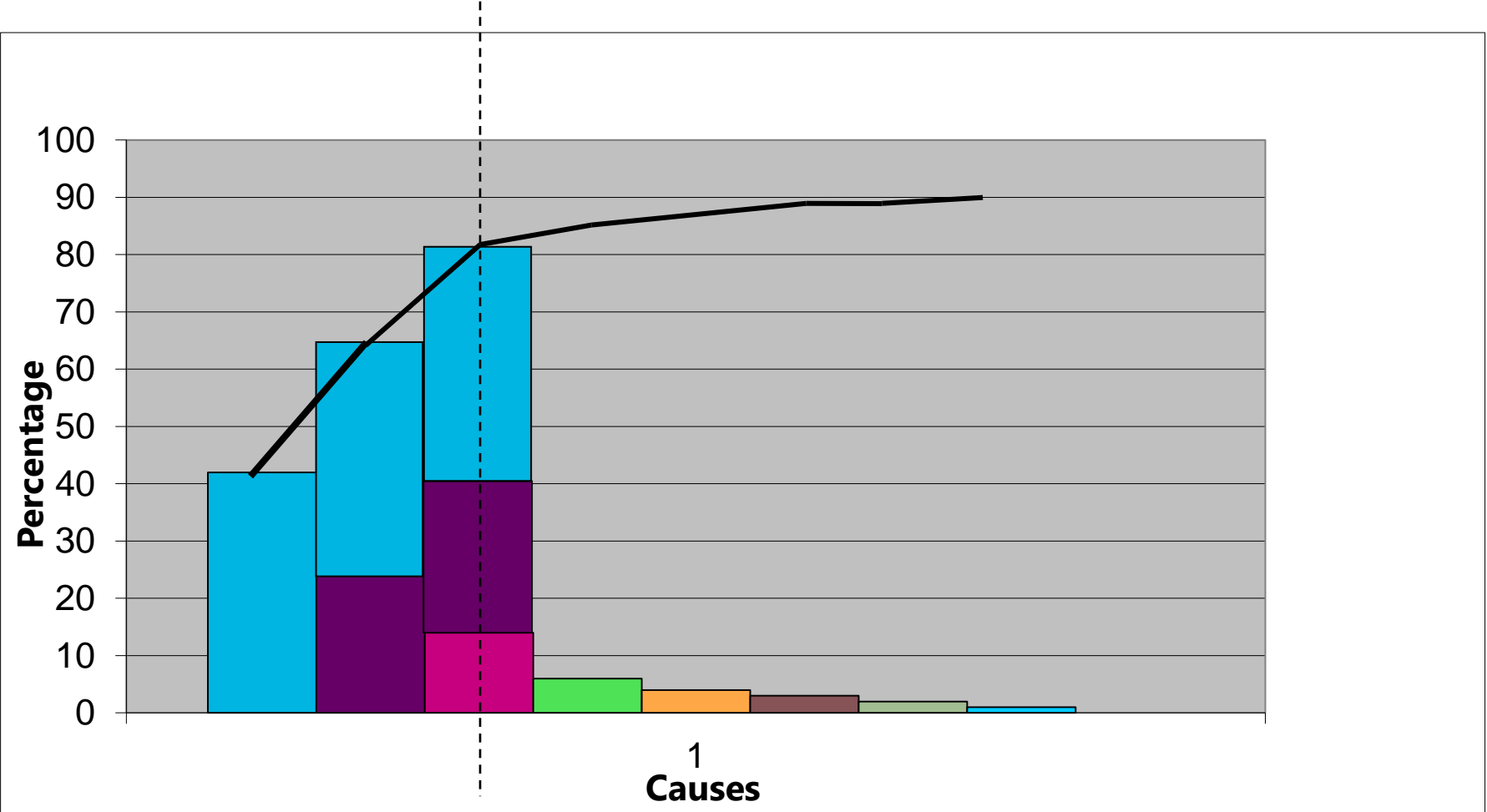
Some tools for organising your data

Pareto charts

Reason for not completing outcome measures (n=100)	
Unclear how data will be used	III III III III III III III III = 40
Insufficient time	III III III III III = 25
Forgotten	III III III = 15
Service users don't like it	III II = 7
Service user refused	III = 5
Not enough training	III = 4
Service users find it hard	II = 2
Not agreement on which tools to use	I = 1
Not answered	I = 1

Some tools for organising your data

Pareto charts



Some tools for organising your data

Pareto charts

By addressing the top 3 causes of falls:

- Unclear how data will be used
- Insufficient time
- Forgotten

...you are likely to prevent 80% of falls

By addressing the remaining problems:

- Service users don't like it
- Service user refused
- Not enough training
- Service users find it hard
- No agreement on which tools to use
- Not answered

...you are likely to prevent 20% of falls

So, by doing 20% of the work you can generate 80% of the benefit of doing the entire job.

An example of the steps in Question 1

Problem: only 20% of users of the Southern Early Intervention Service had 2 or more outcome measures completed at last twice.

Diagnosis

- Brainstorming session: ask the team
- Pareto chart for findings: get the biggest ‘bang for your buck’.

Aim: to increase the % of service users that have 2 or more outcome measures by 15% by December 2020.

How to write a statement of aim

- What do you want to improve?
- **For who – population?** (choose enthusiasts, don't be too ambitious)
- **By how much – target?**
- **By when - time frame?** (be realistic)
- Make sure it is 'SMART' and CLEAR (operationally defined)
- NB: a statement of aim is often most powerful when stated from the perspective of the service user (or staff)

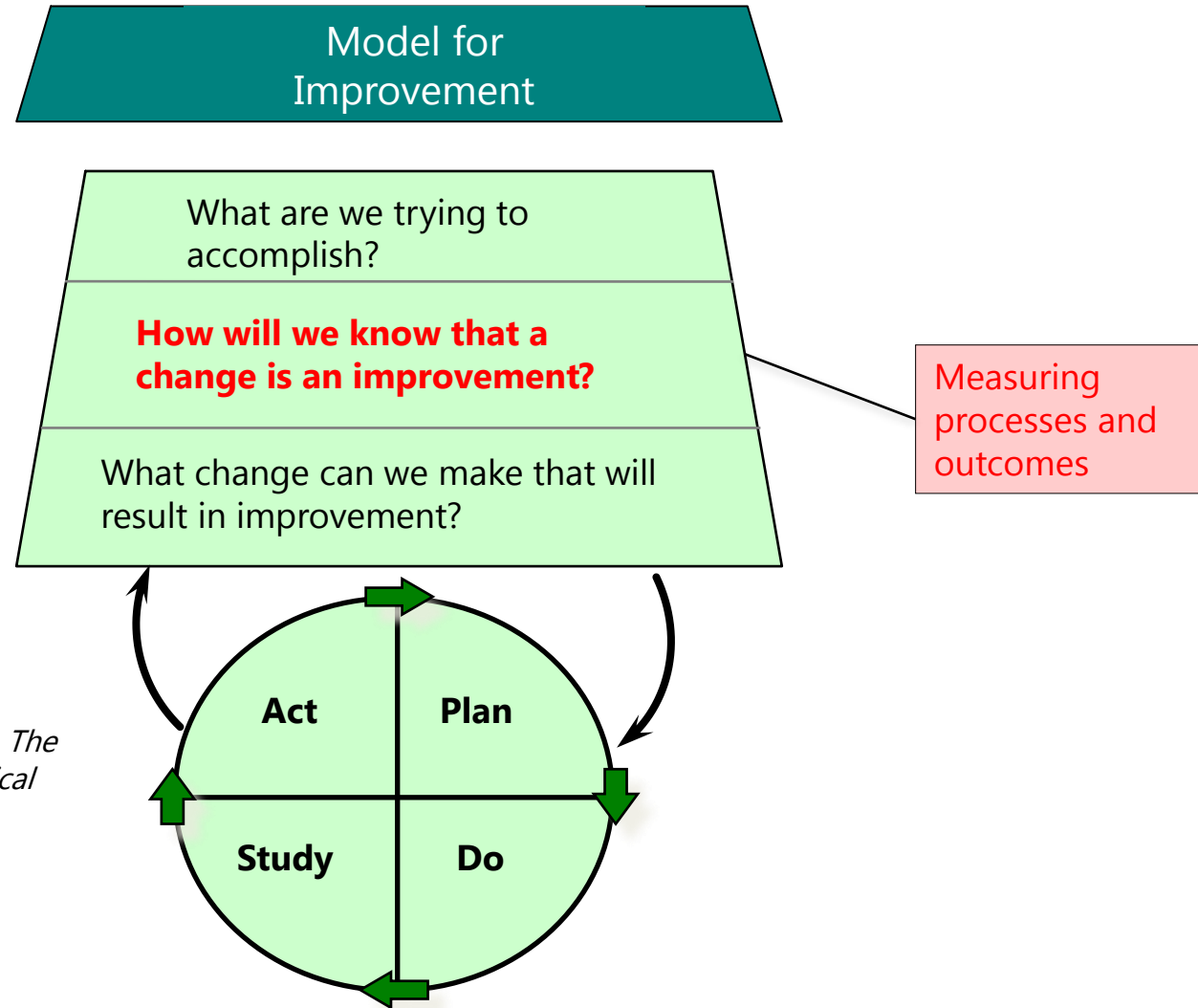
YOUR GOAL: TO ENSURE EVERYONE HAS THE SAME UNDERSTANDING

How to choose your team

Think about:

- Who can support your improvement work directly, or help you access any help you may need?
- Who understands the various parts of the system that you are trying to improve?
- Who will be affected by the changes you are trying to make?
- Who could block it going forward?
- Who are the 'enthusiasts'?
- 'Active' versus 'passive' member?

Question 2



Langley G, Nolan K, Nolan T, Norman C, Provost L, (1996), *The improvement guide: a practical approach to enhancing organisational performance*, Jossey Bass Publishers, San Francisco

All improvement involves change, BUT, not all
change is an improvement!

AND

Without measurement it is impossible to know
whether you have improved.

“We treat patients using data. We wouldn’t dream of not using full blood tests and other diagnostic tools. But somehow we seem able to intervene in an entire hospital system without data.”

Prof Charles Vincent

Why are you measuring?

Measurement can be split into the reason why you are measuring: **what words are evoked by each?**

- Measurement for **Research**

Science, rigor, hypothesis testing, statistics, “large data”

- Measurement for **Performance Management**

Comparison, justification, targets, FEAR ...

- Measurement for **Quality Improvement**

‘Just enough’ data, improvement of care, ownership

THINK ABOUT YOUR AUDIENCE

Types of measures

Outcome measure: relates back to the aim

Aim: to increase the % of service users that have 2 or more outcome measures by 15% by December 2020.

Outcome measure: the % of service users that have 2 or more outcome measures.

Types of measures

Process measures

The specific steps in a process that lead – either positively, or negatively - to the outcome. Often:

- ‘times between’, OR;
- ‘adherence to’ (a guideline).

Are the processes (parts/steps) in the system performing as planned? If not, where should improvement efforts be focused?

If you do not know you may need to use (more) diagnostic tools to find out

Types of measures

Aim: to increase the % of service users that have 2 or more outcome measures by 15% by December 2020.

Pareto top causal factor: unclear how data will be used.
THIS NEEDS TO CHANGE IF OUTCOME IS TO CHANGE.

Process measures could be ...

- Staff confidence to incorporate use of outcome measure data into care planning, OR
- Staff/service user rating of the usefulness of outcome measures

Types of measures

Balancing

- Unintended consequences
- ‘Robbing Peter to pay Paul’
- What would you worry about?

Example:

YOU: “We aim to increase the % of service users that have 2 or more outcome measures.”

THEM: “What if service users complain that they feel they don’t get enough time to talk about their concerns?”

Action: survey service users

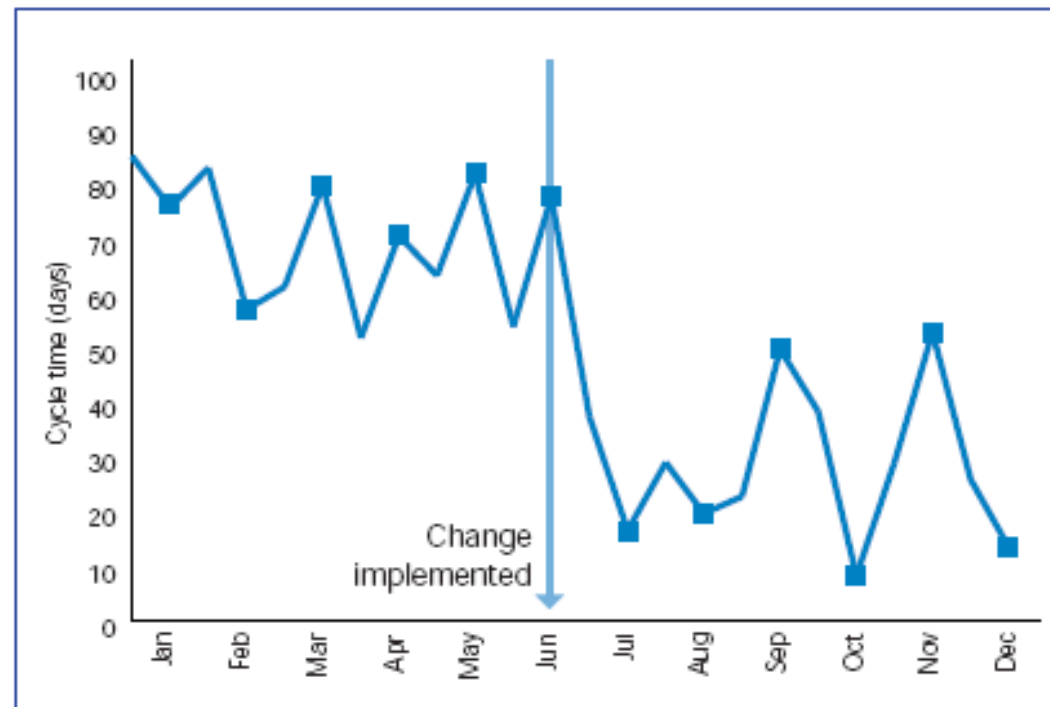
A brief introduction to run charts

Charts vs tables

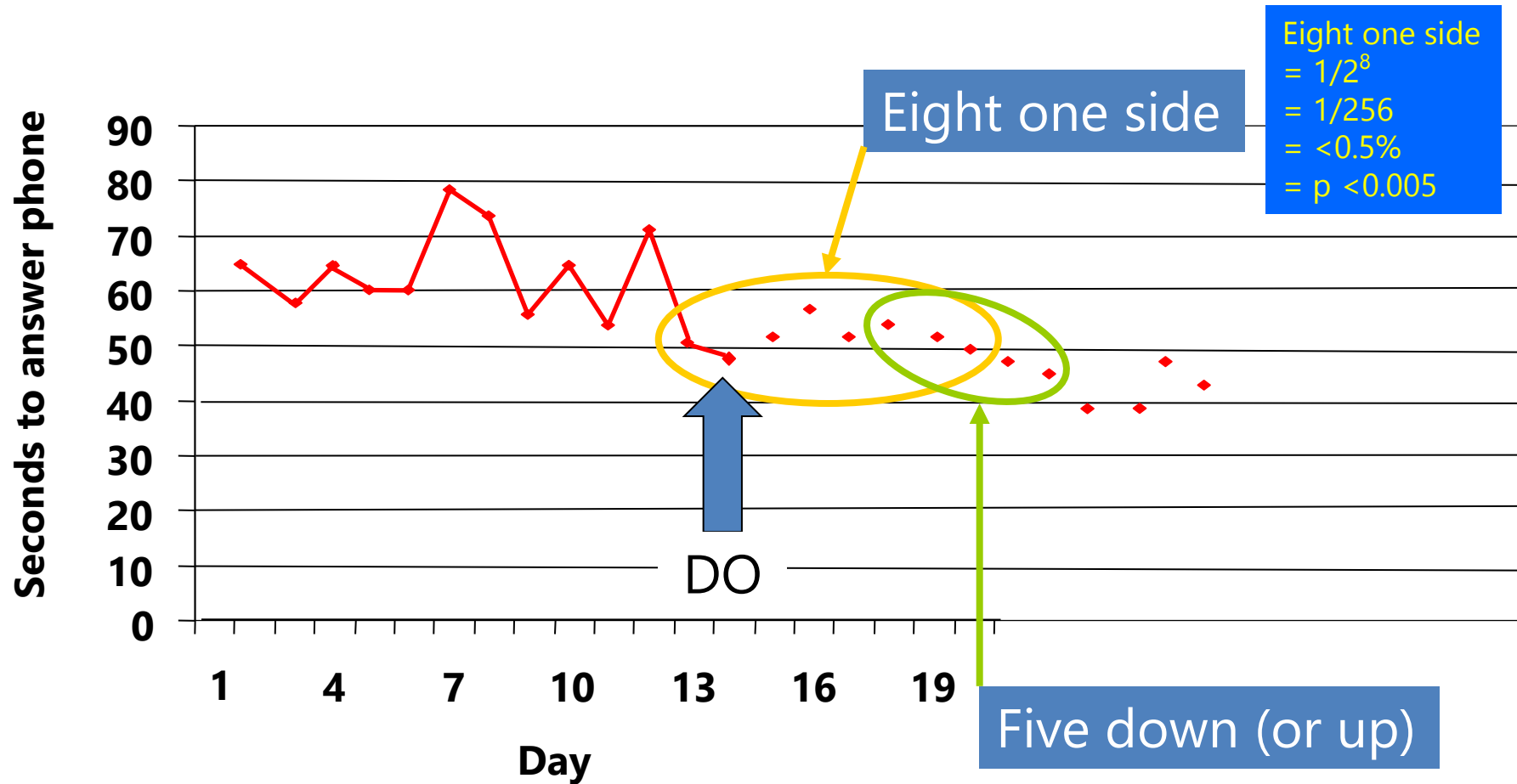
Example of poor presentation data – number of days between GP referral and appointment with specialist

Date	Cycle time (days)	Date	Cy
	85		
Jan	76	Jul	
	83		
Feb	58	Aug	
	62		
Mar	80	Sep	
	53		
Apr	71	Oct	
	64		
May	82	Nov	
	55		
Jun	78	Dec	

Same data presented as a run chart – number of days between GP referral and appointment with specialist



A brief introduction to run charts

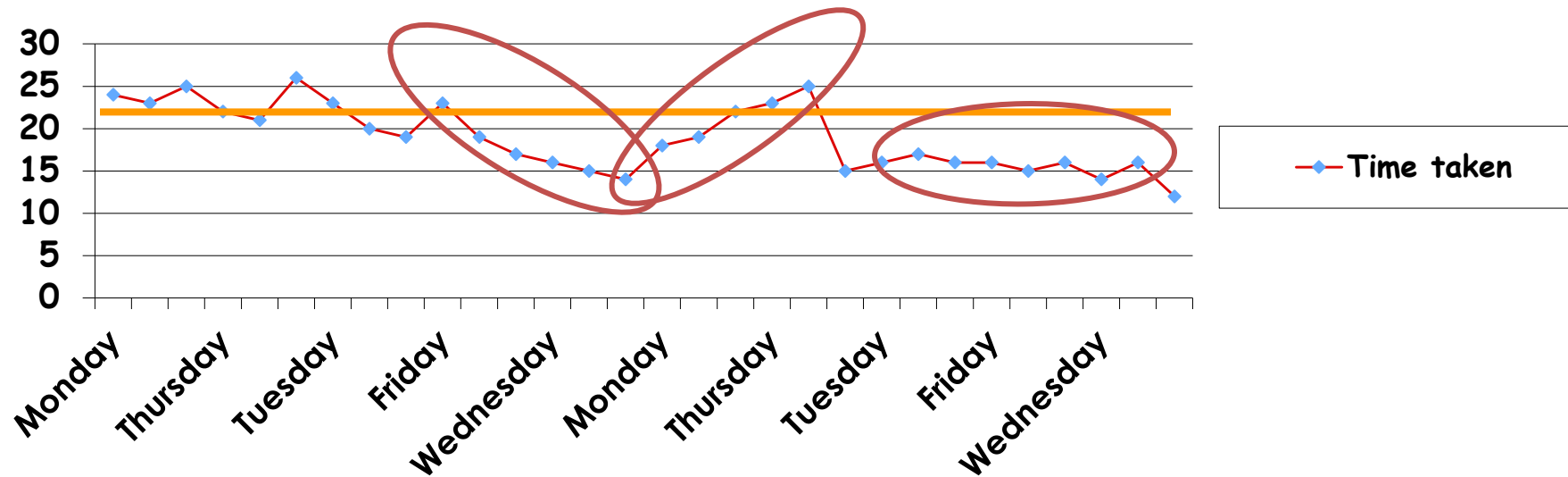


<http://qualitysafety.bmj.com/content/20/1/46.abstract>

How will you measure?

The Run Chart

Journey to work

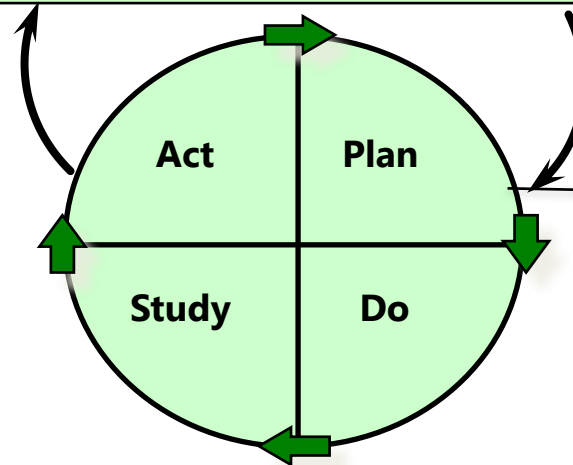
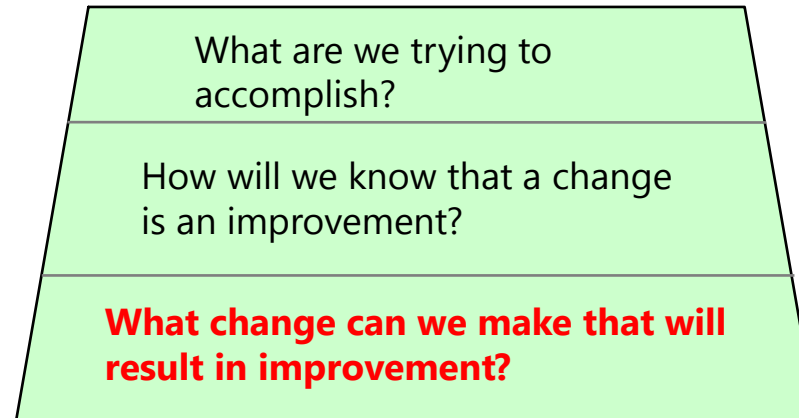


Measurement: key points

- Measures are used to guide improvement
- Focus on the vital few (about 2 or 3)
- Try to integrate measurement into your routine
- Define numerator and denominator 5/10 (50%) Vs 5/5 (100%)
- Plot your data over time
- Make run charts visible – they provide important feedback

Question 3

Model for Improvement



What hunches do we have?
What should we test?
What can we learn as we go along?

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Agreeing your change ideas and testing them

By the time you get to this stage ... you'll already have LOTS of ideas

- remember those 'solutions'?

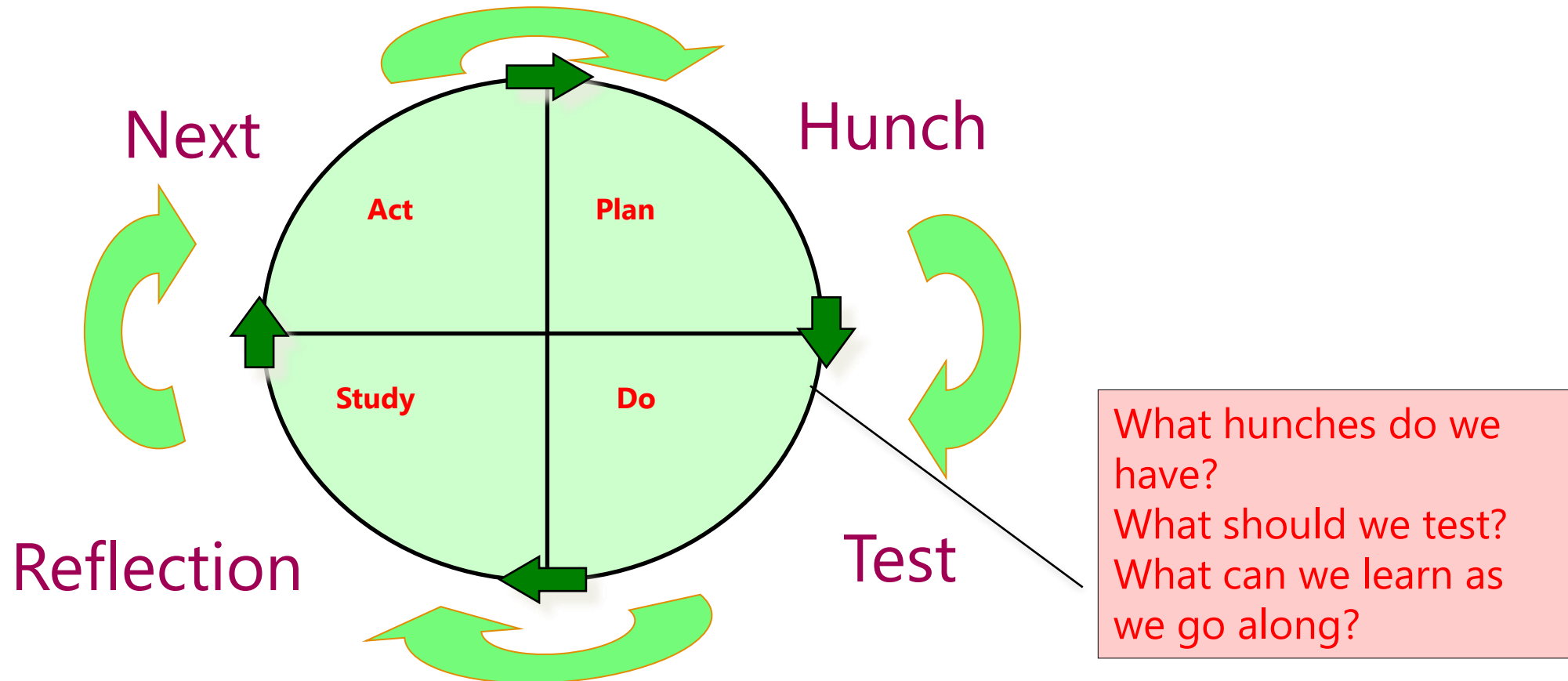
Where can you get change ideas from?

- the 'evidence'
- other services/people's experiences
- 'stealing shamelessly' (remembering you may have to 'adapt, not adopt')

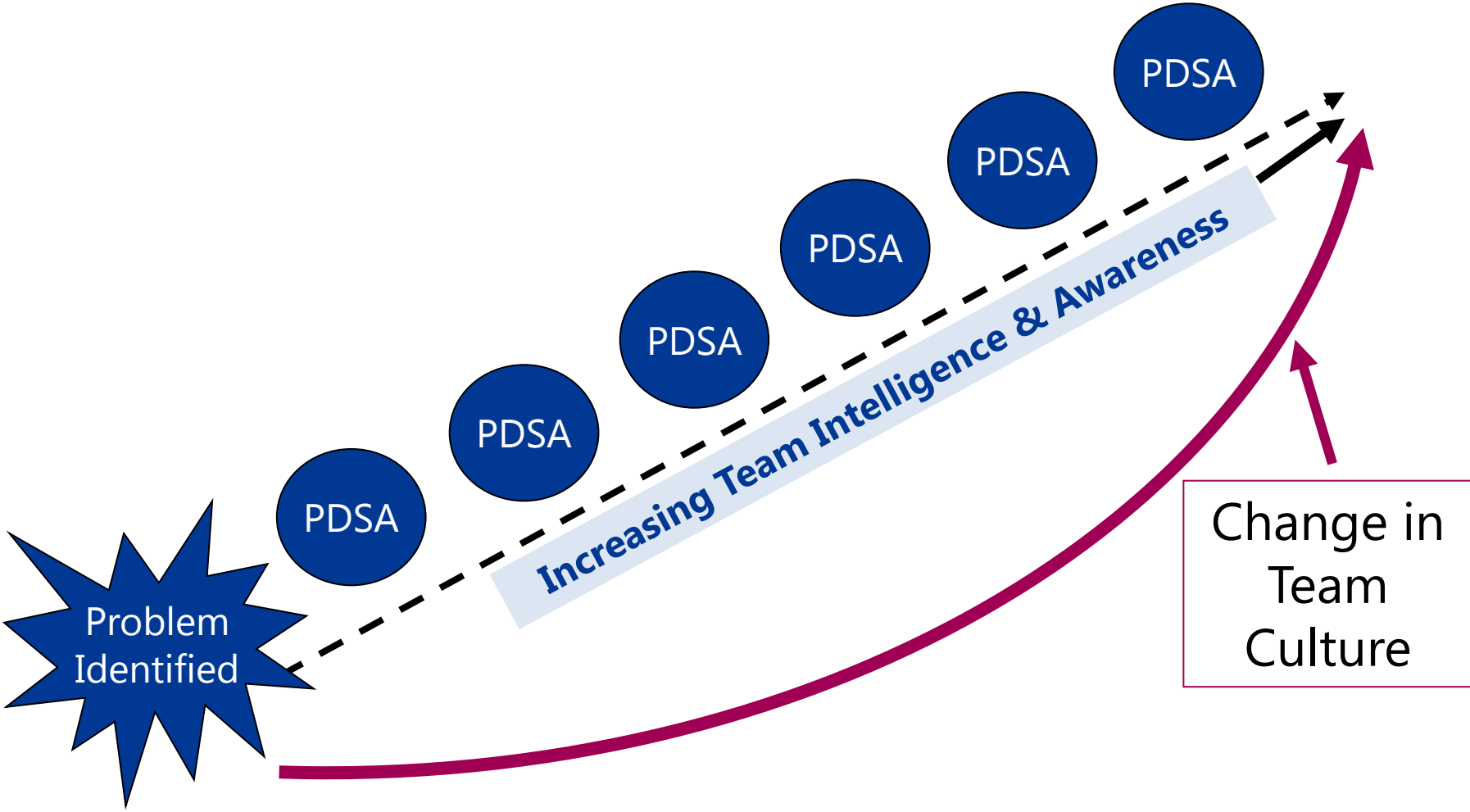
And remember - anyone can have a great idea!

Agreeing your change ideas and testing them

Then you test your ideas using the PDSA cycle



Developing Practice Improvement



Why use PDSA?

- Test change in real-time in the work place
- Small rapid scale testing:
 - Minimises resistance
 - Will the change work in environment in question
 - Safe and low risk as refining change & checking works before implementing on a broader scale
 - 1, 3, 5, all!

Change idea versus PDSA: weight loss

Change idea	PDSAs
Consume fewer calories	5:2 diet Reduce portion size Increase vegetables ... and on
Burn more calories	Go to gym twice a week Cycle to work Use the stairs ... and on

WHAT

HOW

Some key messages

- We have **bad systems**, not bad people
- **Measurement** supports **action** (and the visualisation of improvement)
- QI is everyone's business
- QI is about making it **easy** to do the **right thing**
- QI is about reducing unacceptable variation
- Anyone can have a great change idea
- Improvements can be **rapid** and **profound**
- Improvement work is **empowering** and **exciting!**

Further information

Basic entry-level QI training

<http://qitraining.improvementacademy.org/>

Basic entry-level Human Factors training

<https://improvementacademy.org/our-training/bronze-human-factors-training.html>

Video ++ on behaviour change

<https://improvementacademy.org/tools-and-resources/abc-for-patient-safety-toolkit.html>

Thank you for listening

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