

# Improvement Methodology for PBC

Dr. John Derry



The **improvement foundation** incorporating NPDT  
Improving public services



# Improving health care through PBC

How can we do this?  
What is known to work?  
What approaches are based on good evidence?



The **improvement foundation** incorporating NPDT  
Improving public services



# Change & Improvement

- “If you always do what you have always done, you will always get what you always got”
- “All Improvement involves change, not all change is an improvement”



The **improvement foundation** incorporating NPDT

**Improving public services**

**NPDT** National Primary Care  
Development Team

# PBC & Improvement

- An evidence-based approach
- Used by Institute for Healthcare Improvement in USA
- Used by various Modernisation Agency programmes in NHS
- Founded on experience with TQM and related approaches over more than 50 years in many different environments



The improvement foundation incorporating NPDT

Improving public services



# Improvement journey

- Define the problem
- What are we trying to achieve?
- How does it fit into the big picture?
- What changes can we make?
- Make changes
- Check the changes
- Spread...encourage others to change



The improvement foundation incorporating NPDT

Improving public services

**NPDT** National Primary Care  
Development Team

# The Model for Improvement

- Focus on health care systems and processes
- Standard approach that has been shown to work in NHS
- 3 questions and a tool for trying out changes
  - Based on experiential learning theories



The **improvement foundation** incorporating NPDT

**Improving public services**



# Three Questions

- What are we trying to accomplish?
- How will we know that a change is an improvement?
- What changes can we make that will result in an improvement?



The **improvement foundation** incorporating NPDT

**Improving public services**



# Where to start?

- Methods for defining the problem
  - PBC Practice plan (DES)
  - Look at your PBC data!
  - LDP priorities
  - Brainstorming
  - Nominal Group Technique / Multivoting
  - Pareto Chart



The **improvement foundation** incorporating NPDT

**Improving public services**

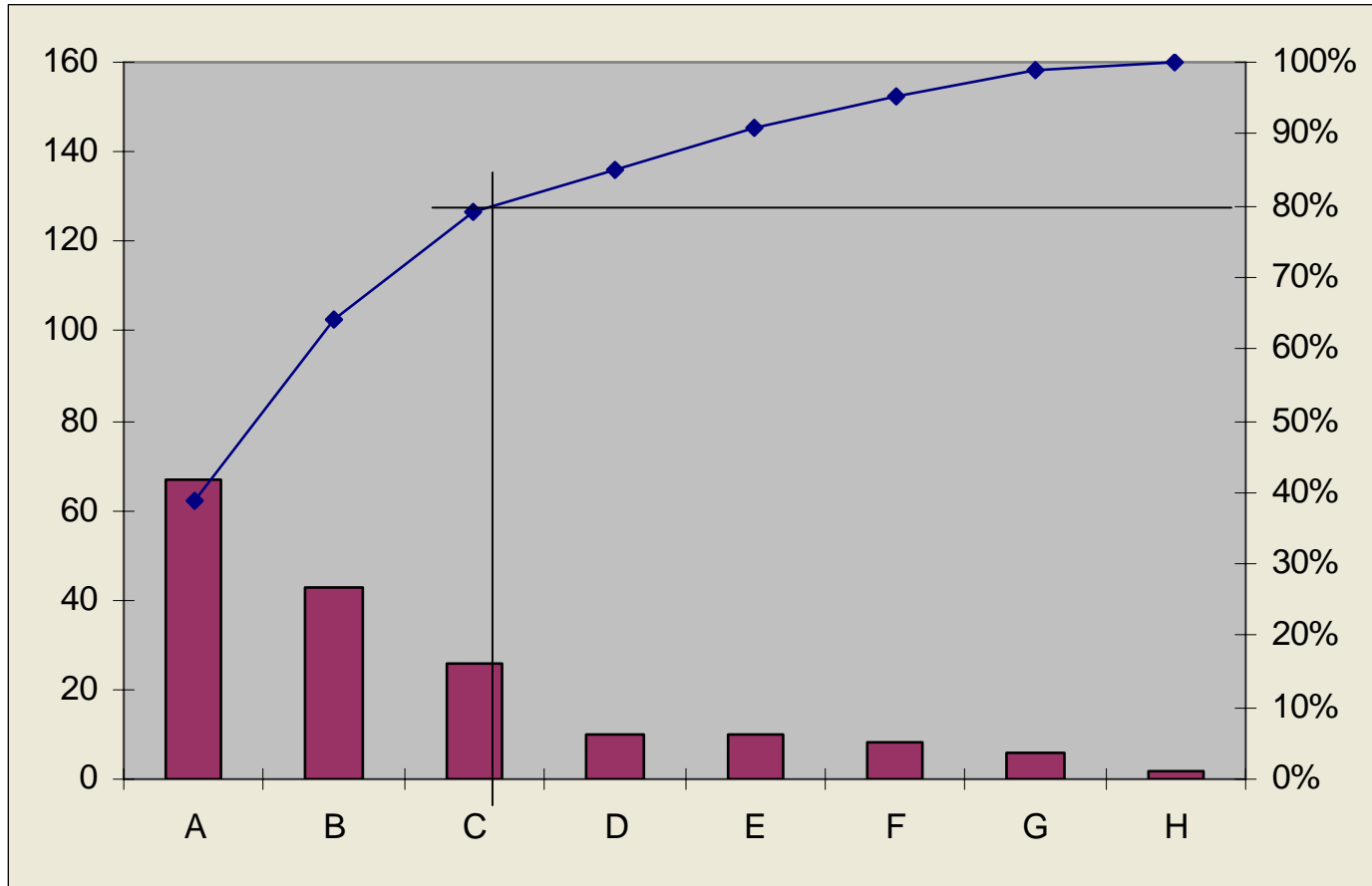




# Pareto analysis

- Based on 'Pareto Principle' (Juran)
  - 80% of income in Italy received by 20% of population (economist Vilfredo Pareto)
  - 80% of the consequences stem from 20% of the causes
  - Helps to concentrate efforts on factors having greatest impact

# Pareto chart



# Where to focus attention

- Having identified areas that will have greatest impact
- What needs improving?
- Importance of seeing health care as a system
  - understanding systems and processes



The **improvement foundation** incorporating NPDT

**Improving public services**

**NPDT** National Primary Care  
Development Team

# Understanding Systems

“Every system is perfectly designed to get the results it gets.

If we want better outcomes, we must change something in the system.

To do this we need to understand our systems.”

Don Berwick



The **improvement foundation** incorporating NPDT

**Improving public services**

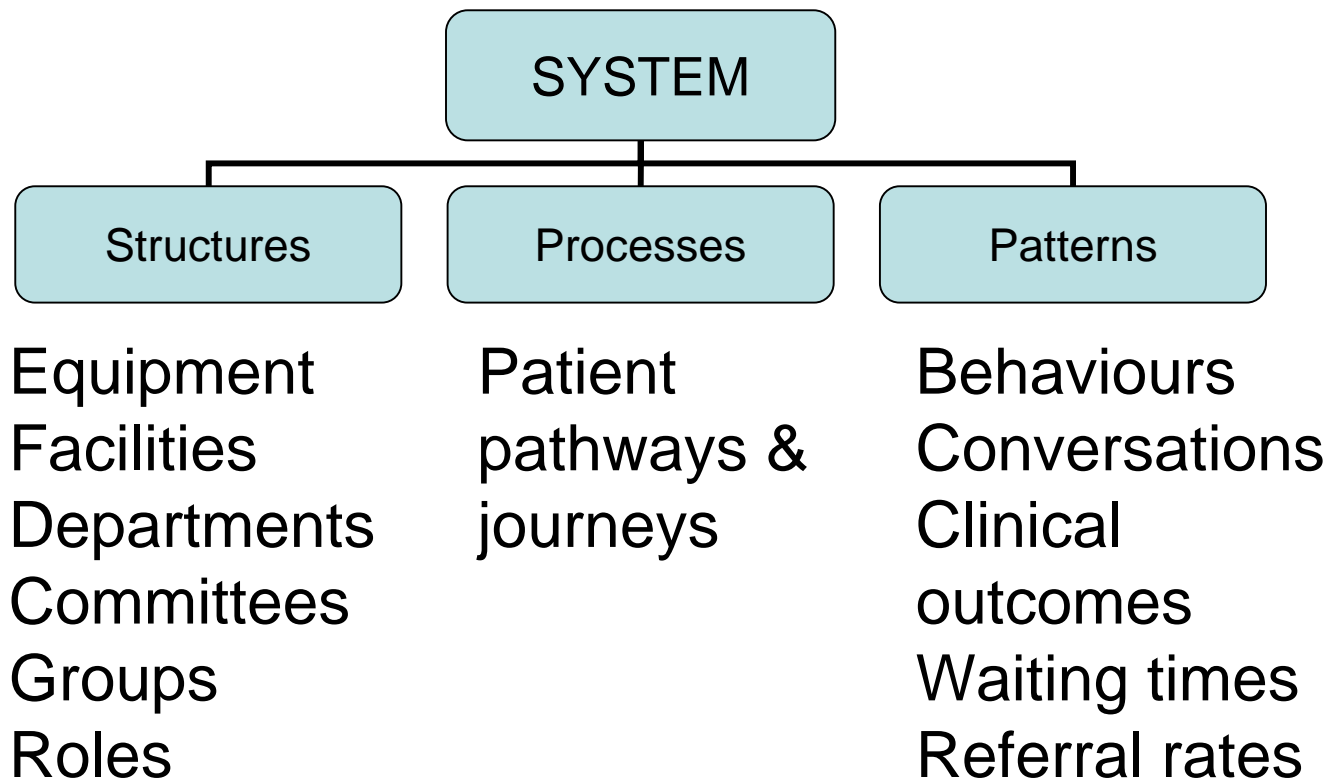
**NPDT** National Primary Care  
Development Team

# What Is A System?

- A System is
  - A collection of structures, processes & patterns
  - Organised around a purpose



# Structures, Processes & Patterns



# What Are Processes?

- Processes
  - Are the components of a system
  - Are a series of connected steps or actions to achieve an outcome
  - Have purposes and functions of their own but cannot work entirely by themselves



The **improvement foundation** incorporating NPDT

**Improving public services**

**NPDT** National Primary Care  
Development Team

# Characteristics Of A Process

- Start point
- End point
- Achieves outcome that has purpose or aim
- Standard or quality of inputs throughout process is governed by rules
- Is usually linked to other processes
- Simple and short, or complex and long



# Examples Of Processes

- From first developing symptoms to being healthy again
- From the decision to refer to being seen in out-patients
- From requesting an X-ray to knowing the results



The **improvement foundation** incorporating NPDT

**Improving public services**



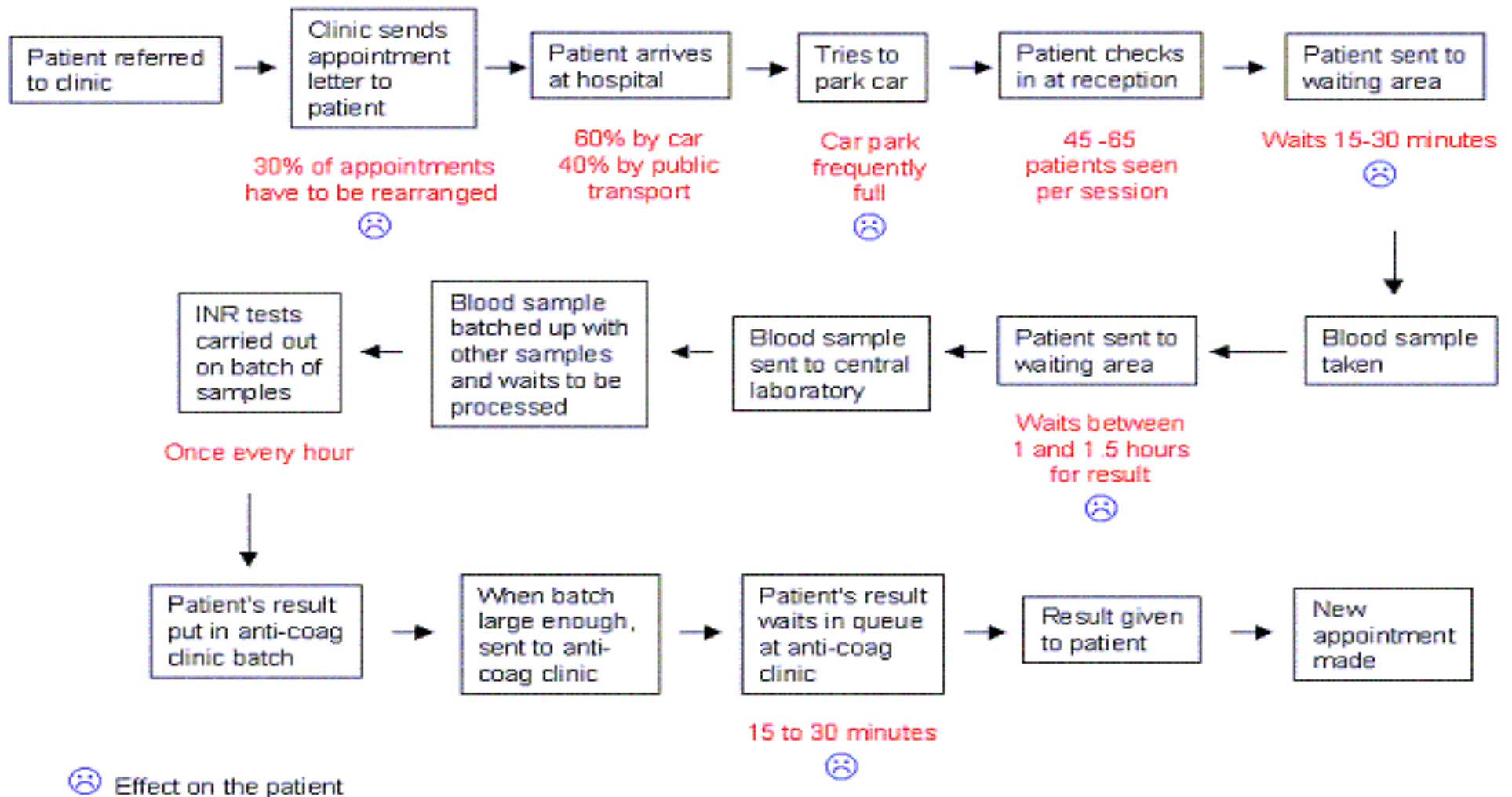
# Process Maps

## Principles of Redesign



# Example Process Map

## THE ANTICOAGULANT BLOOD TESTING PROCESS



# 18 Week Target & PBC

- “By 2008, no one will have to wait longer than 18 weeks from GP referral to hospital treatment”
  - NHS Improvement Plan, June 2004
  - Which conditions?
  - When does clock start and stop?
    - Guidance to follow
    - <http://www.18weeks.nhs.uk> for more information

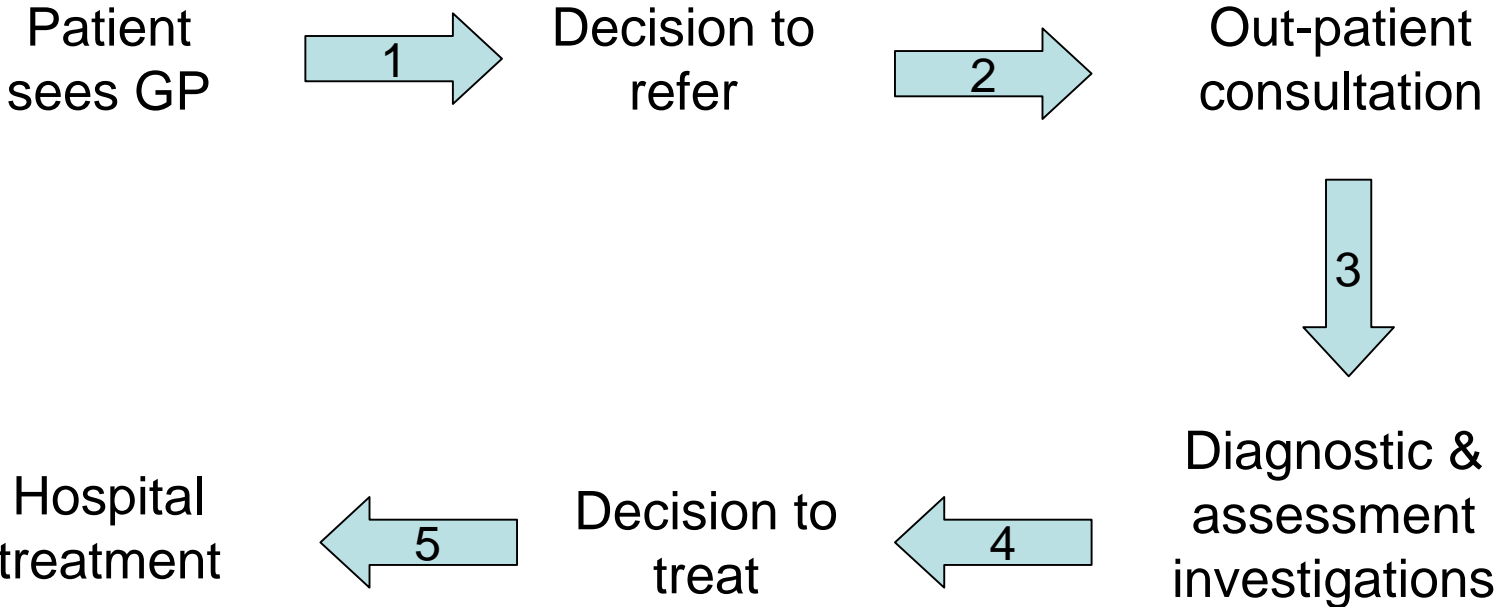


The improvement foundation incorporating NPDT

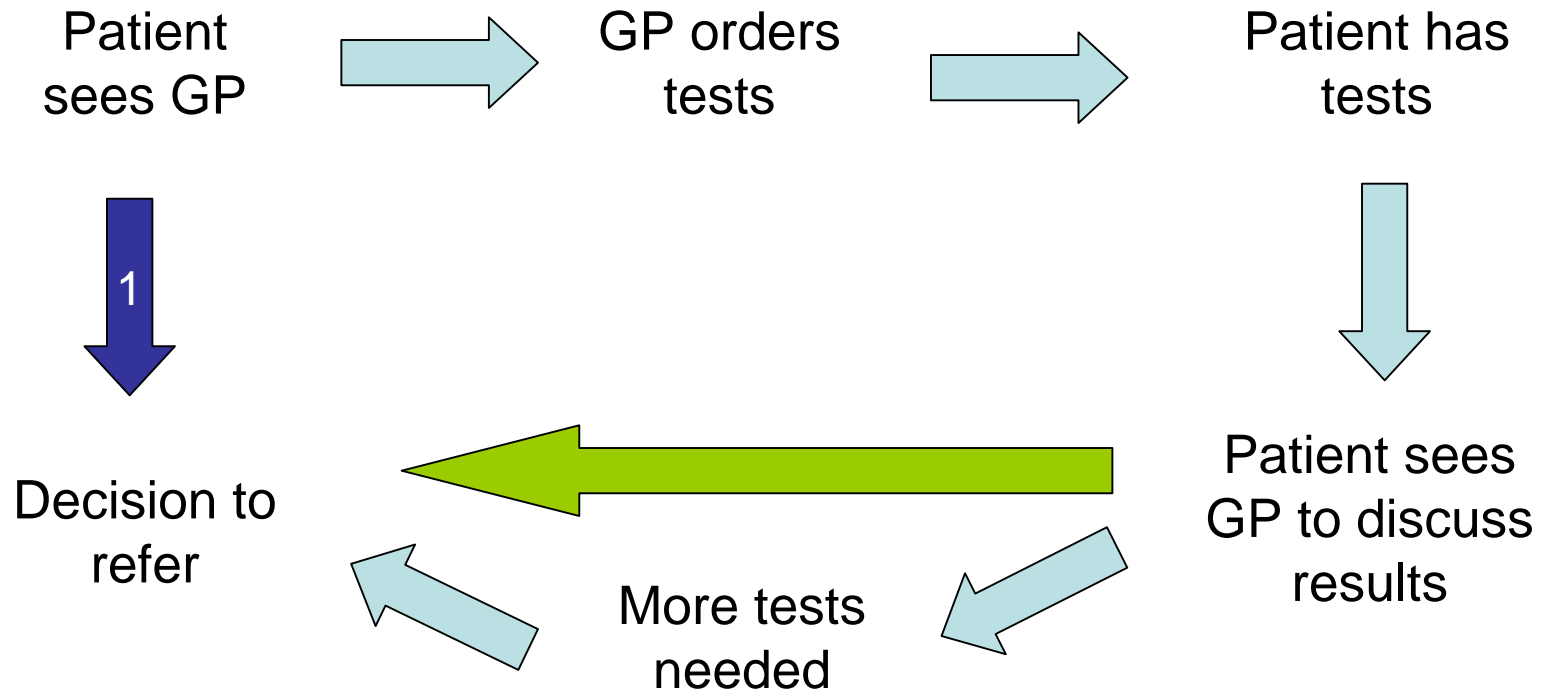
Improving public services



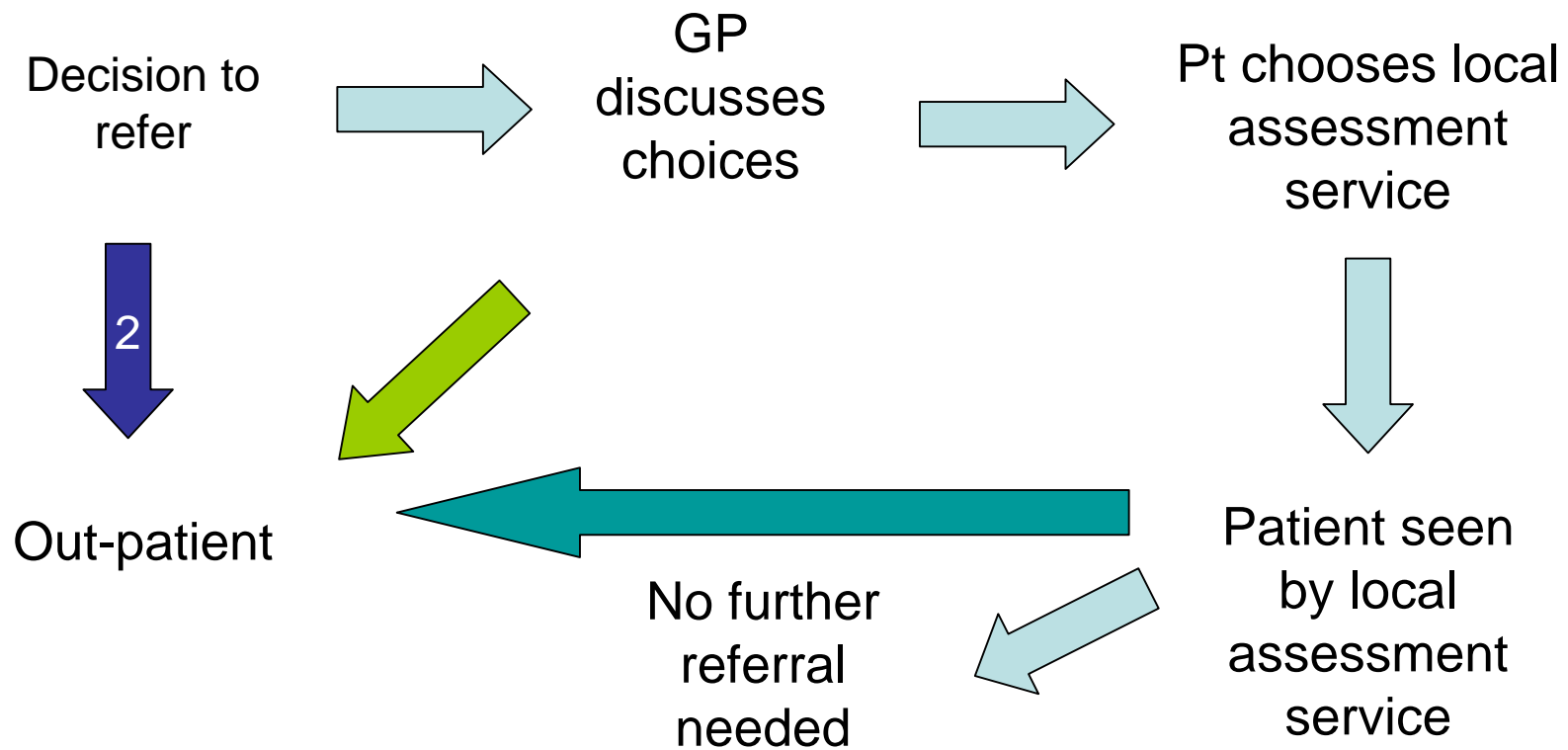
# A Referral To Treatment Process Map



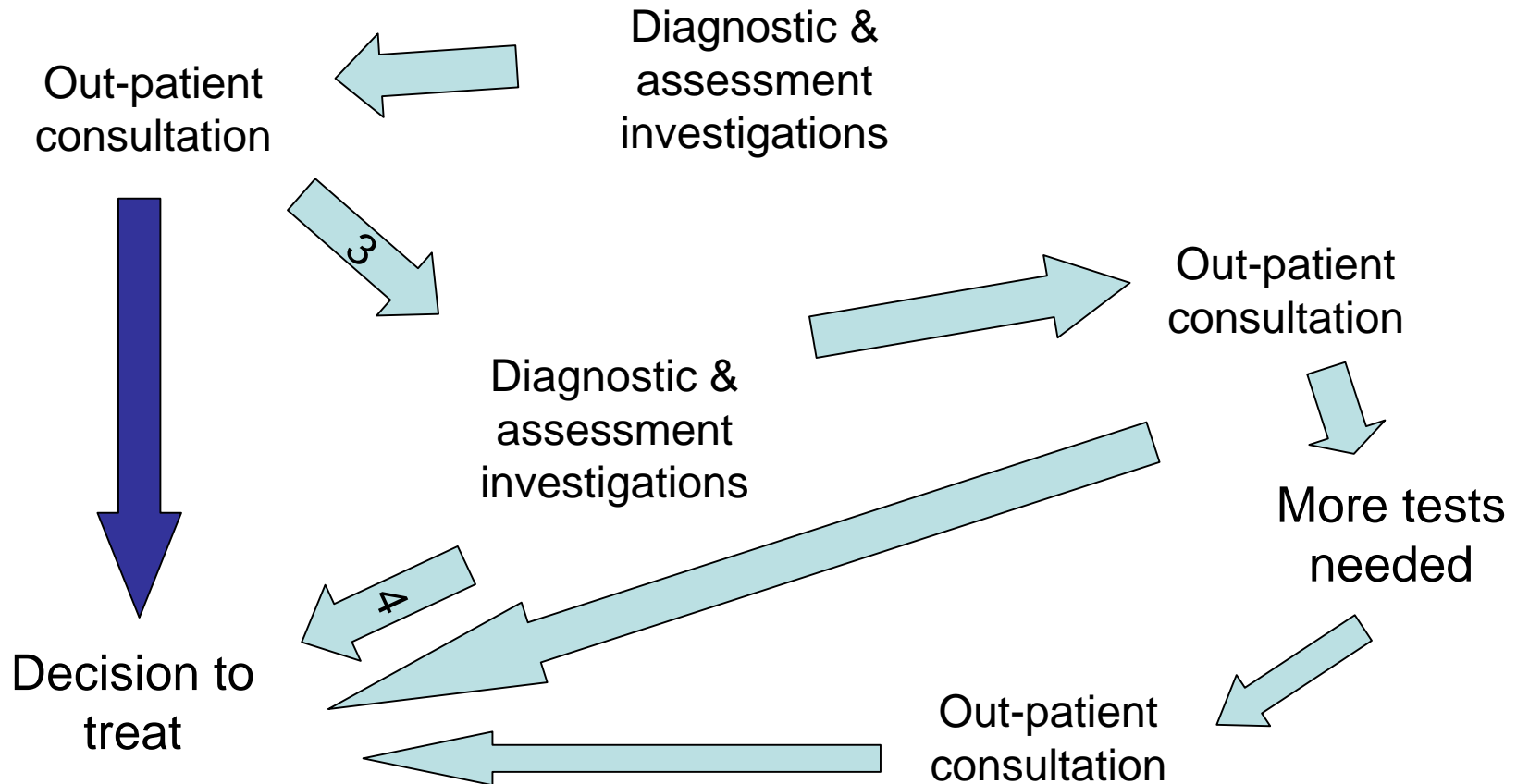
# Pathway Step 1



# Pathway Step 2



# Pathway Steps 3 & 4





# How To Process Map

- Do it as a group
- Get all stakeholders present
- Take a sheet of wall paper and attach to wall
- Process map each step using post-it notes
- Remember to stick them on with sellotape at the end
- The debate is as important as the result



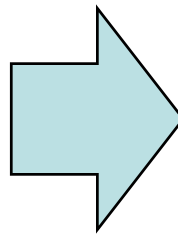
The improvement foundation incorporating NPDT

Improving public services

**NPDT** National Primary Care  
Development Team

# The Scope Must Be Clearly Defined

where does  
it start ?



where does  
it end ?



# WARNING ! WARNING !

- Ensure you keep thinking of the current process as it really happens
  - How it really is, not how it should be, or how you'd like it to be!
- Focus on what happens to 80% of the patients 80% of the time
  - Don't worry too much about the exceptions that we all remember most easily!



The improvement foundation incorporating NPDT

Improving public services



# Having Mapped The Process

Analyse It.....



The **improvement foundation** incorporating NPDT  
Improving public services



# For Each Step Ask:

- Can it be eliminated?
- Can it be done in some other way?
- Can it be done in a different order?
- Can it be done somewhere else?
- Can it be done in parallel?
- Can any “Bottlenecks” be removed?
- Is it being done by the most appropriate person?



The improvement foundation incorporating NPDT

Improving public services

**NPDT** National Primary Care  
Development Team

# Analysing your process map

- How many steps in your process?
- How many hand-offs? **H**
- How many steps do not “add value” for patient? **NV**
- Where are possible delays? **D**
- Where are major bottlenecks? **B**

B

B

D

D

D

D

D

H

PATIENT  
HAVE  
SCAN

RADIOLOGY DEPT

H

RADIOLOGY  
SCAN  
RESULTS  
TO  
SURGERY

H

PATIENTS  
NOTES  
UPDATED

RECEPTIONIST

H

GP/MIDWIFE  
LOOK  
AT  
RESULTS

H

PATIENT  
ATTEND  
ANTE  
NATAL  
APPT M/WIFE

H

ENT  
K  
Z

NT  
ETE  
ING  
M  
ONIST

TIENT  
K  
NATAL  
ONIST

T  
A

# Share experiences

Of process mapping



The **improvement foundation** incorporating NPDT  
Improving public services

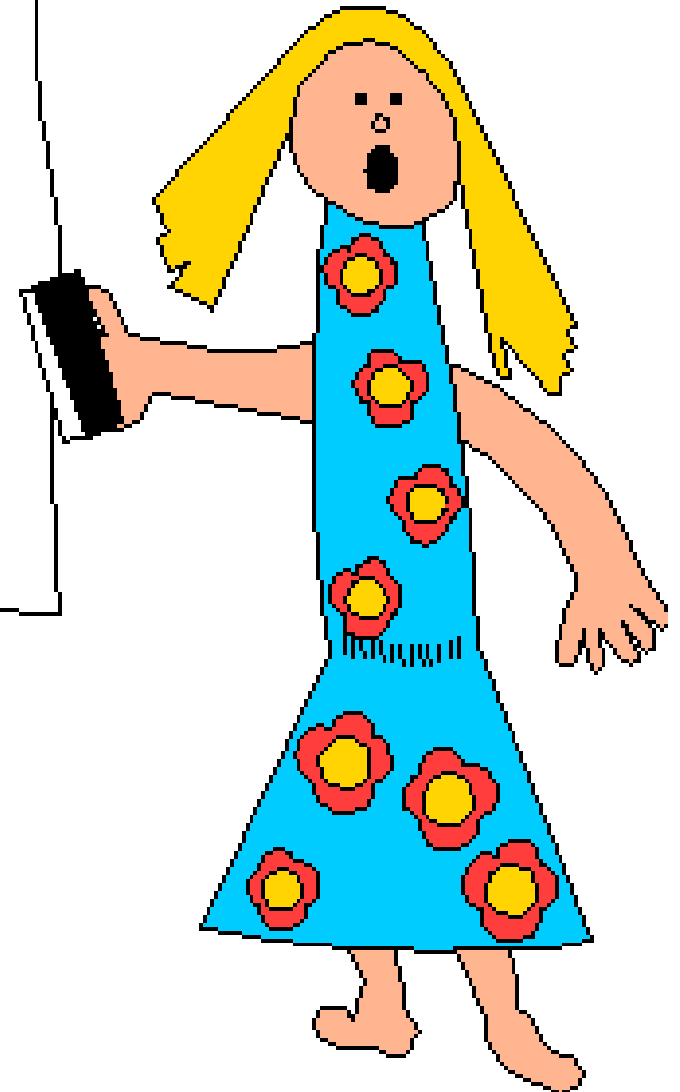




It's the easiest thing in the world..

To redraw  
boundaries and roles  
on a piece of paper ...

Not so easy to make the  
changes happen!



# This Is Where We Need

## The Improvement Model



The **improvement foundation** incorporating NPDT  
Improving public services



# Using the Findings

- Select a specific problem area from your map
- Generate some ideas for improvement
- Select one idea
- Identify what you would like to achieve with that particular idea
- Identify how you will know the change is an improvement – a measure
- Generate some specific actions that would be required to make this happen



The improvement foundation incorporating NPDT

Improving public services



# Three Questions

- (1) What are we trying to accomplish?
- (2) How will we know that a change is an improvement?
- (3) What changes can we make that will result in an improvement?

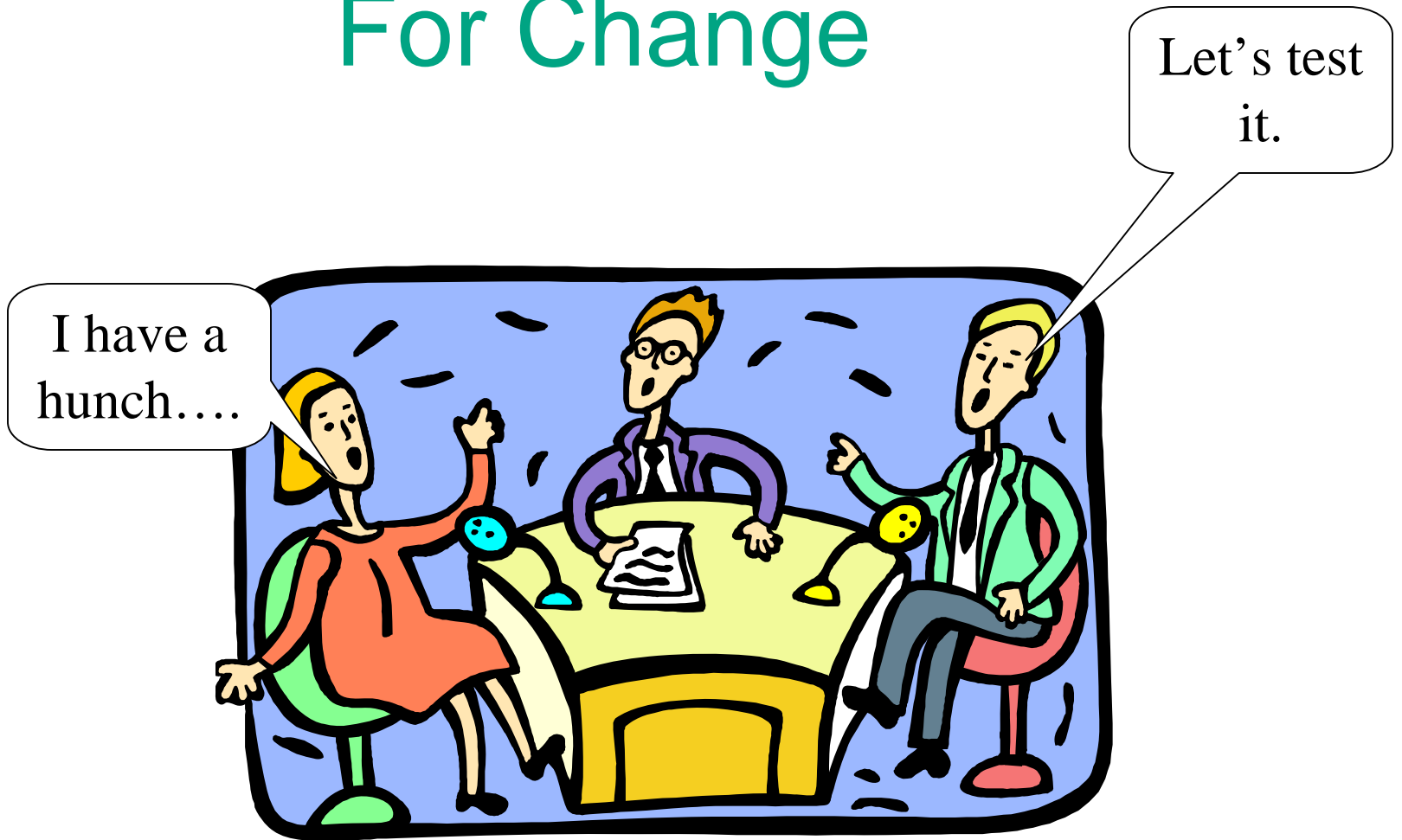


The **improvement foundation** incorporating NPDT

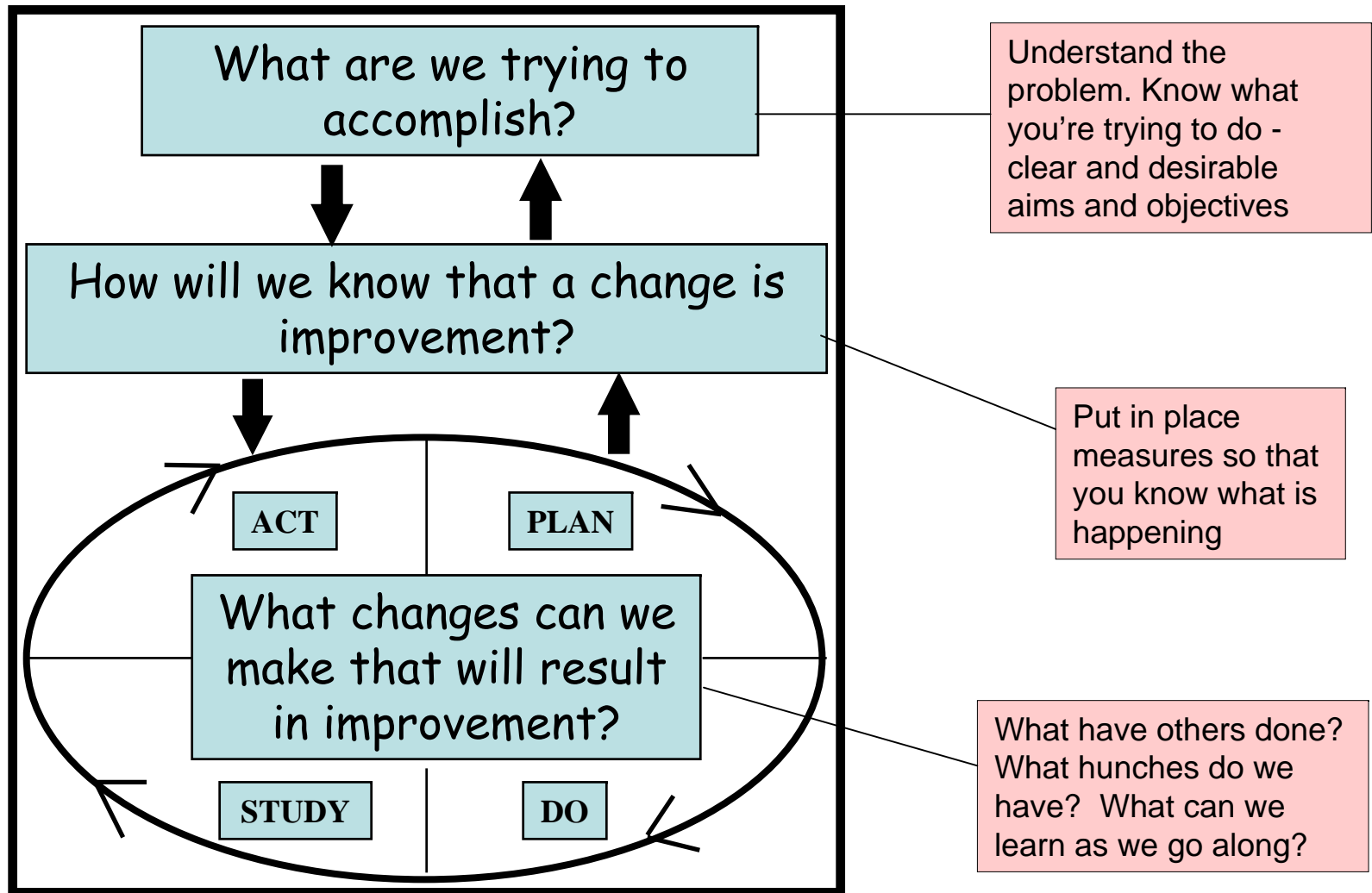
**Improving public services**

**NPDT** National Primary Care  
Development Team

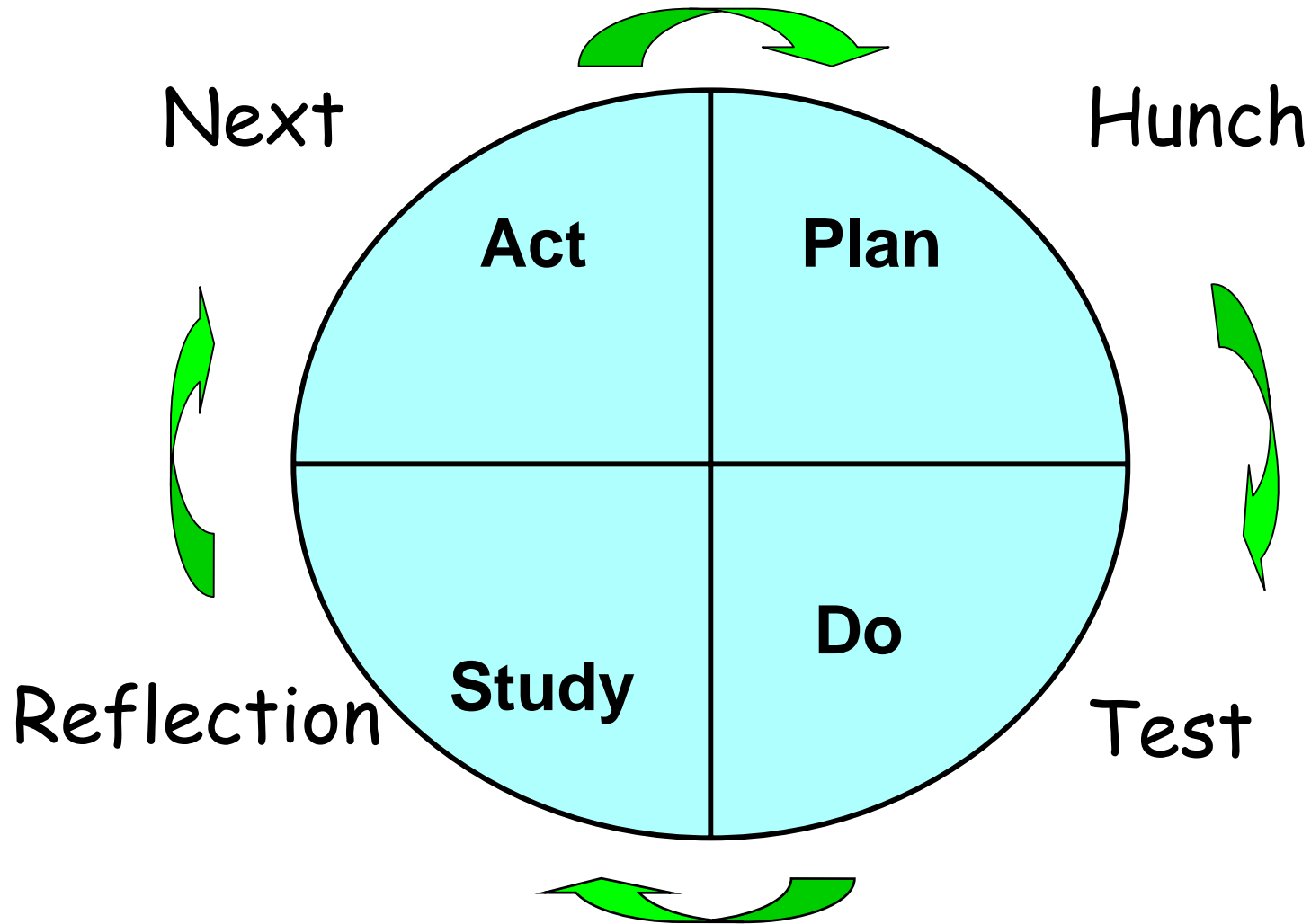
# Developing & Testing For Change



# The Improvement Model



# The PDSA Improvement Model



# Plan

How to explicitly test a small change

# Do

What you have planned to do

# Study

The outcomes, expected and unexpected, of the test

.....on the results to modify and improve

# Act

and then move on to the next cycle



The improvement foundation incorporating NPDT

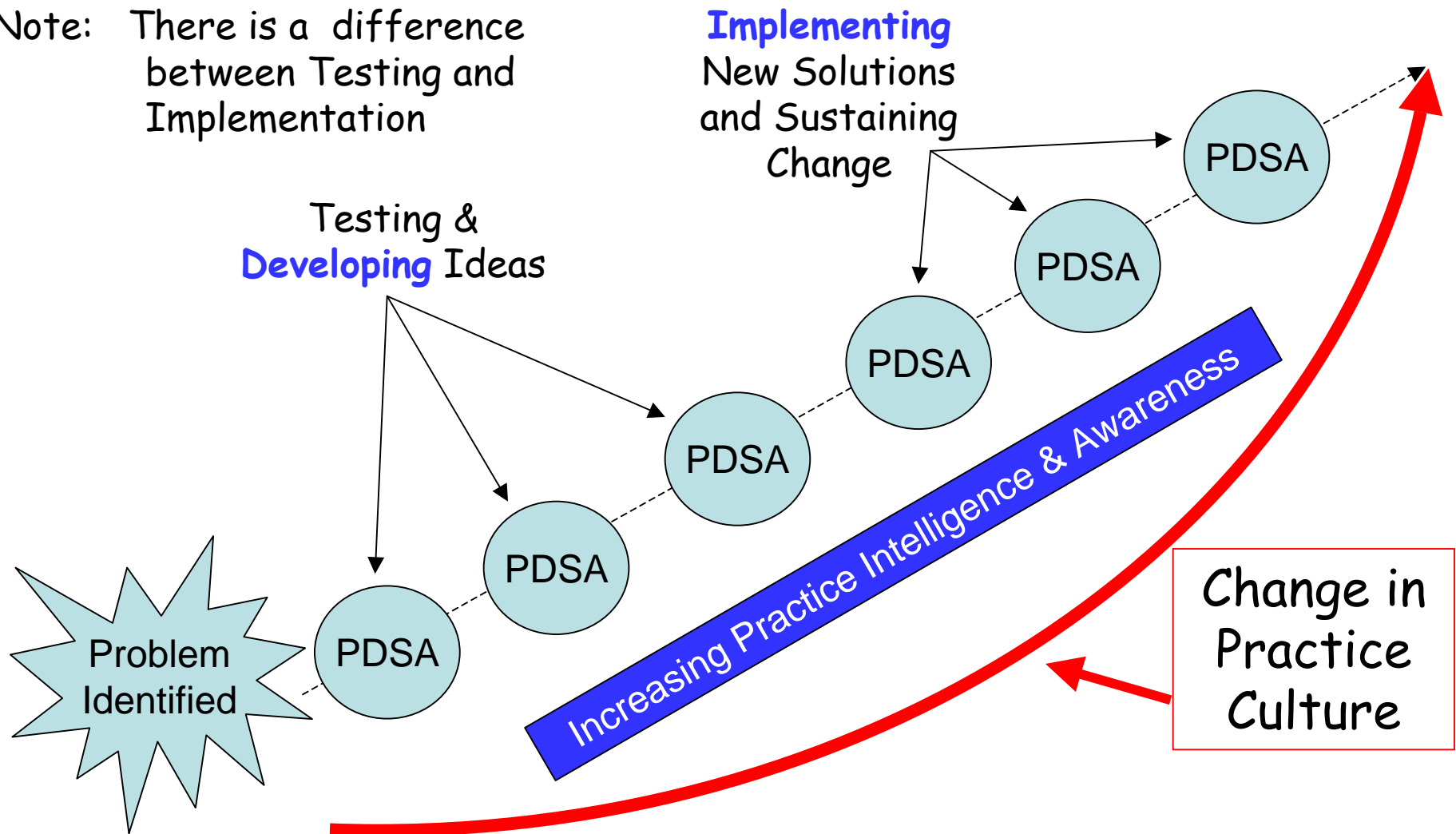
Improving public services

**NPDT** National Primary Care  
Development Team

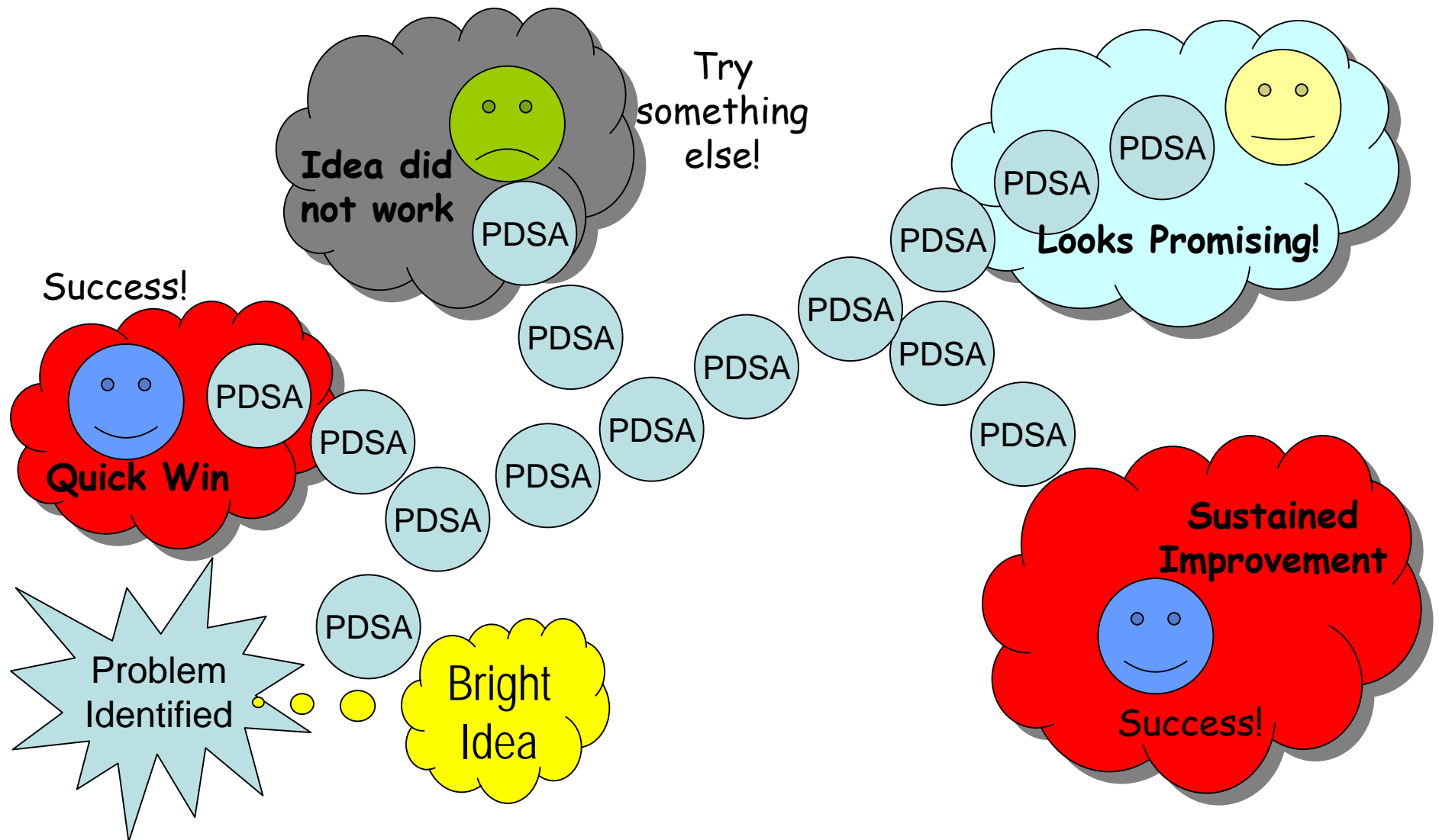


# Developing Practice Improvement

Note: There is a difference between Testing and Implementation



# Developing Practice Improvement – what really happens!!



# What Should a *PDSA* Look Like?

Objective	Define the problem What are you trying to achieve?
Plan	Who, what, where, when? Measurement
Do	Just do it!
Study	What worked? What didn't?
Act	Next steps

**Write  
It  
Down!**

# Tips for Successful PDSA

- Don't think too big
  - size matters; make it manageable and realistic, break down big changes into less-than-elephant sized pieces
- Don't be too vague
  - need some detail, although to a practical, not obsessive, level
- Don't forget to measure
  - qualitative data is important, but best if complemented by quantitative
- ACT on the results
- In practice more than 1 PDSA can be run at a time as long as they are small and simple



The improvement foundation incorporating NPDT

Improving public services





# PDSA

(Please Do Something, Anything!)



improvement foundation

The **improvement foundation** incorporating NPDT

**Improving public services**

**NPDT** National Primary Care  
Development Team

# Further resources

- The Improvement Leaders' Guides
  - Available for download/order at
  - <http://www.institute.nhs.uk/Products/ImprovementLeadersGuidesGeneralImprovementSkills.htm>
  - <http://www.institute.nhs.uk/Products/ImprovementLeadersGuidesProcessandSystemsThinking.htm>
- <http://www.ihl.org/IHI/Topics/Improvement/ImprovementMethods/>

Links checked June 2006!



The improvement foundation incorporating NPDT

Improving public services

