

# Redesigning Hospital Care: Diagnostic Imaging

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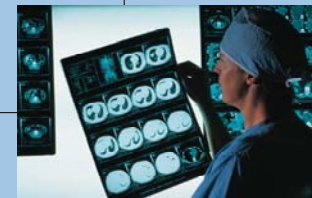
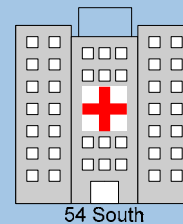
Better Health for Our Community

# Southern Health Health Service Improvement Program

Improving system wide patient flow and service efficiency, using contemporary improvement methodology

# Background

- Diagnostic imaging: from initiation of request for an MRI scan to delivery of results to the ward
- DHS funded initiative: 20 week pilot – Dec to April
- Bevington's Lean methods



# Bevington Methodology

## Data Collection by work team

1) Representatives from each natural work team document the real tasks & activities



2) Team members validate the data



3) All team members allocate relative time to identify the focus of effort



## Strategic Analysis

- Classify the activities
- Build the processes
- Identify issues and improvements



## Solution Generation

- Staff idea generation workshops
- Radical process change workshops



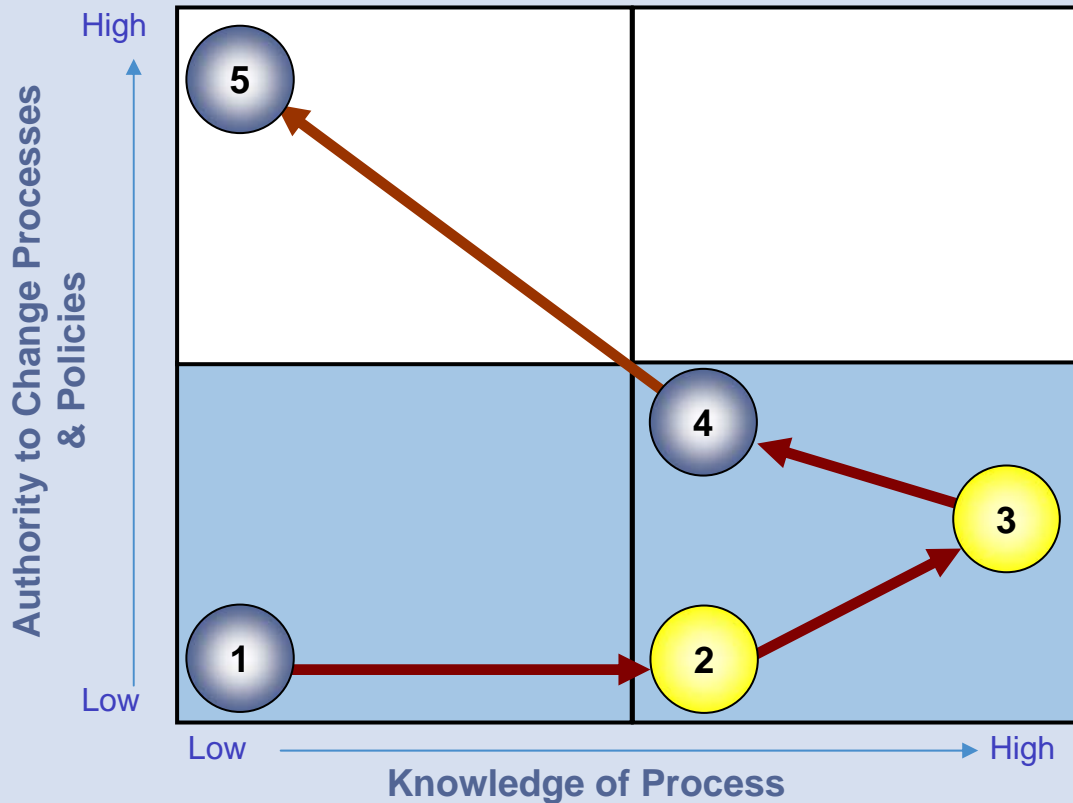
## Implementation

- Implement
- Measure & Documentation to lock in and achieve compliance



# The people who do the work know the work... *and* how to improve it!

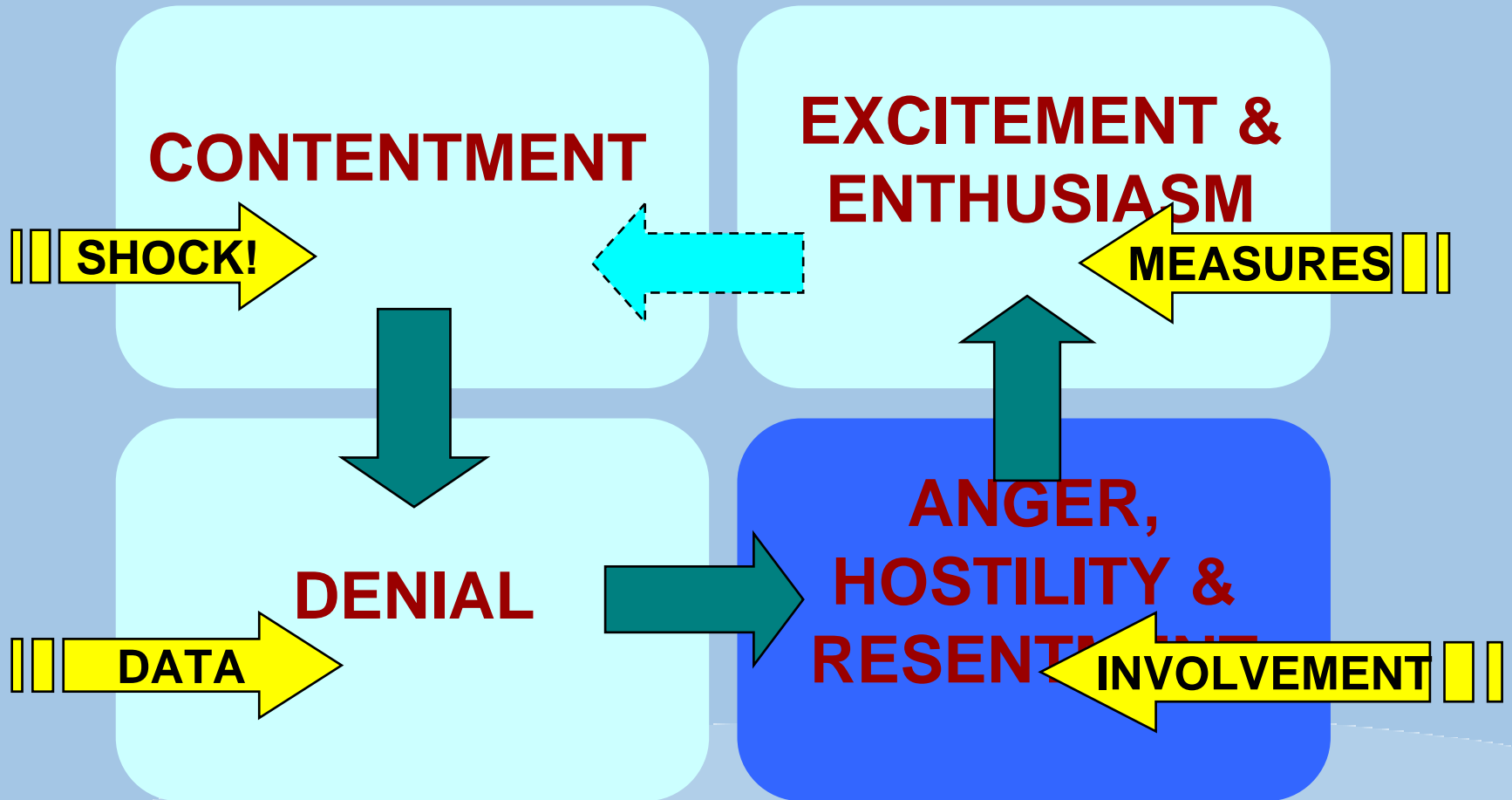
## Typical Management Progression



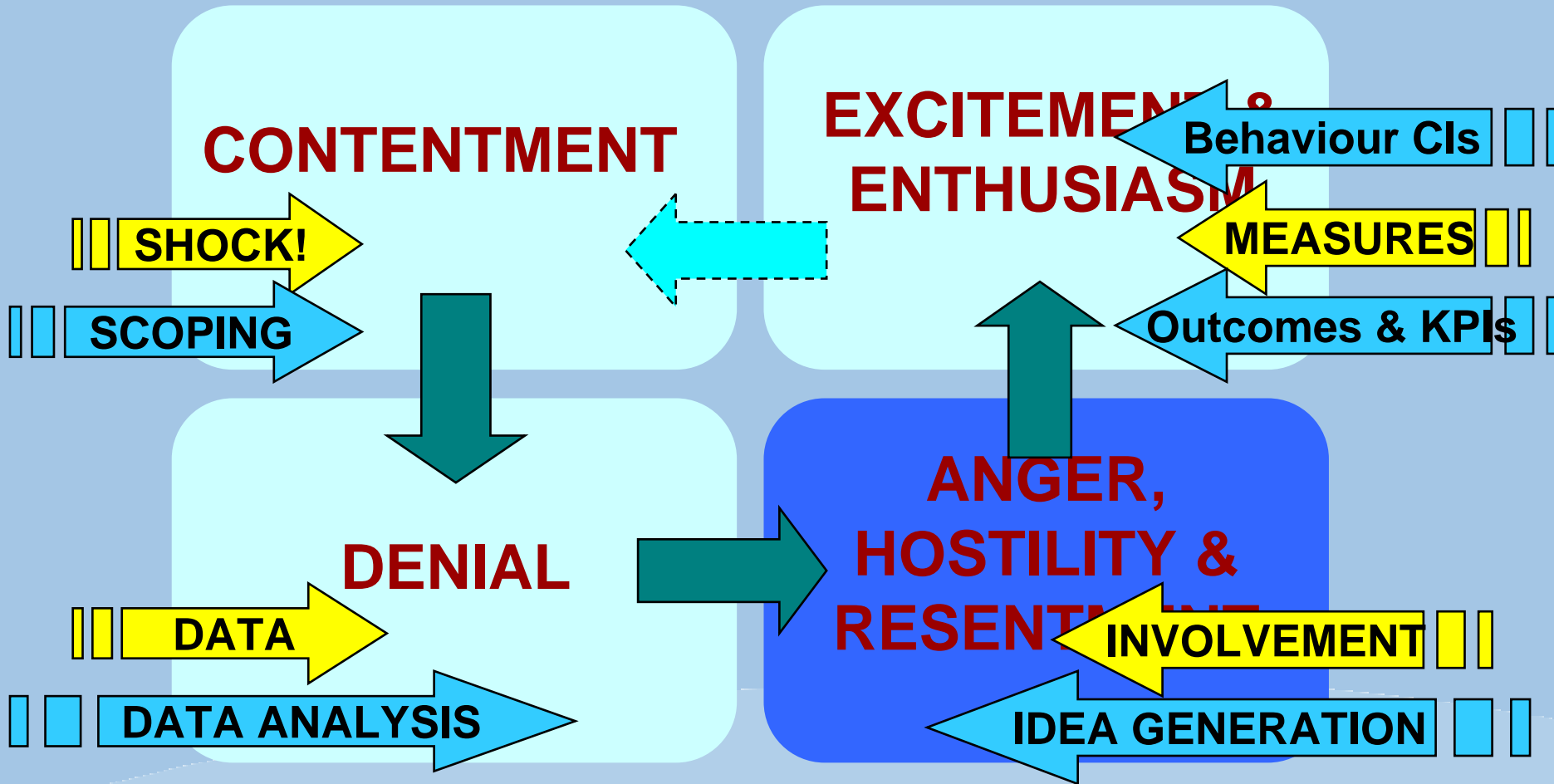
### KEY

1	New Staff
2	Staff Member
3	Team Leader
4	Managers
5	CEO

# Emotional responses to change can be likened to a 4-roomed house...




# Bevington's Methodology helps to move people quickly through the 'dark' rooms...



# What we found.....



**21 interviews**



**564 hours of  
Noise per month  
(MMC Clayton)**

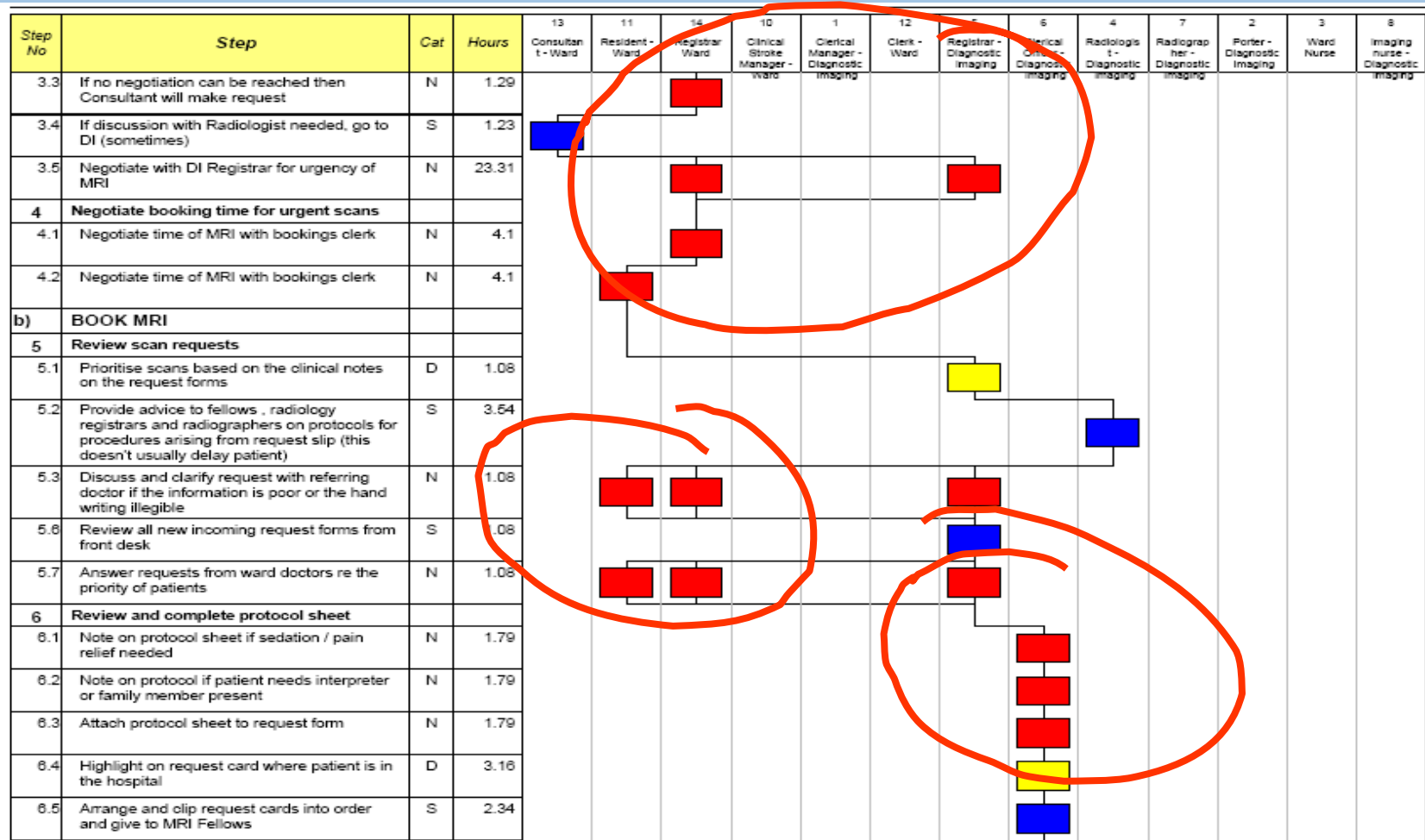


**300 process steps**



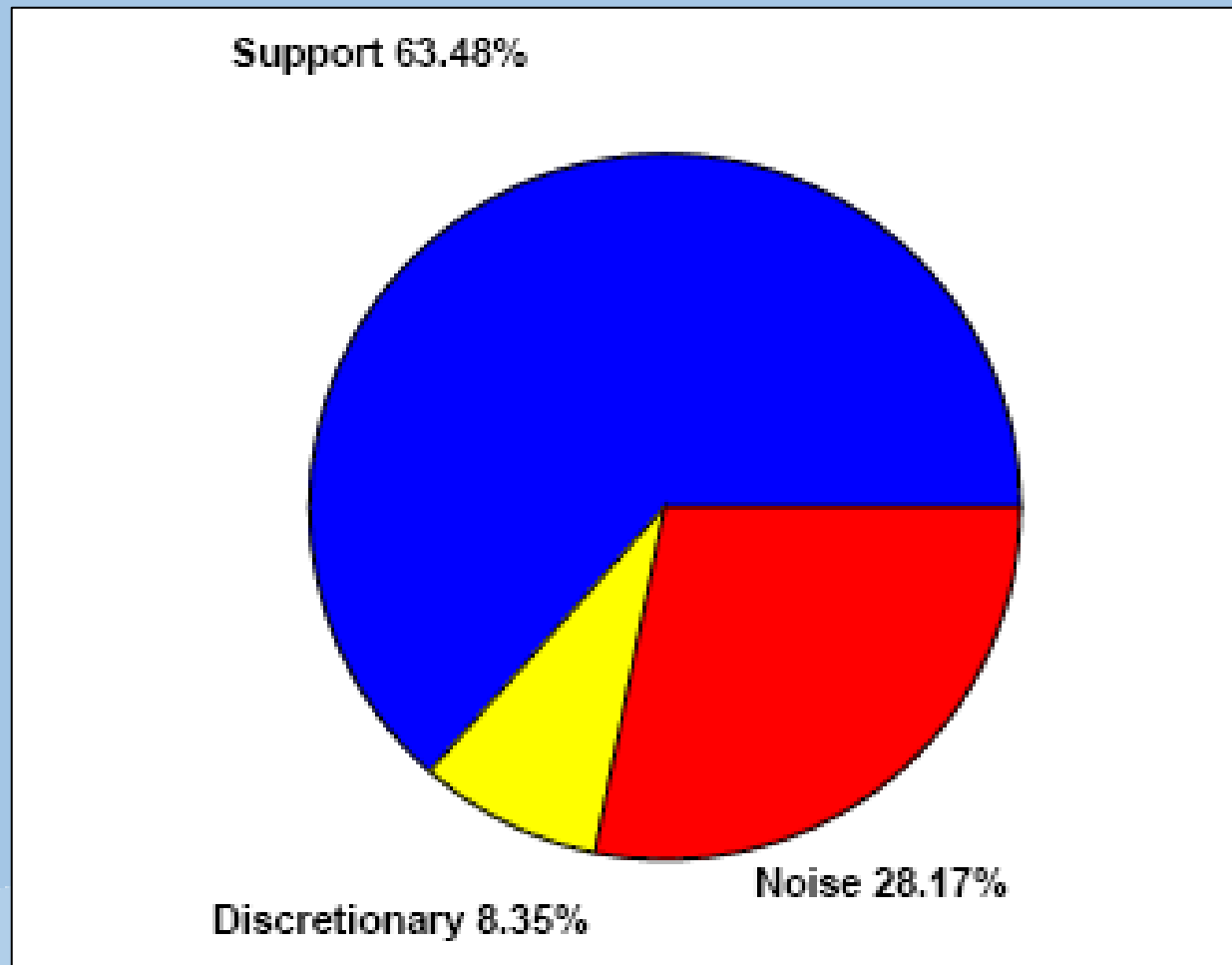
**25  
improvements**

# Analysis – process chart

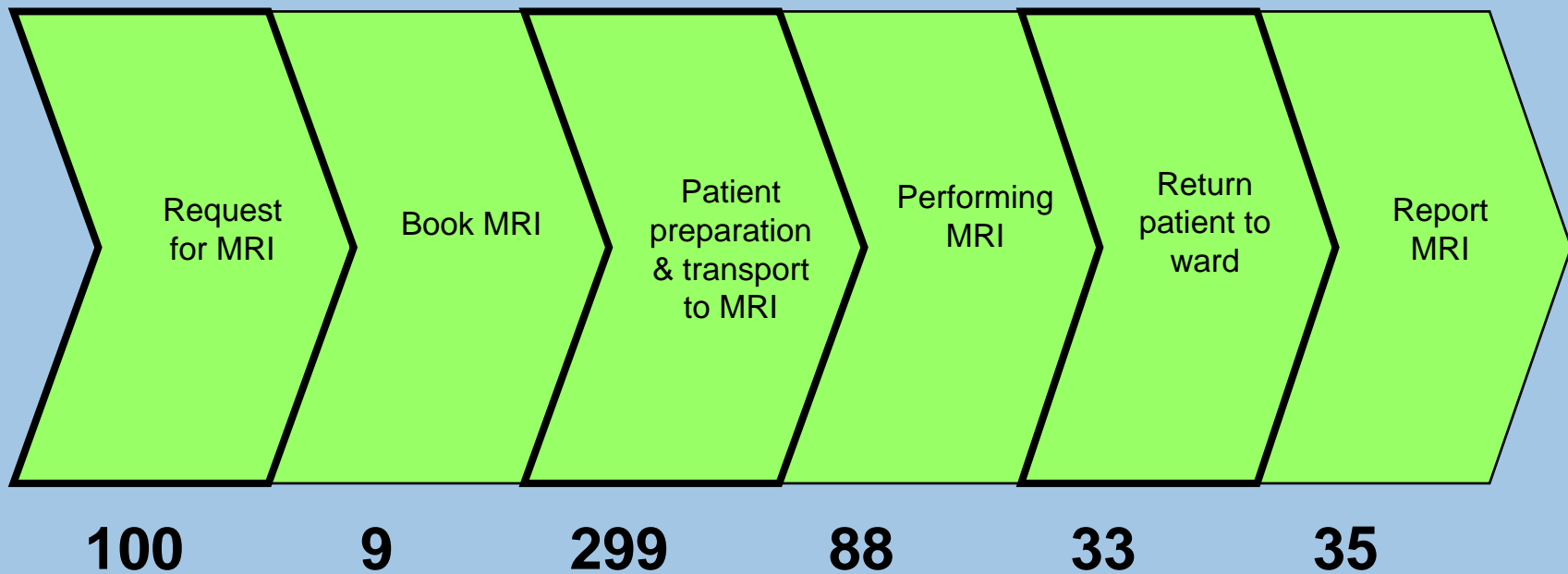


# Data Collection findings

- 28% Noise in the overall process



# “Noise” in hours at each step of the journey



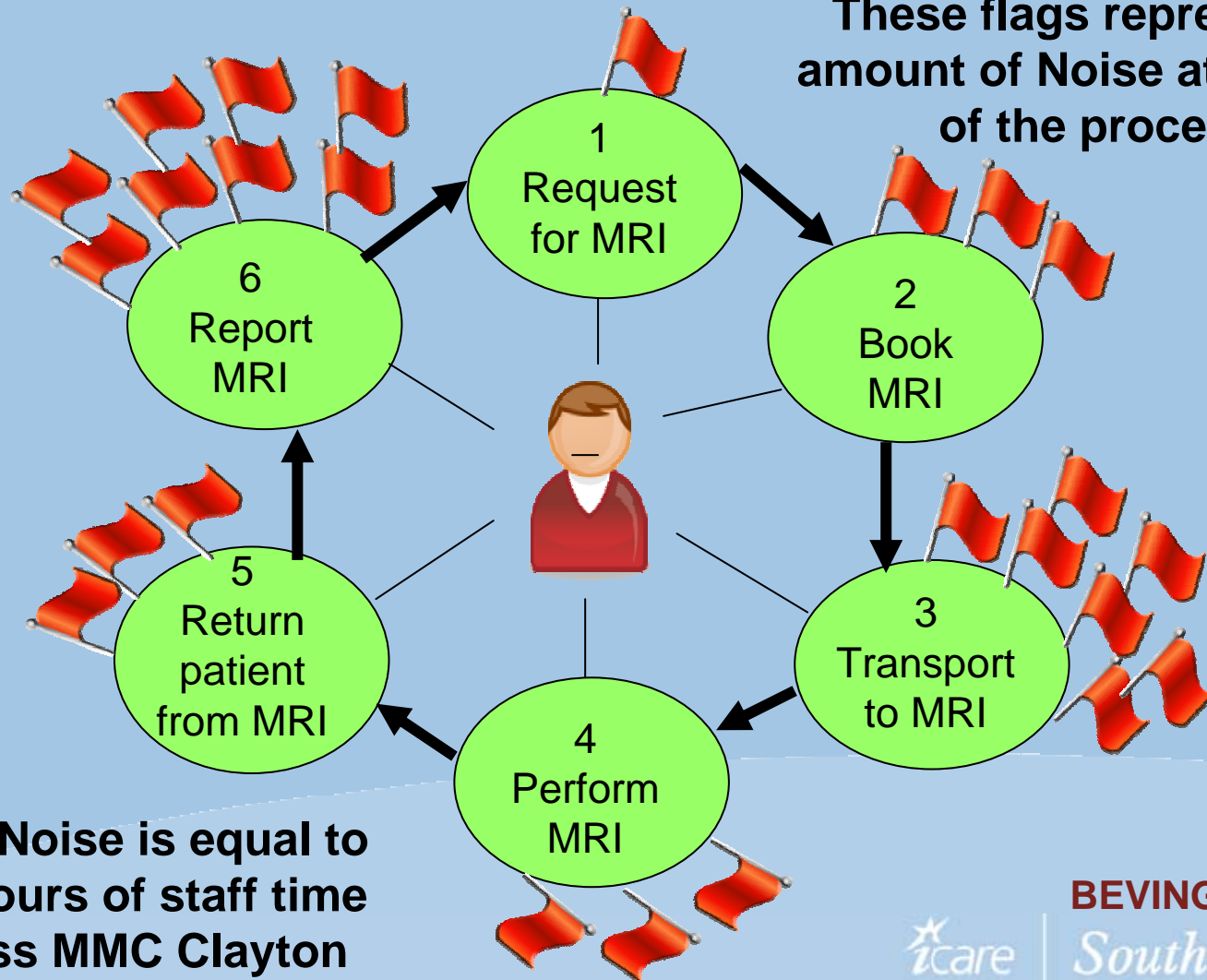
**Hours of Noise per step per month**

# Top 6 Drivers of Noise

Causes of Noise	Hours per month (Clayton campus)
Lack of communication re: time of scan	180
Lack of prioritisation system for urgent referrals	100
Inability to locate patient history on ward	79
Patient unable to manage MRI environment	48
Lack of awareness of completed results on the Picture Archiving and Communication Systems (PACS)	31
Porter availability	25
<b>Total</b>	<b>463</b>

# A patient's journey

These flags represent the amount of Noise at each step of the process...

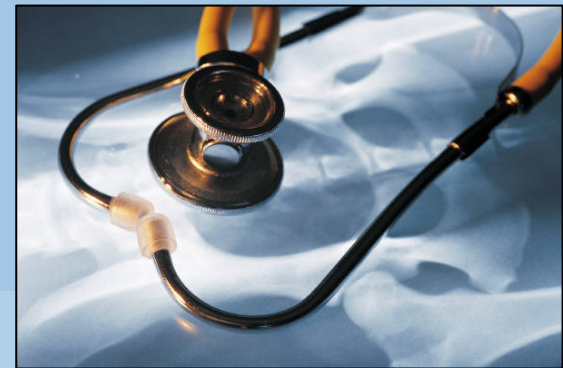


...the Noise is equal to 564 hours of staff time across MMC Clayton

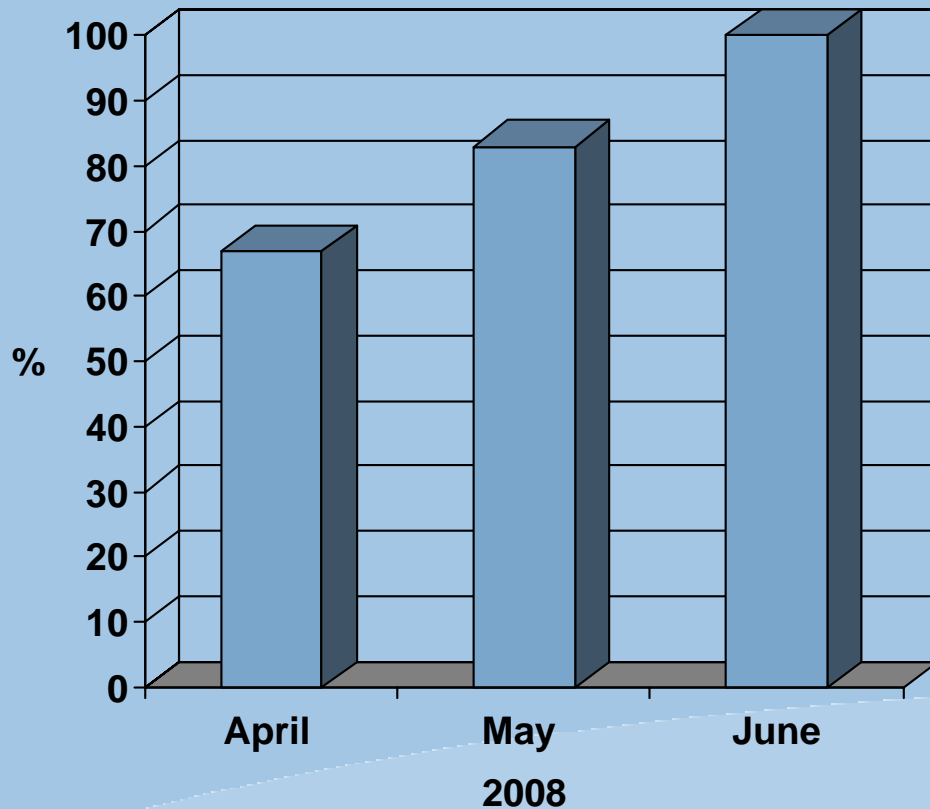
# Simple improvements

- Centralised communication point at ward level
- Enhanced ward handover
- 5S on wards
- Revised request form
- Sedation undertaken in diagnostic imaging
- Review of interruptions to radiologists
- Diagnostic imaging framework for improvement

**40 days saved  
per month**



# Outcomes – Communication audit trial between DI and ward 54S



## Wider audit outcomes – factors influencing flow

- 36% Not consented
- 23% No MRI safety screen performed
- 18% No notification of infectious state
- 23% Not given oral preparation

# Behavioural change and lessons for sustainability

- Alignment with organisational goals and vision
- Visible executive and clinical support is vital...and.....
- Behavioural change doesn't happen overnight!
- Local engagement is key to spread and sustainability

*'Tell me, I'll forget;  
show me, I may remember;  
but involve me and I'll understand'*

Confucius

# Behavioural change and lessons for sustainability

- Role of the Health Service Improvement Team
- Need to consider the system wide impact
- Establish the right core measures at an early stage
- Don't underestimate the power of the informal networks
- Demonstrating that service improvement is a catalyst to continuous improvement
- Using a proven partner / method helps the chances of success