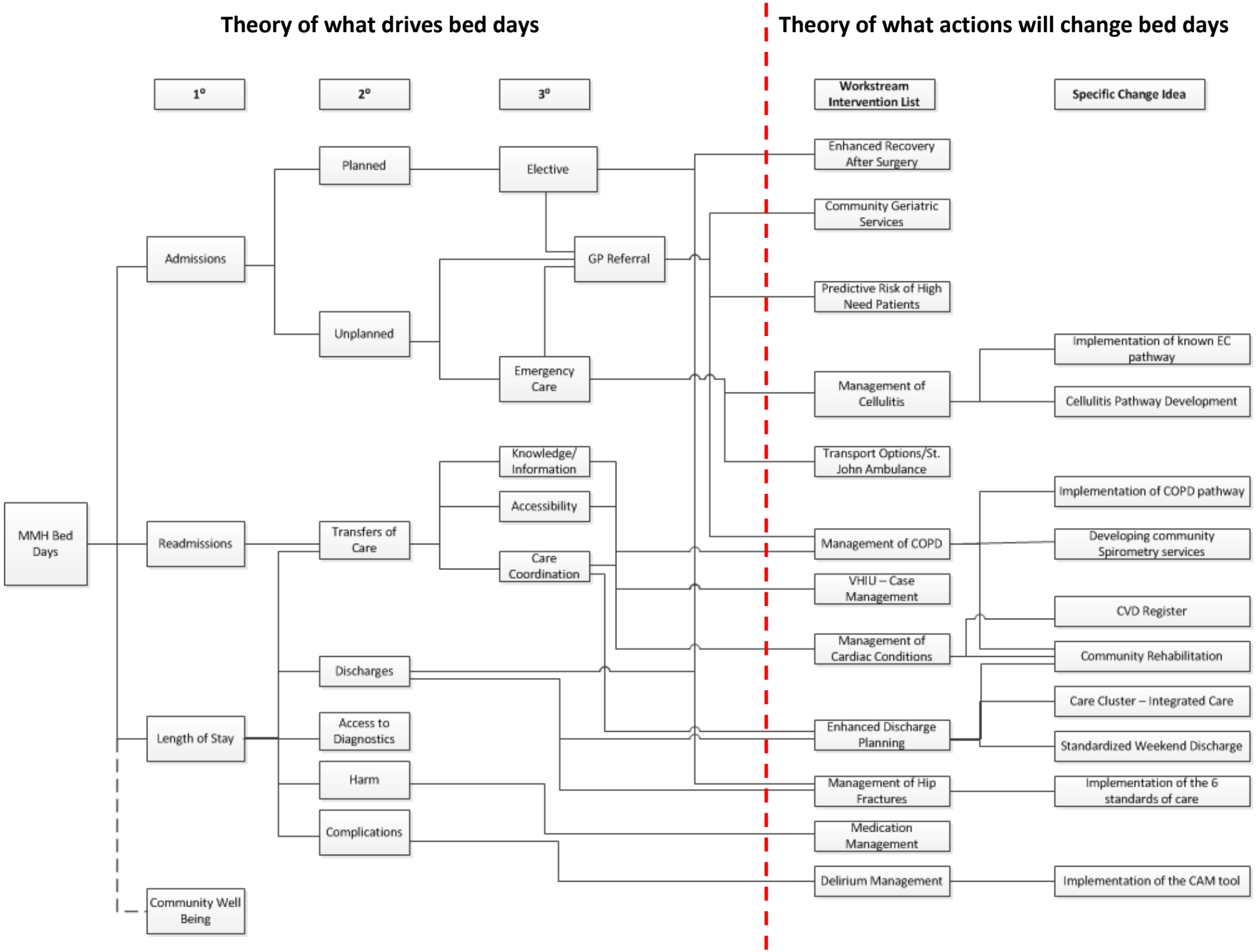
From Testing to Implementation

Brandon Bennett
Wellington, New Zealand
19 June 2012

Improvement Science Consulting


Theory of what drives bed days
Theory of what actions will change bed days
1°
2°
3°
Workstream Intervention List
Specific Change Idea
MMH Bed Days
Admissions
Readmissions
Length of Stay
Community Well Being
Planned
Unplanned
Elective
GP Referral
Emergency Care
Transfers of Care
Knowledge/ Information
Accessibility
Care Coordination
Discharges
Access to Diagnostics
Harm
Complications
Enhanced Recovery After Surgery
Community Geriatric Services
Predictive Risk of High Need Patients
Management of Cellulitis
Transport Options/St. John Ambulance
Management of COPD
VHIU – Case Management
Management of Cardiac Conditions
Enhanced Discharge Planning
Management of Hip Fractures
Medication Management
Delirium Management
Implementation of known EC pathway
Cellulitis Pathway Development
Implementation of COPD pathway
Developing community Spirometry services
CVD Register
Community Rehabilitation
Care Cluster – Integrated Care
Standardized Weekend Discharge
Implementation of the 6 standards of care
Implementation of the CAM tool

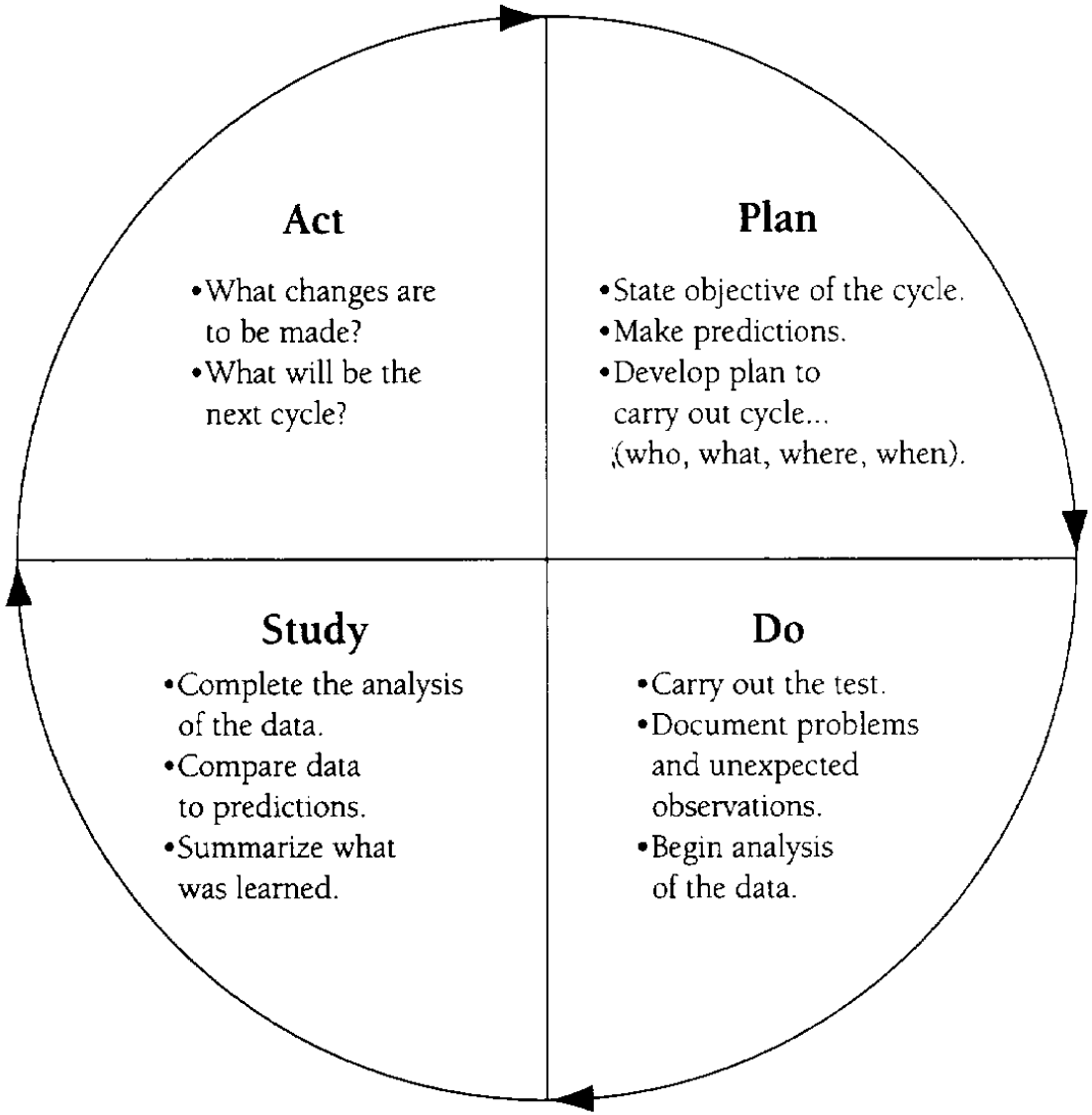
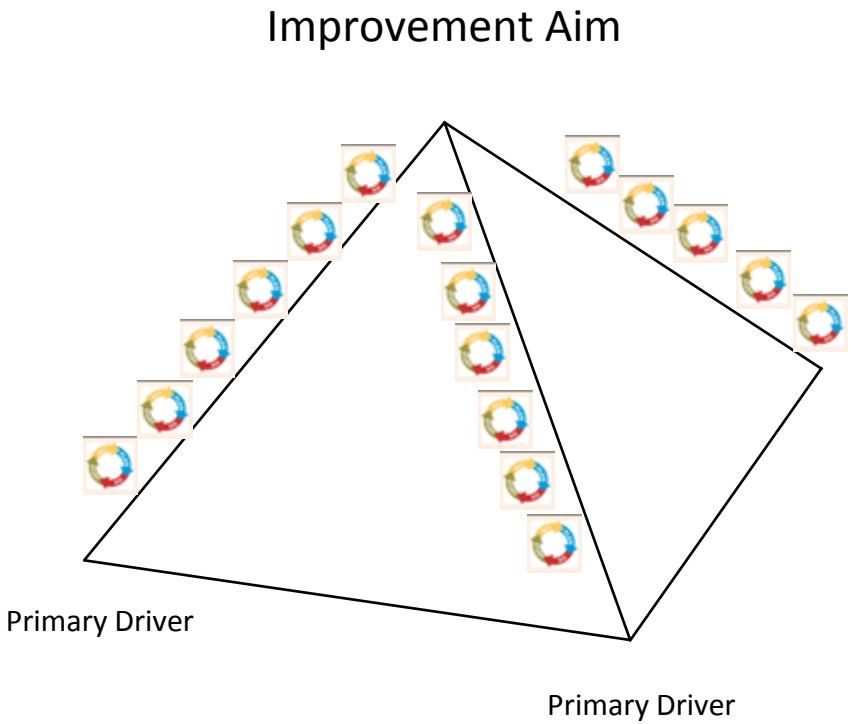


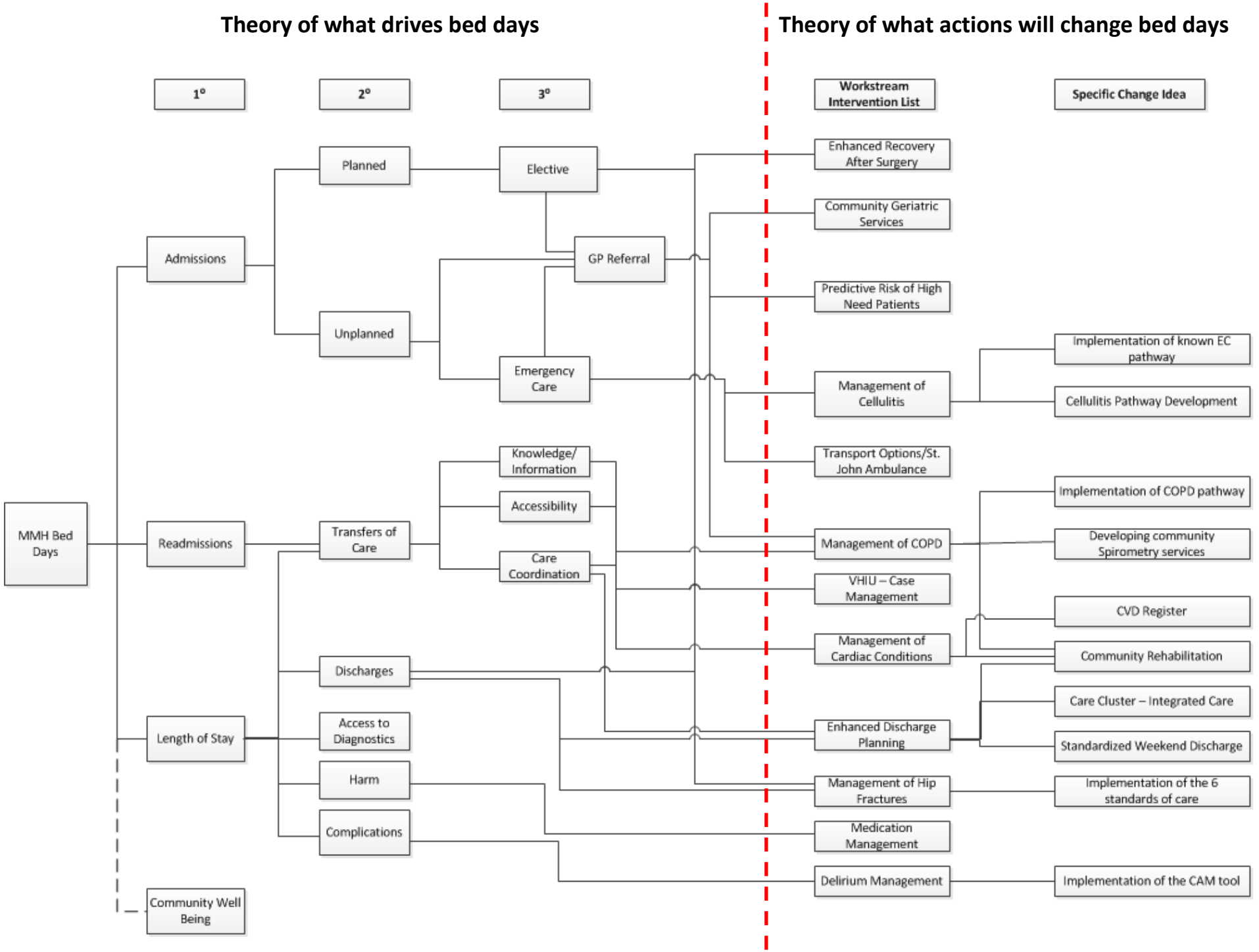
Figure 4.1. Elements of the PDSA Cycle.

Langley et. al

Phase 1 – the work of improvement



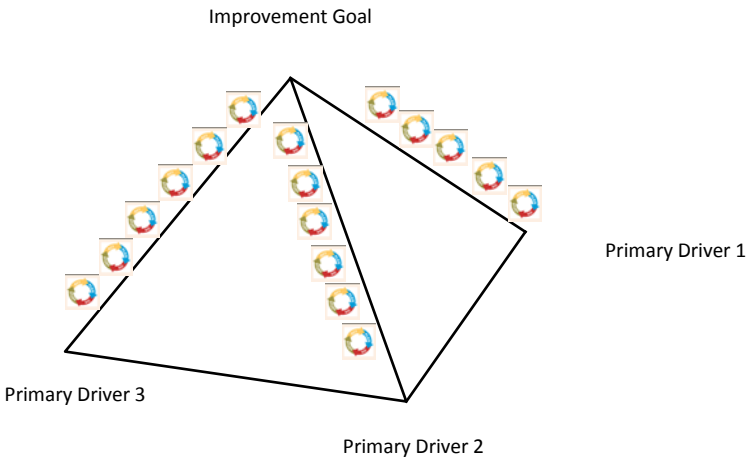
In Phase 1, this level of change idea development is happening in 1 unit via multiple PDSA ramps or potentially, if deemed manageable, single ramps across 2-4 units

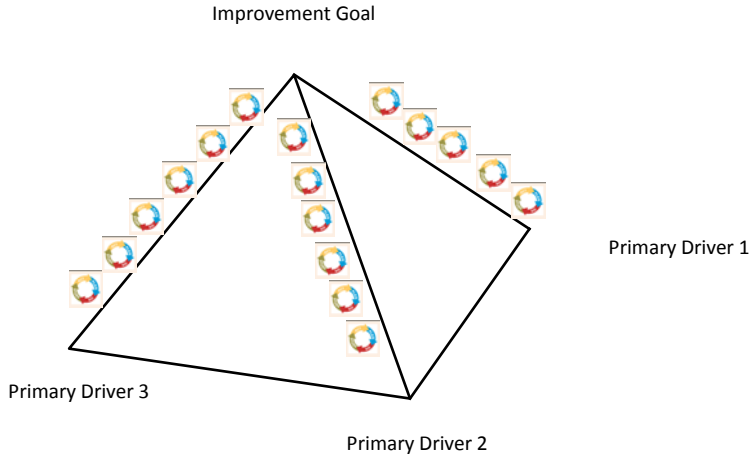

Theory of what drives bed days
Theory of what actions will change bed days
1°
2°
3°
Workstream Intervention List
Specific Change Idea
MMH Bed Days
Admissions
Readmissions
Length of Stay
Community Well Being
Planned
Unplanned
Elective
GP Referral
Emergency Care
Transfers of Care
Knowledge/ Information
Accessibility
Care Coordination
Discharges
Access to Diagnostics
Harm
Complications
Enhanced Recovery After Surgery
Community Geriatric Services
Predictive Risk of High Need Patients
Management of Cellulitis
Transport Options/St. John Ambulance
Management of COPD
VHIU – Case Management
Management of Cardiac Conditions
Enhanced Discharge Planning
Management of Hip Fractures
Medication Management
Delirium Management
Implementation of known EC pathway
Cellulitis Pathway Development
Implementation of COPD pathway
Developing community Spirometry services
CVD Register
Community Rehabilitation
Care Cluster – Integrated Care
Standardized Weekend Discharge
Implementation of the 6 standards of care
Implementation of the CAM tool

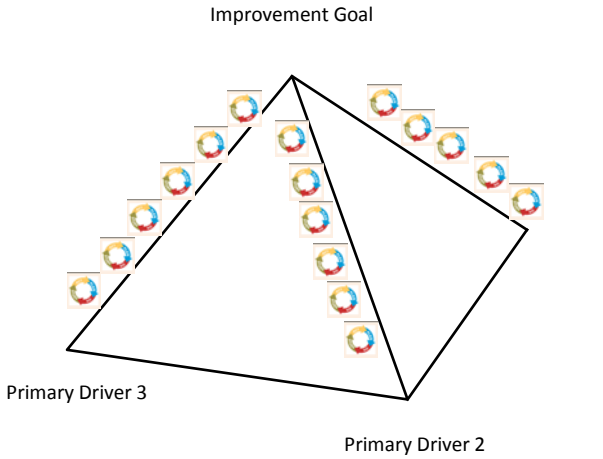
Murphy's Law

"Whatever can go wrong, will go wrong"

Phase 2 – testing under multiple conditions







In Phase 2 what worked in Phase 1 is being adapted and tested under multiple conditions and potentially across locations

MFI for testing

- Improvement Guide Chapter 7
  - Build knowledge sequentially
  - Collect data over time – (transition from more qualitative learning to more quantitative learning)
  - Learning from a wide range of conditions
  - Time series designs, Planned Experimentation, etc.

As the scale of the test increases we move from qualitative to quantitative evidence

Sequence of learning and change

Evidence primarily Qualitative

Evidence primarily Quantitative with noticeable impact on process measures

Very small scale test of a change idea

Large scale test of change idea or Implementation of a change idea

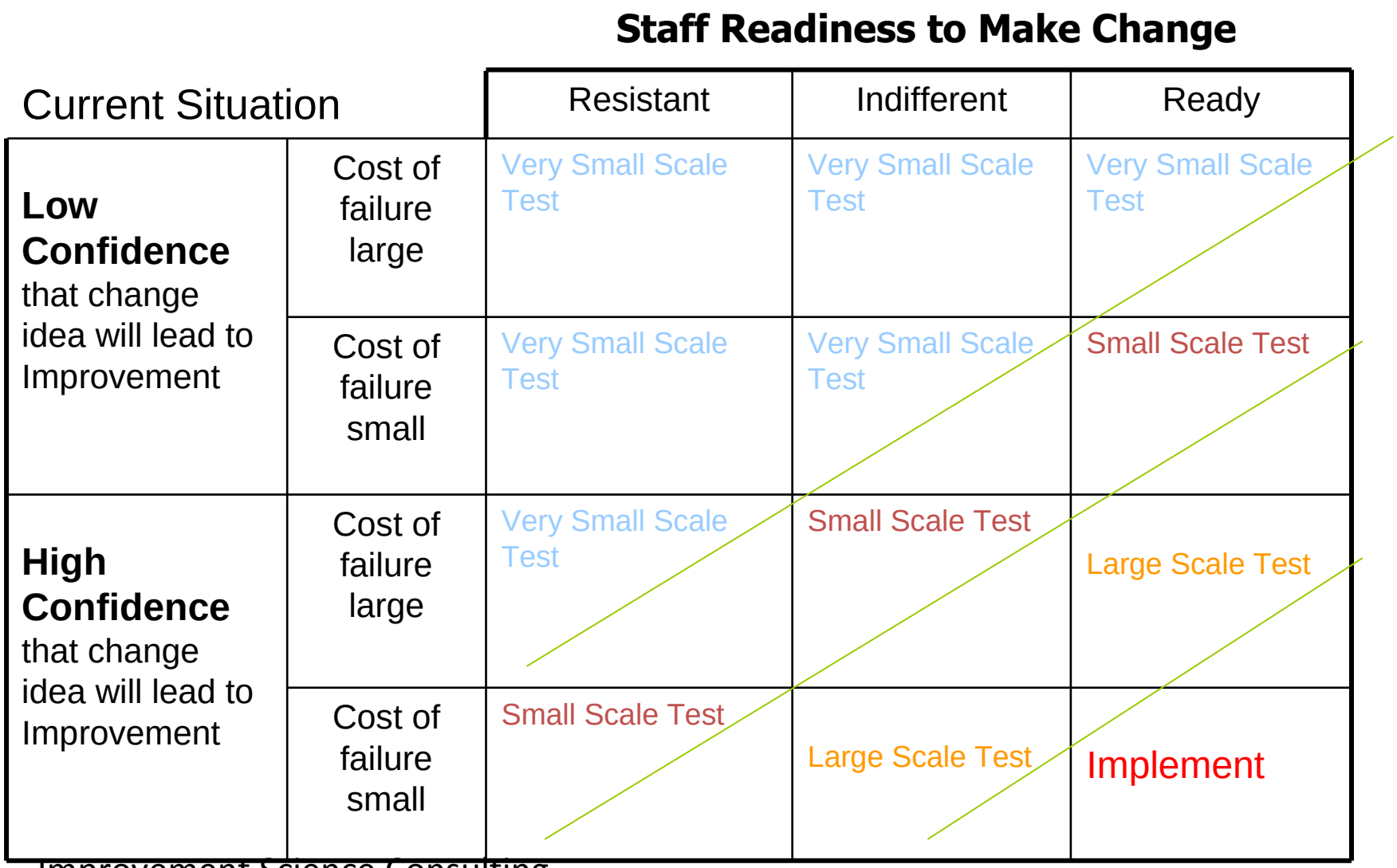
Improvement Science Consulting

Machiavelli

"There is nothing more difficult to carry out, nor more doubtful of success, nor more dangerous to handle, than to initiate a new order of things. For the reformer has enemies in all those who profit by the old order, and only lukewarm defenders in all those who would profit by the new . . ."

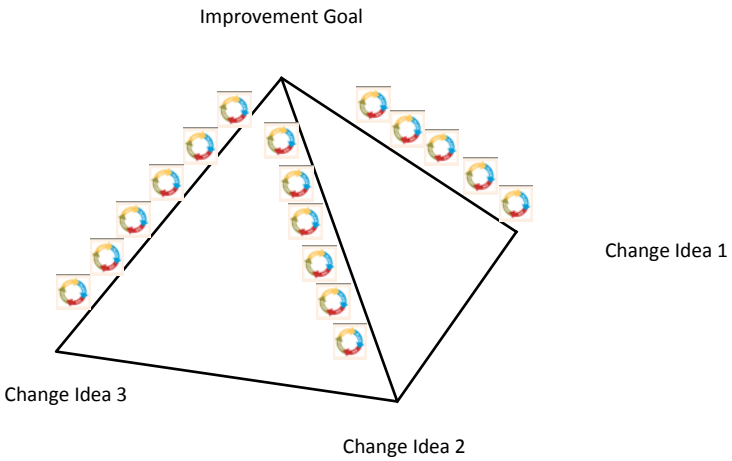
Niccolò Machiavelli

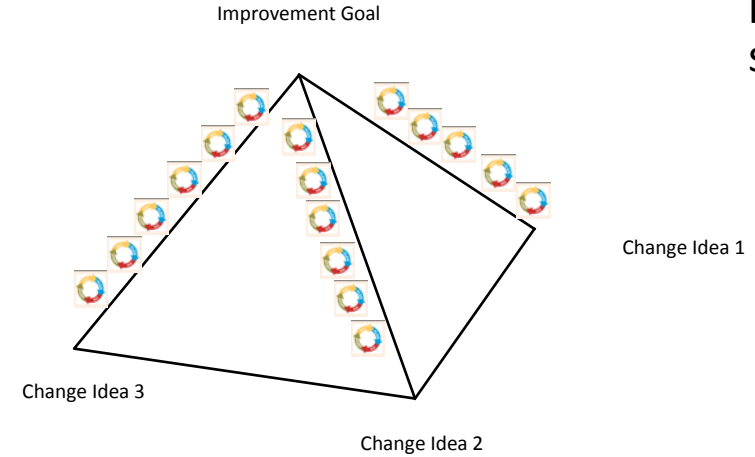
Appropriate Scope for a PDSA Cycle

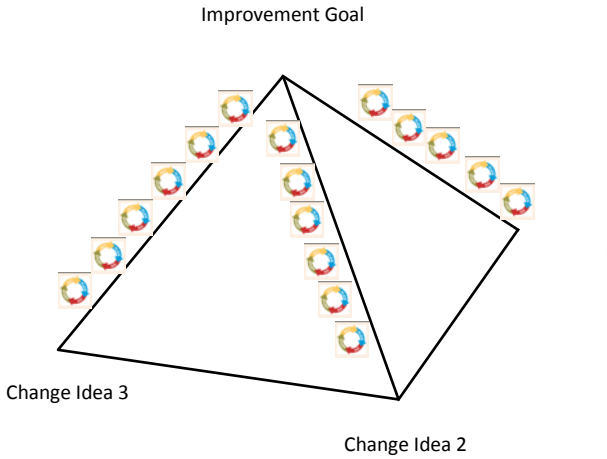


Improvement Guide, 2009

Phase 3 – Implementing what works







In Phase 3 the focus is on making known changes permanent in our system

Implementing a Change

- **Testing:** Trying and adapting existing knowledge on small scale. Learning what works in your system.
  - Change is not permanent
  - Failure very useful here, even expected (25% to 50%)
  - Fewer people impacted than during implementation
- **Implementing:** Making this change a part of the routine day-to-day operation of the system in your pilot population
  - Don't expect failure here
  - Design or redesign supporting processes to maintain the change (processes include feedback and measurement systems, job descriptions, procedures, new employee training, and so on)
  - More people impacted than during testing
  - Increased resistance compared to testing
  - Generally requires more time than testing

History of the Metric System in the United States

Difficulties of Implementing a Change

1790	Thomas Jefferson recommends a measurement system based on “multiples of ten”
1821	Secretary of State John Quincy Adams recommends the metric system to Congress
1866	Congress passes the Kassen act, legalizing the voluntary use of the metric system in the United States
1878	The United States signs the “Treaty of the Meter” with sixteen other nations; the Treasury Department works to oppose this by adopting the troy pound as the standard for coins
1893	Congress proposes a dual system of metric and inch-pound measurements
1968	Pressure from other nations to adopt the metric system culminates with Congress passing the Metric Study Act
1975	The Metric Study Act results in the Metric Conversion Act, establishing a Metric Board and makes the use of the metric system “voluntary”
1982	Found to be lacking in its efforts to convert the United States to the metric system, the Metric Board is eliminated
1988	Congress amends the Metric Conversion Act and, in the Omnibus Trade and Competitiveness Act, names the metric system the “preferred system of weights and measures for United States trade and commerce”
1991	President Bush issues an executive order requiring the use of the metric system by the federal bureaucracy; Congress amends the Fair Packaging and Labeling Act to require both metric and inch-pound units on most consumer-item package labels

Key Principles For Implementing Complex Changes Effectively

1. Managing implementation as a series of cycles
2. Providing support during and after the implementation to assure that improvement is achieved and maintained
3. Recognizing and addressing the social aspects of implementing a change

IG 2nd ed., p. 175

Strategies for Implementation

- **Three Approaches**
  - "Just do it":
    - Simple change, tested successfully
      - Do use at least one cycle to implement
  - Parallel Approach
    - Phase in change by operating it side by side w/existing system
      - More complex. Plan on needing more PDSA cycles to implement (example pg. 178)
  - Sequential Approach
    - Think about implementation of all the changes with all of your staff:
      - Should they be implemented one at a time with all staff?
      - Should they be implemented all at one time with selected staff?

MFI for Implementation addresses

- Standardization – changing from what we currently do, all the time, to a new way of doing things, all the time (Policy and Procedure redesign)
- Documentation – job descriptions, data collection, etc.
- Training – Orientation of new employees – retraining of existing employees
- Measurement – how will information change in flow, monitoring and feedback
- Resourcing – procurement and logistics

Practices to Make Improvement Permanent

- Standardization
  - Map out the flow of the new process
  - Standardize crucial steps in the new process
  - Develop measures and feedback on crucial steps
  - Clarify individual responsibility/authority
  - Define some “simple rules” to guide the practice
- Documentation
  - Many changes only as good as their documentation (is a deliverable of the project)
  - Used for ongoing education and training
  - Key is assigning responsibility to keep it up to date

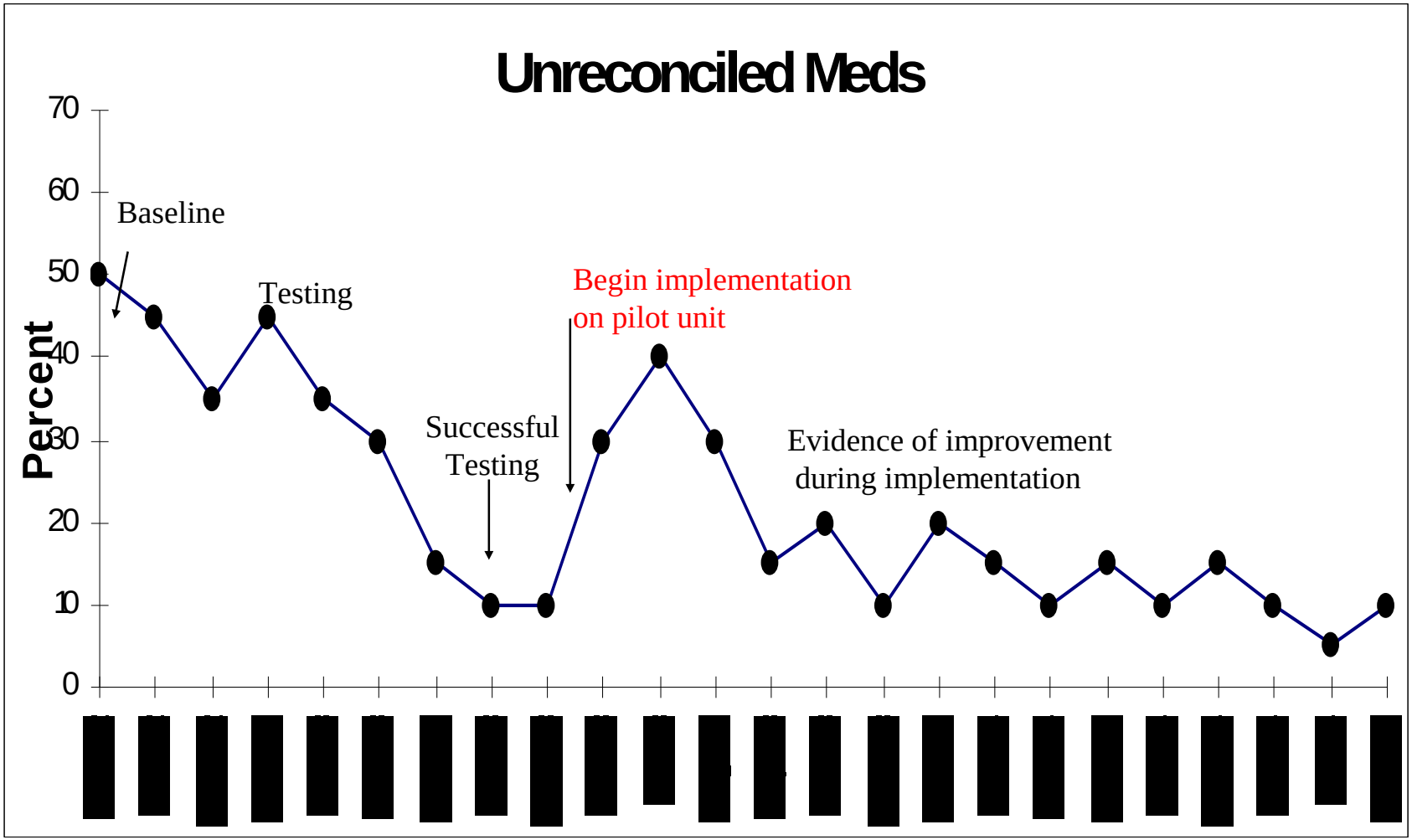
IG 2nd ed., p. 181

Practices to Make Improvement Permanent

- Measurement
  - Visible measurement of key outcome measure(s)
  - Viewed over time
  - Measurement of crucial support processes (early warning system)

IG 2nd ed., p. 182

Collect Data Over Time When Conditions Are Expected To Change



Improvement Science Consulting

Practices to Make Improvement Permanent

- Training
  - Could be one time or complex/formal
  - Training for testing easier…for implementation it is broader and more long term
  - Link training to need we are working to fulfill (why are we doing this?)
- Getting Implementation Resources (time, $, etc.)
  - Testing often not resource intensive- implementation may be
  - Need to plan for resource request and allocation
    - Including ongoing ownership
    - Communication, training and knowledge transfer
    - Ongoing updating flow sheets, policies, measures, etc.

Implementation Checklist

Project Name: Project Manager:

Description of change:

Implementation dates: From to .

Predicted impact of change on key measures:

	Measure	Current Level of Performance	Predicted Level after Change
1			
2			
3			
4			
5			
6			
7			
8			

Processes or Products affected by the change:

	Processes or Products Affected	Process or Product Owner	Number of People Affected	Change in Standard? Yes/No	Predicted Acceptance High/Med/Low
1					
2					
3					
4					
5					
6					
7					
8					

Documentation of change:

☐ Materials/forms defined. Comments:

☐ Procedure defined. Comments:

☐ Equipment defined. Comments:

☐ Change request procedure. Comments:

☐ Changes in job descriptions or role statements. Comments:

Impact on training:

☐ Training procedure defined for implementation. Comments:

☐ Training resources allocated. Comments:

☐ Training schedule complete. Comments:

☐ New employee training procedure complete. Comments:

Measurements required:

☐ New measurements defined. Comments:

☐ Measurement procedures defined. Comments:

☐ Measurement responsibilities defined. Comments:

☐ Measurement review scheduled with responsibilities. Comments:

☐ Analysis of data responsibility assigned. Comments:

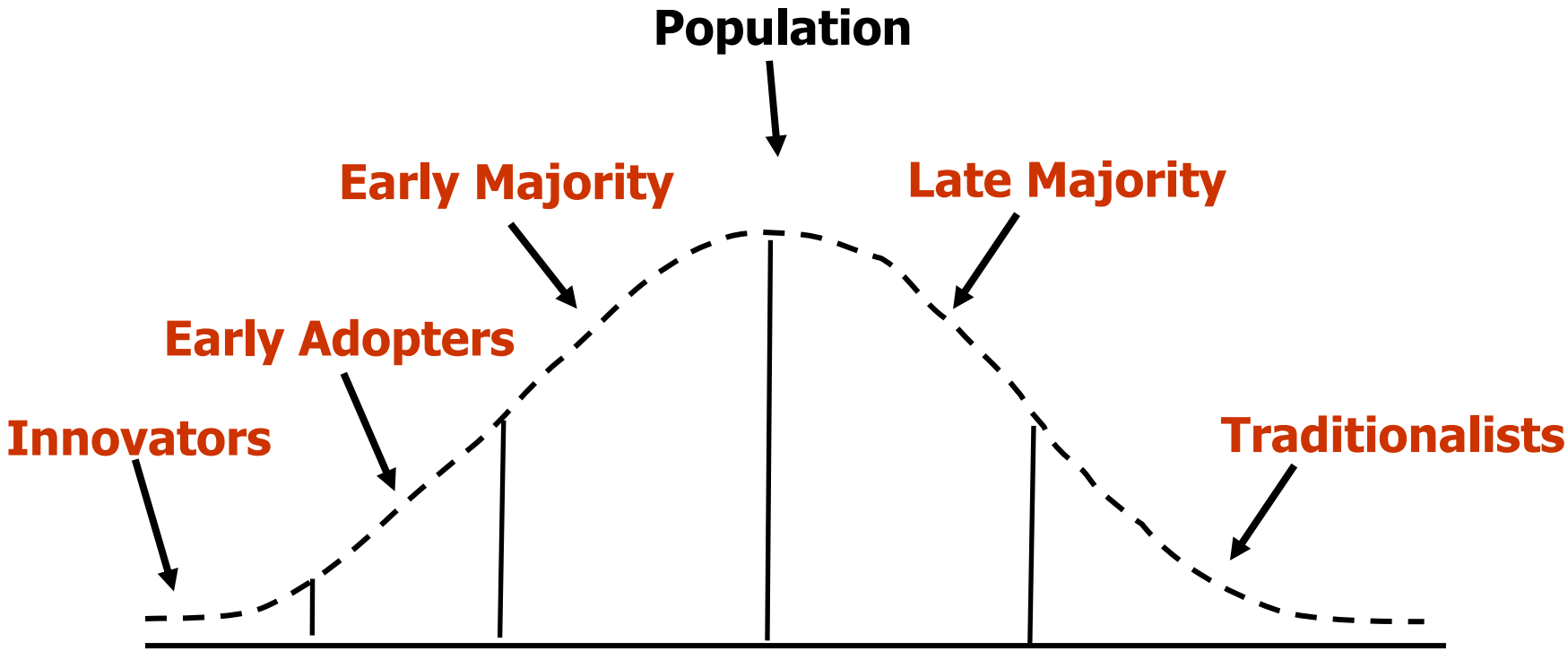
IG 2nd ed., p. 185

Reactions to Change

- **Resistance:** an emotional or behavioral response to real or imagined threats to the work routine
- **Apathy:** feeling or showing little or no interest
- **Compliance:** publicly acting in accord with social pressure while privately disagreeing
- **Conformance:** a change in behavior or belief as a result of real or imagined group pressure
- **Commitment:** the state of being bound emotionally or intellectually to a course of action

IG 2nd ed., p. 186

Spreading Innovation



Source: E. Rogers. Diffusion of Innovation

Sustaining a change that has been implemented

We need to create structure that make it easy for people to do the right thing (i.e. use the new system) and hard to the do the wrong thing (i.e. go back to the old system).

Some inhibitors to sustaining a change are:

- We met our goals
- We assumed the improvement would hold
- Other priorities took all resources away
- Not on senior management's radar screen
- Did not learn how to maintain the gains
- Infrastructure not in place

Getting Commitment to Change

- **Create the will**
  - Create dissatisfaction with current state
  - Relentlessly communicate direction
  - Express excessive faith in success
  - Embrace the mess
- **Provide information on why change is being made**
  - Empathize w/anxiety-don't expect to eliminate it
  - Show how change supports aim of organization
  - Put it in historical perspective
  - Link to needs of patient/family/community
  - Reframe as opportunity
  - Provide hot line for questions/comments

IG 2nd ed., p. 189-191

Getting Commitment to Change

- **Provide specific info on how will affect people**
  - Share results from testing
  - Be prepared for questions
  - Study rational objections and be prepared to address them
  - Include members of team who tested in presentations
- **Get consensus on resources and other support for implementation**
  - Define plan with milestones/dates
  - Ask leaders and key people to publicly support
  - Express confidence in those asked to carry out the change
- **Publicize the change**
  - Use symbolism, stores, pictures, etc.
  - Summarize key points and agreements as made
  - Show appreciation for those developing and testing change
  - Take advantage of significant events (crisis, inspection, complaint) and tie to implementation

IG 2nd ed., p. 189-191

Break Out

- Spend 15 min with your team
  - Pick one idea you think is ready for permanence
    - Pre-packed kits
    - Checklists
    - Etc.
  - Make a list of support process that would need to change to support permanence
    - Procurement
    - Budget
    - Job Description
    - Orientation/Training
  - Develop the Plan for a PDSA cycle next week that could help you learn how change that support pathway