Geriatrics QI Take Homes

Agenda

- QI vs. Traditional Research
- Lean- A3 Approach
  - AIM statement- make it SMART
  - Current State/Future State- AFHS Framework
  - Planning Changes- Fishbone diagram, PICK chart
  - Testing changes- PDSAs
  - Measuring changes- run charts
- Pearls and Reflections

QI Versus Traditional Research Quiz?

	Quality Improvement versus Classical Research?	
Primary goal	To bring new knowledge into daily practice	
Hypothesis	Stick with it until bitter end	
Duration	Longer, Data collection for definitive results	
Informed consent	Generally not required	
Tests	One large blind test	
Data	Just enough data to learn and take next steps	
Data Analysis	Enumerative statistics (e.g. t tests, chi square, p-values)	
Results	Make Change	

QI Versus Traditional Research

	Classical Research	Quality Improvement
Primary Goal	**To discover widely generalizable knowledge**	**To bring new knowledge into daily practice**
Hypothesis	Stick with it until bitter end	Adjust through multiple PDSA cycles to work out kinks
Method	**Qualitative, Quantiative**	**PDSA (Plan-Do-Study-Act)**
Duration	Longer, Data collection for definitive results	Short, Rapid tests of change
Sample	Representative	Unit level
Informed consent	Must be obtained if human subjects are involved (or justified to waive)	Generally not required
Biases	Control for as many biases as possible	Embrace context/stabilize biases from test to test
Tests	**One large blind test**	**Many sequential, observable tests**
Data	Gather as much data as possible, just in case	Gather just enough data to learn and complete another cycle
Data Analysis	Enumerative statistics (eg. T tests, chi square, p-values)	Analytic Statistics (eg. Statistical process control, run & control charts)
Results	**Understand change**	**Make Change**

Lean overview

- Lean is a methodology used to continuously improve any process by empowering employees to eliminate waste while maximizing customer value
- People who actually do the work are best suited to improve and innovate
- A production method derived from Toyota in 1930 that is increasingly used in healthcare
  - buzz words include waste elimination, standard work, mistake-proofing
- Why? Language spoken by executives that is understood by the team

A3 problem solving

A3 Problem-Solving Report

UC San Diego Health

Title: _____
Owner: _____
Team Members: _____

Date/Revision(s): _____
Location: _____

1. Problem Statement:
What are you trying to solve or improve?

2. Current Condition:
Where do things stand today?

3. Target Condition:
What outcome is required? Remember SMART

4. Gap Analysis:
What is the root cause(s) of the problem?

5. Countermeasures Proposed:
How will your recommended countermeasures affect the root causes to achieve the target?

6. Plan:
What activities will be required for implementation and who will be responsible by when?

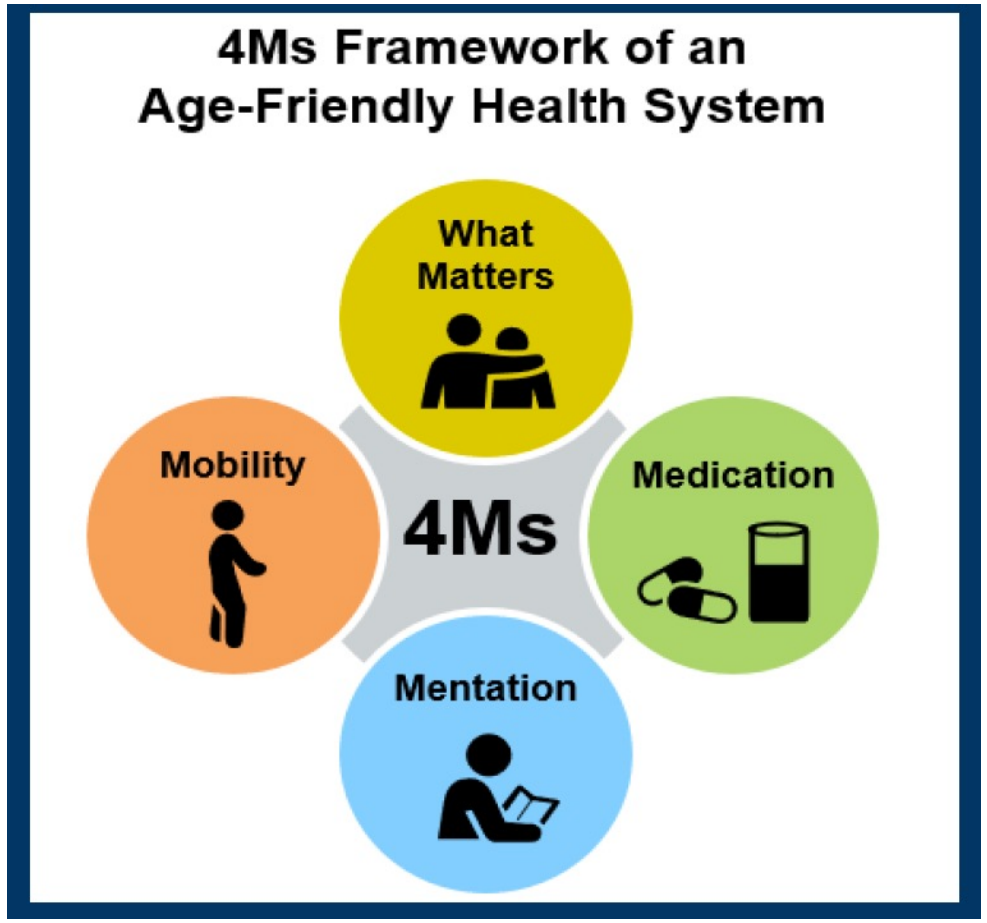
7. Results (Check) Next steps (Act):
What did you learn about the results of your experiment vs. the target? What are your next steps?

Problem and Aim Statement

- Problem Statement: make it without stating the solution

- SMART Aim statements
- Specific
- Measurable
- Actionable
- Realistic
- Timebound

4Ms of AFHS: Current and Future State



what **M**atters

Know and align care with what Matters to each older adult

Medications

Deprescribe or do not prescribe high- risk meds considering what matters most

Mobility

Promote safe mobility to maintain function and do what matters most

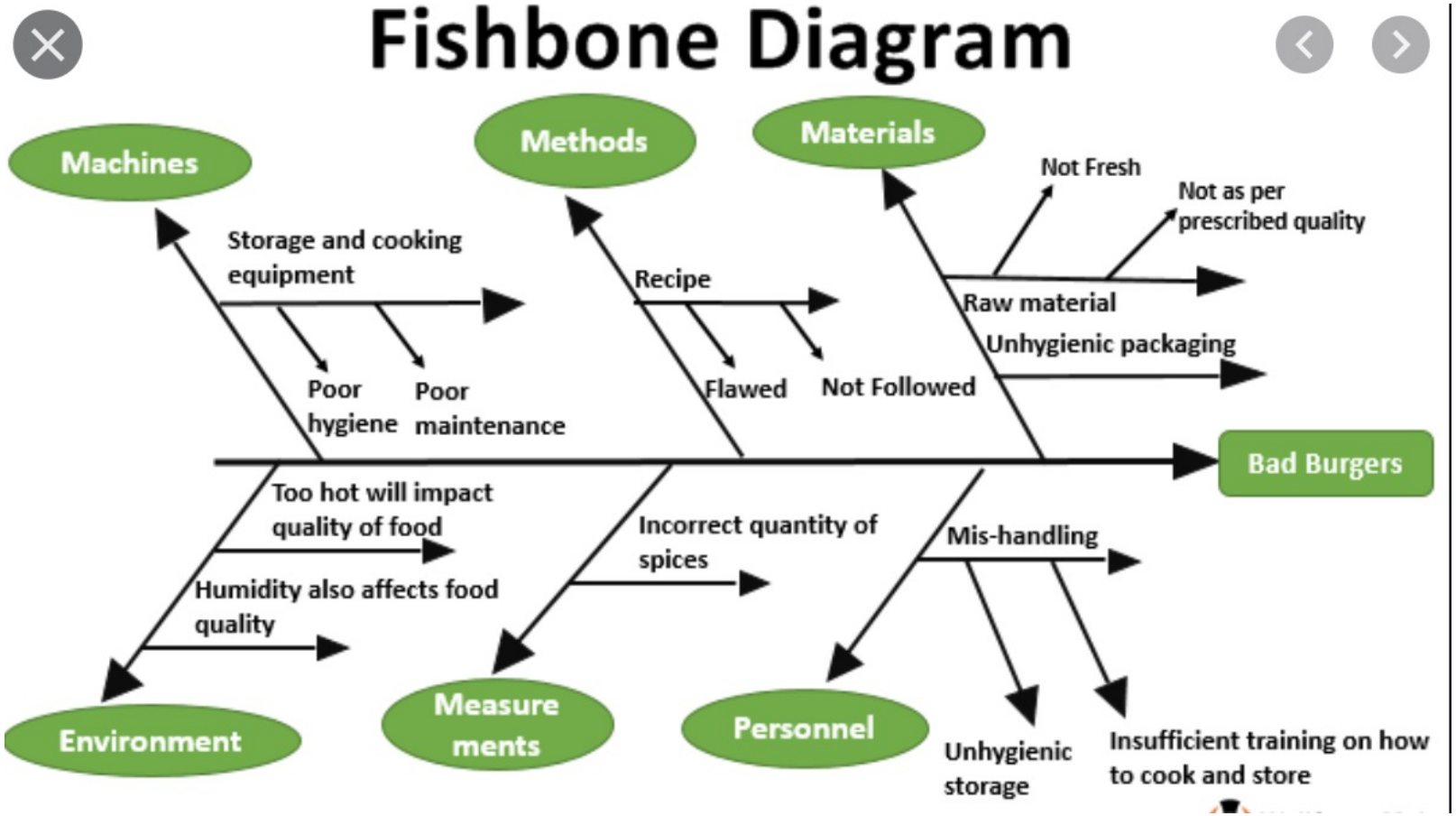
Mind

Prevent, diagnosis, and manage delirium, depression, and dementia to enjoy what matters most

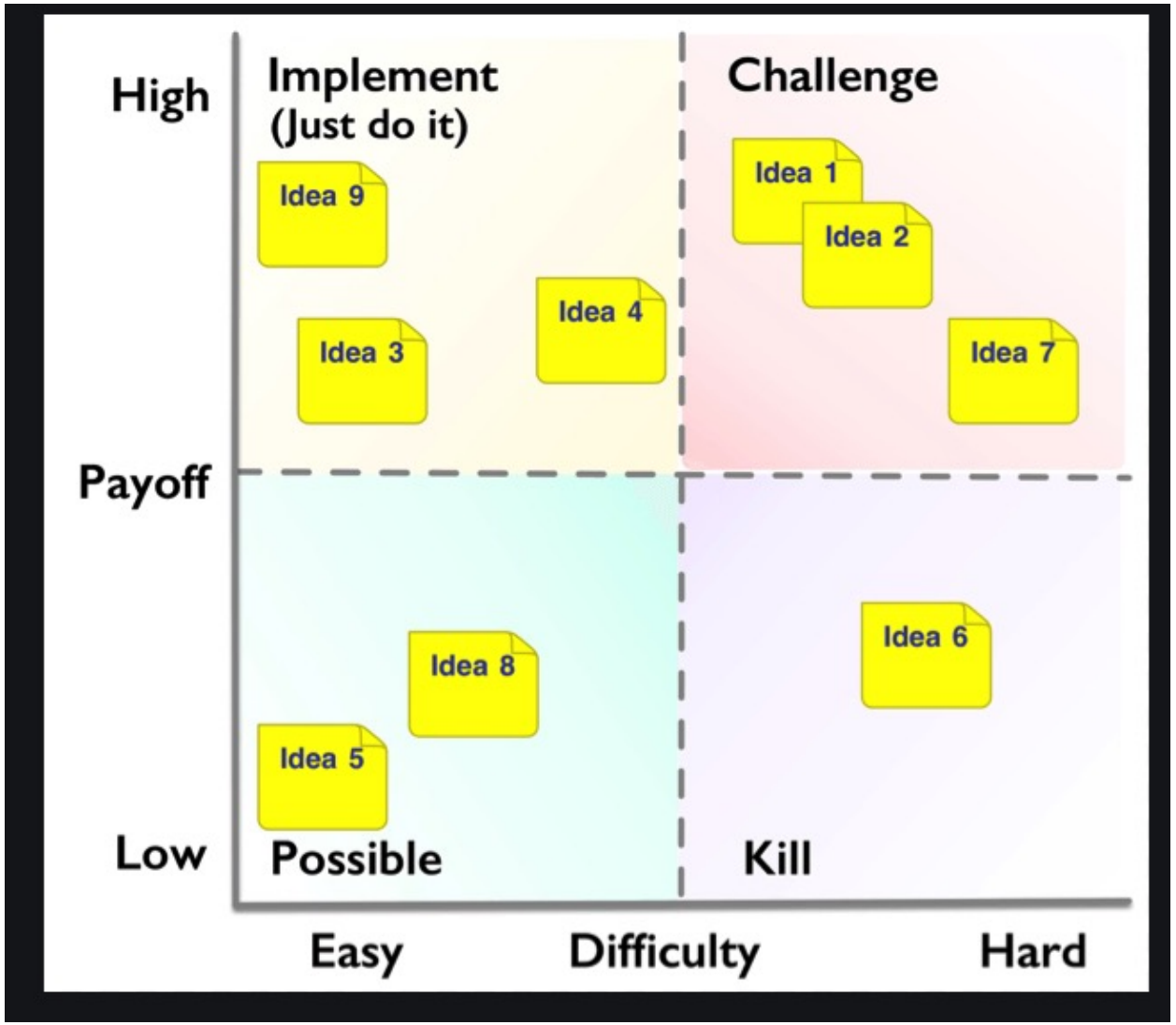
4Ms Worksheet: Current and Future State

M	Specifically, look for how do we…	Current Practice and Observations
What Matters: Know and align care with each older adult's specific health outcome goals and care preferences including, but not limited to end- of-life, and across settings of care	• Ask the older adult What Matters most and document it • Align the care plan with What Matters most	
Medication: If medication is necessary, use Age- Friendly medication that does not interfere with What Matters to the older adult, Mobility, or Mentation across settings of care	• Review high-risk medications and document them • Avoid, dose adjust, or deprescribe high-risk medications, and document and communicate changes	
Mentation: Prevent, identify, treat, and manage dementia, depression, and delirium across care settings of care	Hospital: • Screen for delirium at least every 12 hours and document the results • Ensure sufficient oral hydration • Orient to time, place, and situation • Ensure adults have their personal sensory adaptive equipment • Support non-pharmacological sleep Ambulatory • Screen for dementia/ cognitive impairment • Screen for depression • Consider further evaluation and manage manifestations of dementia, educate older adults and caregivers, and/or refer out • Identify and manage factors contributing to depression	
Mobility: Ensure that each older adult moves safely every day in order to maintain function and do What Matters	• Screen for mobility and document the results • Ensure early and safe mobility	

Planning Changes: Fishbone

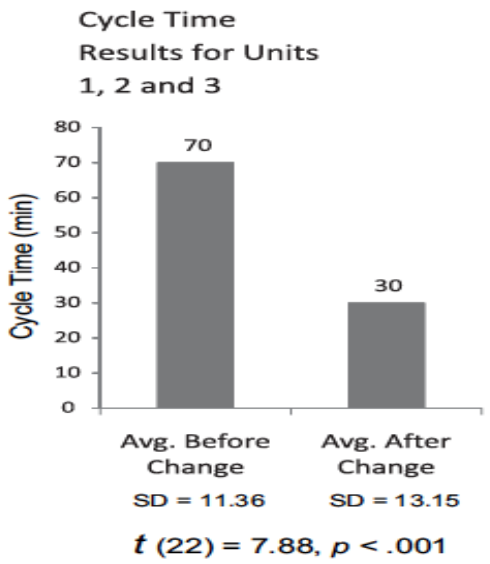


Planning Changes: PICK Chart

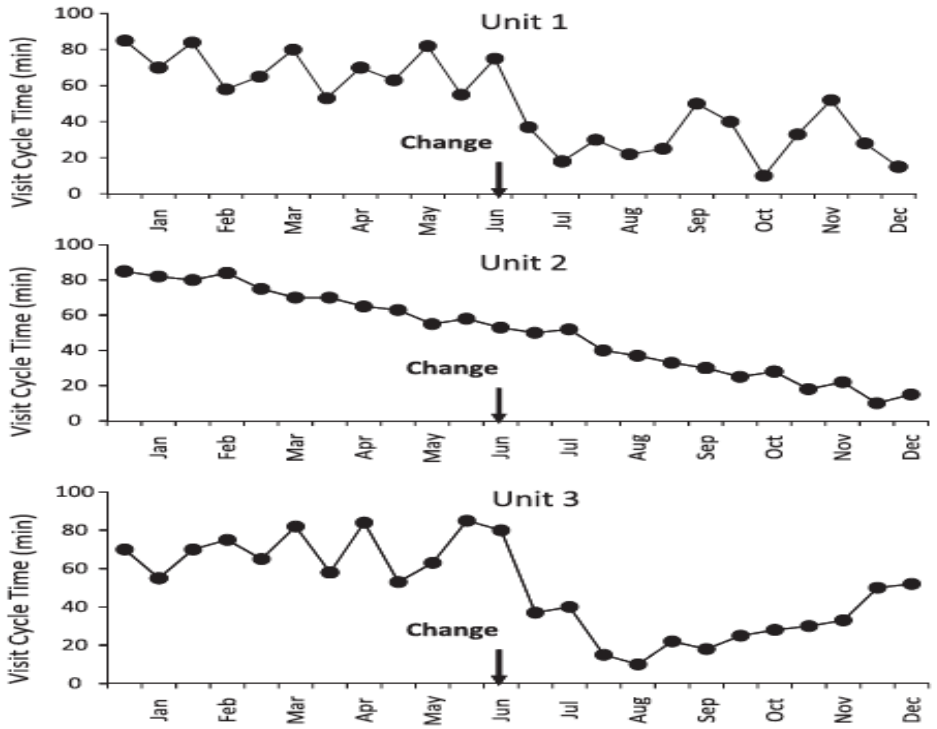


Measuring Changes: time-ordered data (QI run chart) vs. summary stats (traditional research)

Traditional Research



QI Research

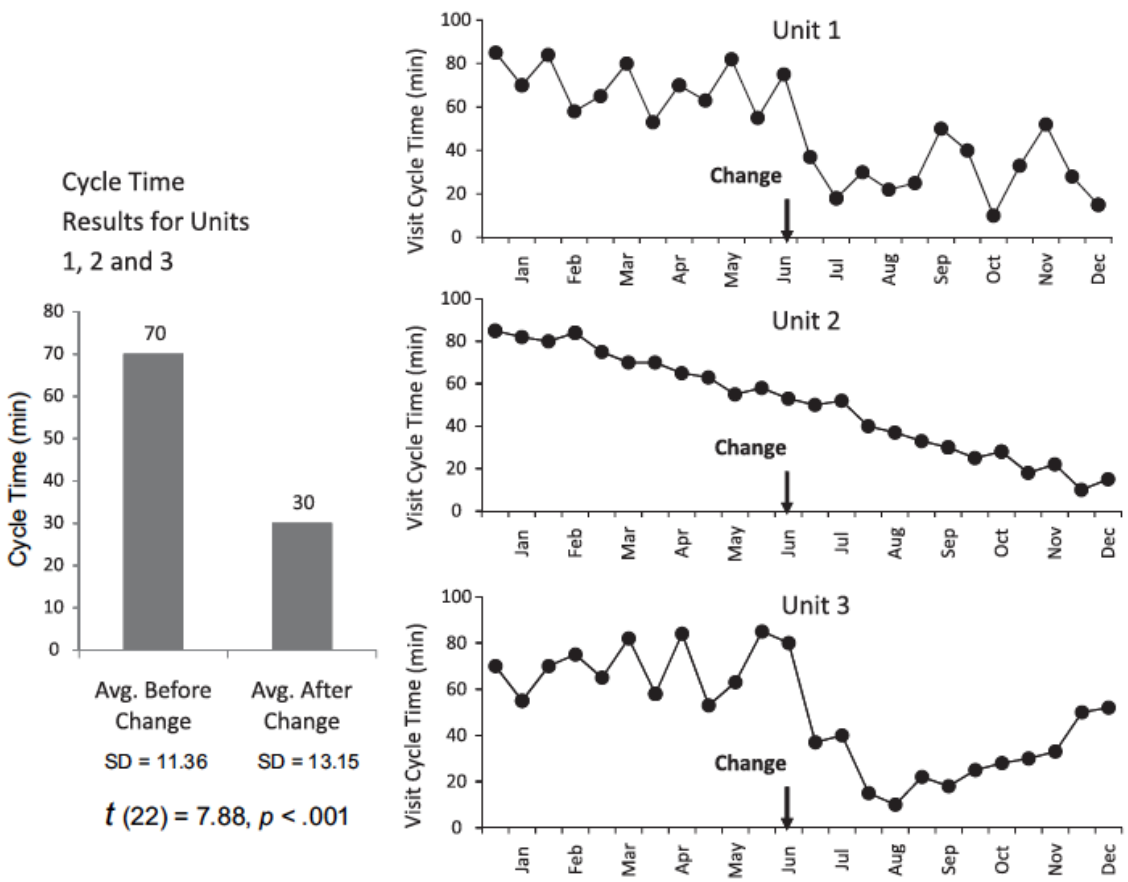


Unit 1: sustainable improvement achieved

Unit 2: same bar chart, but improvement was occurring BEFORE the intervention

Unit 3: same bar chart, but improvement NOT sustained

Measuring changes: Run charts



- **Time ordered** data tells very different story from aggregate data
- Application of four probability-based rules can help you interpret **whether the change you made resulted in an improvement**
  - Perla et al., 2011 article "The run chart: a simple analytical tool for learning from variation in healthcare processes

QI Pearls- General

- For continuous quality improvement and sustainable change
  - Make it easier for people to do the right thing
  - Consider systematic approach
  - Choose aims that matter to multiple stakeholders
  - Seek first to understand, then to be understood
  - The ideal measures are both meaningful and easy to collect
  - Work with those closest to the problem to help develop the solution
  - Use both stories and data to support your cause

QI Pearls- Equity

- Measuring disparities is often the first step to address them
  - Data collection according to historically marginalized groups
- SES factors contribute more to health disparities than medical care
  - Address social determinants of health
  - Partner with community organizations
  - Implicit bias
- Agism leads to health care disparities

QI Pearls- Geriatrics

- Large evidence-practice gap in how we care for older adults
  - Best evidence for high touch low tech interprofessional models
  - Find your health system's QI reporting structure and use it
- Existing QI measures in pay-for-performance programs may not always capture quality and can even hurt quality
  - Learn exceptions and exclusions
  - Person-Driven Outcomes
- Careers in med directorship, public health, research, education
  - Geri QI Fellowship at UCSD
  - QI projects as an outlet