

# National Initiative VII Logic Model and Implications Measuring Improvement and the Virginia Mason Chinook Measurement Effectiveness Model

Hania Janek, PhD, MSMEL

Vice President Education

Baylor Scott & White Health

NI VII Chairman and Co-Chair Measurement Committee

C. Craige Blackmore, MD, MPH

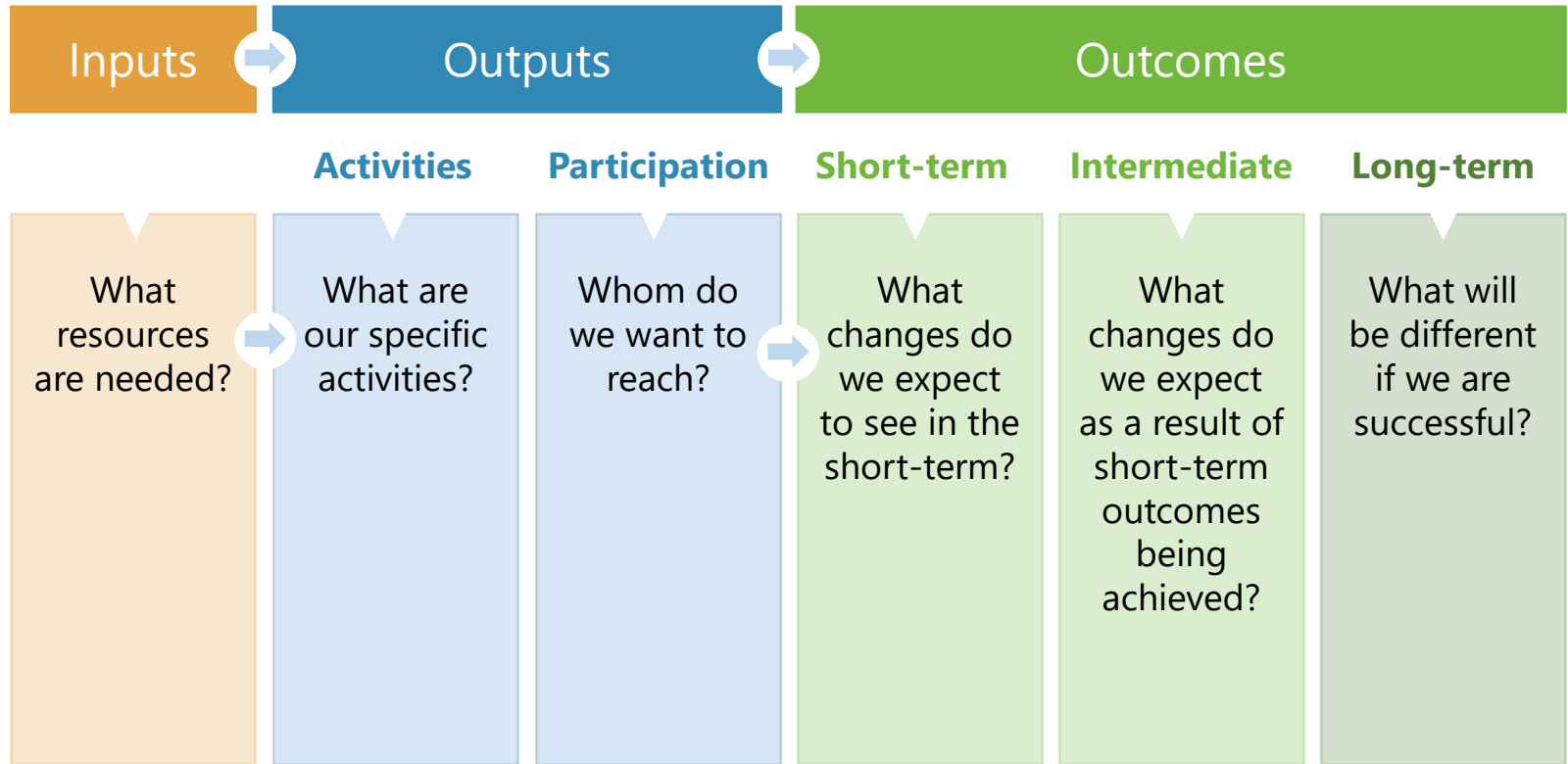
Director, Center for Health Care Improvement Science

Virginia Mason Medical Center

NI VII Co-Chair Measurement Committee



# Logic Model for Program Evaluation



# National Initiative VII Logic Model

## Teaming for Interprofessional Collaborative Practice

### GUIDING PRINCIPLES

- The changing healthcare environment exists with challenges. Education reform helps healthcare meet the changes and challenges.
- Advancing interprofessional education (IPE) and collaborative practice (IPCP) is key to providing quality care and improving patient outcomes.
- Optimal Interprofessional Clinical Learning Environment (IP-CLE) supports IPE and IPCP.
- Teaming is a verb; Teaming is *teamwork on the fly*. (Amy Edmondson)
- We will accomplish understanding, improving and sustaining Teaming for IPCP in three healthcare environments: Micro, Meso and Macro.
- By elevating team-based principles, NI VII will foster experiences in support of workforce respect, equity, and diversity.

### INPUTS/RESOURCES

- Participating Member Organizations
  - Leaders Within Health Professions Education
  - Leaders within Organizations supporting Health Professions Education (eg CMOs)
- CIAQ
- National Advisory Council
- AIAMC BoD and Programming Committee
- Measurement Core
- AIAMC Administrative Team
- Technology needs?
- Project Team Leadership Coaches/Guides

### ACTIVITIES

- Application/Review
- Pre-Work
- Four On-Site Meetings
- Curriculum / Training
- Monthly Teleconferences
- Milestone Tracking
- Webinars
- Measurement
- Scholarship
- Forums

### OUTPUTS

- # Project Teams
  - # of health professions represented
  - # Micro, Meso, Macro leaders involved
- # Project Themes
- Four On-Site Meetings
  - # Learners at each meeting
  - Meeting evaluations
- # Partners on NAC
- Measurement Tools for Teaming in HPE/IPCP
  - Measures associated features of effective CLE
- Publications and Dissemination
  - NI VII Learning of Teaming for IPCP
  - Research/QI/Educ Manuscripts
  - Recommendations to Accreditation agencies?
  - Executive Director communication
  - AIAMC Outreach and Advocacy NI-VII activity

### OUTCOMES/IMPACT

- Immediate**  
(achievable during active NI 18-month period)
- Impact
- Learner/Participant
  - Alignment with AIAMC Priorities
  - Internal Engagement
  - Translation to Action
  - Dissemination
- Measures
- Knowledge
  - Skills
  - Attitudes/Values
  - Behavior/Practice
  - Changed conditions
  - Achieve optimal Clinical Learning Environments
- Long-Term**  
(sustainability/spread/longer time to achieve)
- Impact on Clinical Care
  - Sustainment
  - Spread
  - Adoption

# NI Academic Publications



*Residents Help Drive Quality Improvement*  
featured the AAMC National Initiatives

# Opportunities for Scholarly Activity

## ☐ Quality Improvement and/or Research

- IRB Review and Determination

## ☐ Presentations

- Local, Regional, National
- Poster or Podium

## ☐ Teaching

- Development of curricula
- Workshops

## ☐ Manuscripts

- Team projects
- NI VII collaborative writing teams



# Measurement Considerations

## Challenges

- Large project scope
- Incongruent project scope and measurement plan
- Obtaining data and completing analysis: who, where, when, what
- Resistance within the system infrastructure

## Keys to Success

- Focused project scope
- Align outcomes and measures for evaluation
- Identify needed data sources, staff and technology for data analytics
- Identify alternative solutions; leverage executive sponsors' support
- ***CIAQ and NI members can help!***



Virginia Mason™

# Measuring Improvement and the Virginia Mason Chinook Measurement Effectiveness Model

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C. Craig Blackmore, MD, MPH  
Director, Center for Health Care  
Improvement Science

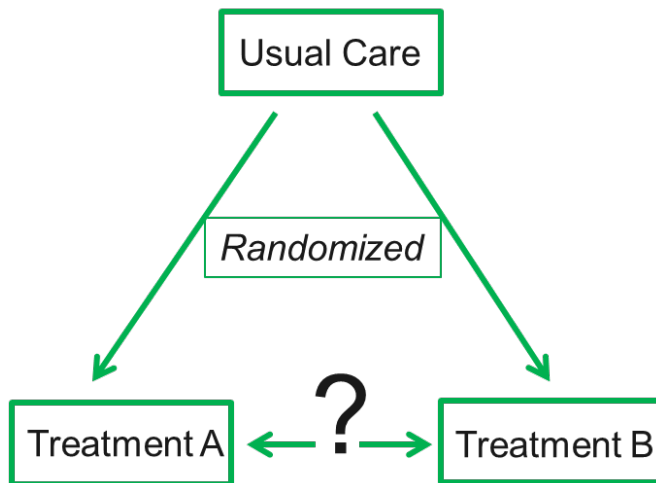


# Center for Health Care Improvement Science

*“However beautiful the strategy,  
you should occasionally look at  
the results.”*

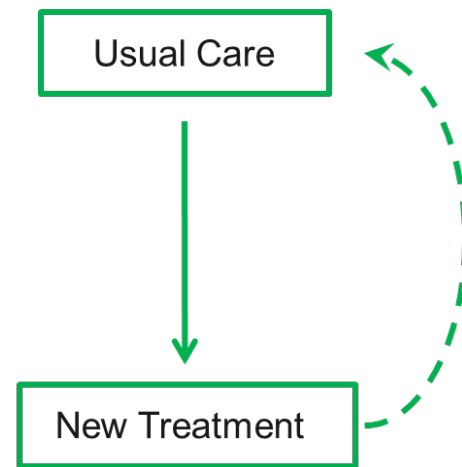
Winston Churchill

## Research

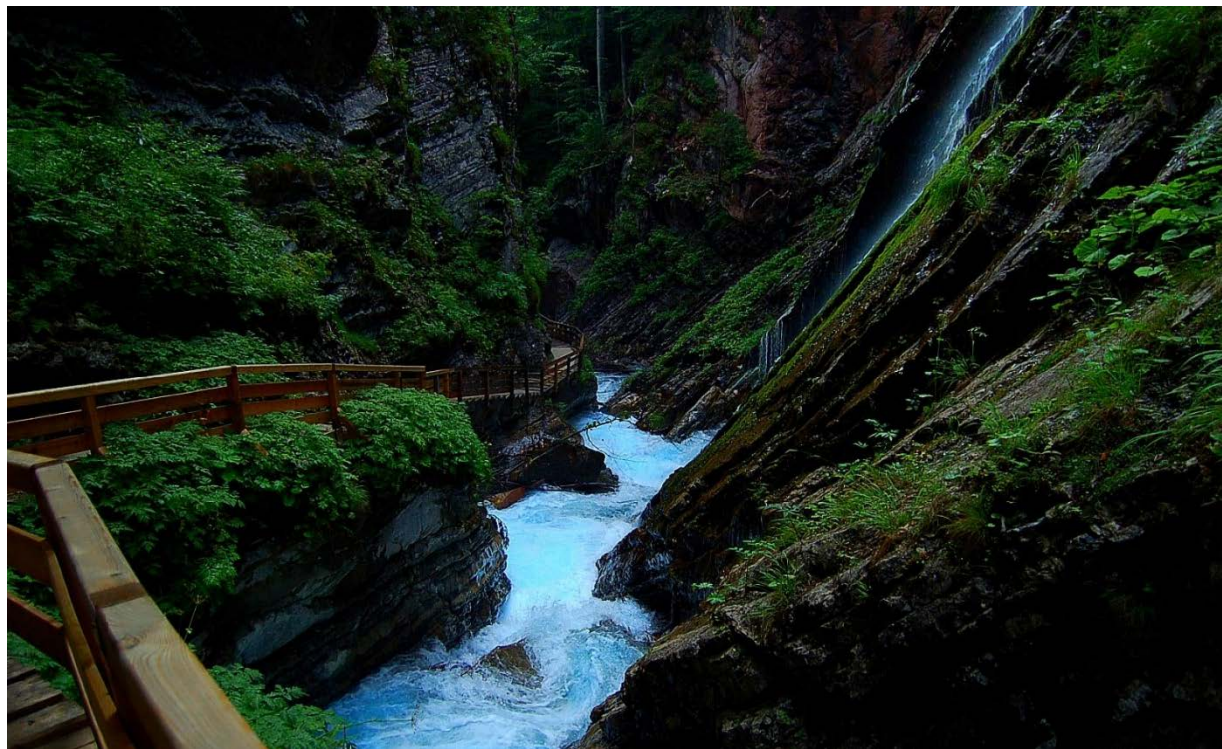


Control for all confounders

## Quality Improvement



Uncontrolled




# Quality Improvement Research

Change over time

- No control group (sometimes)
- Act as own control
- Other changes
- Causality?

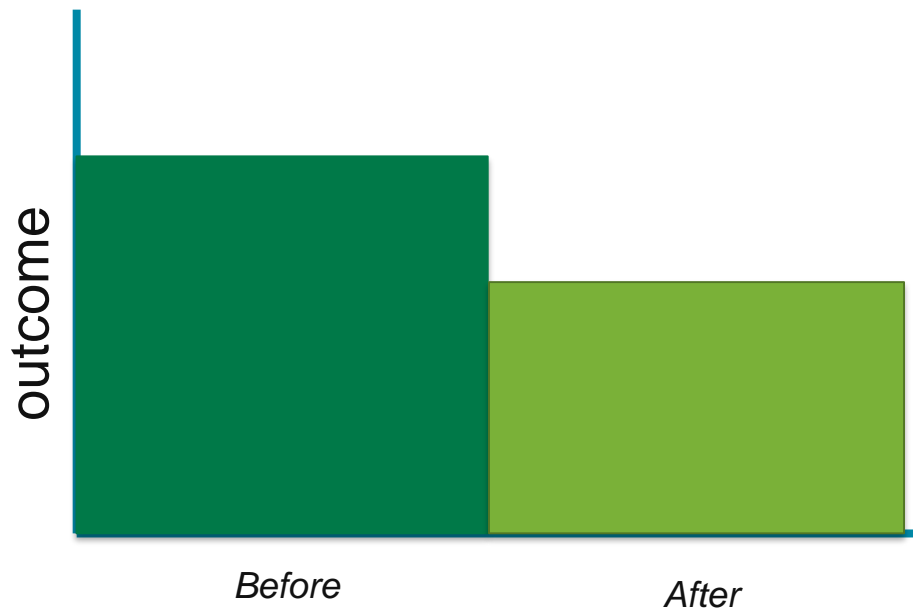
Is there change?

Why?

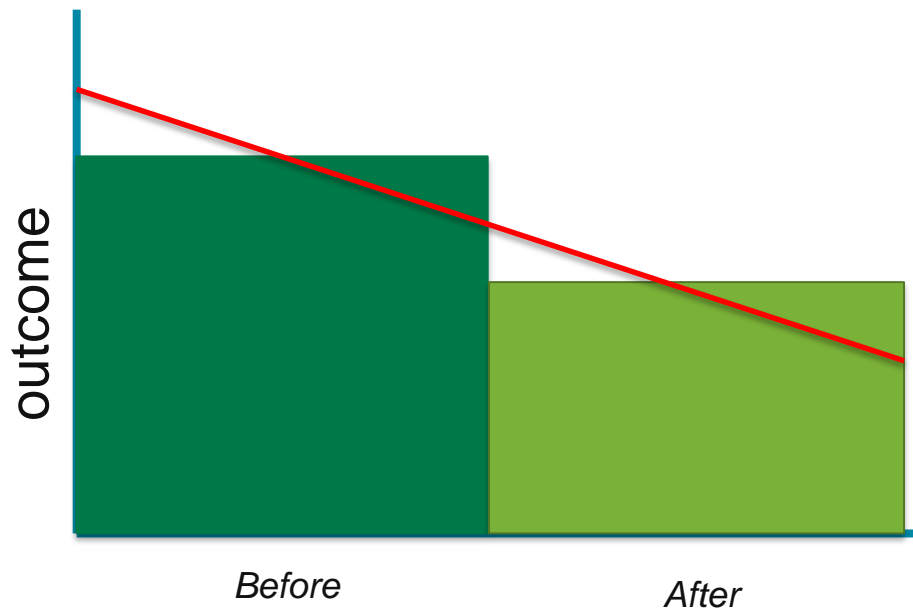


Is there a difference?  
Did we cause it?

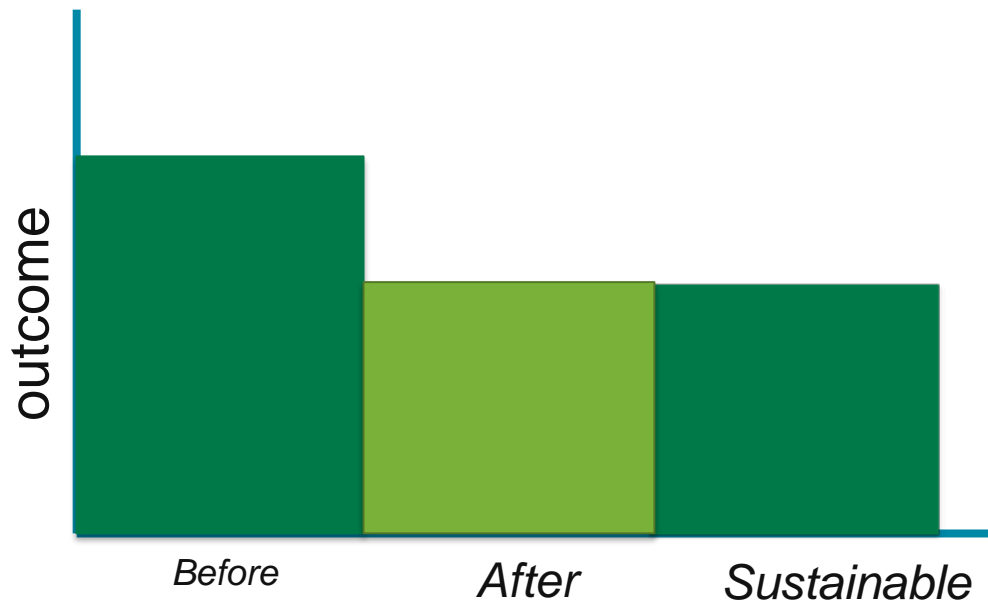
# Before/After Study



# Before/After Study

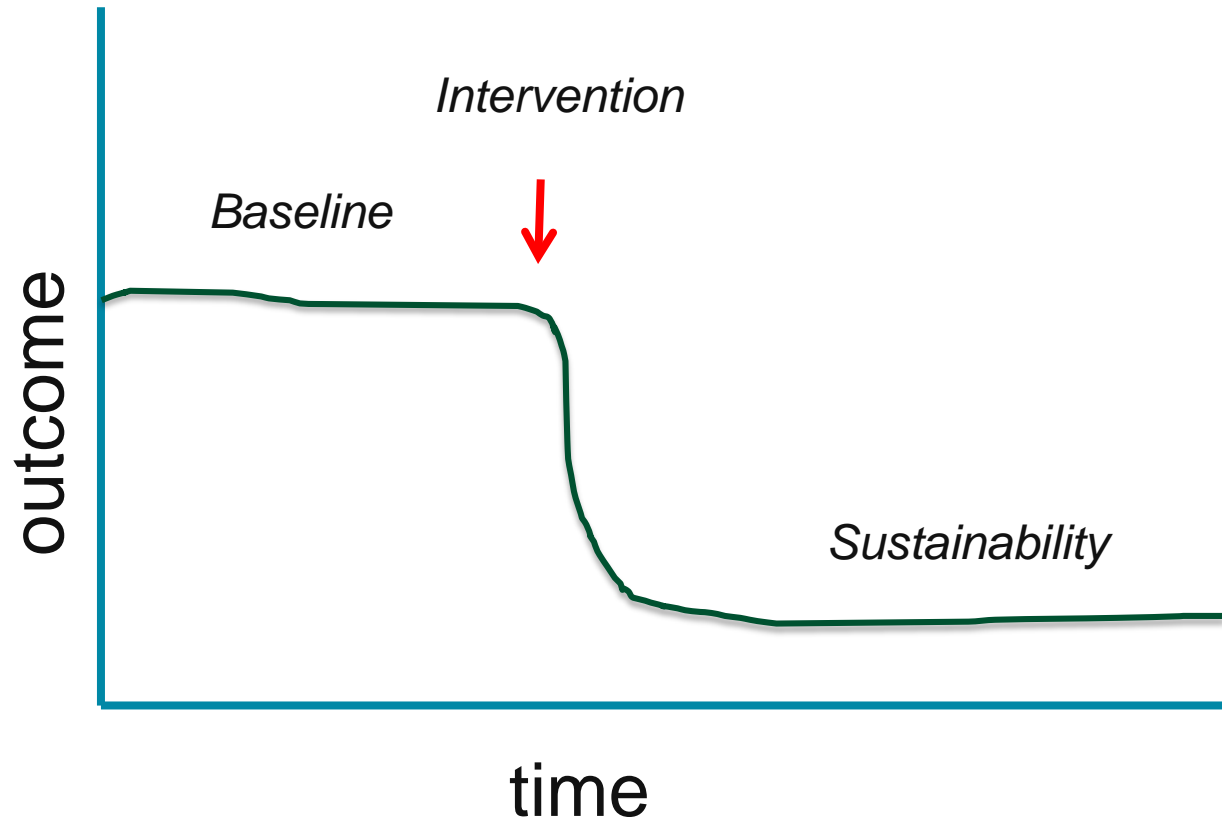


# Before/After/Sustain



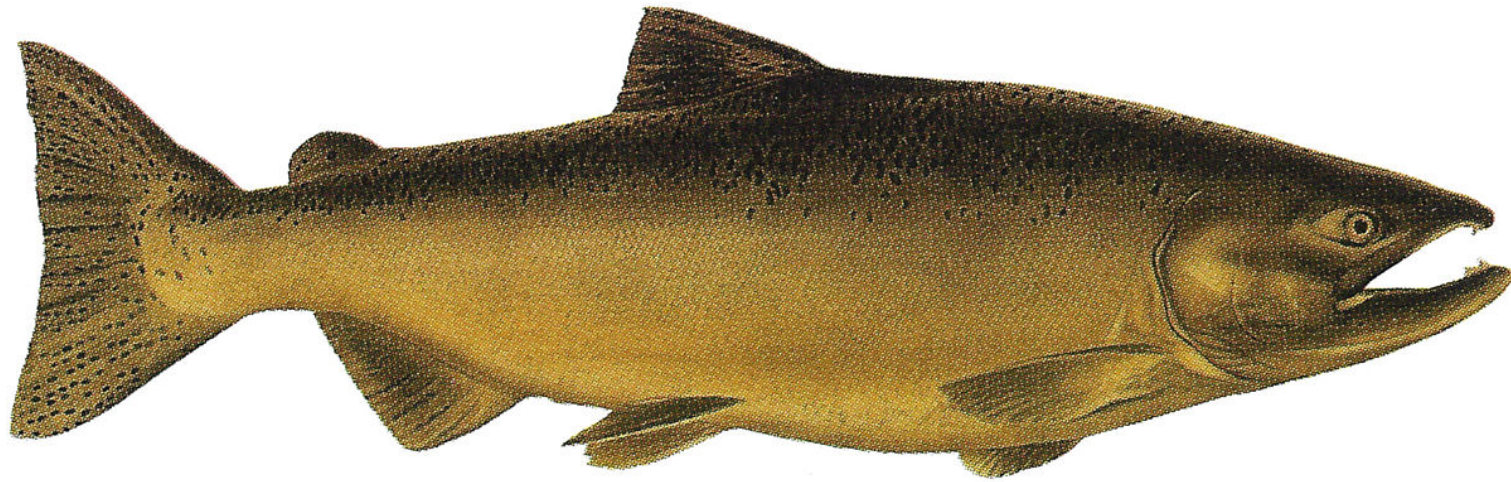


# Time Series





# Chinook Model



# Chinook Model

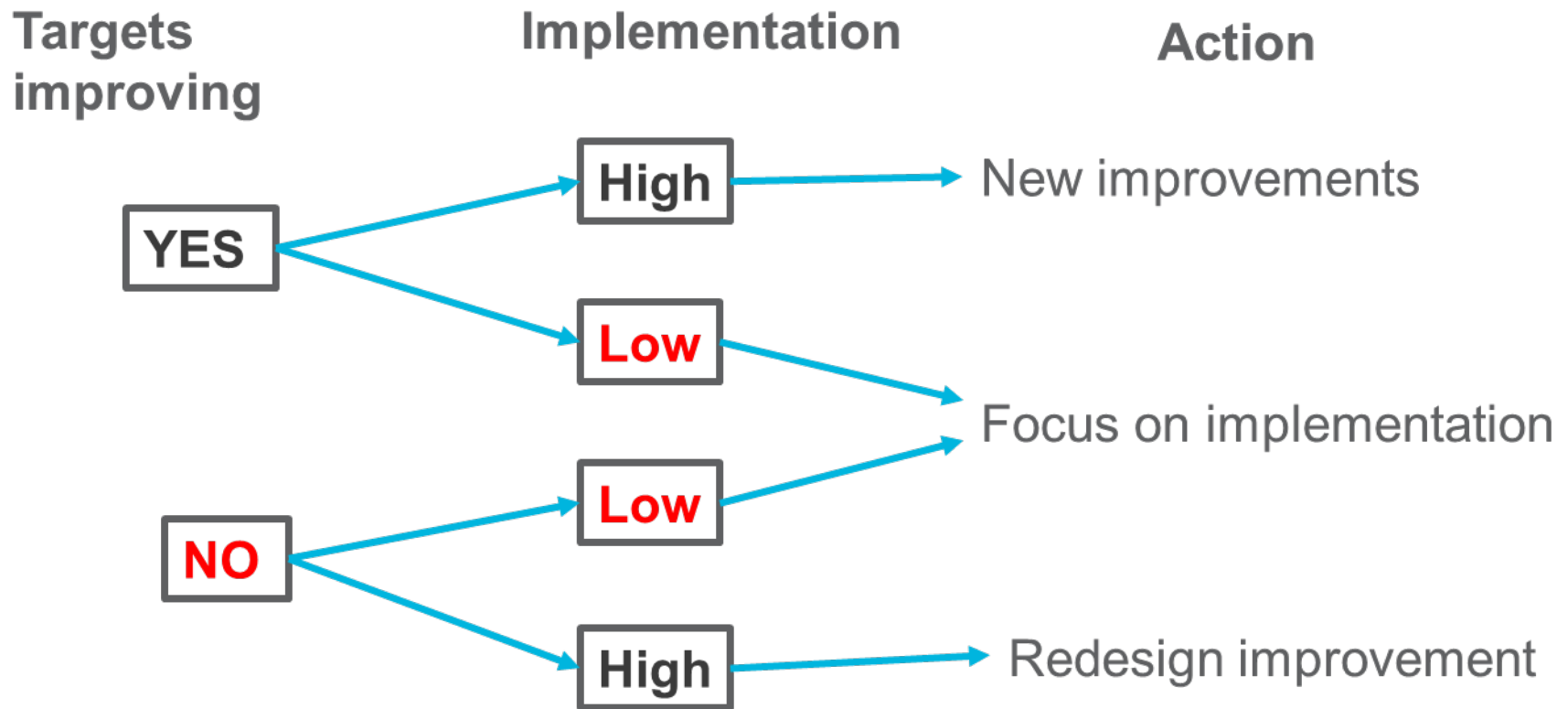
## Measurement Recommendations for VMPS and Other Improvement Efforts

Level of Measurement	Metric	Description	Best Practice <sup>1</sup>	Examples
Problem of Interest, a.k.a. Big Dot	Measures the severity of the overall problem or system dysfunction.	Measure should relate directly to outcomes or institutional needs (i.e. quality, cost, etc.) and should have obvious importance.	Validated, externally reported performance measure of a clinical or patient-experienced outcome.	<ul style="list-style-type: none"> <li>• readmission rate</li> <li>• falls with injury</li> <li>• inventory cost</li> <li>• patient satisfaction</li> <li>• length of stay</li> </ul>
Intended improvement or intervention	Measures success of specific improvement efforts. <sup>2</sup>	Measures the improvements in processes and patient outcomes. This is whether our improvement efforts are actually working.	Should be developed around a specific improvement. There may be multiple metrics for each problem.	<ul style="list-style-type: none"> <li>• dropped telephone calls</li> <li>• walking distance</li> <li>• defects</li> <li>• accuracy of information</li> </ul>
Implementation	Measures adoption of improvement efforts.	Measures the success of implementation, usually looking at processes. This is whether or not we are following our own recommended practices. Reflects the extent of change across the organization.	Should be able to assess the desired extent of implementation. May differ for different improvement efforts.	<ul style="list-style-type: none"> <li>• number of Cognitive Assessment of Minnesota (CAM) scores per patient</li> <li>• use of new standard work</li> <li>• use of code sepsis bundle orders, etc.</li> </ul>

# Quality Improvement

All quality improvement is about changing human behavior!

# Implementation Metrics

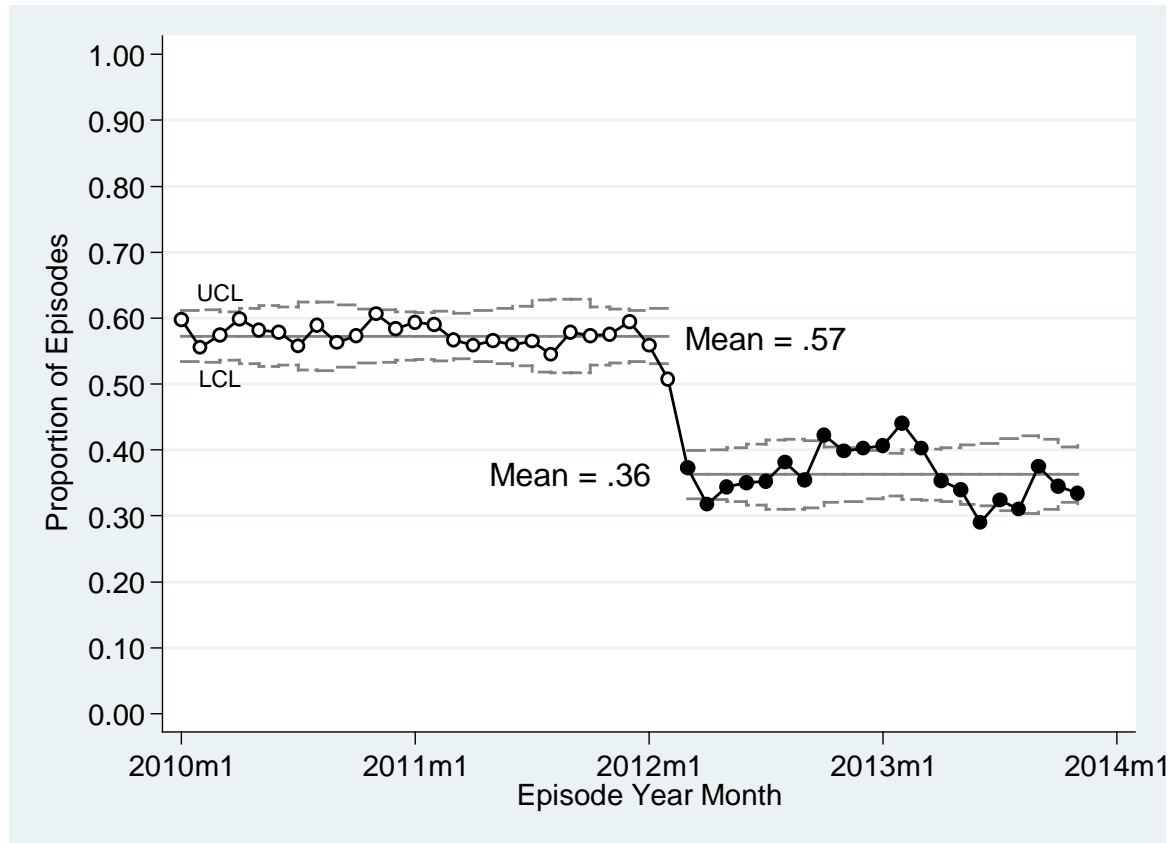


# QI Research Questions

Did the outcomes change?

Did the intervention cause the change?

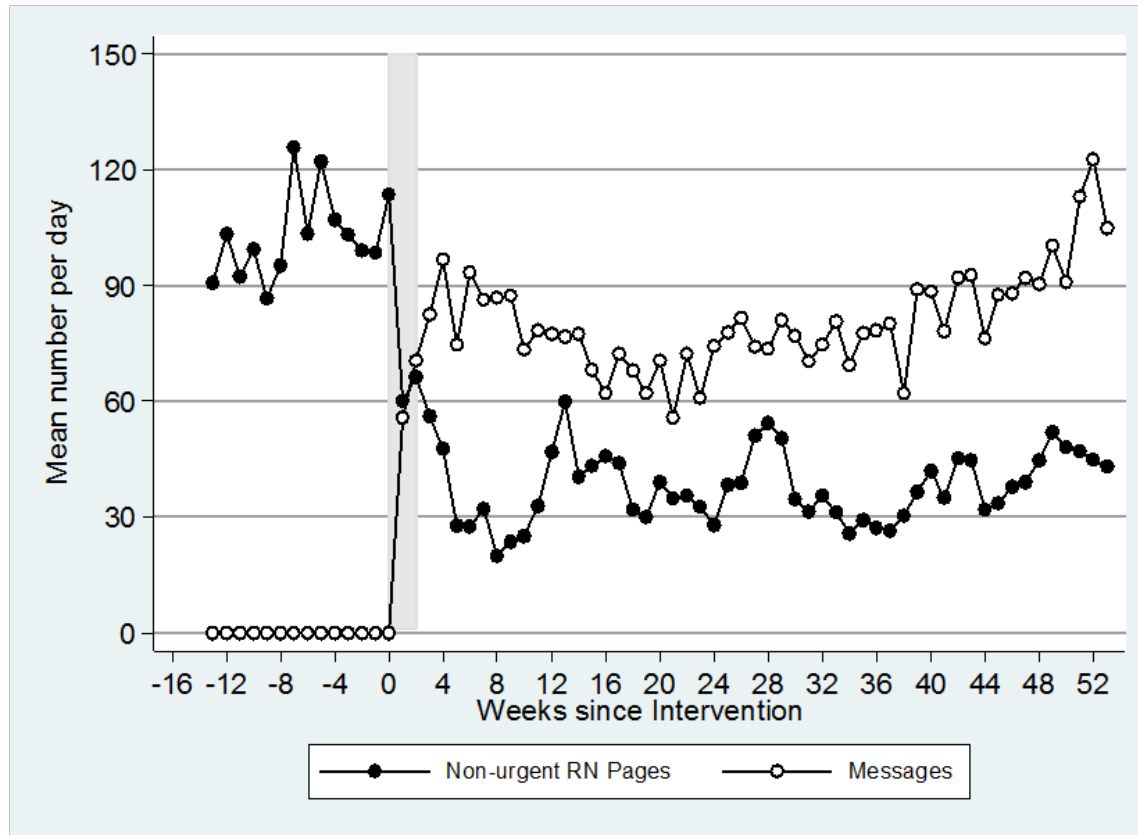
# Antibiotics for Bronchitis



Pittenger, et al. J Am Board Fam Med 2015;28:195-204



# EHR Inbox Messaging



Ferguson, A. BMJ Qual 2016;5:u215856.w736

# Today's Exercise

- Breakout into Cohort Groups
- Select metrics for all three levels of the Chinook model
  - Work in teams
  - Practical solutions
- Report out
  - Selected metrics and why
  - Lessons learned

# Choosing Metrics

“I do not think it means what you think it means”



# Future State

