

Quality Improvement in Integrated Care: A Practical Introduction

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Learning Objectives

At the end of this presentation, participants will be able to:

- Explain what quality improvement (QI) is and how it applies to integrated care
- Describe the LEAN concepts and their use in health care QI
- Write a SMART aim statement
- Create an outline of a plan-do-study-act (PDSA) cycle for their own QI project

But first, what does “quality” even mean?!

- According to the Institute of Medicine: “the degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge “

Extremely vague, right?

Quality Improvement

“the combined and unceasing efforts of everyone – healthcare professionals, patients, and their families, researchers, payers, planners, and educators – to make the changes that will lead to better outcomes (health), better system performance (care) and better professional development (learning).”

Fundamentals of Health Care Improvement

But why should / care about QI?

- Because we operate in medical settings that expect it
- Because payment will be tied to it
- Because administrators can be persuaded by it
- **Because it can result in improved quality of care**
 - Efficiency
 - Effectiveness
 - Patient satisfaction

An Integrated Care QI Success Story

- White River Junction VA serves 13k primary care patients in a rural setting
- Years of mental health (MH) staffing attrition and increasing MH referrals
- By 2003, MH evaluation wait times = 6 weeks, MH no-show rate = 40%
- Everyone had the same, obvious solution
- Team was formed to come up with alternative solutions

An Integrated Care QI Success Story

- The goal:
 - To reduce veteran wait time for MH intake to less than 14 days upon referral from primary care, and to ensure appropriate follow-up mental health treatment as designated by a MH clinician, within 6 months.
- First round of improvements = failure
- Second round of improvements initiated after a review of literature and focus groups

An Integrated Care QI Success Story

The result: A clinic overhaul and the birth of a new integrated care model!

- Primary Mental Health Care Clinic created to provide open access for brief, problem focused evaluation and treatment
- Brief treatment provided in PMHCC but complex cases referred to specialty care

From Q2 to Q4:

of patients referred to MH service dropped 74%

No-show rates to specialty care declined by 2/3

Average wait time for intake valuation declined from
33 days to 19 minutes

50% increase in referrals to clinic but a 74% decrease in referrals to specialty MH clinics

Examples of Quality Improvement in Integrated Care

- Projects that aim to:
 - Reduce patient wait times
 - Promote more appropriate BHC referrals
 - Enhance access to BHCs
 - Improve adherence to clinic protocol
 - Reduce inefficiencies in warm handoff process
 - Facilitate more effective care coordination

This Sounds Like Research...

QI is not research. It differs in terms of:

- Purpose
- Sampling
- Process
- Intervention

Lean Thinking

- Structured approach to workflow analysis and process redesign
- Goals include:
 - Map out the current process in detail
 - Find the points of breakdown
 - Develop measures to assess the problem
 - Identify the **waste**
 - Apply the 5s

Lean Concepts – The 5S

Sort

- Identify and Remove Unnecessary Items

Straighten

- Place Things within Easy Reach and the Most Frequently Used Items Close By

Shine &
Scrub

Visual Sweep of Areas, Eliminate Dirt, Dust and Scrap.

Standardize

Work to Standards, Maintain Them, Use Safety Equipment

Sustain

- Make 5S a Strong Habit- Solve Immediate Problems and Make Them Disappear

The PDSA cycle

- Many different approaches to QI
- Plan-Do-Study-Act (PDSA) among most frequently used in health care
- PDSA focuses on small, iterative tests of change
- Begins with developing objectives



What's the problem and who's involved?

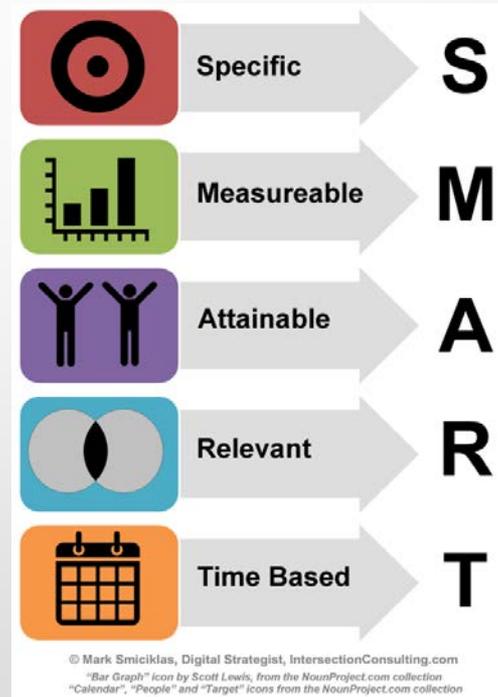
- Identify and describe a problem with the status quo
- Determine who the key figures are involved in the problematic process
 - Often includes medical providers, allied health professionals, administrative staff, clinic leadership--- *and patients!*
- Contact stakeholders and form a tentative team
 - Initially, team might not include all key figures
 - Buy-in from administrators is highly valuable!

Draft an Aim Statement

- **S**pecific
 - What are we trying to accomplish?
- **M**easurable
 - How will we know we reached our goal?
- **A**ttainable
 - Is this a possible goal?
- **R**elevant
 - Does this goal really matter?
- **T**ime-bound
 - By when would you like to accomplish this goal?

Example Aim....Is this SMART?

Reduce the wait time for patients in our primary care clinic to be seen by a BHC following a warm handoff from 30 minutes to 5 minutes by December 2013.

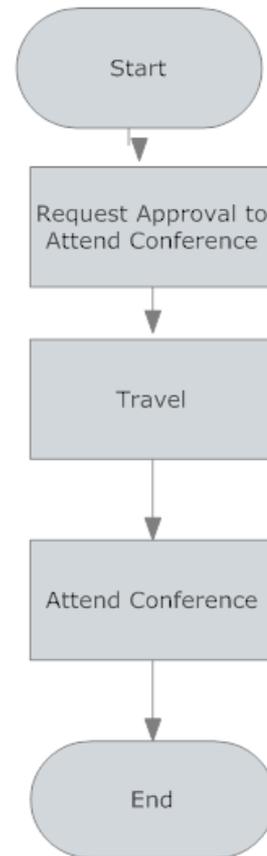


Describe current context and process

- What are we doing now?
- How do we do it?
- What are the major steps in the process?
- Who is involved?
- What do they do?
- What is done well?
- What could be done better?

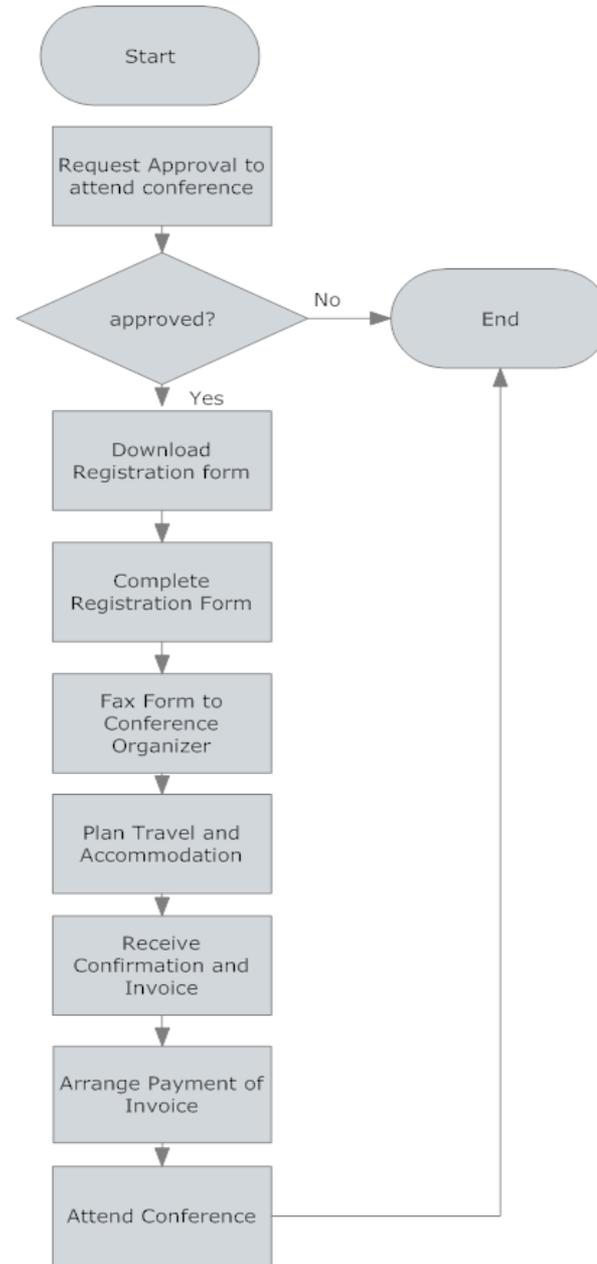
A Real-Life Example: The Simplest Map

Sample One



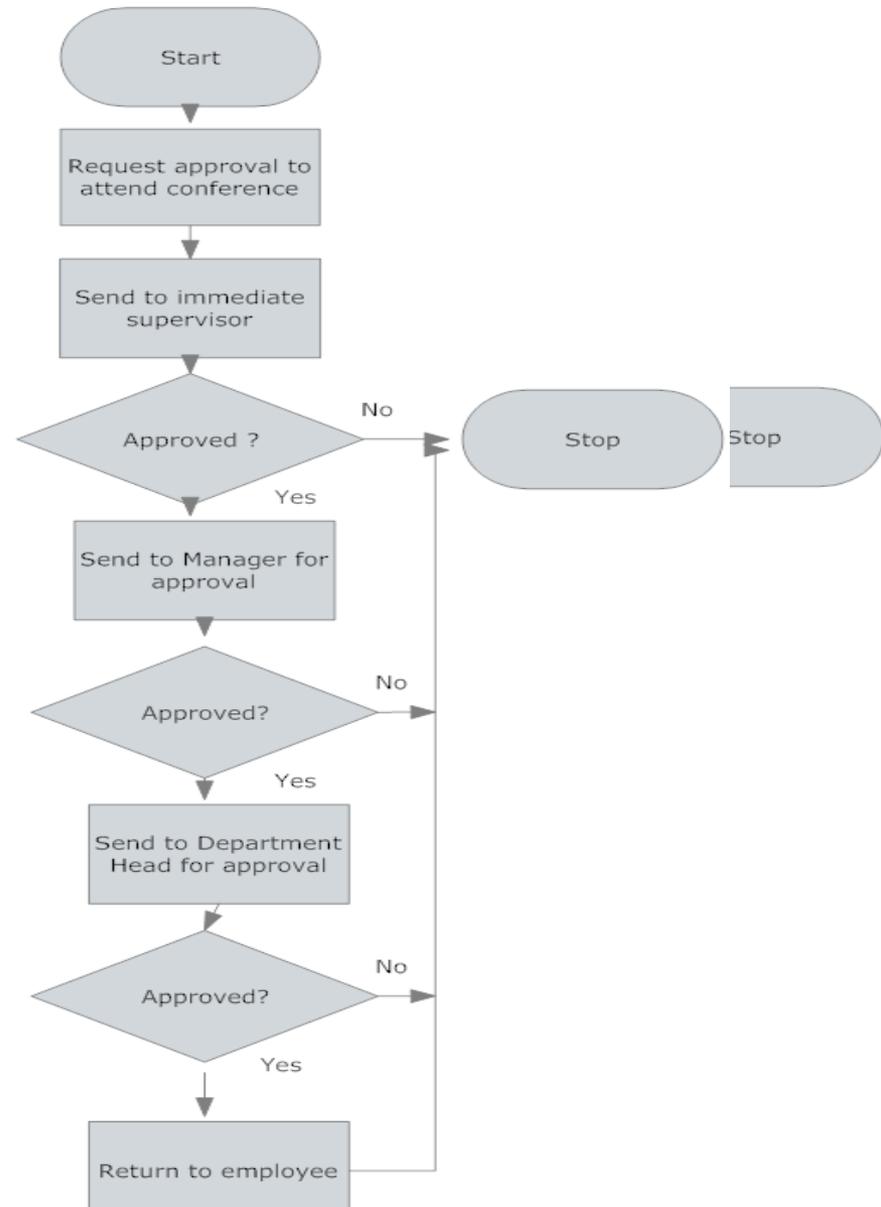
A More Detailed Map

Sample Two



Mapping the True Process

Sample Three



Case Example: PCP to BHC Handoffs

- An urban VA integrated care clinic identified an inefficient handoff process
 - BHCs sometimes unavailable at time of handoff
 - Waiting patients often had to leave before BHC visit
 - Minimal collaboration between PCP and BHC due to time constraints
- QI team of stakeholders (PCPs, nursing, and BHCs) was formed to examine the current process and initiate a PDSA cycle

Plan



1. What are we trying to accomplish? (AIM)
2. How will we know that a change is an improvement? (MEASURE)
3. What changes can we make that will lead to improvement? (CHANGE)

Case Example: PCP to BHC Handoffs

- Team found that:
 - Different providers were conducting handoffs in varying manners
 - BHCs had partial open access but were not informing PCPs of scheduled follow-up appointments
 - Visit length was significantly varied

Aim: Reduce wait time for patients in our primary care clinic to be seen by a BHC following a warm handoff from 30 minutes to 5 minutes by December 2013.

Measure: Wait time as noted by time between handoff and start of BHC visit

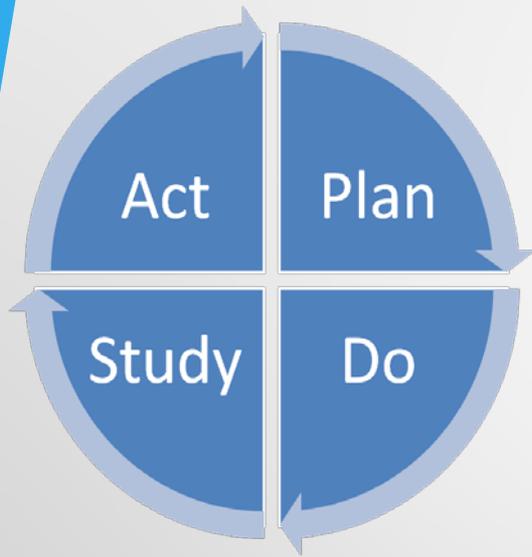
Plan: Include BHCs in a pre-clinic huddle to help identify potential handoff patients and coordinate care

Do



- Designate a team leader or facilitator
 - Oversees the process
 - Ensures everyone is on the same page
 - Collects data (measurements & observations)

Do

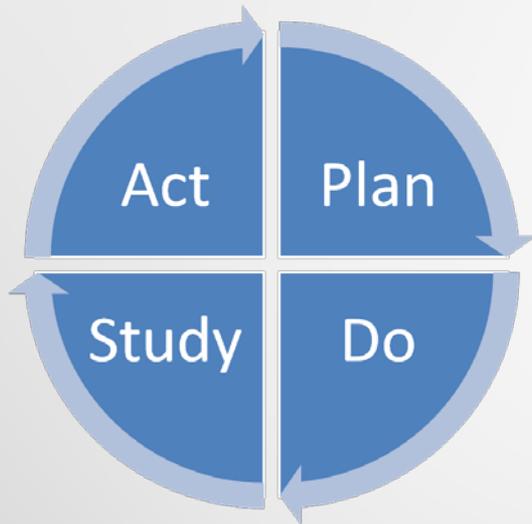


- Execute the plan
 - Make the change identified in plan
 - Runs over specified period of time
 - Relies on quality of the plan
 - Specifics: who, what, when, where
- Data Collection
 - Gather measurements to assess change
 - Document unexpected and unintended events
 - Quantitative and qualitative observation

Case Example: PCP to BHC Handoffs

- Lead psychologist served as a team leader
- Team jointly designed protocol for BHC participation in pre-clinic huddles
- PCPs and BHCs jointly collected wait time and submitted spreadsheets on a weekly basis
- Qualitative data re: change in collaborative activities and challenges to implementation was also collected
- Designated QI study period: 6 weeks

Study

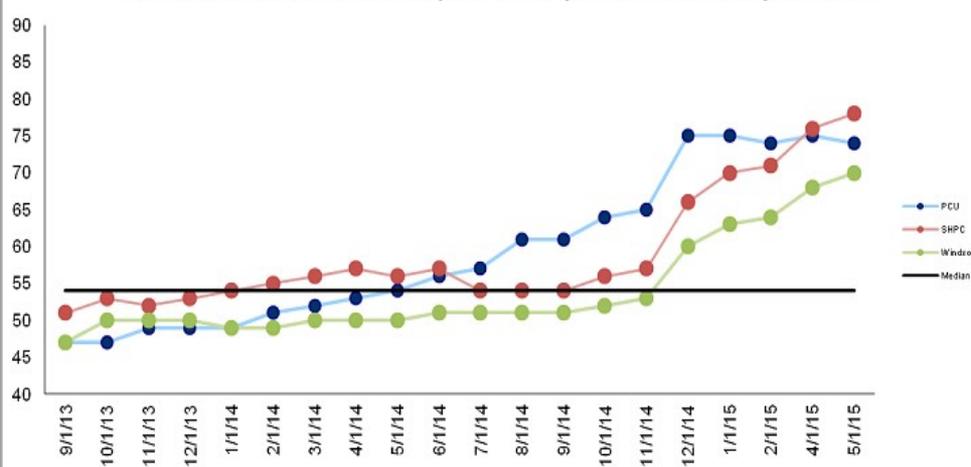


- Was there a change in your target measure?
 - If yes, is the change sustained?
 - If not, why not?
- Were there unintended consequences / unanticipated events?
 - Stakeholder feedback

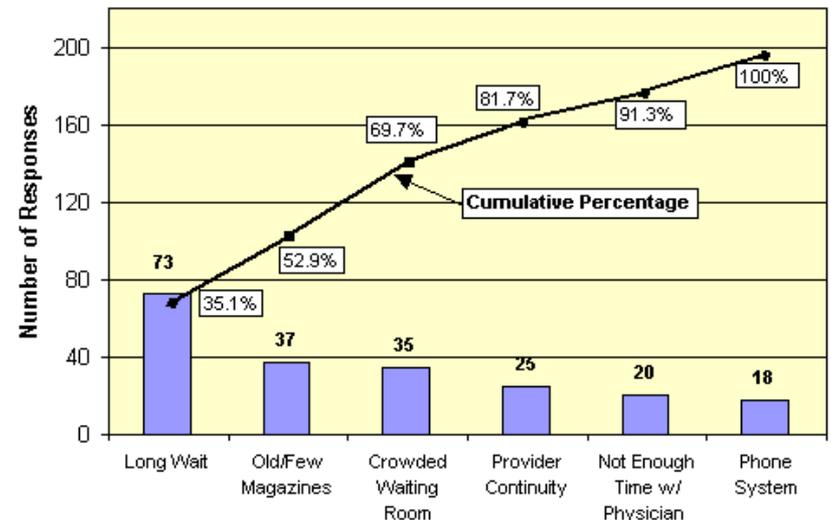
Study

- Different methods for analysis
 - Run chart, which measures processes over time
 - Pareto chart, which measures most significant contributors to a problem (80/20 rule)

Percent of diabetic patients with completed depression screening:
Windsor Clinic, Somerville Hospital Primary Care, TCH Primary Care Unit



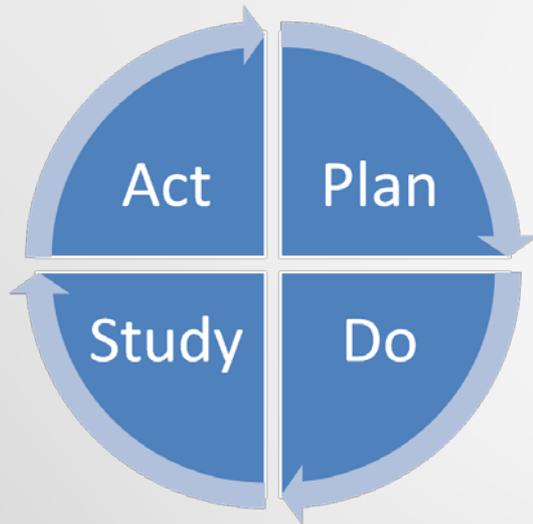
Run Chart
(Source: Institute for Healthcare Improvement)



Response Categories (N = 208 Total Responses)
Pareto Chart (Source: Improvementskills.org)

Case Example: PCP to BHC Handoffs

- Daily average wait time data was analyzed on a weekly basis using a run chart
- Within first week, average daily wait time was reduced by 7 minutes
- By week 6, the average daily wait time was down to 12 minutes
- Qualitative data showed high satisfaction among BHCs and PCPs, increased collaboration and shared treatment planning



Act

- Based on the results, decide on the next steps
 - Same change?
 - Modify change?
 - Different change?
- Incorporate information learned from previous cycle
- Continue to gather data in the same format
- Plan next change and make another prediction

Case Example: PCP to BHC Handoffs

- Although there was significant wait time improvement and enhanced collaboration, aim was still not fully achieved
- A new PDSA cycle was initiated, this time targeting a reduction in session length among BHCs. Baseline length was 31 minutes.
- Efforts also focused on *standardizing* the huddle intervention and making it *sustainable* (5S!)

Think about a PDSA cycle for your own clinic

- Questions to ask when planning:
 - Who will be involved? Who will lead?
 - How can “waste” be eliminated?
 - How will you measure progress?
 - What intervention(s) you might do?
 - How often are you collecting and analyzing data? Who’s responsible for these processes?
 - If your intervention(s) don’t work, how might you decide what’s next to try? What other ideas might you have?

Troubleshooting

1. Are people even using your protocol/checklist/etc.?
2. Is data collection rapid enough?
3. Are you making work easier or harder?
4. Are the benefits observable to users?
5. Are the changes sustainable?

Key Takeaways

- Prediction followed by reflection leads to learning
- Know the ins and outs of your current processes
- Use small tests of change directed at key steps in a process
- Use feasible changes to be implemented quickly and measured over a short timeframe
- Multiple change cycles are usually required

Quality Improvement Resources

- Ihi.org – The Institute on Healthcare Improvement
- [Health Resources and Services Administration QI Toolkit](#)
- [The VA Quality Enhancement Research Initiative \(complete with a methods selection tool!\)](#)
- Fundamental of Health Care Improvement: A Guide to Improving Your Patients' Care by Joint Commission (book)



Questions?

References

- Akinci, F., & Patel, P.M. (2014). Quality improvement in health care delivery using the patient-centered medical home model. *Hospital Topics*. 92(4) 96-104
- Grasso, J., & Pomerantz, A. (2015). *An Interactive Case-Based Introduction to Quality Improvement in Integrated Care*. Workshop presented to the 2015 Collaborative Family Health Care Association Conference, Portland, OR
- Maragakis, A., Snipes, C., Mazzucotelli, J., & Duarte, C. (2014). Using quality improvement to increase access to behavioral health care in federally qualified health centers. *Journal of Primary Care and Community Health*. Epub
- Ogrinc, G, Headrick, L, Moore, S., Barton, A., Dolansky, M., Madigosky, W. (2012). *Fundamentals of Health Care Improvement*. Joint Commission Resources
- Peek, C.J., Cohen, D.J., & deGruy, F.V. (2014). Research and evaluation in the transformation of primary care. *American Psychologist*, 69(4), 430-42.
- Pomerantz, A.S., Shiner, B., Watts, B.V., Detzer, M.J., Kutter, C., Street, B., & Scott, D. (2010). The White River model of colocated collaborative care: A platform for mental and behavioral health care in the medical home. *Family Systems and Health*, 28(2), 114-29.
- Pomerantz, A.S., Cole, B.H., Watts, B.V., & Weeks, W.B. (2008). Improving efficiency and access to mental health care: Combining integrated care and advanced access. *General Hospital Psychiatry*. 30(6), 546-51.
- Wang, J.J., Winther, C.H., Cha, J., McCullough, C.M., Parsons, A.S., Singer, J., & Shih, S.C. (2014). Patient-centered medical home and quality measurement in small practices. *American Journal of Managed Care*. 20(6), 481-9.