

Nurses Leading Quality Projects

Elaine Z. Stenstrup, MSN, ACNS-BC, AOCNS®, BMTCN™



How much do you know about quality improvement?

1. Nothing at all
2. I have heard of it
3. I have participated in a project
4. I am proficient and can lead or have led a project

[Results](#)



What is quality improvement?

- Many definitions and used interchangeably with:
 - Quality improvement – improve the outcome (the end result)
 - Zero infection rates
 - Process improvement – revise or create process(es) that may improve the outcome, but focus is generally on the process
 - Perform all processes that create zero infections;
- Quality work is intended to reduce or eliminate variation in a process to reach an improved outcome. If a process is out of control, you cannot control the outcome.
- Different methodologies and tools are used in this work.



History of quality

- Dr. W. Edwards Deming developed modern quality program
 - Engineer, statistician, professor who evolved Dr. Walter Shewhart’s process control model into our current Plan Do Study Act cycle
 - Basic concepts: look at waste and variation with any process
- Came out of industry (not healthcare) in 1940s-1950s
- 1970s -- Total Quality Management introduced
- 1980s-1990s – Lean and Six Sigma theory introduced
 - Lean helps eliminate waste
 - Six Sigma helps reduce process variation
- 2000s – IHI model for improvement introduced



What does FACT say about QI?

- All accredited programs must have:
 - A quality management plan that addresses how you are managing your “quality assurance, control, assessment, and improvement activities”
 - Designee who is responsible and has authority to manage and coordinate the organization’s quality plan
 - Structure/org chart of how program reports to upper quality committee



Quality Improvement


- Terms you may know:
 - TQM (Total Quality Management)
 - CQI (Continuous Quality Improvement)
 - TCQI (Total Clinical Quality Improvement)
 - CPI (Continuous Process Improvement)






Quality Improvement

- IHI Model (Institute for Healthcare Improvement)
 - Many institutions use the IHI model
 - Framework for institutions to guide them in achieving “triple aim”
 - Triple Aim is 3 fold for the patient or entire population:
 - Improve health
 - Enhance experience and outcomes of care
 - Reduce cost
 - Generally applies to high risk, high cost populations
 - Easily used with staff-driven PI
 - Easy to overlay with institution strategic plans



How do nurses learn about quality work?

- Involved advanced practice nurse or quality department rep
- Unit/clinic has council/committee that is taught QI and is responsible to carry out projects
- Teach basics to all staff through actual work projects and updates
 - Learn to speak the same language
- Can become more sophisticated as work continues



How comfortable are you with participating in QI?

- 1. It scares me so I don't participate
- 2. I could help some but need direction
- 3. I could lead a small project
- 4. I could lead a large project

[Results](#)



Essentials needed to perform QI work

- Dedicated group of nurses (and other team members)
- Dedicated time to work on projects
 - Can be short cycles or last all year long (or longer for ongoing projects)
 - CLA-BSI (Central line associated blood stream infection)
 - CAUTI (Catheter associated urinary tract infection)
 - RN / Patient relationship
 - RN / Provider relationship
 - Pain
 - Staff satisfaction with bedside handoff
 - Onboarding of new staff
 - Cost of care with switch to or addition of new contract/new pump/new biopsy kit/new central line
- Right tools



Questions to ask

- Is there a problem?
- How would you fix the problem?
- Is solution realistic in midst of non-negotiables
 - Budget neutral / cannot hire more staff
 - Can staff work differently? Scheduling models
 - If bringing in new supply/item, will old item be removed from stock?
 - Who else in system uses the old item? Inventory control is a real issue
- Is manager or administrator supportive of work?
- Does solution affect other units or departments?

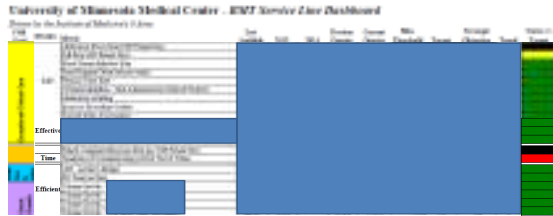


Where do you start to identify problem?

- Dashboard or scorecard
 - Internal
 - System
 - External (UHC, state data centers, CIBMTR)
- Survey (patient, staff, customer)
 - Truthpoint (point of care survey on tablet device)
 - Press Ganey
 - NRC Picker



Identify the problem



My organization displays my workplace QI data

1. Never
2. Rarely
3. Sometimes
4. Always

[Results](#)



Tools

- *Check if your organization has standardized tools before you look for a tool to use
- **PDSA** is a structured trial and error process
 - **P**lan – background, scope, goals, metrics to meet, cause(s) of issue
 - **D**o – try out what you think will work
 - **S**tudy – look at results/metrics for improvement in process or outcome
 - **A**ct – you will act, adjust, adapt/adopt or abandon
 - (And then always plan the handoff and check-in)



Test of Change (PDSA Cycles)			
Plan	Do	Study	Act
What are you looking to accomplish with this test? This form includes a structured and systematic method for planning, testing, and evaluating a change. It is a tool to help you test a change and learn from the results.			
Describe the change you are testing. What is the goal of this test? What are the expected outcomes? What are the risks? What are the resources needed? What are the metrics to measure success?			
Plan			
Describe your test of change	Person Responsible	When to be done	Where to be done
List the tools needed to set up this test of change	Person Responsible	When to be done	Where to be done
What will happen as a result of this test?	What resources will bring you information in the production scenario?		
At this point, you have planned your test and will not be able to complete the Do Study Act portion until you run the test.			
Do	Describe what actually happened when you ran the test.		
Study	Describe the observed results and what were unexpected in the production and when you returned from the cycle.		
Act	Describe modifications for the next cycle based on what you learned (adopt, adjust, abandon).		



Tools

- **A3 form** (called A3 b/c this is the size of the paper used-11X17)
 - Shows entire project at a glance and status on one page
 - Incorporates PDSA cycles
 - Helps keep project in scope
 - Allows standardized way to describe project to administration
 - If your organization adopts another tool, must use that
 - Easy to see the milestones that must occur in order for project to proceed



PATIENT INFORMATION		TEAM MEMBERS		DATE & TIME		PATIENT'S ROOM NUMBER		NAME		TITLE		PROVIDER(S)		NURSING		PHYSICIAN(S)	
Patient Name		Room Number		Date		Time		Room Number		Name		Title		Name		Title	
Patient ID		Team Lead		Start Time		End Time		Patient Status		Admission Date		Discharge Date		Referring Physician		Receiving Physician	

PLAN				DO				ACT			
Nursing Interventions				Nursing Interventions				Nursing Interventions			
Physician Orders				Physician Orders				Physician Orders			
Patient Assessment				Patient Assessment				Patient Assessment			
Vital Signs				Vital Signs				Vital Signs			
Lab Results				Lab Results				Lab Results			
Medication Administration				Medication Administration				Medication Administration			
Documentation				Documentation				Documentation			

HEALTH.
UNIVERSITY OF MINNESOTA

Tools

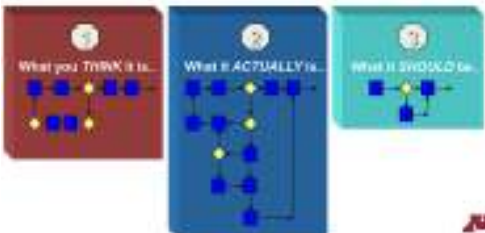
- Audit tools
 - Vary from simple to in depth
 - Are you doing what you (or policy or guideline) say you're doing?
 - CLABSI bundle (scrub the hub, drsg & lines changed on time)
 - Transfusions/Transplants: administering and/or documentation
 - Most benchmarks are 100%, but may be OK with 95% or 75%

HEALTH.
UNIVERSITY OF MINNESOTA

Tools

- Process mapping

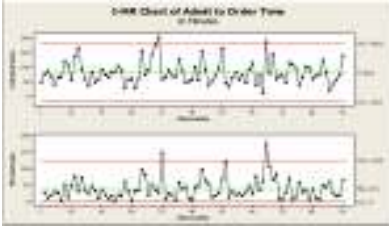
There are usually three views of a process:



HEALTH.
UNIVERSITY OF MINNESOTA

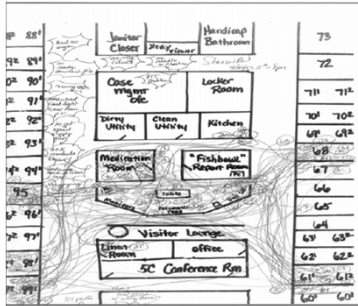
Tools

- Line chart



Tools

Spaghetti diagram



Tools

- Many other tools available
 - Choose the tool that you think best tells the story of your issue
 - May need to use more than one



CLA-BSI

(Central line associated blood stream infection)

- Our QI project was based on our high rates
- **OUTCOME:** Zero CLABSI by end of year and sustain zero rate
- **PROCESSES:**
 - Understand definition and rate of CLA-BSI
 - Invite Infection Prevention dept staff to speak to nurses on project
 - Understand prevention/reduction bundle & teach staff (incl. float staff)
 - What will work for your setting with parts of bundle
 - Based in evidence – have staff perform lit search/review
 - Understand surveillance audits for bundle adherence
 - Ask frontline staff why they think patient had CLABSI
 - Monthly audit of bundle to see if we were doing what we said we were doing
- Met outcome in 2014



Standardized IV line set up

- Based in CLABSI work, falls, lines pulled out, med errors
- Also based in staff (unit, float pool) dissatisfaction with spaghetti”
- **OUTCOME:** standardized line set up
- **PROCESSES:**
 - Medication compatibility
 - Timing of meds/Continuous meds
 - Lab draws (pharmacokinetics, general labs, blood cultures)
 - Equipment (IV pole, IV pumps, feeding pumps, oxygen tank holder)
 - Monthly audit of IV line set up (when we do our CLABSI audits)
- Met outcome in 3 months; outliers occur; revisit issue in real time with central supply or with nurse who set up lines incorrectly



Orientation to peds BMT unit

- Based on new employee survey and retention study
- **OUTCOME:** 95% retention of new hires in 2014
- **PROCESSES:**
 - Surveyed new hires at 1 month, 3 months
 - Preceptors not standardized
 - Orientation and check in not as tightly standardized as it could be
 - Did not feel a part of unit/group of nurses
 - Revised orientation process
 - Revisited preceptors and their willingness to continue in this role
 - Created “buddy system” with nurses who shared same weekends
- Met outcome in 2014



Examples of projects that required more work than anticipated

- PDSA based on dissatisfaction scores from patients with pain
 - Plan: survey staff and providers; find gaps in knowledge and attitudes
 - Do: bring pain physician to meetings to discuss findings; offer education
 - Study: monitor satisfaction scores from patients with pain
 - Act: mandatory education for all staff and providers to cover findings
 - ***SCORES DID NOT IMPROVE!
 - Plan: re-evaluate findings with core group of staff and providers to begin the PDSA cycle again



Another example

- PDSA based in move to new hospital
 - Plan: Meet with all departments to ensure readiness for move of high risk, high needs population (peds BMT)
 - Do: Core peds BMT group (nursing leadership, staff champions) identify all departments;
 - Study: Mock run through of patient scenarios with departments
 - Act/Adopt: Processes put into place
 - ***PROCESSES FAILED with go live/move
 - Plan: Evaluate why processes failed (we met in meetings instead of performing actual walk-through)



Report out of QI work

- Documents (PDSA forms, A3 QI project tracking form, audits)
 - Electronic and accessible
 - Standardized
- Staff: newsletter, email, QI display on unit
- Manager: meet, email
- BMT dept/QI committee: attend meeting to give presentation, meet with QI rep
- Administration: formal report, email from manager



How comfortable are you with participating in QI?

- 1. It scares me so I don't participate
- 2. I could help some but need direction
- 3. I could lead a small project
- 4. I could lead a large project

[Results](#)



Summary

- QI incorporates methodologies and tools to improve a process or outcome
- FACT standards state a BMT program must have a QI plan
- The IHI model is used to guide organizational QI
- We generate ideas, try an intervention to improve upon our issue, test and check outcomes
- Multiple tools exist to assist in driving project
- Implement successful change in your area and farther if appl.
- Don't forget to share results formally to stakeholders



Thank you!

- Questions?