Clinical Leader Professional Certificate

2021

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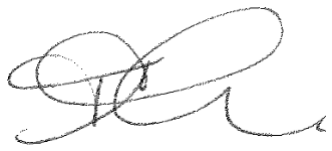

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Jacquie Logan-Stephens

RN, BScN, MHS

Jacquie is a capable, objective, and collaborative Nursing Professional who has proven senior management experience focused on provision of safe, patient and family-centred care. She has a strong background in privacy and quality initiatives in the broader health sector, including community health, long term care, and hospital settings. She has been a Surveyor for CARF aging services accreditation since 2015, a role in which she continues to develop her strong interpersonal, communication and facilitation skills to promote client-centered services. Jacquie is currently a Quality Specialist at the Mount Hope Centre for Long Term Care location of St. Josephs' Health Care in London, ON.

Health Leadership & Learning Network

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1. Overview of Quality Improvement

Jacquie Logan-Stephens

February 16, 2021

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Overview of Quality Improvement (QI) – Learning Objectives

- Define quality
- Define Healthcare Quality Improvement
- Understand the history of Healthcare Quality Improvement
- Describe the six dimensions of the Institute of Medicine framework related to QI
- Describe the Triple AIM and Quadruple Aim as the target for improvement efforts
- Introduction to Lean
- Introduction to Quality Improvement Plans (QIP)

2

What is “quality”?

Dictionary

the standard of something as measured against other things of a similar kind; the degree of excellence of something

A distinguishing attribute

3

Quality Improvement (QI)

- Science developed over the past few decades by Dr. W. Edwards Deming and Dr. Joseph Duran
- Promoted by Dr. Donald Berwick of the Institute for Healthcare Improvement

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Healthcare Quality Improvement

- Definition:

  "A broad range of activities of varying degrees of complexity and methodological and statistical rigour through which healthcare providers develop, implement and assess small-scale interventions, identify those that work well and implement them more broadly in order to improve clinical practice."

  The Ethics of Improving Health Care Quality & Safety: A Hastings Center/AHRQ Project, 2004

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Why do we need QI?

"Here is Edward Bear, coming downstairs now, bump, bump, bump, on the back of his head, behind Christopher Robin. It is, as far as he knows, the only way of coming downstairs, but sometimes he feels that there really is another way, if only he could stop bumping for a moment and think of it"

A.A. Milne
Illustration E.H. Shepard

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QI is doing our work, and improving our work

In healthcare we have two jobs

- 1. Doing our work
- 2. Improving our work

7

How did this emphasis on quality get started?

Institute of Medicine Reports:

- Turning point in the quality and safety movement in healthcare
  - To Err is Human (1999)
  - Crossing the Quality Chasm (2001)

8

To Err is Human

- *When extrapolated to the over 33.6 million admissions to U.S. hospitals in 1997, the results of the study in Colorado and Utah imply that at least 44,000 Americans die each year as a result of medical errors. The results of the New York Study suggest the number may be as high as 98,000. Even when using the lower estimate, deaths due to medical errors exceed the number attributable to the 8th-leading cause of death. More people die in a given year as a result of medical errors than from motor vehicle accidents (43,458), breast cancer (42,297), or AIDS (16,516)*

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#	Current State	Future State
1	Care is based primarily on visits	Care is based on continuous healing relationships
2	Professional autonomy drives variability	Care is customized according to patients' needs and values
3	Professionals control care	The patient is the source of control
4	Information is a record	Knowledge is shared freely
5	Decision making is based on training and experience	Decision making is based on evidence
6	"Do no harm" is an individual responsibility	Safety is a system property
7	Secrecy is necessary	Transparency is necessary
8	The system reacts to needs	Needs are anticipated
9	Cost reduction is sought	Waste is continuously decreased
10	Preference is given to professional roles over the system	Cooperation among clinicians is a priority

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Dimensions of healthcare quality

Institute of medicine
- Effective
- Safe
- Patient-Centred
- Equitable
- Efficient
- Timely

Health Quality Ontario
- Effective
- Safe
- Patient-Centred
- Equitable
- Efficient
- Accessible
- Appropriately resourced
- Integrated
- Focused on population health

Six Dimensions of Healthcare Quality

Effective
- Providing services based on scientific knowledge to all who could benefit and refraining from providing services to those not likely to benefit (avoiding underuse and misuse, respectively)

Six Dimensions of Healthcare Quality

Safe

- Avoiding harm to patients from the care that is intended to help them

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Six Dimensions of Healthcare Quality

Patient-centered

- Providing care that is respectful of and responsive to individual patient preferences, needs, and values and ensuring that patient values guide all clinical decisions

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Six Dimensions of Healthcare Quality

Timely

- Reducing waits and sometimes harmful delays for both those who receive and those who give care

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Six Dimensions of Healthcare Quality

Efficient

- Avoiding waste, including waste of equipment, supplies, ideas, and energy

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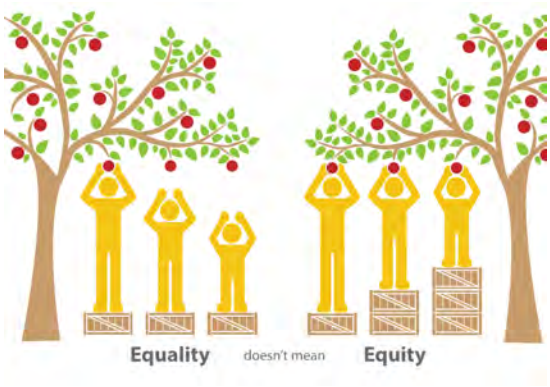
Six Dimensions of Healthcare Quality



Equitable

- Providing care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

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IHI Triple Aim (2012)

- The IHI Triple Aim is a framework developed by the Institute for Healthcare Improvement that describes an approach to optimizing health system performance. It is IHI's belief that new designs must be developed to simultaneously pursue three dimensions, which we call the "Triple Aim":
- Improving the patient experience of care (including quality and satisfaction);
- Improving the health of populations; and
- Reducing the per capita cost of health care.

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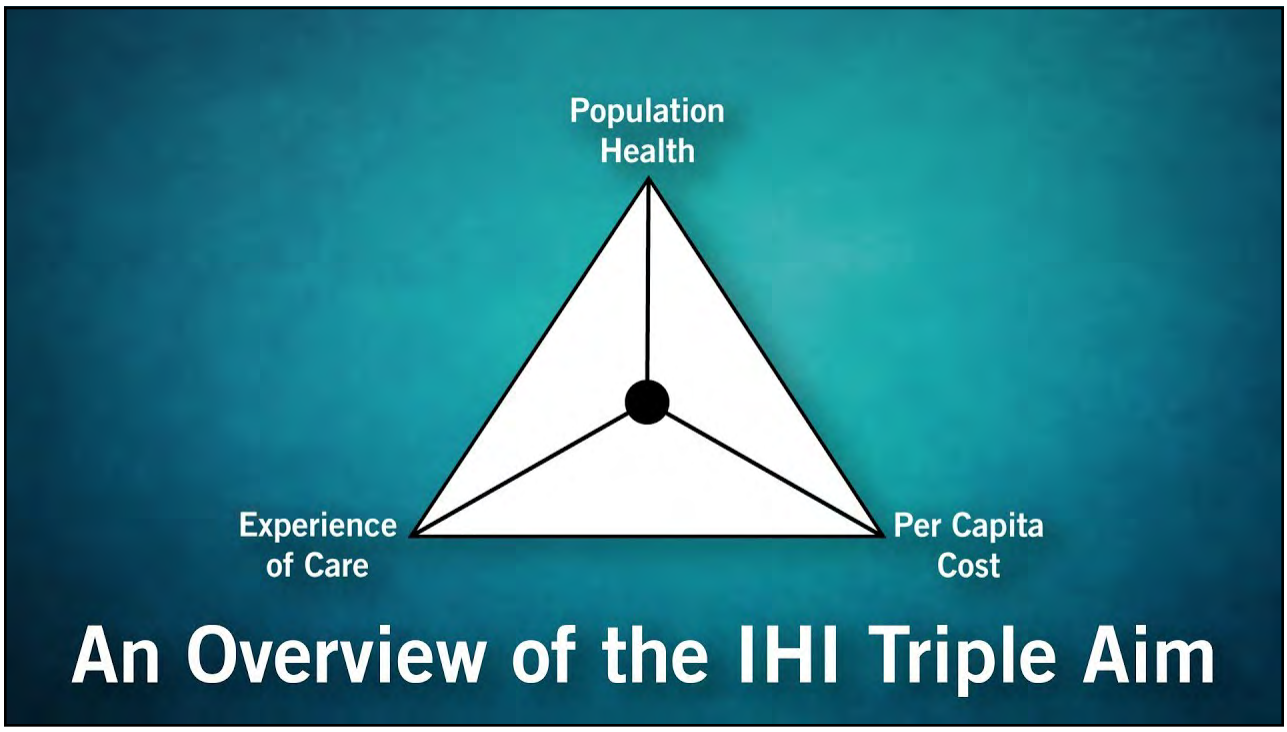

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Quadruple Aim

- Better population Health
- Lower system costs
- Improved patient care
- *Increased workforce engagement and safety*

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Lean

- Quality improvement philosophy and set of principles originated by the Toyota Motor Company
- When well executed, organizations say Lean transforms how an organization works and Lean creates an insatiable quest for improvement
- Six Principles that constitute the essential dynamic of Lean management:
  - Attitude of continuous improvement
  - Value creation
  - Unity of purpose
  - Resect for front-line workers
  - Visual tracking
  - Flexible regimentation

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Quality Improvement Plans (QIP)

- A Quality Improvement Plan is a public, documented set of quality commitments made by a health care organization to its patients, clients, residents, staff and community on an annual basis. The goal is to improve quality through focused targets and actions.
- Hospitals, primary health care organizations, home and community care, long-term care

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Quality Improvement Plans (QIP) – 3 components

- Narrative
- Progress Report
- Workplan

✓Submitted by April 1 each year

Quality Improvement Plans (QIP) - Indicators

Mandatory indicators – hospital

- # of incidents of workplace violence (overall)
- Emergency department wait time to inpatient bed

New indicators

- Repeat emergency visits for mental health (hospital sector)

Indicators undergoing revision

Revised indicators

Retired indicators

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2. System Diagnostic Tools (*what is the problem*)

Jacquie Logan-Stephens

February 17, 2021

All about tools – Learning Objectives

- Understand the importance of measurement
- Data collection
- Introduce the Model for Improvement
- Identify QI tools that assist in the determination of root or system cause:
  - 5 Ws and 2 Hs
  - Affinity Diagram/Brainstorming
  - Cause and Effect Diagram (Ishikawa)
  - Pareto Diagram
  - 5 Whys
  - Process Map

Measurement and use of data for improvement

We can only be sure to improve what we can actually measure

- Lord Darzi, High Quality Care for All, June 2008

3

Measurement

If you can't measure it – you can't understand it….
….If you can't understand it, you can't control it…..
….If you can't control it, you can't improve it.

H. James Harrington

4

Measurement

- What does “good” look like?
- How do we know what an improvement looks like?
- How do we know if a change in process is an improvement?
- How do we know when we’ve had a good day?
- Week? Month? Year?

5

Measurement

- Allows you to challenge assumptions
- Removes some emotion from making decisions
- Directs behaviour
- Improves decision making
- Provides you with early warning signs
- Enables prediction

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Uses of data

For judgement:	For research:
✓ **Performance targets** ✓ **Contracts** ✓ **Project outcomes**	✓ **Understanding better ways of caring**
For operational activity: ✓ Planning ✓ Reporting ✓ Recording	For improvement: ✓ "Before and after" ✓ Over time ✓ Understanding processes

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WARNING

- Before you make any decisions based on data, you must be fully familiar with the system or process being examined AND how the data has been collected

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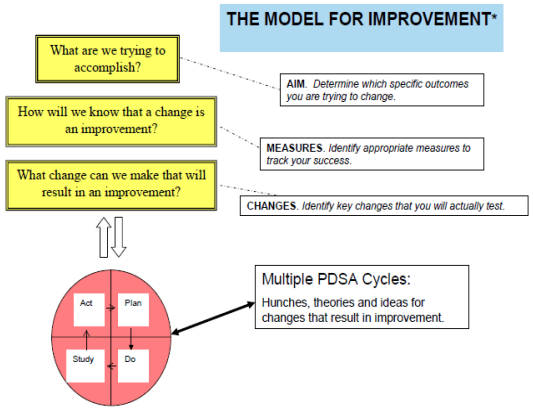
Model for Improvement



Source**:** Langley GL, Nolan KM, Nolan TW, et al. The improvement guide: a practical approach to enhancing organizational performance. San Francisco: Jossey-Bass; 1996.

* The Plan-Do-Study-Act cycle was developed by W. Edwards Deming. [Deming WE. The new economics for industry, government, education. Cambridge: Massachusetts Institute of Technology; 1994.]

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5Ws and 2Hs…Symptom vs problem

- When starting an improvement initiative, it is important to step back and reflect on your current situation. Use the 5W2H questions to ensure you have uncovered all key information that is contributing to the problem area of focus.

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5 W's and 2 H's (Ontario Health)

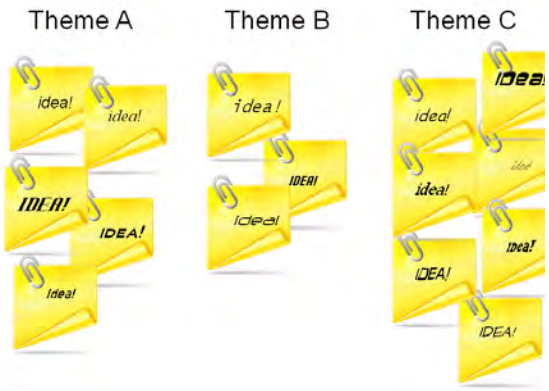
	5W and 2H	Response
5 W	What is the problem? Describe it in a single sentence, so that others will be able to understand what you mean.	The problem is….
	Why is it a problem? What is the pain?	This is a problem because…
	Where do we encounter the problem?	We encounter the problem at (Location) (Time) when (Specific circumstance)…
	Who is impacted?	This impacts: (Staff) by…, (Patients) by…, (Other providers) by… (others) by…
	When did we first encounter the problem?	We first encountered this problem…
2 H	How did we know there was a problem?	The symptoms of this problem are…
	How often do we encounter this problem?	We encounter this problem (x) times and each encounter is (this big). The problem is getting (better/worse).

Affinity Diagram

1. Generate ideas and record each idea on cards or stickie notes
2. Look for ideas that seem to be related
3. Sort cards into groups/buckets until all cards have been used
4. You may want to sort cards further into sub groups for easier management and analysis
5. Prioritize ideas in each category – vote with hands or dots
6. Summarize and send out notes

Affinity diagram

- Post on wall
- Best used with a cross functional team
- Include a parking lot section – for stickies you are unable to understand



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Brainstorming

- Quantity over quality
- No assessment of ideas
- Several participants, representing different roles
- Limit time
- Identify themes if you get stuck
- Capture ideas in writing

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Cause & Effect Diagram aka Fishbone, Root Cause or Ishikawa diagram

- "Fish bone tool"
- A systematic and structured method for identifying where problems are occurring and potential solutions
- Classifies potential causes for a failure into separate categories
- Very logical and analytical method for determining potential causes for failures
- Quantity important – not quality
- Post for front-line staff and families to contribute to – important to get everyone's buy-in

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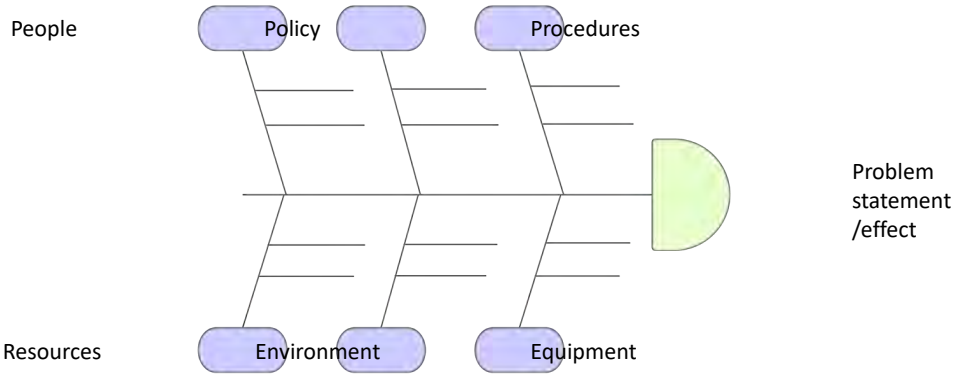
Anatomy of a Fishbone Diagram



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Cause and Effect

- After completing the diagram, review and analyze each element on the diagram
- Rank causes and prioritize actions

Pareto Chart

- The Pareto principle (aka the 80/20 rule, the law of the vital few) states that, for many events, 80% of the effects comes from 20% of the causes
- Helps teams see which causes or problems occur most frequently
- Helps to focus improvement efforts by:
  - Identifying root causes that make the greatest contribution to the problem

How?

- Calculating the cumulative contribution (starting from greatest to smallest) of each possible cause

Pareto Chart

1. Place the data captured in a check sheet into a table, in descending order. From this table, calculate the percentage frequency and cumulative frequency.
2. Plot this information as a bar chart, where each vertical bar represents a different cause or problem, and the left vertical axis represents the number of causes and problems/defects.
3. Identify the bar where the cumulative frequency is high relative to the number of categories.
4. Look for a Pareto effect, where the first few categories account for most of the problems.

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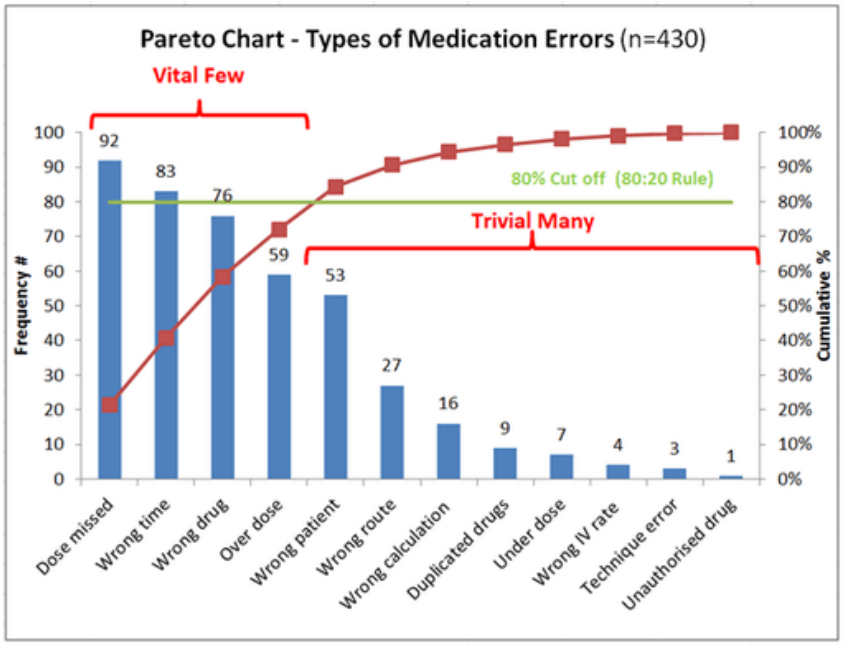

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5 Whys

- Use when the root cause is coming out as too high level (e.g. communication is identified as one of the root causes)
- Most useful where there are human factors at play or interactions
- Say the statement
- Ask Why
- Question the response starting with why
- Keep asking why until you reach what you believe is a “cause” and not a “symptom”
- If you reach a cause that cannot be controlled, such as weather, go back one level and see if eliminating that cause will help
- Typically 5 times

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Example of 5 Whys

Event/problem	→	Nail caused flat tire in garage
Why?	→	Because there were some nails on the garage floor
Corrective action	→	Sweep up the nails!

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Correct Example of 5 Whys

Event/problem	**Car has a flat tire in the garage**
1. Why?	Because there were some nails on the garage floor
2. Why?	Because the box split
3. Why?	Because the box got wet
4. Why?	Because there was rain through a hole in the garage roof
5. Why?	Because rain happens!

Integrating QI into everyone's role

Integrating QI into everyone's role is often perceived as challenging.

If so, why might that be?

Process Map aka flowchart

- A step by step review of processes and procedures
- Carried out by staff involved in the process
- Allows seemingly complex multidisciplinary activities to be improved together
- Understanding the steps in a system and identifying where the opportunities for improvement are
- Just like root cause – need to include those who touch the process every day and have experienced the process every day
- It is a diagnostic tool; not a future state. The objective is to get everyone's view of the issues and create "problem statement" and a "target statement"
- Low tech – like root cause post-its on the wall
- Shapes matter – circles are start and end points; squares are steps; diamonds are decision points where there is a yes or no; arrows connect the steps and cylinders can represent data
- Benefit is in the Discussion about the opportunities for improvement
- Agree start and finish points

Keys to using the process map

- Have the right people participating in the creation of the process
- Agree on the scope – what is the start point and end point
- Look at what usually happens (don't waste time on the exceptions)
- Don't sugar coat – process mapping is about learning
- Use a level of detail necessary to see the possibilities (resist the desire to map all parts of the process in detail!)
- Validate with others who were not there

Step 1 – Define and agree the process to be mapped

- Try to define the problem by writing it down
- It will cost nothing to resolve ambiguity at this stage…
- Involve all appropriate stakeholders
- A common understanding and agreement for the problem to be “fixed” is essential

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Analyzing the process map

Once completed, ask the following questions:

- Where are the bottlenecks - how could we address them?
- Are there inconsistencies in how things are done? What can be standardized?
- Can things be done in a different order or by a different person with the same or better quality?
- Does each step add value? If not, can it be eliminated?

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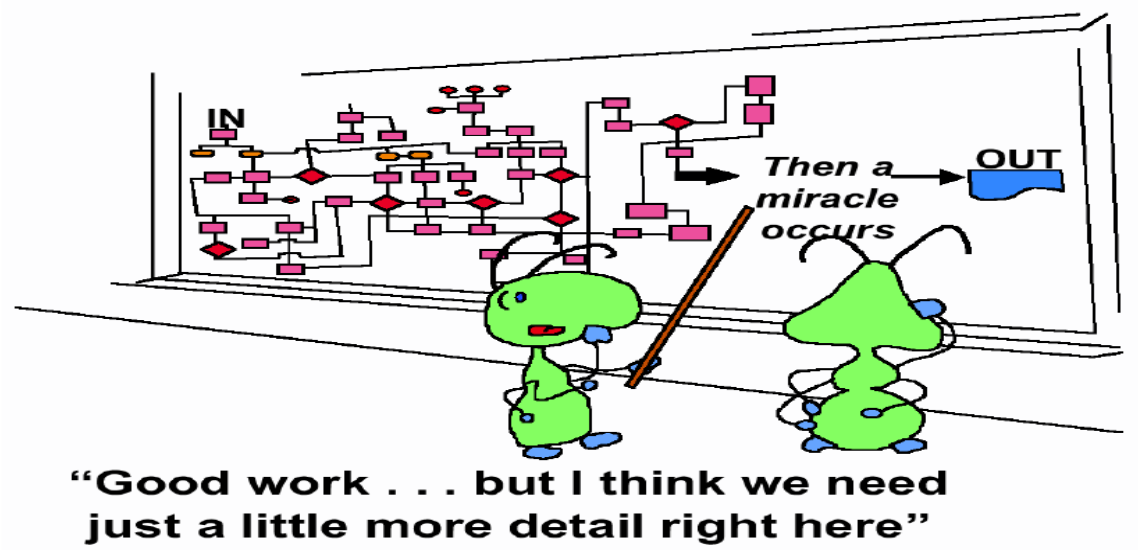

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Exercise

- Choose one of the tools to practice development of a quality improvement challenge of your choice
  - 5 Ws and 2 Hs
  - Affinity Diagram/Brainstorming
  - Cause and Effect Diagram (Ishikawa)
  - Pareto Diagram
  - 5 Whys
  - Process Map

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3. Building a QI Team

Jacquie Logan-Stephens

February 18, 2021

1

Building a QI team – Learning Objectives

- Putting together a QI team
- List Kotter's eight steps of change
- Understand Roger's adoption curve

2

Recruiting your QI Team

1. Identify stakeholders
2. Strategize stakeholder relations
3. Describe roles needed for this QI initiative
4. Select QI team

Identify Stakeholders

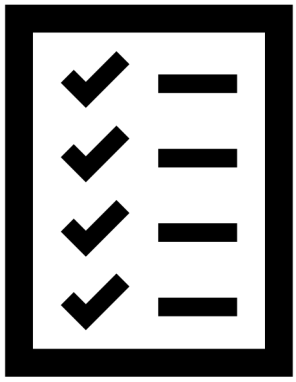
A stakeholder is:

- Any person or group that can claim the project's attention, resources or its deliverables, or is affected by its output

- Stakeholders may or may not be part of your organization
- Your QI project team will be a subset of your stakeholders

Identify Stakeholders of QI initiative

- Sponsors
- Champions
- Users
- Advisors
- Specialists



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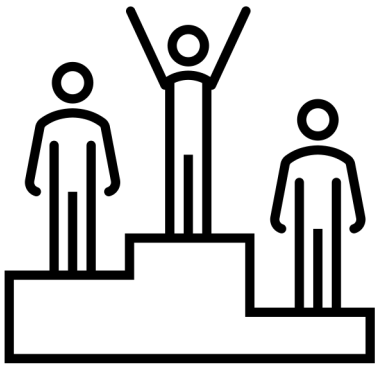
Identify Stakeholders

- Sponsors of QI initiative
  - Have authority
  - Validate project
  - Provide resources
  - E.g., CEO or executive director of organization
- Champions of QI initiative
  - Passionate and enabling
  - Represent users
  - E.g., You!



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Identify Stakeholders

- Users of QI initiative
- Benefit from successful outcomes of QI project
  - Directly or indirectly
  - Have authority
  - Includes pts and their families
- Advisors of QI initiative
- Experts on subjects within the scope of the project
- E.g., individual with QI experience

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Identify Stakeholders

- Specialists for QI initiative
- Have unique skills that contribute to products of the project
- e.g., form designer, IT expert

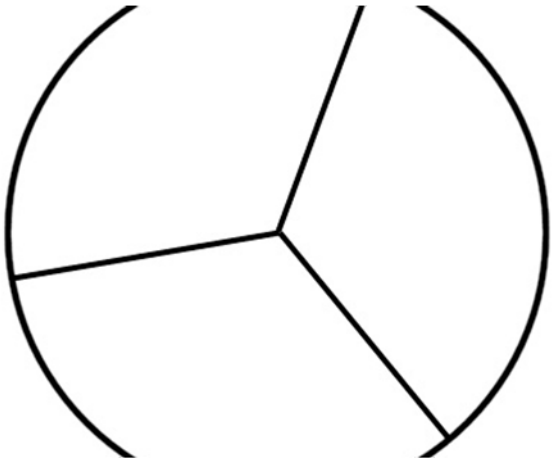
8

Identify a team and a team leader

Ideally, the team needs to include all departments/specialties involved. It should ideally be made up of:

- 1/3 Experts – People who work in the process every day
- 1/3 Familiars – People who work near the process
- 1/3 strangers – People who do not know the process at all. This will bring fresh ideas and help eliminate assumptions

Having the right team members is critical for a successful outcome!



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Assembling the team

- Need support of the whole team
- Needs to be inclusive, but invite maximum of 10 people to keep it manageable
- Leader needs to be respected and credible among peers
- Include constructive skeptics who have legitimate concerns, but are open to change

10

Team checklist

- ✓Representative from each discipline that has something to do with the process
- ✓Team leader
- ✓Should we include a constructive skeptic?
- ✓Do we have someone with QI skills to facilitate our progress?
- ✓External stakeholder?
- ✓Patient/family member?

Preparing for change

- Change management is any action or process taken to smoothly transition an individual or group from the current state to a future desired state of being.

Change Management for Effective Quality Improvement: A Primer,
Varkey, P, and Antonio, K. American Journal of Medical Quality. 25(4), 268-273, 2010.

Kotter's eight-stage process of creating major change

- Establishing a sense of urgency
- Creating the Guiding Coalition
- Developing a Vision and Strategy
- Communicating the Change Vision
- Empowering Broad-Based Action
- Generating Short-Term Wins
- Consolidating Gain and Producing More Change
- Anchoring New Approaches in the Culture

13

Errors common in Organizational Change

- Allowing for complacency
- Failing to create a sufficiently powerful Guiding Coalition and Change Team
- Not fully integrating the vision
- Allowing obstacles to block change
- Not celebrating short-term wins
- Declaring victory too soon
- Neglecting to anchor changes firmly in the culture

14

ESTABLISHING a sense of URGENCY

- Identifying and discussing crises, potential crises, or major opportunities

15

Creating the guiding coalition

- Putting together a group with enough power to lead the change
- Getting the group to work together like a team

16

Developing a vision and strategy

- Creating a vision to help direct the change effort
- Developing strategies for achieving the vision

17

Communicating the change vision

- Using every vehicle possible to constantly communicate the new vision and strategies
- Having the guiding coalition role model the behaviour expected of employees

18

Empowering broad based action

- Getting rid of obstacles
- Changing systems or structures that undermine the change vision
- Encouraging risk taking and non-traditional ideas, activities and actions

19

Generating short-term wins

PLANNING FOR VISIBLE IMPROVEMENTS IN PERFORMANCE OR "WINS"

CREATING THOSE WINS

VISIBLY RECOGNIZING AND REWARDING PEOPLE WHO MADE THE WINS POSSIBLE

20

Consolidating gains and producing more change

1

Using increased credibility to change all systems, structures, and policies that don't fit together and don't fit the transformation vision

2

Hiring, promoting, and developing people who can implement the change vision

3

Reinvigorating the process with new projects, themes, and change agents

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Anchoring new approaches in the culture

- Creating better performance through customer – and productivity – oriented behaviour, more and better leadership, and more effective management
- Articulating the connections between new behaviours and organizational success
- Developing means to ensure ledership development and succession

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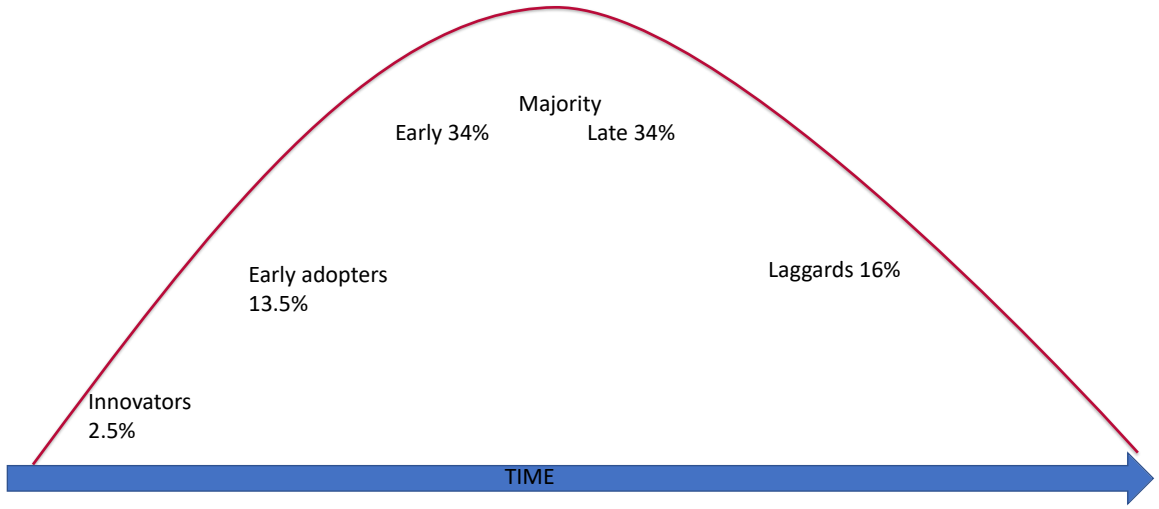
Rogers Adoption Curve



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4. Model for Improvement: Maximizing QI efforts

Jacquie Logan-Stephens

February 19, 2021

1

Model for Improvement – Learning objectives

- Prepare your improvement charter
- Develop your problem statement
- Establish an AIM statement
- Define measures relating to your AIM
- Develop change ideas
- Understand the PDSA cycle to test a change idea

2

QI Model for improvement

- Simple framework with two components

    1. Answer three fundamental questions
    2. Quick cycle improvement process

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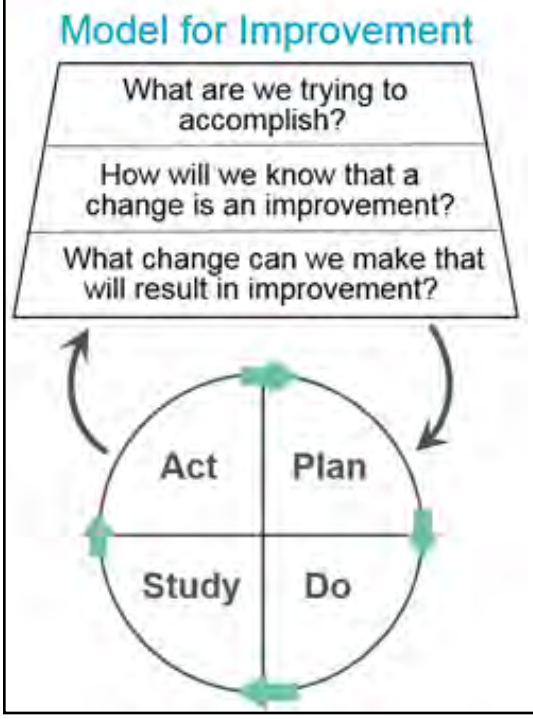


Model for Improvement

4

What are we trying to accomplish?

- Define the aim
- What is the problem you wish to address?
- Why is it a problem?
- Where do you observe the problem?
- Who is impacted?
- When is it ongoing or recurrent?
- Which of the Quality Dimensions are involved?

- ***"A problem well defined is half-solved"***

5

"SMART" acronym for AIM statements

6

Example of poor aim statement

I want to get in better shape by the end of the year.

7

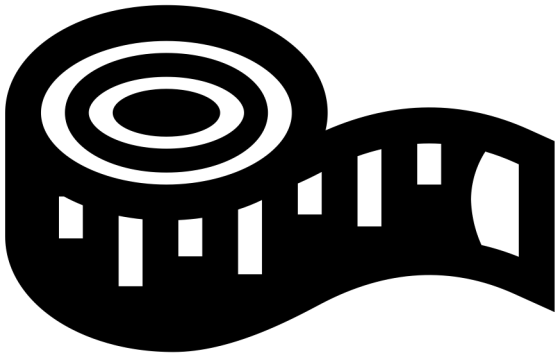
Example of good aim statement

- I will walk for a minimum of 30 minutes, Monday through Saturday starting March 30, 2021 through December 31, 2021.

8

How will we know if a change is an improvement?

Measure!



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What changes can we make that will result in improvement?

- Change ideas
- Focus on improving specific steps of a process
- Practical and readily tested

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How do you get ideas for quality improvement projects??

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How do you get ideas for QI projects?

- Gap related to organizational objectives
- Team identifies an issue based on provider or patient experience
- Quality monitoring issues
- Public reporting on quality indicators
- New best practice guidelines

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Where do change ideas come from?

- Evidence – best practice guidelines
- Front line – including patients – what are the “if only” (if only we could do X)
- Experience
- Creativity – great ideas often come from being creative
- Current state diagnostics – what is the current state telling you? Analyze it for opportunities
- Change concepts – they are big buckets of ideas that can be used to spark discussion

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Plan Do Study Act

- Test your change ideas using a quick succession of small tests – can even be with one patient for one day!
- Analyze results and test again
- Don’t try to implement the change to the whole system – this can generate resistance
- Small tests of change are low risk way to try new ideas

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Step one - PLAN

- What is your change idea?
- What indicator(s) of success will you measure?
- How will data on these indicators be collected?
- Who or what are the subjects of the test?
- How many subjects will be included in the test and over what time period?
- What do you hypothesize will happen?

Step two - DO

- Conduct the test
- Document any problems and unintended consequences

Step three - Study

- Analyze the data and study the results
- Compare the data to your predictions
- Summarize and reflect on what was learned

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Step four - ACT

- Refine the change idea based on lessons learned from the test
- Prepare a plan for the next test

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PDSA cycle

- Collect data and use it to monitor how you are progressing
- Iterative process – each test builds on what was done in the previous cycle
- As you get going, you can have more than one change going on at the same time toward the same goal

Successful PDSA cycles

- Think a couple of cycles ahead – if I learn this, then I am going to do that
- Use a form to document your test – PDSA templates on website
- Be innovative – it will work or it will not
- Use temporary supports to make the test feasible – may affect the sustainability of the improvement
- Scale down the size and the time required for the initial step- make the test small and grow

Measurement

- Identify how you want to collect and show data (daily, weekly, monthly)
- You want to do it frequently enough to assess the impact of the change as it is being tested
- Choose measurement that supports the aim statement
- Use existing data collection systems where possible
- Integrate measurement into daily routines

Why is measurement important?

- Real time measures are important in QI
- Confirm if perception is reality
- Collecting and displaying the measures is an engagement strategy
- Make it as simple and easy as possible

Analyzing data

- Monitor the impact of QI changes
- Run charts and control charts

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Run charts

- Set up at start of project and update over time
- Useful regardless of amount of data you have
- Simple to produce and interpret

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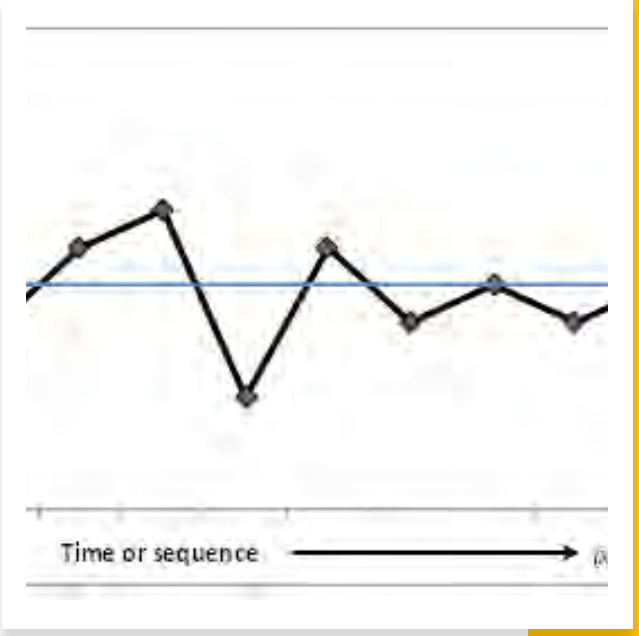
Run chart example



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Control charts

- Powerful way of analyzing results
- Require more data than run charts
- More sophisticated

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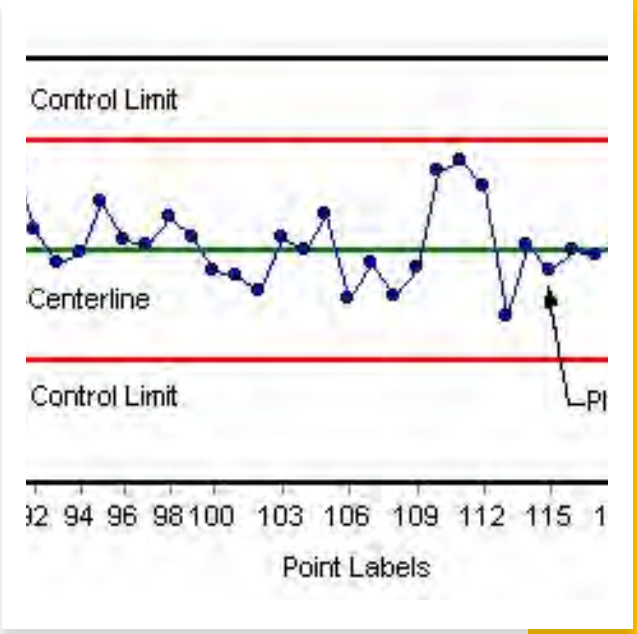
Control chart example



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Engaging your colleagues

- Use data to generate light, not heat
- Make everyone on the team partners, involve people where necessary, and involve them early
- Identify champions, laggards, etc.
- Studies show increased satisfaction with work life if involved with QI
- Use a proven methodology….

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Performance Measurement & Management

- Supports a culture of accountability
- Develop a system that produces information
- Act on improvement opportunities
- Foundation of PM&M
  - Leadership accountability & support
  - Mission-driven measurement
  - Focus on results for patients/clients
  - Meaningful engagement of stakeholders
  - Understanding of extenuating and influencing factors
  - Workforce knowledgeable and engaged
  - Investment in necessary resources
  - PM&M of business functions to sustain and enhance organization

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Accreditation

- Accreditation is an ongoing process of assessing health and social services organizations against standards of excellence to identify what is being done well and what needs to be improved.

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Benefits of Accreditation to quality improvement

- Findings:
  Staff felt that "hospital accreditation contributed to the improvement of healthcare quality in general, and more specifically to patient safety, as it fostered staff reflection, a higher standardization of practices, and a greater focus on quality improvement."

Melo, S., Journal of Health Organization and Management, 2016 Nov 21; 30(8): 1242-1258

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Resources

- Agency for healthcare Research and Quality www.ahrq.gov
- Canadian Institute for Health Information – CIHI
- Canadian Patient Safety Institute www.patientsafetyinstitute.ca
- Health Quality Ontario www.hqontario.ca
- Institute for Healthcare Improvement – IHI www.ihi.org

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Resources - International

- Australian Commission on Safety and Quality in Health Care www.safetyandquality.gov.au
- Quality Health UK www.quality-health.co.uk

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