

“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753



A COMPREHENSIVE APPROACH TO SUSTAINING QUALITY IMPROVEMENTS

Bill Harrington, PhD, PE
 Director of Quality Improvement
 St. Elizabeth Healthcare

KEY LEARNING OBJECTIVES

What you should takeaway...

- 1. Prioritization and Initial Commitment**
 - Kano Model and primary focus on harm reduction
 - Project prioritization approaches
 - Quality Improvement (QI) Model and problem-solving format options
 - Securing leadership commitment at project inception and accountability beyond project handoff
- 2. Project Execution**
 - Training project teams on Lean during project work to enhance cohesion and problem solving
 - Cadence of project meetings and leadership updates to meet project timeline goals
- 3. Post-Project Success**
 - Sustaining improvement beyond handoff and avoiding repeat projects
 - Realizing cumulative gains in quality performance
- 4. Evolving a Quality Improvement Program**


ST. ELIZABETH HEALTHCARE

CMS
 DNB, EDG: ★★★★★
 FLO: ★★★★★
 FTT: ★★★★★

MAGNET RECOGNIZED
 AMERICAN NURSES ACCREDITED CENTER

FACILITIES

St. Elizabeth has six facilities operating throughout Northern Kentucky and Southeastern Indiana as well as more than 100 St. Elizabeth Physicians offices located throughout Kentucky, Ohio and Indiana.



COVINGTON DELAWARE EDGEWOOD
 FLORENCE FT. THOMAS GRANT

Dr. Bill Harrington, PhD, PE
 Director of Quality Improvement
 St. Elizabeth Healthcare

“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

TABLE EXERCISE #1 (10 MINUTES)

Customer focus

Make a list of your customers, i.e., who you serve.

What do they value?

What would they consider to be an error?

SETTING PRIORITIES

Don't get the cart in front of the horse

Recognize that patients value:

- Safety- “Don't hurt me”
- Quality- “Help me get well”
- Service- “Respect me”

Kano Model serves as a guide

- Basic- prevent harms and readmissions
- Performance- length of stay, communication with patients, engagement of associates and clinicians
- Excitement- seamless experience

Kano, N., Seraku, N., Takahiri, F. & Tsuji, S. (1984). Attractive quality and must-be quality. The Journal for Japanese Society for Quality Control, 14, 147-156.

FIRST, DO NO HARM

A journey of patience and perseverance

Harm-Across-the-Board (HAB)

| Year | Harm per 1,000 Discharges |
|------|---------------------------|
| 2019 | 8.08 |
| 2020 | 8.39 |
| 2021 | 9.96 |
| 2022 | 7.21 |
| 2023 | 6.65 |

Harm Collaboratives

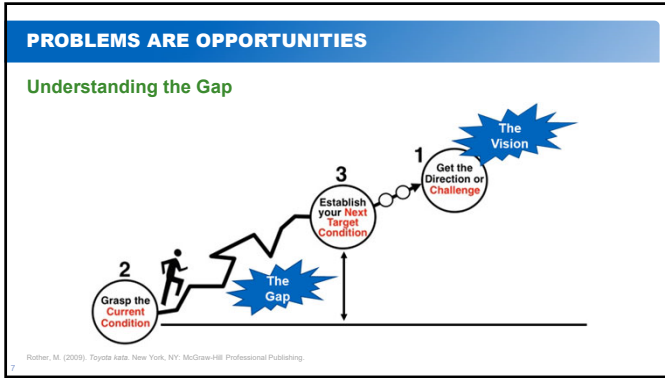
| Year | Collaborative Categories |
|------|--------------------------------------|
| 2020 | C. Diff, HAI & TIP, Falls & Mobility |
| 2021 | CAUTI, HAPI, VAE |
| 2022 | CLABSI, SSI, Sepsis |

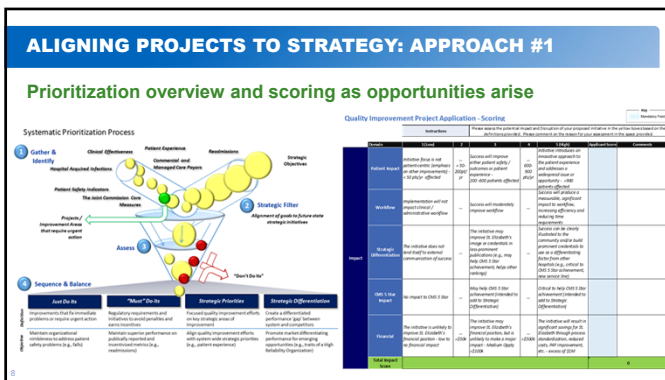
- Initial focus of efforts was on harm reduction (HAI's, HAPI, Falls)
- First collaborative started in Q1 2020 following 2nd C. Diff project
- Harm-Across-the-Board (HAB) is now lower than pre-pandemic level

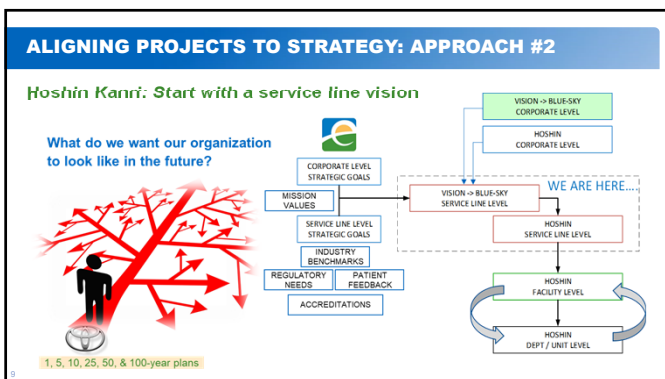
"A Comprehensive Approach to Sustaining Quality Improvements"

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753



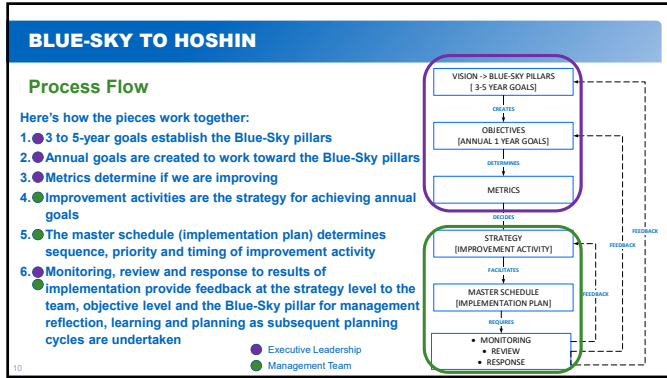




“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753



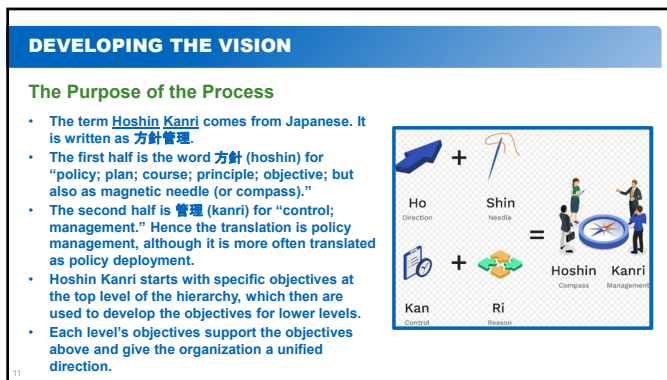


TABLE EXERCISE #2 (5 MINUTES)

It is about winning

Thinking of what you learned in the first exercise, consider the following:

What is winning in your area / service line?

Do your staff and others share this understanding?

“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

DEVELOPING VISION / BLUE-SKY


Pillars of focus

Review:

- Current conditions
- Current metrics
- Current improvement results

What you want to show your executives?

- Identify 4–6 major categories (pillars)
- Draw consensus
- Identify champions
- Define 1-2 outcome measures for each pillar



MEASUREMENT


Determine Outcome Measures

ASK

- What does your customer need?
- What regulatory considerations exist?
- What accreditation considerations exist?
- What industry benchmarks are present?

Outcome Measure Category Examples for Healthcare

| | |
|----------------------|--|
| 1. Access | 6. Patient Engagement / Experience |
| 2. Composite | 7. CMS Compliance [Regulatory] |
| 3. Cost / Resource | 8. Core Measures Compliance [Regulatory] |
| 4. Efficiency | 9. Accreditation Compliance |
| 5. Clinical Outcomes | |




UNDERSTANDING WHERE WE ARE...

SWOT Analysis

As its name states, a SWOT analysis examines four elements:

- **Strengths:** Internal attributes and resources that support a successful outcome.
- **Weaknesses:** Internal attributes and resources that work against a successful outcome.
- **Opportunities:** External factors that the entity can capitalize on or use to its advantage.
- **Threats:** External factors that could jeopardize the entity's success.



“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

TABLE EXERCISE #3 (10 MINUTES)

Define winning

How do we currently measure winning?

What leading indicators are there?

Do we trust our data?

What do our customers / patients say about us?

DRIVING GOALS TO ACTION

Elements of the Hoshin X-Matrix

- 3-Year Goals**
 - Based on what the measurable vision (3-5 years), what can we commit to in 3 years?
- 1-Year Objectives**
 - What will we need to accomplish this year to make progress towards our 3-year goals?
- Annual Improvement Priorities (AIPs)**
 - What initiatives / projects will we need to undertake this year to achieve our 1-year objectives?
 - Consider SWOT Analysis findings
- Targets for Improvement**
 - How will we know the AIPs are getting done / done correctly?

HOSHIN X-MATRIX

Using the X-Matrix

The executive team establishes:

- 3-to-5-year goals
- 1-year objectives
- Targets for Improvement
- Alignment of 3-to-5-year goals to 1-year objectives

The management team establishes:

- Annual Improvement Priorities (strategies)
- Alignment of 1-year objectives to Annual Priorities
- Alignment of Annual Priorities to Targets for Improvement

HOSHIN X-MATRIX

Establish Alignment

- 1. Alignment aspects of 3-year goals to 1-year Objectives
- Put a dot on primary objective that aligns with each 3-year goal
- 2. Do any 3-year goals not align with any 1-year objective?
- This is ok..... **IF... it is intentional**

HOSHIN X-MATRIX

Establish Alignment

- 1. Alignment of 1-year Objectives to Annual Improvement Priority
- 1. Put a dot on primary Annual Improvement Priority that aligns with each 1-year Objective
- 2. Do 1-year annual improvement priorities not have a strategy?
- 1. This is NOT OK.....address the gap

HOSHIN X-MATRIX

Establish Alignment

- 1. Alignment of Annual Improvement Priorities to Targets for Improvement
- 1. Put a dot on Primary Target for Improvement that aligns with each Annual Improvement Priority
- 2. Do any strategies not have a measure?
- 1. This is NOT OK.....address the gap

"A Comprehensive Approach to Sustaining Quality Improvements"

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

TABLE EXERCISE #4 (5 MINUTES)

Prioritizing by going from could-to-should

What opportunities exist in your area?

What do you believe would be the most important opportunity to address this year as an AIP?

Could it be solved this year, or might it carryover?

Is there a second or third AIP that you would also need to be addressed this year?

PROBLEM SOLVING FRAMEWORK

Our QI Model

Find Address the "right" problem

Organize Get people who KNOW & DO the work

Clarify Learn what's actually happening

Understand Discover why it is happening

Select Determine and choose solutions

Plan What are we trying to accomplish?
How will we know that the change is an improvement?

Do Carry out the plan

Study What did you learn?

Act Adapt, Adapt, Abandon

DETERMINING THE APPROACH

Guided by standard work!

- Makes sure we use the right approach based on what we know about the problem and its urgency
- Urgency was a gap, so created 3Cs process (next slide)

Problem Solving Approach Selection Guide

“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

URGENT RESPONSE

3Cs when action is needed now!

- Intended for urgent threats to safety, care delivery, or regulatory compliance
- VP over relevant area and Quality Division VP determine if 3Cs is needed
- Adapted from the 8D model of the American Society for Quality

The diagram illustrates the 3Cs process with four stages: Emergency (1 Day), Containment (5 Days), Causes (5 Weeks), and Countermeasures. Each stage is represented by an icon: a red circle with 'Emergency', a green cross with 'FIRST AID', a tree with 'CAUSES', and a lightbulb with 'COUNTERMEASURES'. A timeline below shows arrows indicating the duration of each stage.

SECURING COMMITMENT

Ensure leaders agree to QI requirements

- “Begin with the end in mind”
- Habit #2 of The 7 Habits of Highly Effective People®, FranklinCovey
- Orient Project Leadership
 - Executive Sponsor
 - Physician Champion
 - Project Team Leader
- Review deliverables
- Governance is key

Project Hand-off Deliverables

Control Plan

- Define documents that define what is to be controlled in the process, how those controls are measured, and who is responsible for initiating reaction to deviation

Metrics Reporting / Dashboard

- Feedback on process that is determined by metrics / observations on control plan

Process Governance Structure

- Committee that provides process oversight to ensure control plan is being followed
- How authority to make control plan or business needs change

Standard Work Instructions

- Documented methods of how process steps are to be completed
- Make embed/daily workflows

Summary of Exec Sponsor Responsibilities

General

- Advise – oversee team progress on improvements have organizational support
- Coordinate – ensure essential issues are addressed by the right resources
- Para Setter – determine/endorse urgency for completion in following FOCUS PSDA

FOCUS

- Assemble project leadership team*, and confirm that stakeholders are identified
- Clearly set project constraints (e.g. budget, timing, resource priorities)
- Along with MD Champion, review solution proposal and decide on approval

PSDA

- Provide insight on plan (e.g., development, risks, communication, results)
- Along with MD Champion, challenge team to support project findings with evidence
- Control organizational support for process control and governance beyond handoff
- Support SI Team leader in team collaboration and team member recognition

Continuous Improvement

- Consider recommendations of team on future opportunities at handoff
- Lead SI Team Leader to post handoff update to Quality Improvement Committee

PREPARING THE TEAM TO SOLVE

QI 450: Process Improvement for Teams

- Pushed for QI project starting in 2022
- Helps participants enhance project solutions
- Has accelerated projects
- 5-hour commitment
- 3 rounds of simulation in an ED
- Hands-on exposure to lean tools / concepts
- Debriefs for learning / application to projects
- It's FUN and the team grows together!

The bar chart shows 'QI Project Timeliness Goal Compliance' from 2020 to 2023. The Y-axis represents percentage (0% to 100%). The X-axis shows years. Data points: 2020 (100%), 2021 (100%), 2022 (100%), 2023 (100%). A legend indicates FOCUS Goal Met % (blue) and PSDA Goal Met % (orange). A dashed line represents the 100% target.

The floor plan diagram shows an 'ED Sim Room Layout' with areas: Control Supply, X-ray, LAB, Hallway Bed 1, Hallway Bed 2, ID Supply, Registration, Triage, and Discharge.

“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

KEEPING ON-TASK

Project Management

- Team meets weekly
- Executive Sponsor and Physician Champion updated biweekly
- Escalate concerns
- Prioritize near-term solution items
- Use governance for post-handoff work

| Item | What | When | Who | Status | Comments |
|------|---------------------------------|-----------|-----------|--------|----------|
| 1 | Get the current condition | 10/1/2023 | 10/1/2023 | 100% | Complete |
| 2 | Establish your target condition | 10/1/2023 | 10/1/2023 | 100% | Complete |
| 3 | Get the direction or challenge | 10/1/2023 | 10/1/2023 | 100% | Complete |
| 4 | Implement the solution | 10/1/2023 | 10/1/2023 | 100% | Complete |

NAVIGATING THE UNKNOWN

Trust the QI Model and have a guide!

- Projects have unknowns
- The team may get anxious, so build trust
- A facilitator is a guide who is an expert at navigating the unknown with the QI Model
- Staff can be developed to be facilitators

Rother, M. (2009). Toyota kata. New York, NY: McGraw-Hill Professional Publishing.

BUILDING TRUST

Voice of Customer and Voice of Business

- What is important to you when we talk about the project or change?
 - What are you hopeful the future would entail?
 - What are you fearful we could get wrong?
- These are not solution ideas, rather ways to describe how the future would be.
- Example: Reducing OR turnaround time
 - Hope: My day will end on time
 - Fear: Cleaning procedures might be rushed and not done correctly
- The team uses this to develop solution acceptance criteria.

GAINING ACCEPTANCE

An equation for effective solutions

$$E = Q \times A$$

Effectiveness = Quality of Solution x Acceptance

- Quality addresses the root cause(s)
- Acceptance respects what was captured in voice gathering at the beginning of the project
- Acceptance can be gained through influence

| SOURCES OF INFLUENCE | | |
|----------------------|-------------------------------|------------------------------|
| | Motivation | Ability |
| Personal | Help them love what they hate | Help them do what they can't |
| Social | Encourage them | Assist them |
| Structural | Change their economy | Change their workspace |

Grenny, J., Patterson, K., Maxfield, G., McMillan, R., & Saltzer, A. I. (2013). *Influence: The new science of leading change*. New York, NY: McGraw Hill Education.

TABLE EXERCISE #5 (5 MINUTES)

Influencing change

What hopes or fears would stakeholders have regarding your most important opportunity?

What sources of influence might be necessary once an effective solution is found?

POST-HANDOFF SUSTAINMENT

Improvement does not last without management rigor

- Budget QI Consultant
 - 10 hours / week for project
 - 4 hours / month for governance
- Governance led by operations
 - No additional resources needed

CAUTI as example (original project in 2017)

- Not sustained → Installed governance → Enhanced monitoring → Improved with PDSA

“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

MONITORING PERFORMANCE

Data used in CAUTI Collaborative for governance

- Derived from Control Plan
- Evolution with data collection and reporting

ON-GOING PDSA

Key improvements from the CAUTI Collaborative

- Revised selections in Epic for Foley catheter (FC) necessity to reduce unnecessary usage
- Standardized practices and educated on use of alternative devices
- Worked w/ Urology to revise Voiding Trial Protocol
- Implemented ICU Intermittent Straight-Cath Protocol
- Enhanced UC Protocol to exchange FC before obtaining UC
- Updated Epic to require ordering provider to select a reason for UC prior to signing the order
- Developed Maintenance Bundle in Epic
- Provided “Back to Basics” education on CAUTI in DEC-2023 with weekly topics / materials for frontline staff (working on recurring cycle)

STATISTICAL VALIDATION

Early results are promising with the last 3 quarters as the lowest

- Studied trend over the range of data (Q1 2017 – Q2 2024)
- Lower values and less variation in individual values control chart
- Compared periods after project and from collaborative results
- 49.2% reduction found to be statistically significant (Two-Sample t-Test)

“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

OTHER IMPACTS BEYOND HARM

Observed-to-Expected measures

- **Readmissions: effort started in 2021**
 - 7-Day, then disease-specific
- **Mortality: effort started in 2022**
 - COPD and CHF
 - Alzheimer's and Palliative Care / Hospice

| | 2020 | 2021 | 2022 | 2023 |
|-----------|------|------|------|------|
| Readmit | 1.10 | 1.10 | 1.09 | 0.99 |
| Mortality | 0.78 | 0.90 | 0.86 | 0.74 |

QI MATURITY MILESTONES

Continually improving how we improve

```

    graph LR
      A[Q4 2019: Establish 2022 QI Goals and start annual hoshin plan] --> B[Q1 2020: C. Diff Collaborative is 1st of its kind]
      B --> C[Q1 2020: QI Facilitator Training inaugural cohort]
      C --> D[Q2 2020: Started Post-Handoff Project Surveys]
      D --> E[Q1 2021: QI Project Leadership Orientation Materials]
      E --> F[Q2 2021: A3 Problem Solving Training and Quality Leader Certification]
      F --> G[Q1 2022: Problem Solving Approach Selection Guide and 3Cs Approach]
      G --> H[Q2 2022: Process Improvement for Teams Training part of QI projects]
      H --> I[Q4 2022: Establish 2023 QI Goals for next cycle of annual hoshin planning]
      I --> J[Q4 2023: Initiated monthly Process Governance Meeting with Nursing]
      J --> K[Q1 2024: Train Clinical Educators and ANMs on Process Improvement]
      K --> L[Q2 2024: Pilot Lean Assessment in MS Units to identify next step in Lean journey for unit]
    
```

NEXT STEPS IN PROCESS GOVERNANCE

Enhancing our culture of quality

- Expand pilot of Lean Assessment from two MS units to select TCU units
- **Work-Out on Change Control**
 - Current state is an average of one change per day being pushed to units
- **Format for on-going reinforcement of harm prevention (higher reliability)**
 - Skills days for CAUTI, CLABSI, C. Diff prevention measures
 - Strengthen compliance and thoroughness of leader rounding
- Embedding partners for Magnet certification in our collaboratives so Magnet preparation is seamless

“A Comprehensive Approach to Sustaining Quality Improvements”

CE Provider: Dept. for Behavior Health, Developmental and Intellectual Disabilities

KBN Provider-Training Number: 5-0051-0126-753

TABLE QUESTION #6 (5 MINUTES)

Engagement

What could you do to make the journey fun or exciting?

What would it be like if your team consistently had fun finding ways to win together? What would your associate retention be?

SUMMARY ON SUSTAINING QI

Wrapping it up

- Prioritize opportunities
- Secure commitment for the vital few
- Choose an appropriate approach for each project
- Capture and respect acceptance criteria
- Apply structure and cadence in execution
- Ensure accountability to post-handoff governance
- Have fun finding better ways to win at all levels

Questions?
