Quality & Simulation: Developing a Performance Improvement Plan for Your Simulation Program

Gail Johnson

Contact Information

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Learning Objectives

1. Describe two benefits of developing a performance/quality improvement plan.

2. Analyze components of an effective performance or quality improvement plan.

3. Apply strategies to create a performance improvement activity for your simulation program.
Overview of Main Topics

- Introduction
- Overview PI/QI Improvement
- Components of a PI/QI plan
- PI/QI plan review
- Improvement projects
- PI Tools
- PI activity

Why Evaluate?

- Show value
- Provide quantifiable metrics
- 1 way to identify opportunities for improvement
- It is a simulation accreditation standard

How do you identify what to evaluate

- Organizational initiatives
- National initiatives
- Previous PI initiatives/projects
- Things important to your program
  - Process
  - Course/learners
Organizational Level

Xanadu Organization Strategic Plan

- Health & patient safety focus
- Develop/maintain engaged & competent workforce
- Budget focus

Xanadu Simulation Center Quality Indicators

<table>
<thead>
<tr>
<th>Indicator Type</th>
<th>Definition</th>
<th>Desired Direction</th>
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<tbody>
<tr>
<td>Stewardship 1. Revenue</td>
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Simulation Program

Medical Student Education, Nursing Student Education, Nursing Orientation, IPE Insitu Mock Codes, Resident Education
**Process Level**

- **Organization**
  - Registration
  - Scenario/Course design
  - Evaluation process
  - Maintenance
  - Facilitation

**Goals**
- Identify the processes that are most critical to the strategy and establish goals that describe the performance required of those processes

**Process Indicators & Metrics**

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Course / Activity Level

Simulation Scenario / Course

- Medical Student Education
- PACU Pediatric Course
- Nursing Orientation
- IPE Insitu mock codes

Job/Course Indicator

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<tr>
<th>Indicator Type</th>
<th>Quality Indicator</th>
<th>Data Source</th>
<th>Collection Method</th>
<th>Collector</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stewardship</td>
<td>Revenue</td>
<td>Lawson report</td>
<td>Quarterly</td>
<td>Director</td>
</tr>
<tr>
<td>Experience</td>
<td>Participant satisfaction</td>
<td>Course / activity evaluations</td>
<td>Participants complete evals for at least 90% of activities (100% of CME/CNE activities)</td>
<td>Educator</td>
</tr>
<tr>
<td>Experience</td>
<td>Facilitator Effectiveness</td>
<td>DASH tool</td>
<td>Twice/year for all facilitators</td>
<td>Director</td>
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<tr>
<td>Experience</td>
<td>Evaluations returned</td>
<td>LMS</td>
<td>Monthly</td>
<td>Director</td>
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<td>Time to 1st shock</td>
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### Reporting

#### Xanadu Simulation Center

#### Internal Business Process

### Quality Improvement

- A planned systematic approach to monitoring, analysis and improvement of performance to achieve optimal patient outcomes and patient experience.
PI/QI Strategies

- Methods/Processes
  - TQM
  - CQI
  - Six Sigma
  - Lean

- Tools
  - Fishbone/Ishikawa
  - Root Cause Analyses
  - Affinity Diagram
  - FMEA
  - PDCA

Accreditation Core Standards

2. Organization and Management
   There are written policies and procedures...
   i. ii. Policy for Quality Improvement Processes

4. Evaluation and Improvement
   b. The program has a plan for systematic quality improvement (QI)/performance improvement (PI) that includes but is not limited to assessment of learner outcomes and achievement and course evaluation by course participants, at least annually.
     i. Document or describe quality improvement processes
     ii. Document or describe quality or performance improvement activities identified in the last two (2) years. A minimum of three (3) improvements is required.
A successful plan should...

- Be a systematic process with identified leadership, accountability, and dedicated resources
- Use data and measurable outcomes to determine progress
- Feed data back into QI process
- Be a continuous process that is adaptable to change

Components of a PI Plan

- Link to mission/vision and strategic plan
- Purpose
- Accountability
- Roles & Responsibilities
- Timeframe
  - Program cycle
  - Project cycle
- Goals & Projects
- Methods & Tools
- Measures with data collection plan
- Reporting

Link to Mission/Vision

- Include the simulation program’s mission & vision
- Link to strategic plan / program goals
Purpose

- What are you trying to accomplish?
- How does the simulation program’s QI/PI plan fit with the larger organization?
- The purpose of...
  - ...Continually evolve a structure that efficiently and effectively promotes performance improvement throughout the organization
  - Plan and prioritize improvement efforts based on input from customers, stakeholders, best practice, and our own experience over time
- Some programs may include QI/PI principles & define quality

Goals & Projects

- Goals / objectives of the plan
- The QI plan is designed to improve outcomes through refinement of the processes and systems. To accomplish this goal, the following objectives have been identified:
  - To continuously monitor and evaluate using predetermined indicators
  - To identify potential or actual problems in care and to implement corrective action

Accountability

- Who is ultimately responsible?
- Who approves/sanctions PI/QI activities

The leadership of Xanadu Simulation Center is ultimately responsible to our clients for the delivery of quality education and service. The Board of Directors grants authority for the administrative director of the simulation program to provide leadership to identify, implement, and evaluate the plan.

- Roles and responsibilities
Timeframe

- Program cycle
- Project cycle

Methods & Tools

- Methods/Processes
  - TQM
  - CQI
  - Six Sigma
  - Lean

- Tools
  - FMEA
  - PDCA
  - Quick fix
  - Fishbone/Ishikawa
  - Root Cause Analyses
  - Affinity Diagram

Xanadu Simulation Center:
- Utilizes a systematic approach to QI/PI that prioritizes improvement initiatives.
- Uses PDCA cycle process

Comprehensive Analysis

- Organization Level
- Process Level
- Job/Performance Level
Organizational Level

- Xanadu Organization Strategic Plan
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Simulation Program

- Simulation Program
  - Medical Student Education
  - Nursing Student Education
  - Nursing Orientation
  - IPE In situ Mock Codes
  - Resident Education
### Process Level

**Organization**

- Registration
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Course / Activity Level

Simulation Scenario / Course
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- Nursing Orientation
- IPE Insitu mock codes

Job Level

Organization
- Medical Student Education
- Nursing Student Education
- Nursing Orientation
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  - Fishbone/Ishikawa
  - Root Cause Analyses

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**Affinity Diagram**

- Participants
- Critical Actions
- Mannequin Use
- Course Evals
- Mannequin Use

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**Prioritization Grid**

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<tr>
<th>Performance Improvement</th>
<th>Ability</th>
<th>Achievable</th>
<th>Product</th>
<th>Potential</th>
<th>Score</th>
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<tbody>
<tr>
<td>Critical Actions</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Course Evals</td>
<td>Yes</td>
<td>Yes</td>
<td>No</td>
<td>No</td>
<td>Low</td>
</tr>
<tr>
<td>Mannequin Use</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>High</td>
</tr>
<tr>
<td>Participants</td>
<td>No</td>
<td>Yes</td>
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Fishbone—Cause & Effect Diagram

(What causes the problem to happen)

Environment (Plant)  Method (Process)  Manpower (People)

Measurement (Policy)  Materials  Machines

Problem Statement

PDCA Cycle

Plan  Act  Do  Check

PI PLAN ACTIVITY
American Society for Quality. www.asq.org

References

National Association for Healthcare Quality. www.NAHQ.org