Essential Elements of Successful Quality Improvement Programs

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Introduction

Quality improvement (QI) consists of systematic and continuous actions that lead to measurable improvement in health care services and the health status of targeted patient groups (www.hrsa.gov). There are principles that guide QI programs (www.IOM.edu):

- QI work is systems and processes focused
- Focus on patients and outcomes (financial & health)
- Focus on being part of the team
- Focus on use of the data

These principles are interconnected and must be addressed as a unit in order to execute a successful QI program. The basis for designing quality improvement must begin with assessing current organizational needs and capacities. Assessments should examine the operations of a program, including which activities take place, who conducts the activities, and who is reached as a result. In addition, the assessment can determine whether activities are implemented as planned and identify program strengths, weaknesses, and areas for improvement.

This document provides a summary of quality improvement framework components and highlights successful strategies for designing or enhancing quality improvement activities. The summary is organized around the Framework’s five components:

- Organizational alignment
- Engaging leaders and stakeholders
- Systematic approach to program design
- Program support needs
- Analytic capacity to demonstrate impact

All information was gathered between January 1 - February 3, 2014.

Five Themes Emerge in Successful Quality Improvement Programs

1. Alignment of organizational goals to QI program goals

Aligning QI projects with organizational goals is necessary to ensure appropriateness of projects within the organization. Evaluating and aligning your organization to proposed QI projects is a key first step to success. Below are key themes for aligning organizational goals to QI programs.
### TABLE 1: Organizational Alignment for a Successful QI Program

1. Clearly define and identify organizational goals; e.g., mission or vision statements, products and services, what/who you are NOT vs. what/who you ARE involved/impacted.
2. Before scoping the project always asked: what’s the added value?
3. Align QI program goal(s) with organizational mission and policies.
4. Consider long-range view/implications/impact in addition to short-term outcomes.
5. Clearly define QI program goal(s) (realistic, measurable), definition of quality improvement.
6. Examine existing organizational culture (is there a need for change management approach to QI program)?
7. What’s the likelihood of sustaining the program over time?

### 2. Leadership, organization, and stakeholder engagement

Leadership commitment to and involvement in QI efforts can make or break an organization’s ability to move forward successfully. Leaders should assure that organizational resources for successful QI implementation are available and help overcome obstacles. This list of strategies below highlight the key areas for stakeholders to consider in QI projects.

### TABLE 2: Engagement and Buy-in for a Successful QI Program

1. Assess the organization’s level of readiness to undertake the project and its orientation towards quality improvement
2. Assess leadership knowledge, perceptions and biases so you can address during planning and implementation phases.
3. Prepare leaders for organizational change by establishing the vision and meaning and engaging staff.
4. Include other internal and external stakeholder and multidisciplinary collaborations.
5. Ask about lesson’s learned from other QI programs.
6. Develop a communication plan. Ensure constant and consistent communication at all levels.
7. Appoint a champion for every quality improvement effort.
8. Identify resources for QI (capital & human recourse).
9. Incentivize QI to ensure change and long-term sustainability.
3) Systematic approach to development of QI program

A systematic approach to problem solving is key to QI program design and implementation. Programs tend to react to crises rather than take the time to be proactive and minimize the impact upfront in the design and planning phase. Often programs don’t succeed or produce low level impacts because the design was not based on sufficient information such as: data, audience, best practices and evidence-based strategies, time, or resource allocation. Below are key themes for systematically approaching the design of QI programs.

**TABLE 3: Systematic Approach to Activities for a Successful QI Program**

1. Think global, design local. In other words, consider trends, national scope of QI programs, best practices and evidence-based models and principles when designing QI programs.

2. Always conduct assessment of needs or gaps. This includes using instrumentation (reliable and valid) or data mining of real-world clinical and administrative information.

3. Use exiting knowledge that demonstrate outcome (literature review, lessons learned from other programs, don’t reinvent the wheel)

4. Make sure your program purpose and outcomes correspond. Then work backwards from desired outcome to design.

5. Maximize outcome in design process. One of the down falls is that outcomes are usually an afterthought.

6. Develop SMART objective that are tied to realistic and achievable timelines.

7. Establish baselines and targets for outcome and performance measures for impact assessments.

8. Plan to conduct process evaluation/CQI as you test and implement the program. Continuous improvement is key to program design and evaluation.

4) Infrastructure to support and sustain QI activities

Programs, regardless of focus, are unlikely to be effective unless there is systems-level support in place to ensure full implementation and sustainability. There are critical elements of support and infrastructure for QI that must take place in order for a program to succeed: 1) multiple data systems (integrated preferred), financial support, integration of team approach and skill sets into all levels of program, and health information system capacity. A systems-based and change management approach will provide sustainable support for QI efforts, hence an impact on outcomes of activities.
TABLE 4: Key Support Element for Successful QI Activities

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<th>1. Support &amp; integrate an information technology infrastructure (downfall due to cost or expertise or no part of planning process).</th>
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<td>2. Put in place a sustainable &amp; appropriate staffing model (role delineation, expectations, size, expertise, training).</td>
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<td>3. Design for scalability to adapt to resource fluctuations &amp; needs.</td>
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<td>4. Design your program to be: 1) flexibility to change and adjusting course and 2) scalable to impacts from volume and adjustments to content.</td>
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<td>5. Financial support for QI program.</td>
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<td>6. Implement a data management plan (standardization, implementation, integrated platform, usability testing, outcomes-based design).</td>
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5) **Incorporate analytic capabilities into program**

There is a strong relationship between quality improvement and data management. Data management and analysis plays an important role in measuring performance of QI programs. Data will drive QI program design approaches to:

- Understanding the target audience
- Engagement strategies
- Intervention design and mapping
- Reporting requirements
- Press and outcome analysis
- Course corrections during implementation (CQI).

You cannot measure performance, impact or any program success/failure with out data and how to measure it. More importantly, the source, applicability, and quality of the data is the cornerstone of evaluating programs. Collecting, analyzing, interpreting, and acting on data for specific performance measures allows designer to identify where systems are needing improvement, to make corrective and process improvements, and to measure outcomes. Below are key themes for incorporating analytics into the design of QI programs.
### TABLE 5: Analytic Activities for a Successful QI Program

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<td>1.</td>
<td>Invest in measurement and analytics. Make analytics a cornerstone of the planning process.</td>
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<td>2.</td>
<td>Build or enhance internal analytic infrastructure. This includes human resources, technology solutions and incorporations of data in all levels of organizational structure.</td>
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<td>3.</td>
<td>Assess data needs and gaps and maximize use of existing data by conducting an environmental scan of data in existing IT systems (EHR’s, claims, population data, etc.)</td>
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<td>4.</td>
<td>Start early and develop an analysis plan.</td>
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<td>5.</td>
<td>Incorporate analytics (process and outcome) throughout the project lifecycle.</td>
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<td>6.</td>
<td>Review and apply national and local standards for benchmarks.</td>
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<td>7.</td>
<td>Identify all data sources (assess source appropriateness and strengths/limitations and use of data for all aspects of needs assessment, performance measurement, and design).</td>
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<td>8.</td>
<td>When possible, also measure financial impact (savings) in addition to outcome measures. It should be incorporated in QI program planning process.</td>
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### References

2. Karp, S. (2013). Bone Health Collaborative Launches Fracture Liaison Care Coordination Study in the Cloud to Improve Quality of Post-Fracture Care in Patients with Osteoporosis.
6. Booz-Allen-Hamilton (). Toward Health Information Liquidity Realization of Better, More Efficient Care from the Free Flow of Health Information