HealthCatalyst
ignite outcomes improvement™

The Top Five Essentials for Outcomes Improvement

TOP FIVE QUALITY IMPROVEMENT ESSENTIALS

- Adaptive leadership, culture, and governance
- Analytics
- Evidence- and consensus-based best practices
- Adoption
- Financial alignment

KEY COMPONENTS TO QUALITY IMPROVEMENT PROGRAMS

- Understand the problem
- Target improvement
- Create Aim statement
- Measure improvement

Given the complicated nature of outcomes improvement and the numerous requirements for building and maintaining an effective, continuous quality improvement program with sustained outcomes, it's no surprise health systems feel overwhelmed. Successfully sustaining quality improvement in healthcare is a tall order to fill—consider this partial list of success factors and requirements for effective quality improvement programs (explained later in this executive report):

- Adaptive leadership, culture, and governance
- Evidence- and consensus-based best practices
- Healthcare analytics
- Adoption
- Financial alignment
- Value-based systems of care
- Clearly defined goal and aims
- Defined measures and validated baselines
- Quality improvement teams, tools, and methodologies

Fortunately, as healthcare organizations strive to improve care quality and affordability, they're beginning to understand the quality improvement essentials—critical elements successful quality improvement programs have in common. This executive report defines quality improvement in healthcare, describes critical quality improvement considerations, components, and tools, and identifies the top five quality improvement essentials:

1. Adaptive leadership, culture, and governance
2. Analytics
3. Evidence- and consensus-based best practices
4. Adoption
5. Financial alignment

> Before health systems can implement successful quality improvement programs, they need useful, pragmatic definitions to guide their efforts.

THE BEST DEFINITIONS OF QUALITY IMPROVEMENT IN HEALTHCARE

To further complicate an already complex topic, there are dozens of quality improvement definitions. Before health systems can implement successful quality improvement programs, they need useful, pragmatic definitions to guide their efforts. Focusing on three of the most useful definitions from the Robert Wood Johnson Foundation, CDC, and Institute of Medicine (IOM) will help guide systems' quality improvement efforts.

Robert Wood Johnson Foundation's Definition

The Robert Wood Johnson Foundation defines quality improvement as, "The process-based, data-driven approach to improving the quality of a product or service. It operates under the belief that there is always room for improving operations, processes, and activities to increase quality."

CDC's Definition

CDC's definition focuses on activities that improve population health, ensure healthcare's affordability, and deliver the best patient experience. These three dimensions mirror The Institute for Healthcare Improvement (IHI) Triple Aim; the framework all quality improvement in healthcare ties back to:

1. Improve the health of populations.

2. Reduce the per capita cost of healthcare.

3. Improve the patient experience.

The Triple Aim is a framework for optimizing health system performance. And the primary goal of quality improvement is to improve outcomes. CDC also describes quality improvement as one component of the performance management system, which has three defining characteristics: It uses data for decisions to improve policies, programs, and outcomes. It manages change. And it creates a learning organization.

IOM's Definition

IOM's definition adds even more clarity to CDC's definition with its six aims for improvement:

1. **Safe**: avoid harm to patients from the care that is intended to help them.

Success Story on Safety: [How to Reduce Preventable Healthcare Associated Conditions in Children Using Best Practice Bundles and Analytics](#)

2. **Effective**: provide services based on scientific knowledge to all who could benefit and refrain from providing services to those not likely to benefit (avoid underuse and misuse, respectively).

   Success Story on Effectiveness: [Dedication to Quality Improvement Delivers on the Triple Aim](#)

3. **Patient-centered**: provide care that is respectful of and responsive to individual patient preferences, needs, and values and ensure that patient values guide all clinical decisions.

   Success Story on Patient-Centered Care: [Quality Improvement in Healthcare: An ACO Palliative Care Case Study](#)

4. **Timely**: reduce waits and sometimes harmful delays for those who receive and give care.

   Success Story on Timeliness: [Streamlining Radiology Operations and Care Delivery through Analytics](#)

5. **Efficient**: Avoid waste, including waste of equipment, supplies, ideas, and energy.

   Success Story on Efficiency: [How an IDS Improves Outcomes Using a Clinical Collaborative Structure](#)

6. **Equitable**: Provide care that does not vary in quality because of personal characteristics such as gender, ethnicity, geographic location, and socioeconomic status.

HOW SERVICE DELIVERY MODELS IMPACT OUTCOMES IMPROVEMENT

Before delving into the success factors and characteristics of effective quality improvement initiatives, it's important to understand the impact service delivery approaches have on quality improvement.

ACO

According to [CMS](#), ACOs are groups of doctors, hospitals, and

other healthcare providers who voluntarily come together to provide coordinated, high-quality care to Medicare patients to ensure they receive the right care at the right time (while avoiding unnecessary duplication of services and preventing medical errors). ACOs are designed to incentivize providers to deliver high quality of care at the lowest possible cost.

Patient-Centered Medical Home (PCMH)

Integrated care models, such as PCMHs focus on providing high-quality care across the continuum. For example, Allina Health's Courage Kenny Rehabilitation Institute (CKRI) implemented a PCHM for rehabilitation care that focuses on the whole person; one that looks beyond the medical to address vocational, social, and emotional needs. This collaborative model enables comprehensive and integrated care across the continuum.

CKRI is a great example of a targeted quality improvement initiative with the goal of delivering the best care across the continuum by achieving measurable improvements in length of stay (LOS) and emergency department (ED) visits. CKRI knows that when patients have medical issues, getting them same-day or next-day appointments significantly reduces LOS and ED visits.

Telemedicine

Telemedicine influences quality by allowing for faster response times. Telemedicine's cost savings—for patients and health systems—explains its recent growth. A University of Florida—Gainesville study demonstrated telemedicine's cost saving potential when used to treat diabetes. According to the study, "Even when line charges and equipment costs of $18,826 were included, the program saved $27,860 per year. The reduction in hospital days saved amounted to $44,419 per year and the reduction in ED visits amounted to $2,267 per year." Patients also saved money by not having to travel to the diabetes clinic (the Medicaid transportation cost for one family to the diabetes clinic was $262).

Quality Improvement Organizations (QIOs) and Quality Improvement Networks (QINs)

CMS's Quality Improvement Organizations (QIOs) are "private, mostly not-for-profit organizations staffed with doctors and other healthcare professionals trained to review medical care and help beneficiaries with complaints about the quality of care."

Quality Innovation Network (QIN)-QIOs work with providers and communities across the country on data-driven quality improvement

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initiatives using a variety of strategies:

- ❯ Provide technical assistance.
- ❯ Convene learning and action networks for sharing best practices.
- ❯ Collect and analyze data for improvement.

Health systems that embrace service delivery approaches focused on quality are particularly incentivized to drive sustained quality improvement.

EFFECTIVE QUALITY IMPROVEMENT STARTS WITH SYSTEMS OF CARE

Quality improvement starts with a healthcare organization's underlying systems of care. What ultimately determines quality improvement is the system's design; not the skills and abilities of the people working in it. Instead of saying, "The provider operated on the wrong area" health systems should ask, "What system allowed this medical mistake to occur?"

For example, the World Health Organization's Safe Surgery Saves Lives initiative promotes surgical improvement programs to "minimize the most common and avoidable risks endangering the lives and well-being of surgical patients." The initiative promotes the use of a Safe Surgery Checklist that identifies three critical phases of an operation:

1. **Sign in** before the induction of anesthesia.
2. **Time out** before the incision of the skin.
3. **Sign out** before the patient leaves the operation room.

The checklist encourages surgical teams to ask, "Are we performing the right procedure on the right patient in the right area?" The ultimate goal is to design a system that ensures patient safety; that doesn't allow for the introduction of errors.

ALL QUALITY IMPROVEMENT SHOULD BE CONTINUOUS

Quality improvement can't happen without constant measurement and evaluation. Although it is possible to implement the quality improvement cycle once, single cycle improvement isn't quality improvement in the purest sense; it eliminates the critical "study" step in the "plan, do, study, and act" sequence; the evaluative step that's so critical for successful quality improvements.

> "Continuous quality improvement is about sustaining and hardwiring the right behaviors. For example, if a health system reduces its heart failure readmission rate, it shouldn't just check that item off the "to do list" and move on to something else within its cardiovascular program. It still needs to dedicate valuable resources to the readmissions initiative to ensure outcomes are sustained; to make sure the interventions continue to be effective."

Healthcare professionals are challenged to constantly improve outcomes, so how do systems continue to push for improvement when it seems like every improvement increment is harder to attain? Healthcare leaders need to put their combined clinical, operational, and business hat on and ask, "What quality improvement initiatives do we prioritize based on the healthcare data we have?" They need to work with their finance teams and do a cost-benefit analysis to determine if it makes more sense to pursue a small, incremental percent reduction in heart failure readmissions (if already better than national benchmarking measures) or do something else with a bigger impact on patient outcomes and costs.

Continuous quality improvement is about sustaining and hardwiring the right behaviors. For example, if a health system reduces its heart failure readmission rate, it shouldn't just check that item off the "to do list" and move on to something else within its cardiovascular program. It still needs to dedicate valuable resources to the readmissions initiative to ensure outcomes are sustained; to make sure the interventions continue to be effective. A great example of sustainable quality improvement comes from Thibodaux Regional Medical Center, with a sepsis mortality rate that is half the national average. Even though Thibodaux achieved its quality improvement goal, it's constantly measuring and ensuring it sustains or improves its outcomes.

QUALITY IMPROVEMENT PROGRAMS: FOUR KEY COMPONENTS

All successful quality improvement programs include four key components: the problem, goal, aim, and measures.

#1: The Problem

All successful quality improvement programs start with an in-depth understanding of the problem. But what's equally important is system-wide buy-in for the quality improvement initiative and the problem it targets.

#2: The Goal

Determining the appropriate quality improvement goal can be a daunting challenge for most health systems. While it's often tempting to pursue incremental improvement gains in the same focus areas, healthcare leaders need to target improvements based on a return on investment (ROI) and cost-benefit analyses. Health systems should ask several key questions when defining their quality improvement goals:

> Analytics make it possible for health systems to assess quality of care, cost, and patient experience. Quality improvement can only be effective if it marries quality improvement teams and methodologies with analytics, but many health systems are in an either/or situation.

- How does this tie into our organization's strategic improvement objectives?
- What will have the biggest impact on patients?
- What areas have the largest variation?
- What will have the biggest impact on costs?

#3: The Aim

Aims break up the work of achieving the goal into manageable pieces.

#4: The Measures

There's a big difference between a quality improvement initiative with a result and one with an improvement; a distinction that can only be made by measuring baselines and actuals. Measuring baselines is so critical because it enables health systems to determine if there is an improvement; and if and how the improvement is correlated to intervention.

THE CRITICAL ROLE OF ANALYTICS IN QUALITY IMPROVEMENT

In the confusing world of quality improvement, analytics serve as the compass pointing in the right direction. Analytics make it possible for health systems to assess quality of care, cost, and patient experience. Quality improvement can only be effective if it marries quality improvement teams and methodologies with analytics, but many health systems are in an either/or situation.

Either health systems have quality improvement teams but collect and integrate data manually or they have analytics platforms but their quality improvement teams aren't aligned with the quality improvement initiatives (an abundance of data but no clear understanding of the quality improvement goal methodologies). Health systems need analytics to enable valid measurement, the ability to correlate interventions and improvement, and external data sharing and benchmarking.

Valid Measurement

Analytics are necessary for efficiently establishing valid baselines and measuring improvements.

Correlating Interventions and Improvements

Health systems rely on analytics to test interventions—to determine if the selected intervention is positively impacting outcomes. For example, one large medical center had an improvement program focused on reducing their heart failure readmission rate. After

implementing a typical bundle of follow-up appointments, discharge medication reconciliation, and follow-up phone calls, it didn't achieve its improvement goal. After an in-depth analysis of its data, the program pursued another intervention: teach-back interventions. The teach-back intervention (combined with the first three interventions) achieved the program's 30-day readmission goal. If initial interventions don't work, don't give up; analyze the data and determine additional aims to achieve the goal.

External Data Sharing

External data sharing is based on the premise of collaboration and population health management. It provides valuable insights about what systems are doing; sharing this information creates the best practices learning culture that's so important in quality improvement. In an industry that attracts professionals passionate about helping people, benchmarking is another tool that helps provide the best care to patients.

THE TOP FIVE ESSENTIALS FOR SUCCESSFUL QUALITY IMPROVEMENT IN HEALTHCARE

Health systems want to improve the quality of the care they deliver. But, according to Becker's Hospital Review, approximately 60 to 80 percent of strategic initiatives fail. Successful quality improvement is challenging, but it's becoming less elusive as systems learn from each other's efforts. As a result of conducting an integrated literature review of healthcare quality improvement efforts over the last five years, the top five broad categories of success emerged to drive and sustain quality improvement:

Essential #1: Adaptive Leadership, Culture, and Governance

Individuals or teams within a health system may have the aptitude and dedication required to make continuous improvements, but individual efforts alone won't result in prioritized, sustained quality improvement. Successful quality improvement initiatives require senior leadership support and an adaptive learning culture committed to data-driven quality improvement.

Essential #2: Analytics

Analytics is an essential ingredient for sustained quality improvement and plays an important role in each phase of the quality improvement lifecycle (plan, do, study, and act), from measuring a baseline and understanding the problem, to determining if the resulting change was an actual improvement. Some healthcare organizations mistakenly think they have analytics

because they have measurements, which is often not the case.

Essential #3: Evidence- and Consensus-Based Best Practices

Evidence- and consensus-based best practices are the foundation upon which successful quality improvement initiatives are built. Developing and integrating evidence- and consensus-based best practices isn't enough; healthcare organizations also need to have automated ways to measure how consistently the best practices are being used and their impact on outcomes.

Essential #4: Adoption

Health systems with the necessary adaptive leadership, analytics, and best practices won't have successful quality improvement programs unless they dedicate resources to implement outcomes initiatives. From training to performance evaluations and organizational incentives tied to quality improvement goals, prioritizing widespread adoption means saying three things:

- "Here's why we want you to use this best practice."
- "We're going to measure your use of this best practice."
- "We're going to share the correlation of this best practice to outcomes with you so we can learn together and continuously deliver quality, affordable care."

Essential #5: Financial Alignment

Health system financial incentives and payment models have to align with its quality improvement initiatives. If it's paying providers one way but measuring them another way, then its financial payment approach doesn't properly align with its quality improvement goals. For example, hospitals organized as a system—managed and budgeted as departments and units within separate hospitals—frequently find that hospital/department strategic priorities are not in alignment with overall system priorities. This misalignment frequently leads to well-intentioned decisions that inadvertently result in overall waste, unnecessary clinical variation, and operational inefficiencies.

THE MOST EFFECTIVE QUALITY IMPROVEMENT TOOLS

The Health Care Data Guide: Learning from Data for Improvement by Lloyd Provost and Sandra Murray is an extremely valuable quality improvement resource for health systems feeling overwhelmed by quality improvement goals.

> By working together as an industry to share quality improvement success stories, strategies, and lessons learned, we can significantly turn that 60 to 80 percent strategic initiative failure rate into a success rate. We can turn quality improvement's tall order into a manageable, achievable, continuous, and sustained reality.

Designed to help professionals "build a skill set specific to using data for improvement of healthcare processes and systems" the book is a practical, step-by-step guide with strategies and methods for continuous improvement. The book outlines the most effective tools, assigned to one of six categories:

1. Systems and processes (e.g., flow diagrams).

2. Gathering information (e.g., forms for collecting data).

3. Organizing information (e.g., cause and effect diagrams).

4. Understanding variation (e.g., run charts to determine if variation is special cause or common cause).

5. Understanding relationships (e.g., scatter plots).

6. Project management (e.g., Gantt charts).

Systems can't reap the benefits of these tools without skilled resources (people who know how to use the tools), training, and a framework for establishing, approving, maintaining, and updating evidence-based practices.

QUALITY IMPORVEMENT WILL TRANSFORM HELATHCARE

Although successful, sustained, continuous quality improvement in healthcare is a tall order to fill, health systems guided by pragmatic definitions, armed with the most effective tools, and willing to integrate the five essentials—adaptive leadership, culture, and governance, best practices, analytics, adoption, and financial alignment—are more likely to achieve their goals and contribute to the industry wide effort to transform healthcare. By working together as an industry to share quality improvement success stories, strategies, and lessons learned, we can significantly turn that 60 to 80 percent strategic initiative failure rate into a success rate. We can turn quality improvement's tall order into a manageable, achievable, continuous, and sustained reality.

Healthcare professionals go into healthcare because we care about people; we truly want to improve patient health and experiences, and help make care affordable. So we need to constantly keep the end goal in mind: the Triple Aim. We need to make sure every quality improvement goal ties back to improving the health of populations, reducing the per capita cost of healthcare, and improving the patient experience. By focusing

on collaboration, sustainability, and the Triple Aim, health systems will do more than provide better care—they will transform the industry into one unequivocally dedicated to quality.

ABOUT THE AUTHORS

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