

## A Proposed Technique to Enhance Strategic Plan Implementation Using Continuous Quality Improvement Methodologies

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Strategic plan development in higher education, academic medicine, and non-profit settings is well established. However, there are few publications on the application of continuous quality improvement (CQI) to implement strategic plans. Using rapid-cycle testing borrowed from CQI can be a viable and familiar model for academic medical centers to use in implementing their strategic planning. Upon completing a strategic planning process, the University of Rochester Medical Center (URMC) Golisano Children's Hospital (GCH) used CQI processes to implement their strategic plan and track progress. Modeled after URMC's successful use of CQI methods as part of its Accreditation Council for Graduate Medical Education Pursuing Excellence Initiative, implementation coaches provided supplemental support for involved teams. Defining clear, measurable, meaningful metrics that show the plan's progress took a few iterations but was critical to insure accountability and transparency. Developing, implementing, and communicating the strategic plan represents an institution shift emphasizing innovation and team-based approaches.

### Challenges to Implementation

Strategic planning in academic medical centers is critical to gaining consensus, setting priorities, and communicating vision, at a time when numerous pressures across our tripartite missions are intensifying. Our clinical enterprises are morphing into integrated systems with common operations, technology, and finances capable of bearing increased patient risk and accountability. With ongoing clinical margin pressures and other financial considerations, academic medical centers must support biomedical research producing innovative, practical solutions to real-life problems and prepare the next generation of clinicians and scientists for successful, impactful careers. Emerging academic medical center needs include engaging with communities to address social determinants of health and developing population health strategies.

Many institutions spend time, resources, and effort to develop strategic plans. These plans are intended to serve as institutions' North Star through the daily deluge of main-

taining and handling operations as well as guide decision making when opportunities and threats arise.<sup>1</sup> Sometimes successful plan implementation and monitoring progress can become an afterthought (Table I; available at [www.jpeds.com](http://www.jpeds.com)). Applying CQI methodologies to strategic plan implementation provides a framework to track implementation success, make course corrections when something isn't working, and increase financial and leadership accountability and transparency.

The strategic planning process lends itself well to CQI, particularly the Plan Do Study Act (PDSA) rapid-cycle improvement process. This main CQI concept promotes implementing change in increments, followed by measuring the impact of these changes over time.<sup>2</sup> The URMC successfully uses CQI methods as part of its Accreditation Council for Graduate Medical Education Pursuing Excellence Initiative to better integrate residents in interprofessional teams focused on quality and safety efforts. The teams are co-led by a physician and nurse dyad and supported by a quality improvement coach. GCH is now using this CQI coaching model to support its current strategic planning implementation process.<sup>3</sup>

### Background

Developing a strategic plan is an excellent way to provide a clear sense of mission and direction and to channel one's team's energy, resources, and enthusiasm in targeted directions. Although daily pressures or emergent situations are unavoidable, a strategic plan can help influence how leaders address these situations while maintaining forward-thinking focus.<sup>4</sup> In addition, strategic planning helps teams understand what they need to prioritize and what they should de-emphasize or simply not pursue.<sup>5</sup>

When a leader embarks on a strategic planning process, they must understand a plan engages stakeholders, sets priorities and expectations, and influences resource allocation. A planning process that is inclusive, bringing in numerous voices and perspectives, will help leaders engage individuals and build teams, who are ultimately essential for successful

CQI	Continuous quality improvement
GCH	Golisano Children's Hospital
PDSA	Plan Do Study Act
URMC	University of Rochester Medical Center

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implementation.<sup>6</sup> This critical, sometimes hard-won, stakeholder engagement in the planning process will dwindle in the implementation phase if there is a perception of shifting and unclear priorities from their leader. Particularly with limited resources, a leader must have a disciplined approach to setting and staying focused on impactful institutional priorities.<sup>6</sup>

Kirch et al noted that developing a strategic plan is only the first step in a process that can bring greater clarity of purpose, team cohesion, and engagement.<sup>7</sup> A “set-it-and-forget-it” mentality, where the majority of energy is focused in the planning process and less so in the implementation phase, can cause stakeholders to disengage, leaders’ credibility to crumble, and plans to ultimately fail. Plans succeed when there is a clear direction with long-term goals and short-term deliverables as well as a way to assess progress and continue engaging stakeholders.<sup>8</sup>

Ensuring the plan is properly resourced can be achieved by engaging with annual budget processes and business planning.<sup>4</sup> This must include discussing the return on investment within goal priorities. Essential to this process is understanding existing institutional resources and the ability to repurpose them to strategic plan deliverables as well as what new resources are needed and the underlying business case to obtain them.<sup>6</sup> In addition, developing short-term deliverables and mechanisms to assess progress builds flexibility in the plan to make course corrections as needed.<sup>9</sup> This is particularly important for multiyear plans, where it is may be difficult to correctly predict the healthcare and academic environments over several years.

## The URM C GCH Strategic Planning Process

The URM C GCH is a major pediatric referral center in Western New York, serving 85 000 patients a year. Based in Rochester, New York, it offers specialized services including critical care, a 68-bed Level 4 neonatal intensive care unit, and a full range of medical and surgical subspecialty care. The URM C GCH is located adjacent to Strong Memorial Hospital, an 886-bed teaching hospital and is part of the URM C. The Department of Pediatrics at the University of Rochester has been an innovator and thought leader in developing the fields of Community Pediatrics and Adolescent Medicine as well as Health Care Delivery Science.

After 6 months in his role, URM C’s new pediatrics’ chairperson and GCH physician-in-chief initiated a GCH-wide strategic planning process. He engaged a strategic planner in the CEO/Dean’s Office, a senior pediatric physician faculty member, and a quality improvement expert to manage the planning process and serve as implementation coaches. After concluding the initial 9-month strategic planning process, the coach triad’s focus shifted to communicating and implementing the plan. Throughout the planning process, operations leaders in the children’s hospital as well as interprofessional and community leaders were continuously engaged. As the process moved into implementation, the coaches had more intensive discussions with the

chairperson/physician-in-chief, chief administrative officer, and the chief financial officer to ensure adequate teams, resources, and timelines.

## Structuring Teams

During the strategic planning process, the strategic planner, under direction of the chair/physician-in-chief, engaged numerous interprofessional groups within the children’s hospital and the community through in-person meetings and surveys to ensure diverse perspectives on GCH’s current state and potential future directions. This was an important step: numerous stakeholders are engaged every day in GCH’s progress and will impact the strategic plan’s ultimate success. Similar to other children’s hospitals, GCH is structurally complex and matrixed, with a dependence on non-pediatrics department specialists and subspecialists. Beyond physicians and nurses, many child health professionals provide day-to-day patient and family engagement, including child-life, music and art therapy, school teachers, family engagement teams, social workers, legal teams, food handlers, custodians, and engaged administrators. The Rochester community is also a major GCH stakeholder, with numerous pediatricians, community-based organizations, volunteers, advocates, and philanthropists engaged in the children’s hospital’s success.

At the strategic planning process conclusion, the coaches facilitated individual team development to implement each goal in the plan as well as one strategic plan leadership team (Figure 1; available at [www.jpeds.com](http://www.jpeds.com)) to create accountability and transparency. The goal-based teams are responsible for implementing the objectives within their goal. Each goal-based team has 2 coaches assigned to ensure continuity and coverage. All goal-based team leaders also serve on the strategic plan leadership team.

Similar to the coaching model used at URM C, in particular Strong Memorial Hospital, the coaches meet once a quarter with goal leaders to discuss goal progress and mitigate any goal-specific barriers or emerging issues, share best practices across the goals, and help advocate for resources, both during fiscal budget cycles and as needed. In addition, the coaches recommend agenda content for the strategic plan leadership team’s quarterly meetings to the chair/physician-in-chief with his chief administrative officer and chief financial officer.

The strategic plan leadership team’s quarterly meetings purpose is 2-fold: gain a high-level understanding of each goal’s progress and discuss high-impact issues with a team approach to developing solutions. Modeled after the hospital quality improvement PDSA efforts (Table II), goal-based leaders report out to the strategic plan leadership team on their goals’ successes, challenges and what help is needed from the leadership team. The coaches pre-meet with goal leaders to understand what high-impact issues need the leadership team’s attention. This creates a team approach to implementation. Although goal co-leaders are ultimately in charge of their objectives and deliverables, the entire leadership team is invested in the strategic plan’s success

**Table II. GCH plan: implementation PDSA cycles**

PDSA cycles	Description
1	Develop strategic planning deliverables for scorecard
2	Develop strategic planning metrics for scorecard
3	Strategic plan teams entered deliverable results for year 1, quarter 1
4	Strategic plan teams collectively reviewed results for year 1, quarter 1
5	Strategic plan teams entered deliverable results for year 1, quarter 2
6	Strategic plan teams collectively reviewed results for year 1, quarter 2
7	Strategic plan teams begin developing year 2 deliverables aligning with internal budget process

and, therefore, will support co-leaders to their fullest extent possible.

### Connecting Resources and Setting Timelines

With the organizational structure solidifying, the plan needed a process allowing leadership to communicate progress toward the longer-term vision of the 5-year strategic plan as well as shorter-term deliverables. To address both, the coaches developed a scorecard with both high-level metrics with a multiyear time horizon to achieve targets and annual goal-based deliverables that are tracked quarterly and refined yearly. The strategic plan scorecard aligns with the fiscal year to ensure resource planning for each year's deliverables are part of GCH's existing budgetary cycle.

The importance of engaging operational leaders early and often is paramount to the plan's success. Operations professionals understand how the units function, both individually and within the institution, and how a strategic plan can be smoothly implemented.

While transitioning from the planning process into implementation, the coaches met frequently with the chair/physician-in-chief, chief administrative officer, and chief financial officer to discuss current and potential resource needs to support the strategic plan. In addition, the chief administrative officer facilitated an administrative reorganization in GCH to ensure a structure that adequately supports the strategic plan.

### Tracking Outcomes and Monitoring Progress

To drive strategic plan accountability and transparency, it is important to develop mechanisms to monitor progress and change tactics if needed. According to Schriefer and Leonard, there are 2 basic types of measures: process measures and outcome measures.<sup>3</sup> In a strategic plan, process measures quantify if the agreed-upon activity is being done, ie, a new office has been developed, an assessment has been completed. An outcome measure gauges the overall high-level impact, ie, health outcomes, clinical volumes, endowment growth.<sup>3</sup>

The high-level metrics help GCH leadership understand whether their efforts are actually producing the intended outcome. The goal-based annual deliverables focus the goal teams' process efforts in quarterly increments with clear timeline targets and identified individuals responsible for certain deliverables (Figure 2; available at [www.jpeds.com](http://www.jpeds.com)). For

example, one of GCH's community and advocacy goal metrics is to reduce teen pregnancy rates in the county by 25% in 5 years. To achieve this metric, leaders in the GCH community and advocacy goal are committed to expanding contraception access as a year 1 deliverable. Specifically, they are focused on ensuring long-acting reversible contraception options are available in 60% of clinical practices that care for teenage patients to patients aged 21 years in Accountable Health Partners—a clinically integrated network that represents University of Rochester medical faculty and community providers. By focusing on increasing access to long-acting reversible contraception, goal leaders are able to focus on a tangible deliverable while monitoring teen pregnancies rates over many years to determine whether their process is resulting in the desired outcome (25% reduction in teen pregnancy).

### Lessons Learned

#### Strategic Planning Is a Leadership Function

Ensuring successful planning and implementation processes begins with leadership. When a leader embarks on a strategic planning process, they set an expectation that priorities will be set with finite resources aligned. Although it often takes a team to enact the changes embedded in a strategic plan, it is incumbent upon the leader to keep teams accountable and support them as needed. In that sense, strategic planning and implementation processes are opportunities to develop leadership teams to both ensure plan success and provide professional growth for faculty and staff.

#### Understand the Institutional Culture

At UPMC and GCH, CQI processes are well established, familiar, and accepted in clinical practice. GCH's existing CQI foundation seamlessly translated to strategic plan implementation. Most importantly, the CQI process builds agility into implementation by building in frequent assessment and opportunity to modify or abandon activities as needed.

#### Track Both Process and Outcomes

Seeing change and outcomes from a strategic plan can sometimes take years. This makes it challenging to maintain energy and focus in the implementation process. A monitoring structure that allows teams to track their progress in a timely manner and make adjustments as needed provides a way for leaders to demonstrate momentum and communicate progress. In addition, it brings a greater emphasis on accountability and transparency for the teams involved in implementation.

#### Engage Operation Leaders Early and Often

Syncing strategic plan implementation with existing budget cycles or management plans is essential to identify resources to adequately fund your plan. These resources may be acquired through reorganization of existing resources and/or obtaining new, incremental resources. In addition, aligning

plan goals with existing operations helps bring greater implementation focus and follow-through.

### **Build Interprofessional and Cross-Disciplinary Strategic Planning Teams**

In academic medicine, high-functioning teams usually are composed of individuals from different backgrounds and expertise. This brings a richness of thought and a more comprehensive view to the planning process. In addition, successful plan implementation is not achieved by the work of 1 or 2 people—building the right teams helps ensure desired progress toward the plan's goals.

### **Conclusions**

The use of CQI techniques, such as the PDSA process, helps support and facilitate successful implementation of academic health centers' strategic plans. After an intensive planning process in which many stakeholder voices across GCH were heard, these same stakeholders are now working toward achieving the institution's mission and vision. Drawing on CQI practice, an agile and adaptable implementation process has been developed focused on innovation and team approaches. Managing complex change requires acknowledgment of a vision, the skills to accomplish change, proper alignment of incentives and resources, and a defined action plan. The GCH approach to implementing their strategic plan is unique in that it

uses a strong CQI skill set to deliver the best care we can, because at the end of the day, it's always about the kids. ■

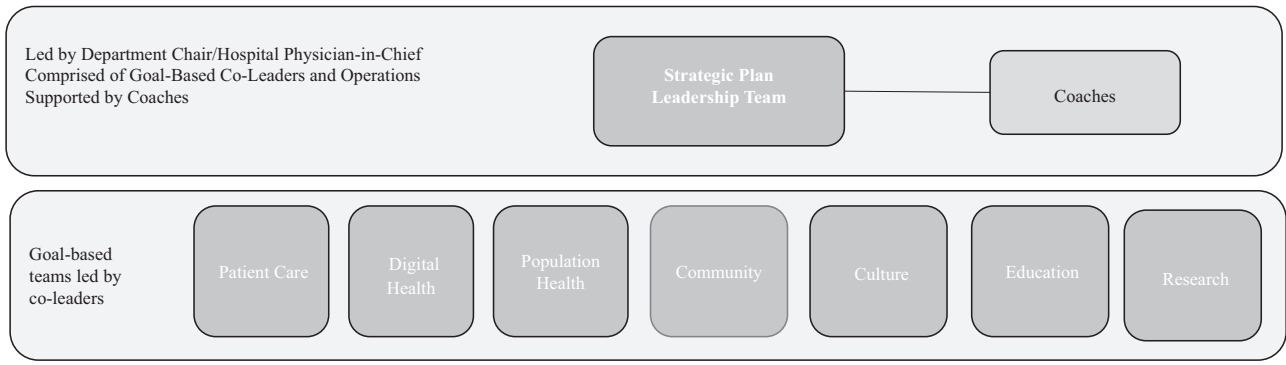
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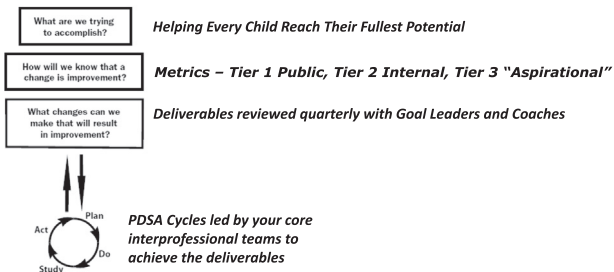
### **References**

1. Dzau VJ, Cho A, Ellaissi W, Yoediono Z, Sangvai D, Shah B, et al. Transforming academic health centers for an uncertain future. *N Engl J Med* 2013;369:991-3.
2. Berwick DM. The science of improvement. *JAMA* 2008;299:1182-4.
3. Schriefer J, Leonard MS. Patient safety and quality improvement: an overview of QI. *Pediatr Rev* 2012;33:353-9. quiz 359-60.
4. Schafer AI, Tomasik JL, Gilmore TN. Crafting an effective strategic plan for a department of medicine. *Am J Med* 2005;118:315-20.
5. Mallon WT. Does strategic planning matter? *Acad Med* 2019;94:1408-11.
6. Bonazza J, Farrell PM, Albanese M, Kindig D. Collaboration and peer review in medical schools' strategic planning. *Acad Med* 2000;75:409-18.
7. Kirch DG, Grigsby RK, Zolko WW, Moskowitz J, Hefner DS, Souba WW, et al. Reinventing the academic health center. *Acad Med* 2005;80:980-9.
8. Levinson W, Axler H. Strategic planning in a complex academic environment: lessons from one academic health center. *Acad Med* 2007;82:806-11.
9. Devitt R, Klassen W, Martalog J. Strategic management system in a healthcare setting—moving from strategy to results. *Healthc Q* 2005;8:58-65.



**Figure 1.** GCH strategic plan organizational chart.

A  
M  
S  
P  
D  
C



**Figure 2.** Applying the Institute for Healthcare Improvement model for improvement to GCH strategic plan.

**Table I. Barriers to successful strategic plan implementation**

- Insufficient or inconsistent leadership accountability
- Underappreciating the ongoing effort needed to implement
- Inability to stay forward-looking during and after emergent situations
- Failure to integrate strategic plan into budget cycles and operations organization
- Not engaging public relations team to develop plan-specific communication vehicles
- Underestimating your organization's culture, especially willingness to change
- Lack of agreement-on metrics