

# Connecting Strategic Business Goals to Management System KPIs in Support of Continuous Quality Improvement

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“Their information systems just weren’t good enough.”

–Steve Jobs



# The Curse of Non-Sensical Traditional Practices

- At the time Steve Jobs made the statement quoted on the previous slide, he had just retaken the reins as CEO of Apple Corporation after a long, forced hiatus.
- He was referring to antiquated methods that accountants used to make corrections to balance statements at the end of financial quarters. They adjusted their projections after the fact. This fact reveals a lag that left leaders without key, actionable information.
- Accountants followed this traditional practice because their companies' information systems did not give them accurate financial data that could be used for timely, informed decision-making.



# The Importance of Connecting Strategic Goals to Operational Outcomes

- Steve Jobs learned to create information pipelines to inform operational and strategic business decisions, where his predecessors in the business world did not.
- This provided Apple Corporation a significant competitive advantage in supply chain management, purchasing, and contract negotiations, which allowed them to compete with much larger companies, like IBM.
- To achieve high level goals, one must create a series of direct connections to smaller operational improvements, combined with responsive information systems to monitor the performance of key process indicators.



# Strategic Improvement Goals

- Two methods are commonly used for goal setting:
  - Goals are identified through performance deficits compared with like institutions or competitors  
(well-suited for identifying long-term goals)
  - Goals are identified through internal improvement opportunities, regardless of comparisons with competitors  
(supports identification of short and intermediate-term goals)
- The latter represents a reasonable approach to making immediate, incremental improvements towards the achievement of operational goals, and embodies the spirit of continuous quality improvement.



# Investment in QI

- Budgeted investment in quality improvement efforts is required to improve outcomes.
- Investment can include a variety of resources, some financial.
- Resources include, but are not limited to:
  - Time, money, technology, equipment, materials, research, personnel, students, volunteers, private grants, government programs, etc.



# The Chicken or the Egg

- The chicken: Systems constraints limit the performance ceiling. Employees are expected to do more with the same amount of resources, or even less. Saving resources can free up previously allocated resources that can be applied to Quality Improvement efforts.
- The egg: Investment is made, thereby reducing constraints or adding resources can sometimes, in itself, raise performance. Purposeful application and experimentation with new resources can also lead to solutions and improved systems that end up saving resources in the long term.
- Optimally, both approaches are applied in tandem.



# A Dual Approach

- The United States military has a command structure that facilitates bilateral communication.
- Strategic goals and orders travel down the Chain of Command from leadership to staff.
- Feedback and situation reports travel up the Non-Commissioned Officer Support Channel from staff to leadership.
- In principle, this allows information to flow freely throughout the organization and its command structure.



# Operationalization of Strategic Goals

- Similar to the military command structure, a bilateral flow of information among management and staff will promote unity of purpose and coordination of work.
- Managers accept strategic goals from senior leadership, and work to implement operational plans with support from their immediate superiors in ways that are meaningful to their particular working environments.
- Optimally, staff members are offered opportunities to share concerns, identify challenges, and voice preferences related to their assignments. Open communication engenders bilateral trust and ensures the timely flow of information.
- Respecting employee preferences in delegating tasks, when appropriate, not only helps to maintain employee satisfaction, but also promotes acceptance and adherence to operationalized plans.



# Retaining A Flexible Approach to Problem-Solving

- While working towards implementation of operationalized work plans, invariably, challenges arise in daily work.
- Work systems and problem-solving tasks are directly related to the conditions specific to particular work environments; it follows that resolution of those problems requires specialization.
- Therefore, a flexible process management system is helpful to address problems that arise, in real time.



# Scorecards & Dashboards

- Data collection and monitoring performance is crucial to decision-making at every level of work.
- Governed scorecards contain leader-approved metrics, through which performance is measured and the implementation of operational plans is assessed. Such metrics can often be rolled up and used to inform high-level decisions by leaders. These may include key process indicators [KPI] that measure crucial aspects of business performance.
- Ungoverned dashboards contain data that reflect flexibly managed processes relevant to specific groups of employees.
- Optimally, managers provide direction, but collaborate with staff and support specialists to identify and develop management systems that allow a degree of self-determination in active problem resolution. Doing so promotes a spirit of innovation in continuous improvement and fosters employee satisfaction.



# Data Democratization

- Data democratization is a key component to creating adaptive Daily Management Systems.
- A variety of data should be actively provided that correspond to employee responsibilities and support their job functions.
- Continuous quality improvement requires a system to request data and reports for operational dashboards in such a way that offers line managers both breadth, and depth in examining processes and related outcomes.
- Process Engineers (blackbelts) and Data Analysts can help to identify QI opportunities (process improvement, data exploration) and provide project framing and statistics consulting to managers.



# Aligning QI with Goals

- Ideally, QI projects should align with strategic goals and reflect operational plans, but custom tailored for specific work contexts.
- The challenges of specific business units and, therefore, unit-level priorities will vary to some extent, as will their relative contribution to system performance, as a whole.
- This is an important factor, both in management prioritization and judicious data distribution.



# The Burden of Complexity

- As in many industries, the complexity of healthcare delivery and the knowledge requirements for practice have increased with time.
- One approach to QI and performance management involves alternating focus on performance measures that periodically rotate with time.
- This method serves to help staff focus on a set of well-defined operational goals, with the intention to foster crystallization of learning through focused repetition.



# Increased Data Requirements

- The complexity of healthcare delivery systems continues to increase.
- The number and variety of important process and outcome measures has also increased.
- This has led to a heightened demand for operational reports and analytics resources.
- The increase in report and analytics requests necessitates a formal development process that supports both improved access, and intelligent prioritization.



# Plans Stem from Strategy

- Within each level of management, huddles should be promoted to foster continuous communication and innovation.
- A good dashboard development process ideally possesses 3 general elements:
  - 1. A request should reflect the spirit and essence of one or more strategic goals, as identified and defined by leadership;
  - 2. The form of requests should fall within the context of the operational management plans designed to meet strategic goals, and requests should reflect specific elements of those plans, or framed in relation to them;
  - 3. Operationalization of the plans, in terms of process management and related measure and dashboard development, should retain enough flexibility and specificity to provide meaningful insights and actionable information at the point of service delivery.



# Evidence-Based Practice

- Developing QI project plans and larger quality initiatives should optimally be informed by comprehensive literature reviews of relevant research literature that supports evidence-based practice, both in terms of direct-patient care, and healthcare delivery system management.
- Developing QI plans in this way sheds light on what has worked well (and lessons learned) in other institutions.
- It may also inform aspects important to project planning, including, but not limited to: budgetary and resource requirements, anticipated degree of outcome improvement, as well as projected implementation timelines.
- Experimental Designs can be used to evaluate multiple interventions, simultaneously, enabling the estimation of both efficacy, and interaction effects between interventions, as well as identifying the costs and challenges of localization, within budgetary constraints.



# Students

- Graduate students and honors undergraduate students often need to find internship opportunities for capstone or thesis projects.
- Such projects usually do not require pure research, but typically do require extensive literature reviews and application in project form.
- These situations represent opportunities for students to support ongoing quality improvement efforts and for preceptors to guide their learning.



# Grants

- Thorough literature reviews and detailed project-plan development can support grant submission and acquisition for various forms of support from EBP implementation grantors and government programs.
- Such programs may provide QI projects with crucial resources that would not otherwise be available.



# Conclusions

- Set reasonable strategic goals, based on current performance and operational plans based in EBP.
- Democratize data by creating and maintaining information systems that provide timely, actionable information at all levels of the organization.
- Employ a dashboard creation process that aligns data acquisition with operational plans and strategic goals, but maintains the flexibility to inform active troubleshooting.
- Budget continuous QI as a standard line item, and obtain every available resource, internal and external, to support QI activities.