Introduction. The Pennsylvania Critical Access Hospital Consortium (the “Consortium”) is a rural health network consisting of 12 small rural hospitals within the Commonwealth of Pennsylvania. Since its inception in 2002, the Consortium has focused on Performance Improvement networking using the Balanced Scorecard as a common framework and data collection model. Funded through the combination of Rural Hospital Flexibility (Flex) and Small Rural Hospital Improvement (SHIP) grants, the Consortium offers a highly-coordinated, efficient and cost-effective opportunity for Pennsylvania Critical Access Hospitals to manage individual hospital strategy, compare performance among peers, and share best practices to achieve better clinical outcomes and stronger financial performance.

PA Critical Access Hospital Consortium Development. In 2002, the Pennsylvania Office of Rural Health (PORH) funded a project to evaluate the Quality Improvement infrastructure among the then-six Critical Access Hospitals. As a result of that evaluative work, a set of common structural, policy and data-related opportunities emerged, along with a commitment among the facilities to collaborate in a more deliberate and structured manner. This commitment coalesced into the CAH Consortium, a rural health network geared toward the holistic definition of Performance Improvement, which includes financial, clinical, operational, and satisfaction domains. Given this broad emphasis, the Consortium elected to use the Balanced Scorecard as the common language and organizing framework for network activities, and as a management tool to bring focus to each network member’s strategic performance.

Balanced Scorecard. Developed by Robert Kaplan and David Norton, the Balanced Scorecard has become a widely used management tool that is designed to link strategy with action, and to establish the cause and effect relationships among an organization’s strategic objectives (Kaplan and Norton, 2002). The Balanced Scorecard asserts that an organization’s value is derived from intangible assets, while most traditional management reporting is limited to financial measures. The Balanced Scorecard promotes the measurement of leading indicators that drive performance and allows an organization to more effectively:

- Describe the organization’s mission, vision and strategic objectives;
- Execute the critical initiatives that improve performance in clinical, financial and patient, physician, and employee satisfaction areas;
- Create a framework to assess performance on a regular, proactive and iterative basis rather than during one-time strategic plan development events;
- Communicate and build a common foundation for the understanding and execution of hospital strategy and strategic plan at all levels; and
- Create a culture of “shared learning” whereby the participating hospitals can share best practices and use each other as a resource to improve performance both individually and collectively.

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Case Study: A “Strategy Focused” Hospital Network
Larry Baronner and Gregory Wolf

Pennsylvania CAHs, the PORH and Stroudwater Associates subscribe to the holistic definition of Performance Improvement developed by the Rural Health Roundtable in 2001. The distinction between Performance Improvement (PI) and Quality Assurance (QA) is profound; PI asserts that a hospital should focus on more than clinical quality, and that measurement systems should be proactive and not necessarily tied to regulatory requirements or compliance standards. Instead, Performance Improvement uses a balanced set of metrics tied to hospital strategy. Too many hospitals struggle to evolve from a QA mindset to a PI mindset, and one of the goals of the PA Flex program is to facilitate this evolution.

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For the Consortium, the Balanced Scorecard serves as a unifying performance management framework that supports the creation of hospital-specific scorecards and strategies while at the same time enabling the “roll-up” of dozens of clinical, financial, operational, and satisfaction indicators used to facilitate network benchmarking and knowledge transfer.

**Balanced Scorecard Implementation Process.** PORH engaged Stroudwater Associates, a healthcare consulting firm, to implement Balanced Scorecards at each of the Consortium hospitals. The implementation process started with a review of the organization’s strategic plan and the development of hospital-specific Strategy Maps. A Strategy Map is a one-page illustration of the hospital’s strategic objectives, organized into a series of cause-and-effect relationships. In addition to the consulting support to create Strategy Maps and scorecards, Stroudwater Associates was asked to develop a set of technologies to both collect and report data for each organization’s scorecard, and to enable the aggregation of hospital specific data into an electronic benchmarking system. The benchmarking system was seen as the centerpiece of the Consortium network activities due to a lack of available comparison data for small rural hospitals, and the restrictions imposed on Consortium hospitals by reporting systems oriented toward larger, urban facilities. As one administrator stated, “I am tired of being told we are statistically insignificant”.

**Performance Measurement in Small Rural Hospitals.** Stroudwater Associates collaborated with the Consortium hospitals to define a set of rural relevant performance indicators structured into the following Balanced Scorecard perspectives, or performance categories: Finance; Community and Patient satisfaction; Clinical and Business processes, and Staff/Medical Staff satisfaction. To accomplish this, the following practical data-related considerations emerged:

- **Validity:** The indicator must be appropriate for a small, rural hospital, not just an urban hospital or large community hospital.
- **Reliability:** The indicator must be derived from data that can be consistently captured by every Consortium hospital so that the benchmarks can be trusted.
- **Timing:** The indicator must be updated at least two times per year. Cost report data or standard financial ratios are useful to compare on an annual basis but are not useful for quarterly data sharing or strategy execution.
- **Access:** Hospitals must be able to collect and report all required data elements easily, with minimal work at the hospital staff level.

The process yielded approximately three dozen performance indicators, which were endorsed by the group as an appropriate “core” set of indicators. The next step was to create and implement a data collection system that would allow each facility to report the data necessary to compile all of the core indicators, and to enable not only reliable benchmarking, but also hospital-specific reports and analysis.
Use of Innovative Technology. The Consortium is committed to more than just sharing anecdotes and a handful of clinical and financial indicators. A key objective was to develop a comprehensive, robust, data-driven system for comparing performance, and to use that information to identify opportunities for Performance Improvement. This objective has been validated by the most recent Flex program evaluation: “The [Consortium] supports a continued advance of an innovative and effective performance management system which utilizes the Balanced Scorecard framework filling performance and technology gaps and leveraging investment that each Critical Access Hospital has made during the past four years.”

To achieve the network’s data-related objectives, the Consortium embraced the concept of “mass customization” in which a single set of technologies enables the standardization of performance indicators while offering maximum flexibility at the hospital level. Stroudwater’s data collection and reporting system, Rural Performance Management (RPM), is currently in use at each Consortium facility and conforms to the Consortium’s technical specifications, including:

- **Web based tool – not Excel.** While using Excel is a quick solution to the challenges of data collection and reporting at the individual hospital level, an Excel-based approach was not going to work for the Consortium. Experience shows that Excel starts to fail as new indicators or departments are added to a scorecard model and the maintenance of spreadsheets becomes extraordinarily resource-intensive over time. Ultimately, hospitals don’t have the time, money, or expertise to support Excel-based scorecards. Given its resource constraints, a web-based tool that standardized data element definitions and indicator formulae was mandated by the Consortium as a means to successfully gather and compare data.

- **Simple data entry and management.** With the myriad of data reporting requirements forced on small rural hospitals and the sense that staff are already overworked, the Consortium members insisted that the data collection and reporting system be efficient and simple to use. In fact, the goal for the Consortium was to support a system that would subtract overall data management work in the long run by streamlining systems and eliminating duplicative efforts.

- **Rural-relevant satisfaction survey instruments.** Without patient and staff satisfaction data, a hospital cannot create a Balanced Scorecard. In fact, the satisfaction instruments yield a data set that in many ways is more powerful than the clinical or financial data, as patient and staff perception (intangible assets) are true drivers of performance. The Consortium hospitals utilize a coordinated set of patient (Inpatient, Outpatient, and Emergency Department), staff and medical staff survey instruments. The instruments are short, simple, rural-sensitive, and consist only of questions that are strategically relevant. The survey administration and data processing has been simplified to minimize effort among hospital staff; all surveys are scanned by an outside vendor and incorporated into the RPM site, with composite indicators based on indexes linked to scorecards automatically.

- **Peer Group Benchmarking.** Hospitals are able to compare performance for any scorecard indicator online, and are able to define benchmark peer groups according to hospital designation (CAH or PPS), bed size, annual revenue, and network affiliation.
• Better Use of Data Already Collected. This challenge is particularly relevant in Pennsylvania given the numerous mandated reporting programs specific to the Commonwealth, including the mandatory Patient Safety Authority (PSA) initiative that required hospitals to submit data related to adverse events. To respond to these mandates and resulting fragmented systems, the Consortium endeavored to incorporate data from a variety of sources in a way that brings all of the information into a single location.

The CMS Core Measure public reporting program represented an immediate first opportunity to test the concept of incorporating a publicly available data set into the Consortium reporting system. Quality Insights, the state Quality Improvement Organization (QIO), was instrumental in developing a method for uploading patient-level clinical data from the CMS Clinical Warehouse (QNet Exchange) into the RPM website.

As key contributors to the planning process, Quality Insights staff helped design the analytical tools that enable measure-specific benchmarking capabilities and the automatic generation of physician scorecards. By incorporating data already submitted to the CMS clinical data warehouse into the RPM website, hospitals reduce data turnaround times, have clinical data automatically linked to scorecards, and review patient-level clinical data formatted into topic-specific composite scores with no additional work required by hospital staff. The hospitals will now be able to use the CMS data for internal performance improvement uses as well as performance monitoring by external parties.

Hospital Specific Strategies and the Balanced Scorecard. Every Consortium hospital has developed a hospital-specific Balanced Scorecard Strategy Map and uses the Balanced Scorecard to report performance to staff, medical staff, and boards of directors. So while the Balanced Scorecard was conceived as an agent for network development, the power of the Balanced Scorecard manifests mostly at the hospital level and on a day to day basis. Mass customization of network infrastructure helps to promote “strategy focused” organizations that use the Balanced Scorecard to communicate strategy, identify priorities, set targets, and develop initiatives to close performance gaps. From a strategic standpoint, the Consortium seeks to create value at the hospital level to improve both the clinical and financial performance of the organization and collectively improve performance across all the hospitals through active participation at the network level.

Critical Access Hospital Case Study: Troy Community Hospital (TCH), is a 25-bed Critical Access Hospital with a primary market encompassing north central Pennsylvania and the southern tier of New York. As a member of Guthrie Health, a community-based, not-for-profit healthcare system, TCH utilizes the Studer Group Pillars to evaluate performance according to system-level goals, and integrates the pillar concept into their hospital-specific scorecard. The two management philosophies are highly compatible, and enable TCH to more effectively manage its strat-
egy, build greater accountability, and implement data-driven compensation systems across key hospital departments. Staci Covey, Administrator, asserts, “Troy Community Hospital has welcomed the involvement of both Stroudwater and the PORH in our Performance Improvement and benchmarking process. They have provided us with the guidance needed to restructure our program and have it work in harmony with that of our parent healthcare system. We are now better able to document and demonstrate our improved or positive performance, as well as those that need improvement, and to benchmark our results with truly like facilities. We have demonstrated that the link between the CAH benchmarking program and our parent organization can be the Balanced Scorecard.”

Consortium Quarterly Meetings. To support networking activities, the PORH hosts full-day quarterly meetings in State College in central Pennsylvania. The quarterly meetings are attended by administrators, managers, clinical and non-clinical staff, and board members, as well as representatives from partner organizations and Stroudwater consultants who provide content expertise and assistance in the development of curricula. Meetings typically include hospital case studies, review of performance data, hospital-identified Performance Improvement education/training programs, and updates (advocacy, policies, state or national trends, etc.) from Consortium partners.

Quality Improvement Partner Case Study: Donna Balsley, Director, Health Care Quality Improvement for Quality Insights of Pennsylvania, collaborates with the Consortium with excellent results: “The PA Critical Access Consortium provides a forum for the hospitals to collaborate on quality issues and utilize lessons learned from others in the group to make process improvements in the quality of care delivered. It provides a setting for us (the QIO) to work with the hospitals as a group and deliver messages in a single setting where we can be more effective.”

Consortium activities have revealed several areas of common need both from a clinical and financial process as well as data reporting standpoints. One example is the challenge facing the Consortium to better understand adverse event and medication error reporting among the member hospitals. Unfortunately, hospitals frequently attempt to learn about medication safety in their organizations by benchmarking the number of medication errors against facilities of similar size. Due to the significant difference in organizational cultures and their effect on error reporting, benchmarking medication errors is not a meaningful measurement of medication safety. A more effective approach is for organizations to specifically assess the risks inherent in their medication use system and implement high-leverage strategies to enhance medication safety and reduce patient harm.

Patient Safety Case Study: To improve medication safety in the critical access hospitals, the PORH partnered with the Institute for Safe Medication Practices (ISMP). To assist in identifying the risk exposure for medication errors in these hospitals, each organization completed the 2004 ISMP Medication Safety Self Assessment® for Hospitals. The results were used to develop a medication safety quality initiative that included educational seminars, teleconferences, distribution of specific tools and

Quarterly meetings are geared toward practical, tangible topics, with the stated goal of providing recommendations that can “be implemented as soon as the participants go back to their hospitals.” Topics reviewed in the past year have been determined by hospital need, statewide policies, and national rural health trends.

Institute for Safe Medication Practices
(www.ismp.org)
an on-site visit to each participating organization. The initiative focused on implementing error reduction strategies that could be adopted without a significant expenditure of human, technological or financial resources.

In addition to the education and performance-focused quarterly consortium meetings, the hospitals also take part in the Small and Rural Hospital Council meetings sponsored by the Hospital and Healthsystem Association (HAP). As members of a broader constituency, HAP can provide these hospitals additional support in the legislative and regulatory areas. Likewise, because PORH is part of the Health Policy and Administration Department at Penn State University, the consortium hospitals benefit from the affiliation with a major research university. Workforce assessments, economic development, and educational programming have been easier to implement, in part as a result of PORH being university-based.

**Defining Characteristics of the Consortium**

- **Breadth, Depth, and Quality of data reporting.** Every Consortium submits and reports on a comprehensive set of leading and lagging performance indicators that provide a wealth of information for networking opportunities. The compliance level among the Consortium is high because hospitals are using the RPM site on a daily basis to support Performance Improvement activities, rather than seeing the data collection requirement as just another “thing to do.”

- **Resist the temptation to appeal to the lowest common denominator.** One of the most common rate limiters for a rural health network is the “tyranny of the consensus,” where individual members feel entitled to veto proposed activities. The collegial spirit among the Consortium members allows for ambitious projects to be undertaken with the expectation that all members will contribute their time and resources to ensure that network activities are successful.

- **Partnerships.** The Consortium serves as a consistent and reliable statewide convener for the Hospital and Healthsystem Association of Pennsylvania, the Pennsylvania Department of Health, fiscal intermediaries, CMS representatives, Penn State University, and Quality Insights.

- **Hospital Site Visits/Technical Assistance.** With the investment of resources toward building a strong, data-driven infrastructure, the Consortium now is in a position to use consultants to support hospital-specific strategic planning and performance improvement initiatives. Efforts to improve programs of service and clinical care at the hospital level are measured and shared at the network level through the alignment of the Balanced Scorecard model and RPM website.

- **Leverage funding opportunities.** For each Consortium hospital, a portion of SHIP grant dollars are used to fund the RPM technology, while a portion of the Flex grant is used to support individual hospital consultations as well as network curriculum development. Both federal programs emphasize Quality and Performance Improvement; by combining these grant programs, Pennsylvania small rural hospitals are able to maximize the value from available federal funds. Member hospitals have also leveraged Federal Office of Rural Health Policy network development funding to support improved use of healthcare information technology.

**Summary.** According to the Flex Program Evaluation Report, an annual review of the state grantees’ support for Critical Access Hospitals conducted by the Federal Office of Rural Health Policy, “The [Consortium]
moves beyond the rhetoric of leveraging resources, building quality, and increasing financial stability to putting action and results to concepts and words.” Despite this progress, there is consensus that the Consortium has reached a pivotal stage. Commitments and expectations are clarified, Infrastructure is developed and tested, Performance measurement systems are implemented, and Network partners are invested in the network’s long-range goals. The future success of the Consortium will rest with its ability to quantitatively demonstrate value through:

- Improved financial stability;
- Better clinical outcomes;
- Enhanced business processes;
- Targeted professional development;
- Improved community perception; and
- Access to appropriate clinical services.

In Pennsylvania, the Critical Access Hospitals have a forum for sharing ideas and a platform for tracking performance in these areas.

There are several explicit and discrete focus areas represented in the new Flex guidance, including the development of rural health networks and improving quality of care. Perhaps more important, we feel there is a common thread running throughout the guidance that parallels key national health care trends: the ability to demonstrate value. Specifically, the Flex program has fueled the creation of well over a thousand Critical Access Hospitals during its first five years but now faces the challenge of demonstrating how these newly designated facilities will strengthen the rural health safety net. Consistent with the need to demonstrate value as a policy imperative, the push toward pay-for-performance, public reporting of clinical outcomes and consumer-driven healthcare are still only at a nascent stage but will become more strategically relevant to rural providers in the near future.

The Balanced Scorecard is a framework that encompasses each of these areas and provides for a simple yet effective measurement system to help hospitals think more “strategically” rather than manage from crisis to crisis.

References


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