



**Cooperative Opportunities  
for  
Balanced Scorecard Driven Strategic Planning  
and the  
Potential Relevance to Population Health Initiatives**

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## **Executive Summary**

The Rural Wisconsin Health Cooperative (RWHC) (with financial support from the Robert Wood Johnson Health and Society Scholars Program at the University of Wisconsin) contracted with Stroudwater Associates to explore with them the opportunities for RWHC, both the cooperative as a whole and as individual members, to further the use of Balanced Scorecard (BSC) driven strategic planning as well as its potential relevance to population health initiatives. The project was organized around an examination of four questions.

### **The Initial Questions**

1. How can RWHC most effectively evolve/bundle its current performance measurement data sets to be more useful to rural hospitals using Balanced Scorecards as part of their strategic planning process? (This is question has been slightly reworded from the original to better reflect the original intent.)
2. How can rural networks like RWHC most effectively promote individual members linking of these performance measurement sets to their ongoing strategic planning processes?
3. What population based measures are available which can most readily, appropriately be added to the Balance Scorecards for rural hospitals?
4. What arguments for the inclusion of population-based measures are most relevant or effective with the administration and boards of directors of rural hospitals/networks?

This Report is the result of a review of RWHC data and programs by Stroudwater Associates consultants, a 2-day information gathering meeting with RWHC staff, representative Cooperative hospital CEOs and representatives of the Wisconsin Flex Grant BSC Initiative. In addition, the same group was reconvened to respond to an initial draft of this Report.

### **General Findings**

The project demonstrates that great opportunities exist for RWHC to help lead the nation in rural hospital performance improvement and population health consideration. Yet, the current state-of-affairs is challenging.

1. Re Question #1: Focus group participants expressed an interest in using the existing RWHC data reporting capabilities to support individual Balanced Scorecard efforts but did not believe that RWHC needed to reconfigure its current data collection and benchmarking services to be prescriptively consistent with any Balanced Scorecard models
2. Re Question #2: There is widespread interest among RWHC focus group hospital representatives in pursuing the development of a Strategic Planning Roundtable Group, consistent

with the collaborative but autonomous spirit of other RWHC roundtables to support member strategic planning processes, including in some but not all organizations, use of Balanced Scorecards

3. Re Question #3: Traditional population-based health measures (e.g., preventive health care utilization, personal risk behaviors, socioeconomic factors, environmental factors) are currently less suitable as Balanced Scorecard measures because they do not represent focus group hospitals' "core" services. However, proxies for population health deserve further consideration. In particular hospital data specific to "ambulatory care sensitive conditions may be an appropriate bridge between the hospital and population based interventions.
4. Re Question #4: Because purchasers currently do not reimburse hospitals for population health improvement, and (consequently) population health improvement is not a "core" hospital service, population-based measures are less relevant to hospital administration and Boards at this time.

### **Potential Next Steps**

The project's conclusion must not be paralysis. RWHC's record of thoughtful, proactive leadership is well-known. The Report details specific RWHC opportunities under each of the four questions that can be summarized as follows:

1. Assessing Cooperative hospital performance measurement needs and packaging applicable measures into a format that highlights management cause/effect and informs strategy.
2. Tailoring data collection and reporting functionality to facilitate the use of performance data throughout different levels of the hospital Performance Improvement programs.
3. Serving as a catalyst and facilitator for Cooperative hospitals to enhance strategic planning efficacy and applicability.
4. Advocating for improved population health measurement techniques and increased population health improvement valuation.
5. Assisting Cooperative hospitals (and external stakeholders) to begin to link the mission of community health improvement to budget, operations, and performance measurement
6. Partnering with University of Wisconsin (or other academic institutions) to design research projects that test hypotheses related to hospital performance improvement and population health measurement.

## Introduction

### Project Summary

This project evaluates the level of knowledge and commitment among representative Rural Wisconsin Health Cooperative (RWHC) hospitals regarding two different, but related topics – 1) the Balanced Scorecard as a new performance measurement and strategy instrument, and 2) population health measurement and its applicability to hospital activity and strategic planning.

The Rural Wisconsin Health Cooperative (RWHC) (with financial support from the Robert Wood Johnson Health and Society Scholars Program at the University of Wisconsin) contracted with Stroudwater Associates to explore with them the opportunities for RWHC, both the cooperative as a whole and as individual members, to further the use of Balanced Scorecard (BSC) driven strategic planning as well as its potential relevance to population health initiatives. The project was organized around an examination of four questions.

1. How can RWHC most effectively evolve/bundle its current performance measurement data sets to mirror those available through the current Balanced Scorecard approach?
2. How can rural networks like RWHC most effectively promote individual members linking of these performance measurement sets to their ongoing strategic planning processes?
3. What population based measures are available which can most readily, appropriately be added to the Balance Scorecards for rural hospitals?
4. What arguments for the inclusion of population-based measures are most relevant or effective with the administration and boards of directors of rural hospitals/networks?

The anticipated outcomes include:

1. Restructuring of RWHC's current performance measurement systems to better enable their use in strategic planning by those facilities adapting a Balanced Scorecard methodology.
2. Findings distributed nationally via the *Eye On Health* newsletter
3. Presentation at RWJ Health & Society Scholars Seminar in Fall 2004
4. Submission of an article to the peer reviewed *Journal of Rural Health*
5. Preparation of a grant proposal to further pursue those questions that arise during the pilot

### What Are Balanced Scorecards?

The Balanced Scorecard is a practical performance improvement tool that assists hospitals, health systems, and physician practices to put strategy at the center of the organization by translating strategy into operational objectives. Because nearly 90% of business strategies fail due to ineffective execution, the overarching goal of the Balanced Scorecard is to link strategy with action, and to identify cause/effect relationships among strategic objectives.

Customized for healthcare, the Balanced Scorecard methodology addresses the unique characteristics and challenges of the industry. For example, strategic objectives are organized into four healthcare related quadrants: Hospital-wide Quality & Safety, Staff & Clinicians, Patients & Community, and Business & Development.

Health care organizations interested in developing Balanced Scorecards will achieve the following major objectives:

1. Validate and refine Mission and Vision statements
2. Establish strategic objectives that are organized into Balanced Scorecard quadrants
3. Develop Strategy Maps that link strategic objectives using cause and effect relationships
4. Review, validate, and prioritize current or proposed initiatives
5. Develop data analysis models to support core performance measures
6. Support hospital-wide implementation of the Balanced Scorecard tool

While there is a tendency to focus attention on performance metrics, the Balanced Scorecard creates maximum value when performance measurement is linked to hospital-specific strategy. Simply, there is little value in measuring bad performance. Therefore, Balanced Scorecard development focuses on establishing the appropriate strategy for each organization, developing a clearly articulated plan, and then linking strategy with specific measurement tools that drive performance improvement.

### **The Relevance of Population Health to Hospitals**

The project begins to explore incorporating population health improvement and measurement into a hospital's strategic plan and operations. Traditionally, hospitals regularly include community health improvement in organizational Mission. Tax laws mandate that non-profit status requires some contribution to the community that does not generate profit. Thus, hospitals often engage in some form of community health education or clinical outreach, but typically do not measure the effect these activities may or may not have on community health.

In addition to non-profit organization tax mandates, healthcare purchasers increasingly realize that population health improvement may make good business sense. The escalating cost of illness treatment and the associated cost of lost employee productivity suggest a new focus on the pre-illness contributors to poor health and consequent expensive healthcare treatments. For example, investments in diabetic case management may be more cost-effective than paying for foot amputations. More preventive yet, obesity reduction may prevent diabetes altogether. Thus, healthcare purchasers will increasingly expect hospitals and other healthcare providers address the population health issues that precede and directly impact the cost of healthcare. The government will also increasingly demand consideration of population health improvement in its

role as steward of tax-payer resources and guardian of citizen welfare.

Healthcare costs are not driven simply by population health status or population illness burden. The Health Care Workgroup of the Wisconsin Economic Summit IV note the “lack of any system-wide coordinative strategies to keep patterns of care or population health in check.”

“John Torinus, CEO, Serigraph, Inc. (active Wisconsin Manufacturing & Commerce Association board member and occasional *Milwaukee Journal Sentinel* columnist), suggested that ‘Wisconsin should be a pioneer in addressing rising health care costs.’ He referenced the fact that the Economic Summit conference panel was representative of a larger group of providers, purchasers, consumers and other interested parties who had met over the summer months in an effort to understand the causes of rising health care costs and then identify consensus-based solutions. Importantly, much of the focus of WHA’s current policy agenda were mentioned time and time again as being key drivers of health care costs. Those key areas: the workforce, cost shifting from public program underpayment, **population health issues** and the misalignment of incentives, were identified by the larger stakeholder group as key factors behind rising health care costs.” (from The Wisconsin Hospital Association’s *Valued Voice*, 10/31/03)

Similarly, the Wisconsin “Turning Point Initiative” makes the same call for multi-sector partnerships as the only significant means to improve the health of the state’s residents: “The 21st Century is a time of great changes in prevention, health care, scientific knowledge, and technology. It is a time during which we know much about what protects health and prevents disease, injury, premature death, and disability. It is a time when we know much about social and economic influences on health, including labor market forces, and recognizes that maintaining a healthy workforce makes good business sense. It is also a time when we know much about the threats to health, the causes of injury, premature death, and disability, as well as recognizing that serious problems from the previous century still exist. To protect health calls us to focus on the public health system as a whole. This requires sustainable partnerships between the people, their government, and the public, private, nonprofit, and voluntary sectors throughout Wisconsin. Achieving a transformation of the state public health system requires the development of a meaningful, integrated implementation plan, one that addresses multiple partners involved in the public health system.” (*Healthiest Wisconsin 2010 Healthiest Wisconsin 2010, Part I: A Partnership Plan to Improve the Health of the Public* 11/19/01) **GOOD**

Thus, hospital consideration of community and population health serves several masters – 1) hospital missions lead to community health, 2) non-profit tax laws demand community contribution, 3) purchasers increasingly see return on prevention investments, and 4) government oversight will promote health for all people. As the sticks and carrots wielded by the government and the market become aligned, hospitals should seize the opportunity to direct community health agendas. If not, other individuals and agencies will usurp the community leadership role and hospitals will fade in significance.

The project is also informed by the writings and consultations of Dr. David Kindig, Professor Emeritus at the University of Wisconsin. Dr. Kindig is an internationally recognized expert on

population health. He is the author of the book *Purchasing Population Health* and several journal articles examining population health. Furthermore, Dr. Kindig is a lead researcher for *Wisconsin County Health Rankings 2003*, a comprehensive, county-specific evaluation of population health and improvement. Dr. Kindig serves as the Robert Wood Johnson and Society Scholars Program liaison to the project.

## **Project Methods**

The project includes pre-meeting planning and preparation, an initial two-day fact-finding meeting, report preparation and presentation, and follow-up meeting.

Prior to the initial meeting, RWHC staff prepared, and Stroudwater Associates reviewed, detailed information regarding RWHC's hospital performance measures and system. Several conference calls between RWHC and Stroudwater Associates were also held in preparation for the meeting.

At the first meeting, Stroudwater Associates consultants met with RWHC staff the first day and CEOs from representative RWHC hospitals joined the group on the second day. Meeting participants included:

- Larry Schroeder (Sauk)
- Kristi Hund for Terry Brenny (Stoughton)
- Roger Sneath (Columbus)
- Stan Gaynor (Black River Falls)
- Laura Jelle (Baraboo)
- Steve Nockert (Richland Center)
- David Kindig (University of Wisconsin Medical School)
- Barb Duerst (Wisconsin SORH)
- Bob Parish (Wipfli)
- Tim Size (RWHC)
- Bonnie Laffey (RWHC)
- Larry Clifford (RWHC)
- Rich Donkle (RWHC)
- Clint MacKinney (Stroudwater Associates)
- Greg Wolf (Stroudwater Associates)

Pre-meeting materials included a detailed meeting agenda with specific discussion questions, the original project proposal, consultant biographies, a summary of HHS' first quality report, a journal article describing trends in avoidable hospitalizations, RWHC current performance measures, a Balanced Scorecard overview, and a journal article defining population health.

Dr. MacKinney will present the report and facilitate a "next steps" discussion at a follow-up meeting.



## RWHC Measurement Sets

### Current Status

The Rural Wisconsin Health Cooperative offers a menu of over 150 performance measures. Hospitals may choose the measures they wish to report. RWHC then collates measurement data and reports back to the hospital. *Please see Appendix for a complete list of measures offered by RWHC.* RWHC groups the measures in five categories:

- Quality Indicators Program
- Health Data Check (Pioneer)
- Brim Productivity Model
- Financial Ratio Benchmarking Program
- Patient Satisfaction Survey Program

Approximately 100 hospitals nationally participate in RWHC's Quality Indicators Program. JCAHO has approved the Quality Indicators Program as an acceptable quality reporting system. Thus, RWHC reports JCAHO core and non-core measures. For non-JCAHO hospitals, RWHC collects and reports CMS quality measures. A separate set of measures is offered for CAHs. RWHC provides quarterly reports to participating hospitals that include tabular reports and control charts for each measure. Staff reports that the Quality Indicators Program is inexpensive and dependable. It is reportedly easy to use (hand written data reporting forms from each hospital are scanned into a database), yet data completeness checks are time-consuming. RWHC facilitates national teleconferences and Roundtables (local meetings for information sharing and creative problem-solving). Furthermore, the participation fee includes two hours of telephone discussion, review of JCAHO Pre-Survey Reports, and conference calls to educate participating hospitals regarding the Core Measure/ORYX initiative. RWHC staff actively solicits hospital feedback and hospitals know they have a voice in change. Importantly, RWHC staff is known to be "patient and nice."

Health Data Check is a proprietary program available through Pioneer. RWHC coordinates this service for Cooperative hospitals. The program includes approximately 55 financial and operational benchmarks. The online aspect of the program allows hospitals to run a variety of reports and choose national comparisons that allow appropriate benchmarking. The program is reportedly flexible, easy to use, and costs approximately \$600 per year per hospital. However, only 5-6 Cooperative hospitals are currently using this program. Pioneer is willing to customize reports and has expressed interest in the project described herein, presumably considering developing a more comprehensive, or more balanced, reporting system.

The Brim Productivity Model offers multiple hospital productivity measures and targets. Brim provides data collection tools. Then RWHC compiles the data and compares to a Brim data set (Brim uses a denominator of approximately 30 rural hospitals nationwide). Data reports are at

least three months old at time of reporting. Other than hospitals currently managed by Brim, few other Cooperative hospitals are using the Brim Productivity Model. The Brim productivity “targets” are reportedly controversial.

The Financial Ratios Benchmarking Program is an internal RWHC program. Each year, Mr. Rich Donkle (RWHC staff) reviews actual hospital financial statements (e.g., income statements and balance sheets) to develop financial ratios. The ratios are both trended (yearly since 1993) and averaged for hospital comparison to Cooperative averages. The primary audience is hospital CFOs. These data inform budgeting and resource allocation processes.

The Patient Satisfaction Program was developed from grant funding. RWHC successfully tested the program as a pilot, but the program has not been embraced by Cooperative hospitals. Only one hospital uses the Patient Satisfaction program at this time. Some hospitals use homegrown surveys, while others use Press-Gainey. Staff does not know why the program is not more widely utilized.

## **Challenges**

RWHC offers Cooperative and other hospitals a broad array of clinical, financial, productivity, and patient satisfaction measures. Despite an extensive indicator menu, hospitals are not utilizing the program as comprehensively as expected. Thus, the full potential of the RWHC Performance Measurement Program is not yet realized. Pre-meeting material review and interviews with RWHC staff and representative hospital CEOs identified several challenges:

- As identified by Mr. Size, the measures are not “packaged” in a fashion that lends itself to quick review and rapid translation to management action.
- The five measure categories exist in relative “silos.” Thus, the cause and effects of action within each category are incompletely understood.
- RWHC staff believes that the Quality Indicators Program is the most utilized because JCAHO (or CMS) mandates quality reporting. Several CEOs noted that resources for data collection were scarce and one CEO reported that five pages of data for each measure (resulting in a large stack of paper) were meaningless to him.
- Although a comprehensive menu of measures appears desirable at first, “too many” choices may overwhelm those hospitals without a process for choosing measures appropriate for their own situation.
- Participants noted a significant tension surrounding benchmarks. Benchmarks suffer from the potential of inappropriate comparisons. The Brim targets were particularly problematic for many CEOs and their hospitals. The targets apparently did not represent best practice and did not consider special circumstances of rural hospitals (e.g., the need for stand-by staff). Furthermore, the targets caused such disruption at the department level that CEOs were using the targets at a senior administration level only, or not at all.

- RWHC staff speculated that some hospitals did not seek performance measurement data because receiving data would require the hospitals to “act on the data.”
- RWHC staff noted that some hospitals use Quality Indicator to identify “outliers” in a punitive fashion.

## **Opportunities**

The project seeks answers to four specific questions. Two questions address measurement and strategy issues. Based on information review and RWHC staff and representative Cooperative hospitals CEO interviews, specific answers to the questions, bulleted explanations, and RWHC opportunities are detailed below.

### **QUESTION 1**

***How can RWHC most effectively evolve/bundle its current performance measurement data sets to mirror those available through the current Balanced Scorecard approach?***

### **ANSWER 1**

***There does not appear to be a clear mandate for RWHC to reconfigure its current data collection and benchmarking services to be prescriptively consistent with the Balanced Scorecard model. However:***

1. Several RWHC focus group hospitals have initiated the process of developing Balanced Scorecards for their organizations.
2. These hospitals have linked subsets of RWHC data to their customized Balanced Scorecards.
3. There is interest in using RWHC as a key resource in budgeting, performance monitoring, and target setting.
4. Effective strategies for using the data to support Performance Improvement have been developed at some focus group hospitals.

### **OPPORTUNITIES**

1. Create a one-time survey that investigates and ranks the usefulness of the different data sources currently available (e.g., Pioneer Health Network, Brim Productivity model, patient satisfaction surveys, etc.).
2. After survey completion, investigate feasibility of measurement menu consolidation and bringing entire data management processes in-house.
3. Provide web-based data entry interface for the extraction of CMS core measure data to streamline the data collection and submission process

4. Leverage successful aggregation of annual Medicare Cost Report data to develop more comprehensive financial analysis and comparison functionality to support both benchmarking and finance related RWHC roundtables.
5. Develop education process that assists Cooperative hospitals select appropriate measures.
6. Pursue a data sharing relationship with other third-party satisfaction survey vendors in the event that the RWHC survey instrument does not generate adequate participation.
7. Alternately, consider redesign of patient satisfaction survey with fewer questions and completion at time of service or by follow-up telephone contact (the day after service).
8. Investigate development of a hospital employee and medical staff satisfaction survey to fill a critical gap of the Balanced Scorecard framework (Learning and Growth quadrant).
9. Request that the Brim Productivity measures exclude department specific targets.
10. Deemphasize use of targets except as a senior administration tool to allocate resources, to check progress, or to identify stretch goals. Instead, emphasize performance improvement as the strategic imperative.
11. RWHC has a unique opportunity as a data aggregator and a convener of best practice Roundtables to advance an agenda that encourages the consolidation of financial, clinical, and operational data into an integrated whole. This approach is consistent with the Balanced Scorecard methodology as well as the standards/requirements/recommendations of other external organizations including:
  - a. CMS Conditions of Participation
  - b. Malcolm Baldrige criteria
  - c. JCAHO standards
  - d. Institute of Medicine Six Aims
  - e. Institute for Healthcare Improvement
  - f. Roundhouse Group
  - g. Federal Office of Rural Health Policy
12. Despite the lack of an immediate call for systematically converting the current RWHC data sets and processes to a prescriptive model such as the Balanced Scorecard, participating CEOs indicated an interest in integrating different dimensions of hospital performance (clinical, financial, operational), using a variety of approaches and models.
13. Given the emerging theme of Performance Improvement as a consolidating force and the current, albeit disparate, energy of RWHC hospitals around evolving quality programs to incorporate more non-clinical data, RWHC leadership has an opportunity to use its existing technology and human capital infrastructure to increase the velocity with which hospitals evolve toward a more integrated strategic and performance improvement mindset.

14. The specific modifications and enhancements available to RWHC staff and management are outside the scope of this project and are proprietary in nature. Service, business, and quality implications are essential considerations in pursuing an expansion or restructuring of functionality and programs of service. However, three key takeaways from the CEO panel provide useful guideposts:
- a. A highly prescriptive model of structuring data collection and reporting around the Balanced Scorecard currently does not fit the specific needs of the RWHC hospitals, and violates the “cooperative” spirit of the organization;
  - b. Efforts are underway at RWHC hospitals to think more holistically about Performance Improvement and strategic planning and RWHC may play an important role in supporting this evolutionary process;
  - c. Specific refinements to the existing data sets (e.g. Brim productivity model) and the aggregation of alternative data sources (e.g. Press Ganey) may present an opportunity to provide immediate value for RWHC hospitals.

## QUESTION 2

***How can rural networks like RWHC most effectively promote individual members linking of these performance measurement sets to their ongoing strategic planning processes?***

## ANSWER 2

***There is interest among RWHC focus group hospital representatives in pursuing the development of a Strategic Planning Roundtable Group. However:***

1. The concept of the Balanced Scorecard may not be fully understood by all RWHC hospitals.
2. Focus group hospitals recognize the need to link measurement to strategy, and are taking proactive steps to identify ways of doing this effectively.
3. Hospital boards have the potential to play a central role in linking strategy to measurement but may need additional education and training to build awareness.

## OPPORTUNITIES

1. Design a demonstration project at a “ready” hospital to showcase a set of strategic planning/Balanced Scorecard best practices.
2. Develop a RWHC Balanced Scorecard as a prototype process and set of standards for Cooperative hospitals. Lead by example.
3. Request that representatives from Baraboo Hospital present their approach to the Balanced Scorecard to build awareness and clarity around a nationally recognized success story.

4. Investigate opportunities to work more closely with hospital boards and medical staff to link strategy to measurement.
5. Develop a Strategic Planning Roundtable for CEOs.
6. Following this project, investigate RWHC's potential role to facilitate Cooperative hospital strategic management processes (including Balanced Scorecard implementation).

## Balance Score Cards & Population Health

Population health refers to the overall health and function of a “population” (a defined group or community), not simply an individual. Population health improvement strategies equally consider those who interact, and those that do not interact, with the healthcare system. The concept incorporates multiple determinants of health (e.g., genetic endowment, physical environment, and social environment) and multiple cause/effect relationships that are much more inclusive than the traditional medical model simply described as “health care treats disease” (*Figure 1*).

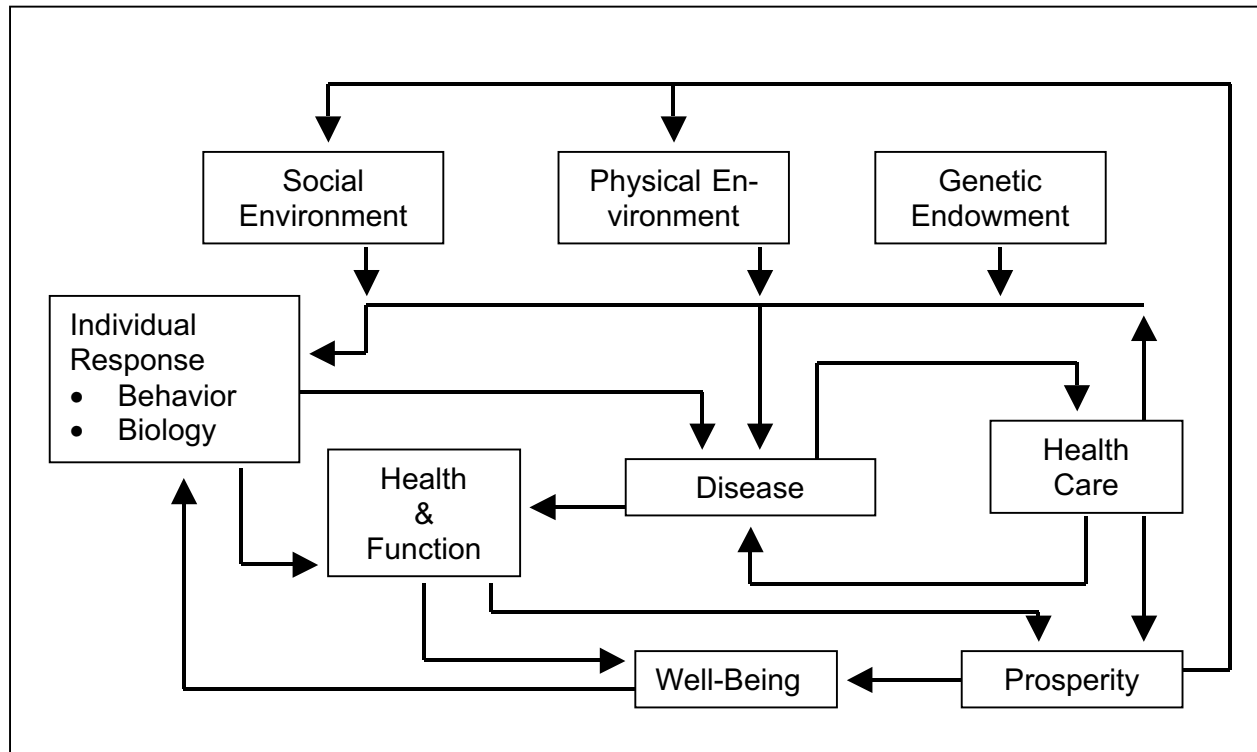


Figure 1. **Multiple determinants of health model.** (Reprinted from Evans, Robert G., et al [eds.] *Why Are Some People Healthy and Others Not? The Determinants of Health of Populations* [New York: Aldine de Gruyter] Copyright © 1994, Walter de Gruyter inc., New York.)

Three factors challenge the incorporation of population health measurement and improvement in hospital strategic planning and action: sphere of influence, paying for performance, and measurement. Each factor is explored below.

## Spheres of Influence

It is inappropriate to hold an organization and its leadership accountable for activity outside of its sphere of influence. As one hospital CEO remarked, “It (population health) is no one’s responsibility; therefore, it is not my responsibility.” Dr. Kindig suggested this is a “recipe for disaster.” Another hospital CEO noted that population health improvement does not fall under a “core” set of hospital services. These observations are neither unexpected nor inappropriate. As outlined in *Figure 1*, multiple determinants and a complex set of interrelationships shape the health of a community. Public Health Department, physician complement, city government, hospital, law enforcement, education system, and many others impact community health. However, in many communities, the hospital represents the community’s health “home.” Hospital leadership (including Board) and local physicians often represent a community’s best source of leadership. Therefore, due to its leadership and capital resources, and its publicly recognized status as a community health principal, the hospital may be in the best position to facilitate activities that begin community health improvement.

Dr. Kindig proposed the concept of a community “Health Outcomes Trust,” an organization or consortium whose charge is to coordinate community health improvement activities. A foundation in Menominee, Wisconsin is fulfilling this role, but other models are easily conceivable. Prerequisites for success will be adequate funding (since current healthcare services reimbursement systems do not recognize population health improvement activity – see below) and broad-based community stakeholder involvement.

## Paying for Performance

The traditional fee-for-service healthcare payment model (pre-paid models are an exception and prospective payment systems are a modification) reimburses providers based on interventional services provided to individuals. Even preventive care services are reimbursed at the individual level. Thus, there is no direct payment for services designed to improve the health of the population. In fact, community health improvement projects, as any other service, consume resources. However, healthcare purchasers increasingly recognize the importance of improving population health. Population health concerns, such as obesity and smoking, eventually lead to healthcare service needs that are increasingly expensive. Thus, purchasers are beginning to realize that investments in population health improvement now may decrease the need for interventional services later. The first evidence of this change is *paying for performance* strategies – direct payment for measurable healthcare quality and/or public reporting of healthcare quality. Wisconsin is a national leader in public quality reporting and the Wisconsin Hospital Association is developing programs to assist hospitals prepare for this eventuality. Furthermore, in a RWHC survey of Cooperative hospitals, the following outcomes were deemed most appropriate for public reporting:

1. Community acquired pneumonia – time to first antibiotic



2. Eliminate dangerous abbreviations
3. Acute myocardial infarction – aspirin on arrival
4. Site marked prior to incision with the involvement of the patient
5. Final verification process for right person, right procedure, and right site

Many hospitals carry a non-profit status under Internal Revenue Service regulations. Although not a direct reimbursement, freedom from organizational income taxation is of real financial benefit to non-profit hospitals. To maintain a non-profit status, hospitals must demonstrate to the Internal Revenue Service that their services accrue benefit to the community. Charity care and community-based services often fulfill this commitment. However, regulators are increasingly reviewing the “value” of community services provided. A more objective measure of community benefit, or population health improvement, is required.

### **Potential Hospital Based Population Health Measurement**

Current clinical quality measures tend to measure discreet disease-specific and/or episode-specific events. Furthermore, hospital performance measures inform timely (e.g., quarterly) decision-making. Conversely, population health measures require different data and analyses. For example, population health measures:

- require longitudinal data
- involve low rural volumes
- utilize fewer discrete data points
- may not be conducive to short-term organizational performance improvement efforts

Thus, a different measurement perspective is required. Population health is measurable, but not in the same way as, for example, hospital financial performance. Two techniques are required. First, extend the time-frame for measurable change. Population health measures change slowly and thus should inform long-term strategic planning, not day-to-day tactical planning. Through evaluation of population health status, hospitals can better allocate resources to areas of greatest need. Second, use of population health proxies may demonstrate change long before actual population health changes. Proxy examples can be as specific as tobacco use rates to as general as level of community engagement in population health improvement projects.

Another set of population health proxies in development is the Agency for Healthcare Research and Quality’s (AHRQ) Prevention Quality Indicators (QIs). A description of the program from the AHRQ web page (<http://www.qualityindicators.ahrq.gov/data/hcup/prevqi.htm>) is detailed below.

The Prevention Quality Indicators are a set of measures that can be used with hospital inpatient discharge data to identify "ambulatory care sensitive conditions." These are conditions for which good outpatient care can potentially prevent the need for hospitalization or for which early intervention can prevent complications or more severe disease.

Even though these indicators are based on hospital inpatient data, they provide insight into the quality of the health care system outside the hospital setting. Patients with diabetes may be hospitalized for diabetic complications if their conditions are not adequately monitored or if they do not receive the patient education needed for appropriate self-management.

Patients may be hospitalized for asthma if primary care providers fail to adhere to practice guidelines or to prescribe appropriate treatments. Patients with appendicitis who do not have ready access to surgical evaluation may experience delays in receiving needed care, which can result in a life-threatening condition – perforated appendicitis.

The Prevention QIs consist of the following 16 ambulatory care sensitive conditions that are measured as rates of admission to the hospital:

- Bacterial pneumonia
- Dehydration
- Pediatric gastroenteritis
- Urinary tract infection
- Perforated appendix
- Low birth weight
- Angina without procedure
- Congestive heart failure
- Hypertension
- Adult asthma
- Pediatric asthma
- Chronic obstructive pulmonary disease
- Diabetes short-term complication
- Diabetes long-term complication
- Uncontrolled diabetes
- Lower-extremity amputation among patients with diabetes

Although other factors outside the direct control of the health care system, such as poor environmental conditions or lack of patient adherence to treatment recommendations, can result in hospitalization, the Prevention QIs provide a good starting point for assessing quality of health services in the community. Because the Prevention QIs are calculated using readily available hospital administrative data, they are an easy-to-use and inexpensive screening tool. They can be used to provide a window into the community – to identify unmet community health care needs, to monitor how well complications from a number of common conditions are being avoided in the outpatient setting, and to compare performance of local health care systems across communities.

MetaStar (Wisconsin's Quality Improvement Organization) is reportedly analyzing AHRQ Prevention QIs and parsing results by Wisconsin hospital. Results are not yet available. Future study may suggest AHRQ Prevention QIs as a starting point for population health measurement pertinent to hospital performance management.

## **RWHC Population Health Opportunities**

As noted in the Measurement and Strategy section, the project seeks answers to four specific questions. The final two questions consider population health and its incorporation into hospital performance measurement systems and strategic planning. Based on information review, RWHC staff interviews, and representative Cooperative hospitals CEO interviews – specific answers to the questions, bulleted explanations, and RWHC opportunities are detailed below.

### QUESTION 3

***What population based measures are available which can most readily, appropriately be added to the Balance Scorecards for rural hospitals?***

### ANSWER 3

***Traditional population-based health measures (e.g., preventive health care utilization, personal risk behaviors, socioeconomic factors, environmental factors) are currently less suitable as Balanced Scorecard measures because they do not represent focus group hospitals’ “core” services. However:***

1. Most focus group hospitals participate in community education or similar programs likely to lead to improved population health.
2. Most focus group hospitals are likely to incorporate some commitment to population (community) health in Mission/Vision statements.
3. One RWHC hospital (Baraboo) in conjunction with parent entity (SSM Health Care) participates in community health improvement projects as part of their strategic initiatives.
4. Processes and/or proxies for population health improvement are appropriate, and much more feasible, than population health outcomes (e.g., health status and mortality).
5. AHRQ's Prevention Quality Indicators may represent an easily obtainable and relatively granular set of community health proxies.
6. Similar, although less granular, the findings of *Wisconsin County Health Rankings 2003* provide guidance for community health focus.

### OPPORTUNITIES

1. Survey and catalog for distribution current RWHC hospital activity in community education, health promotion, and preventive health services (primary prevention and disease management), including those services likely to increase hospital fee-for-service utilization and consequent hospital profit.
2. Disseminate examples of community health program measures and processes currently used by Baraboo and SSM Health Care (please see Appendix).
3. Work in concert with the Wisconsin Hospital Association to prepare RWHC hospitals for the eventuality of public quality reporting and the probable inclusion of population health improvement activity.

4. Then, facilitate CEO group discussion regarding the business demand for population health improvement inclusion in “core” hospital services.
5. After CEO acceptance of hospitals’ partial accountability to population health, begin gradual incorporation into strategic planning processes (e.g., Balanced Scorecard).
6. Evaluate MetaStar AHRQ Preventive QIs data and disseminate to Cooperative hospitals with explanation.
7. Assist Cooperative hospitals evaluate AHRQ Preventive Quality Indicators data and *Wisconsin County Health Rankings 2003* data. Based on those data, design projects/processes to improve community health.
8. Assist Cooperative hospitals measure and report community health status every 1-2 years to inform strategic planning rather than short-term tactics.
9. Encourage use of qualitative and/or proxy measures of population health, e.g., staff/community assessment of hospital commitment to population health, percent of budget directed to population health improvement, engagement with community health programs.

#### QUESTION 4

***What arguments for the inclusion of population-based measures are most relevant or effective with the administration and boards of directors of rural hospitals/networks?***

#### ANSWER 4

***Because purchasers currently do not reimburse hospitals for population health improvement, and (consequently) population health improvement is not a “core” hospital service, population-based measures are less relevant to hospital administration and Boards at this time. However:***

1. Payment for performance (including public reporting) innovations will become more prevalent and influential.
2. Purchasers (primarily employers and government) will increasingly demand at least partial healthcare provider accountability for population health (accountability shared with other sectors).
3. Many hospitals currently commit to community health in Mission/Vision statements.
4. Fiduciary responsibility for community health may be increasingly required to justify non-profit hospital status.
5. Hospital administration, board, and medical staff represent a locus for population health improvement leadership.
6. Hospital Foundations may be an appropriate coordinator and catalyst for a “Health Outcomes Trust.”

#### OPPORTUNITIES

1. Provide Cooperative hospitals regular updates regarding paying for performance plans developing in Wisconsin and nationally.
2. Develop a Strategic Planning Roundtable for CEOs and/or CEO designees (as Question 2).
3. Develop a strategic planning education program that incorporates population health improvement education and strategic action alternatives.
4. Consider leadership training appropriate for hospital administration, board, and medical staff that explores community leader responsibility for population health.
5. Partner with University of Wisconsin to design and complete research projects
  - a. Catalog national models for local “Health Outcomes Trusts.”
  - b. Community demonstration project of “Health Outcomes Trust.”
  - c. Study correlation between participation in population health improvement projects and hospital performance.

## Potential Next Steps

The project demonstrates that great opportunities exist for RWHC to help lead the nation in rural hospital performance improvement and population health consideration. Yet, the current state-of-affairs is challenging.

The RWHC Performance Measurement System provides Cooperative hospitals an extensive menu of over 150 financial, operational, and patient satisfaction measures. However, tension exists between offering a non-prescriptive measurement menu and delivering an easily implemented and actionable performance measure program. Choice can be paralyzing.

The Balanced Scorecard is a relatively new concept linking performance measurement to strategic action. Although hospital CEOs recognize its potential, the change required to implement and develop a Balanced Scorecard program is significant and gives even the most forward-thinking CEO pause. Inertia can be paralyzing.

Population health is a concept that most every hospital incorporates in its Mission. Yet, healthcare purchasers do not recognize its value and its measurement suffers from challenging statistical obstacles. Thus, population health rarely rises to the level of hospital core services. “It’s no one’s responsibility; therefore, it’s not my responsibility.” Ambiguity can be paralyzing.

The project’s conclusion must not be paralysis. RWHC’s record of thoughtful, proactive leadership is well-known. The project detailed specific RWHC opportunities in six areas:

1. Assessing Cooperative hospital performance measurement needs and packaging applicable measures into a format that highlights management cause/effect and informs strategic action.
2. Tailoring data collection and reporting functionality to facilitate the use of performance data throughout different levels of the hospital Performance Improvement programs.
3. Serving as a catalyst and facilitator for Cooperative hospitals to enhance strategic planning efficacy and applicability.
4. Advocating for improved population health measurement techniques and increased population health improvement valuation.
5. Assisting Cooperative hospitals, and external stakeholders, begin to link the Mission of community health improvement to budget, operations, and performance measurement.
6. Partnering with University of Wisconsin (or other academic institutions) to design research projects that test hypotheses related to hospital performance improvement and population health measurement.

## **APPENDIX**

### **Rural Wisconsin Health Cooperative**

The Rural Wisconsin Health Cooperative is a cooperative of 28 rural Wisconsin hospitals clustered primarily in Southwest Wisconsin, but extending east to Sturgeon Bay and north to Medford. Affiliate members of the Cooperative include three large Madison-area hospitals and the Wisconsin Health & Hospital Association.

The RWHC intends to be a catalyst for regional collaboration, an aggressive and creative force on behalf of rural communities and rural health. The RWHC promotes the preservation, and furthers the development, of a coordinated system of rural health care that provides both quality and efficient care in settings that best meet the needs of rural residents in a manner consistent with their community values. Incorporated in 1979, RWHC has received national recognition as one of the country's earliest and most successful models for networking among rural hospitals.

RWHC staff delivers multiple services that make RWHC a great value to Cooperative hospitals. Similar services would be much more expensive from an outside provider. The Cooperative performs vendor choice due diligence, physician credentialing, and provides an emergency department staffing service. Regulatory assistance includes Medicare cost report preparation, JCAHO ORYX measures reporting, and CMS quality program measure reporting. Most importantly, RWHC and its staff have earned the trust of the Cooperative hospitals and the Cooperative hospitals trust one another. Thus, RWHC can assist hospitals foster change, provide objective information to support difficult managerial decisions, and facilitate “Roundtables” and list serves to promote idea exchange and creative problem-solving.

Mr. Tim Size serves as the Executive Director of RWHC. He is the proposal author, facilitated information collection and dissemination, and provided feedback to project consultants.

### **Stroudwater Associates**

Stroudwater Associates was founded in 1985 as the Northland Health Group by a group of senior healthcare executives to provide clients with multidisciplinary expertise. With offices in Portland, Maine and Atlanta, Georgia, Stroudwater Associates provides strategic, financial, facility planning, and operational consulting services to a national clientele that includes Academic Medical Centers, health systems, health plans, community and rural hospitals, and physician groups. Stroudwater Associates consultants are experienced as clinicians, academicians, managers, financial analysts, and content specialists, with an average of 15 years in healthcare per consultant. The firm's expertise is in the assessment and implementation of strategies and operational approaches for all types of healthcare organizations.

The Stroudwater Associates Rural Team is passionate about the health of rural people and places, and the relationships therein. The Rural Studio offers a rigorously scientific approach to clinical, financial, and organizational improvement in the rural hospital. The Rural Team delivers action-oriented strategies enhanced by prioritizing relationship development, collaborative strategies, and a commitment to personal learning and growth.

Based on personal rural history and commitment, the Stroudwater Associates Rural Team is passionate about:

- Helping a rural community discover its appropriate healthcare delivery model
- Identifying opportunities for improvement and implementing action plans achieve results
- Working with rural people whose personalities create holistic value
- Helping rural hospitals develop strategies for rural community success
- Assisting rural communities improve access to healthcare services
- Promoting rural people and places
- Nurturing the interpersonal relationships that drive optimal organizational change
- Engaging a science-driven, fact-based, and rigorous approach to decision-making

Dr. Clint MacKinney and Mr. Gregory Wolf are Stroudwater Associates healthcare consultants. With Mr. Size, they co-direct the project and are primarily responsible for this report. *Please see Appendix for Dr. MacKinney's and Mr. Wolf's biographical statements.*

## **Stroudwater Biographical Statements**

A. CLINTON MACKINNEY, M.D., M.S.  
Stroudwater Associates, Senior Consultant

Dr. MacKinney worked for 14 years as a rural family physician, practicing the full scope of family medicine. He has both owned a private practice and worked with a large healthcare system. Prior to joining Stroudwater Associates, Dr. MacKinney worked as Medical Director for a globally-capitated primary care group with 210 employees and a \$50 million budget. Dr. MacKinney is a member of the Rural Policy and Research Institute Health Panel and serves on national committees for the American Academy of Family Physicians and the American Medical Association. In his capacity as a rural health advocate, Dr. MacKinney writes and presents nationally. Dr. MacKinney's professional interests include organizational performance improvement, physician-administration relationships, rural health policy, healthcare quality improvement, and population-based medicine.

### **Recent Accomplishments**

- Institute of Medicine (IOM) Committee, "Building a 21<sup>st</sup> Century Health Care System for Rural America."
- Rural Quality and Patient Safety Expert Panel.
- Medical director responsible for designing population health improvement initiatives, collating quality data, and presenting actionable information to physicians.
- The Roundhouse Group – a national healthcare consortium to evaluate and propose public policy regarding rural healthcare quality.
- AMA Current Procedural Terminology (CPT) Advisors Committee, E&M Workgroup.
- Rural Policy and Research Institute Health Panel (RUPRI) – an academic consortium to provide objective analysis and facilitate public dialogue concerning the impacts of public policy on rural people and places.
- "Medicare Physician Payment." *RUPRI Policy Brief*. January 2003.
- "Access" Chapter. *Comments on the June 2001 Report of the Medicare Payment Advisory Commission: Medicare in Rural America*. September 2001.
- "Equity" Chapter. *Redesigning Medicare: Considerations for Rural Beneficiaries and Health Systems*. May 2001.



- “Community Development for Rural Survival.” WONCA International Conference on Rural Health. Shanghai, China. May 1996.

#### Education

Dr. MacKinney graduated from the Medical College of Ohio in 1982 and completed a family practice residency with the Mayo Clinic Health care system in 1985. He maintains Family Practice Board certification and a Certificate of Added Qualifications in Geriatrics. In 1998, Dr. MacKinney completed his Master's Degree in Administrative Medicine from the University of Wisconsin.

GREGORY WOLF, MBA

Stroudwater Associates, Consultant

Mr. Wolf joined Stroudwater Associates in 2000. He has experience developing information technology-based solutions for healthcare providers and utilizing electronic claims analysis in decision-making processes. Prior to joining Stroudwater Associates, Gregory worked for Strong Health, the health system affiliated with the University of Rochester, where he focused on designing and implementing operational improvements in physician practices.

#### Recent Accomplishments

- Designing and implementing Balanced Scorecard performance measurement systems for small rural and community hospitals throughout the United States;
- Supporting network and state level Quality Assessment/Performance Improvement collaboratives with the use of strategic planning, data collection and data reporting tools;
- Strategic planning and implementation for providers and payers;
- Developing financial and operational models to support Performance Improvement initiatives at large urban, community and small rural hospitals;
- Analyzing electronic claims-level data to build pro forma clinical service line financial statements to enable health care provider organizations to restructure along product/service lines;
- Assessing operational and financial performance for individual physician and group practices; and
- Developing financial models to evaluate physician productivity and clinic operational efficiency.

#### Education

Gregory received his undergraduate degree from Colgate University and his Master of Education degree from the Curry School of Education at the University of Virginia. He holds a second Master's Degree in Business Administration (*Beta Gamma Sigma*) with concentrations in Healthcare Management and Computers and Information Technology from the William E. Simon Graduate School of Business Administration.

## RWHC Performance Measurement Systems

### 1. RWHC Quality Indicators Program

As a performance measurement system, RWHC is committed to meeting future criteria established by the Joint Commission on Accreditation of Healthcare Organizations. RWHC Quality Indicators Program has successfully met the technical requirements and is approved to transmit data for the following ORYX® hospital core measure sets:

- Acute Myocardial Infarction
- Heart Failure
- Community Acquired Pneumonia
- Pregnancy and Related Conditions

With the implementation of hospital core measures on July 1, 2002, RWHC is further committed to the maintenance and expansion of JCAHO's hospital core measurement sets as directed by the Joint Commission. In addition, for those hospitals wishing to participate in CMS' Seventh Scope of Work, RWHC will work with you and your State QIO to minimize duplication. In addition, we are maintaining our current quality indicators for the hospital, long-term care, home care, and behavioral health care settings. Our fee schedules are flexible to allow for participation in one or more programs. The following measures have been accepted by the Joint Commission for accreditation purposes in connection with the ORYX initiative.

#### Hospital Program

Demonstrating Exercise Program for Ambulatory Patients  
Developing Therapy Goals  
ER Unscheduled Returns  
ER X-Ray Reading Discrepancy  
Falls  
Insulin Prep and Administration  
Laparoscopic Cholecystectomy  
Medication Errors  
Medication Teaching  
Multiple Meds  
Patient Restraints  
Primary Cesarean Deliveries  
Repeat Cesarean Deliveries  
Unplanned Overnight Stays Following Ambulatory Surgery  
Vaginal Birth After Cesarean Deliveries  
Vaginal Deliveries

#### Long Term Care Program

Developing Therapy Goals  
Falls  
Medication Errors  
Multiple Meds  
Resident Restraints

#### Resident Weights

Tube Feedings  
UTIs

#### Home Care Program

Demonstrating Exercise Program  
Developing Therapy Goals  
Insulin Prep and Administration  
Medication Errors  
Medication Teaching  
Monitoring Client Response  
Oxygen Therapy Safety  
Pulse Monitoring  
Timeliness of Initial Visit  
Unscheduled Inpatient Admissions

#### Behavioral Health Care Program

Discharge Delays  
Falls  
Medication Errors  
Medication Teaching  
Multiple Meds  
New Meds  
Restraints  
Seclusion  
Unscheduled Returns

## 2. RWHC Patient Satisfaction Program

The items included in the RWHC Patient Satisfaction Survey reflect the expertise of a diverse group of health care professionals who developed the instrument in partnership with a nationally recognized health care survey consultant. The RWHC Survey is useful in a variety of settings because it focuses on practical patient issues that occur on a daily basis. Specific topics include:

- Access to your facility
- Wait times for appointments and providers
- Respect for patient values
- Provider choice and continuity
- Rapport levels with all providers
- Privacy and confidentiality
- Interpersonal communication
- Quality of care
- Overall satisfaction
- Subjective comments and complaints

## 3. Pioneer Health Network's "Health Data Check"

RWHC has a group purchasing agreement with the Pioneer Health Network in Kansas so that RWHC members can access their benchmarking program of 55 operational and financial benchmarks (RWHC Hospitals can be clustered separately) which include:

### Financial Benchmarks

1. Adjusted Patient Days  
$$\text{(Total Gross Patient Revenue / Total Inpatient Revenue)} \times \text{Patient Days}$$

Patient Days include Acute, SNF, but not GeroPsych
2. Average Length of Stay - Acute  
$$\text{Acute Patient Days / Acute Admissions}$$
3. Outpatient Revenue as a % of Total Patient Revenue  
$$\text{Outpatient Revenue / Gross Patient Revenue}$$
4. Gross Patient Revenue per Adjusted Patient Day  
$$\text{Gross Patient Revenue / Adjusted Patient Days}$$
5. Net Patient Revenue per Adjusted Patient Day  
$$\text{Net Patient Revenue / Adjusted Patient Days}$$
6. Contractual % of Gross Patient Revenue  
$$\text{Hospital Contractual Adjustments plus other allowances / Gross Pt. Revenue}$$

\*Other allowances include charity but not Bad Debt.
7. Bad Debt % of Net Patient Revenue  
$$\text{Hospital Bad Debt / Net Hospital Patient Revenue}$$
8. Labor Cost per paid Hour (exclude Providers)  
$$\text{Total paid + accrued payroll / Paid + Accrued people hours}$$

\*Includes Hospital, LTCU and Clinic  
\*Providers are defined as Physicians and mid-levels (PA's and RN Practitioners)

9. Benefits as a % of Total Salaries and Wages  

$$\text{Total Benefits} / \text{Total Salaries and Wages}$$

This is not a Hospital Wide Comparison because some hospitals have included Dr's benefits.
10. Labor Hours per Adjusted Patient Day  

$$\text{Hospital Labor Hours (paid + accrued people hours plus contract labor hours)} / \text{adjusted patient days}$$
11. Nursing Hours per Adjusted Patient Day
12. Supplies % of Net Patient Revenue  

$$\text{Total Hospital Supply Expense} / \text{Net Patient Revenue}$$
13. Gross Days in Accounts Receivable  

$$\text{Gross AR} / \text{Average daily Revenue (3-month moving average)}$$
14. Unbilled Days in Accounts Receivables  

$$\text{Total Unbilled AR as Total \# of Days in AR}$$

Hospital Specific
15. Net Hospital Patient Revenue  

$$\text{Net Hospital Patient Revenue Minus Bad Debt Expense}$$
16. Salaries as a % of Total Hospital Expense  

$$\text{Salaries} / (\text{Salaries} + \text{Bad Debt} + \text{Supplies} + \text{Depreciation} + \text{Other})$$
  - \*All Hospital Related
  - \*Other includes basic Operating Expenses
  - \*Exclusion of Providers (Dr's and Midlevels)

Benefits are included in Salaries using the Benchmark #9 Calculation
17. Salaries as a % of Net Patient Service Revenue  

$$\text{Hospital Salaries} / \text{Hospital Net Patient Revenue}$$
  - \*Salaries are Benefits as Calculated using Benchmark #9 Calculation
18. Hospital Administrative Expense per Adjusted Patient Day  

Administrative Expenses as defined by the Medicare Cost Report to include: CEO, CFO, HR, Business Office and other misc. Administrative expenses.
19. LTCU Average Cost per Day  

$$\text{LTCU Total Expense} / \text{LTCU Patient Days}$$
20. LTCU Administrative Expense per Patient Day  

Includes: CEO, CFO, HR, Business Office, and other misc. Administrative expenses.
21. Clinic Salary Expense as a % of Gross Clinic Revenue  

$$\text{Clinic Salaries} / \text{Gross Clinic Revenue}$$
  - \*Excludes Providers and Midlevels
22. Clinic Supply Expense as a % of Gross Clinic Revenue  

$$\text{Supplies Expense} / \text{Gross Clinic Revenue}$$

#### Operational Benchmarks

23. Respiratory Therapy : Margin  

$$\text{Direct Expenses} / \text{Total Revenue}$$
  - \*Includes all EKG, EEG and Stress Tests
24. Average Cost per Treatment
25. Number of Treatments
26. Physical Therapy : Margin
27. Average Cost per Treatment

28. Number of Treatments
29. Laboratory : Margin
  30. Average Cost per Test
  31. Number of Tests
32. Basic Diagnostic (X Rays): Margin
  33. Average Cost per Test
  34. Number of Test
35. Mammography: Margin
  36. Average Cost per Test
  37. Number of Tests
38. Ultrasound: Margin
  39. Average Cost per Test
  40. Number of Tests
41. CT Scan: Margin
  42. Average Cost per Test
  43. Number of Tests
44. MRI Scan: Margin
  45. Average Cost per Test
  46. Number of Tests
47. Pharmacy: Margin
  48. Average Cost per Charged Unit
  49. Number of Units
50. Dietary : Average Cost per Meal
  51. Number of Meal Equivalents
52. Laundry: Average Cost per Pound
  53. Number of Pounds

If laundry is weighed clean, increase amount by 9%.
54. Housekeeping: Average Cost per Square Foot Cleaned
  55. Number of Square Footage Cleaned

Use figure from Medicare Cost Report page B-1, Column 10, Line 10

#### 4. The Brim Productivity Model

Productivity Measures are available through Brim (A hospital management company and subsidiary of the publicly traded Province Healthcare) subsidiary; include a combination of departmental measures (both clinical and non-clinical/ancillary) expressed as “hours worked/paid.” Productivity targets provided for reference only; participants are encouraged to establish internal goals. RWHC Hospitals can be clustered separately. Measures include:

- |                                |                                   |
|--------------------------------|-----------------------------------|
| 1. Medical/Surgical Nursing    | 11. GI Lab                        |
| 2. Swing Bed Nursing           | 12. Ambulatory Surgery            |
| 3. Observation Bed Nursing     | 13. Outpatient Care Center        |
| 4. Pediatrics                  | 14. Transitional Care Unit        |
| 5. Intensive Care              | 15. Skilled Nursing Care          |
| 6. Step-Down/Special Care Unit | 16. Intermediate Or Extended Care |
| 7. Inpatient Mental Health     | 17. Assisted Living               |
| 8. Emergency Department        | 18. Home Health/Hospice           |
| 9. Surgery/Central Sterile     | 19. Dialysis-Outpatient Chronic   |
| 10. Recovery Room              | 20. Medical Clinic                |

21. Cardiac Rehab
22. Nursing Administration
23. Case Management, Utilization Review
24. Pharmacy & IV
25. Retail Pharmacy,
26. Respiratory Therapy
27. EKG
28. Physical Therapy
29. Occupational Therapy
30. Speech Therapy
31. Dietary
32. Laboratory
33. Radiology
34. Mammography
35. Ultrasound
36. CT Scanning
37. MRI
38. Nuclear Medicine

39. Mobile Radiological Services
40. Ambulance Services
41. Administration
42. Marketing/Foundation
43. Human Resources
44. Staff Education
45. General accounting
46. Data Processing
47. Health Information Management
48. Admitting & Outpatient Registration
49. Communications/Switchboard
50. Business Office
51. Central Supply
52. Laundry
53. Housekeeping
54. Plant Operations & Maintenance
- 5 Security .

## **Examples of SSM Health Care's Performance Indicators**

### **GROWTH**

- Acute admissions
- Acute Patient Days
- Acute LOS
- Volumes by patient type or service line

### **REIMBURSEMENT**

- Reimbursement %
- Gross Days
- Patient revenue per APD
- Bad Debts and Charity

### **PRODUCTIVITY/EXPENSE**

- Agency Use
- FTE
- Paid hours/APD
- Supply expense/APD

### **LIQUIDITY**

- Net days in AR

### **SERVICE & QUALITY**

- Various indicators in patient satisfaction by patient population 31 day readmits Check-point indicators

### **PATIENT SAFETY**

- Dangerous abbreviations use
- Fall rate
- Med error with harm

### **SATISFACTION**

- Loyalty indexes by patient population
- Employee turnover
- MD satisfaction

### **PROFITABILITY**

- Operating margin %

## AHRQ Prevention Quality Indicators For RWHC Service Areas

*This section was completed after the rest of the report when the data became available and was presented to the RWHC Board in July and September.*

### *July Update*

This agenda item is about a RWHC “work in progress” and represents a topic of emerging interest to both health care purchasers and grant making organizations.

### Background

RWHC was awarded last Fall a \$25,000 “mini” grant to address the question “How Can Rural Balanced Scorecards Best Incorporate Population Health Measures?” Funding for this project was provided by the UW-Madison Health & Society Research Competition, sponsored by the RWJ Health & Society Scholars Program at the University of Wisconsin-Madison. Stroudwater & Associates, a national consulting firm specializing in performance improvement initiatives and financial/operational analysis for rural hospitals, and faculty from the Dept. of Population Health Science were partners in this study. Two focus groups of rural hospital CEOs and CFOs provided reality testing.

This study intends, in part, to address how rural hospitals at the grassroots can contribute to the design and implementation of a new health care system. As noted by the extremely influential Institute of Medicine in *Fostering Rapid Advances In Health Care: Learning From System Demonstrations*:

“The health care system of the 21<sup>st</sup> century should maximize the health and functioning of both individual patients and communities. To accomplish this goal, the system should balance and integrate needs for personal health care with broader community-wide initiatives that target the entire population.”

The Agency for Healthcare Research and Quality (AHRQ, pronounced “ark”) is the main Federal agency charged with quality improvement (and a major source of grant dollars for that purpose). The following is from their manual, *AHRQ Quality Indicators, Guide To Prevention Quality Indicators*:

“Prevention is an important role for all health care providers. Providers can help individuals stay healthy by preventing disease, and they can prevent complications of existing disease by helping patients live with their illnesses. To fulfill this role, however, providers need data on the impact of their services and the opportunity to compare these data over time or across communities. Local, State, and Federal policymakers also need these tools and data to identify potential access or quality-of-care problems related to prevention, to plan specific interventions, and to evaluate how well these interventions meet the goals of preventing illness and disability.”



“The AHRQ Prevention Quality Indicators (PQIs) represent one such tool. Local, State, or national data collected using the PQIs can flag potential problems resulting from a breakdown of health care services by tracking hospitalizations for conditions that should be treatable on an outpatient basis, or that could be less severe if treated early and appropriately.” **These are also conditions which are highly influenced by community wide behaviors and conditions.**

#### Data Specific to the Communities Served by RWHC Hospitals

In order to facilitate replication of this project in other states (and help future local and/or RWHC grant writing) we used the nationally renowned Dartmouth Atlas online data sets as a public and uniform means to define individual RWHC member Hospital Service Areas (HSAs). Using Medicare data, they have created geographic clusters of zip codes for all towns/cities with at least one hospital. Dartmouth includes in each cluster those zipcodes where the greatest proportion of residents go to a hospital in that town or city.

Enclosed is a table “succinctly” entitled, “Selected AHRQ Prevention Quality Indicator Rates (PQI) for Discharges from Any Wisconsin Hospital between 10/1/00 to 9/30/03 for Zip Codes in RWHC Member Hospital Service Areas.” **These two tables represent the HSA or cluster of zip codes associated with each RWHC Member.** [Attached to the first table should be a slip of paper showing which letter corresponds to your area.] For each cluster of zip codes, we have calculated the rate for the two most common PQI indicators in Wisconsin, Bacterial Pneumonia and Congestive Heart Failure.

At our request, MetaStar applied AHRQ QI PSI program modules, using commercially available SAS or SPSS statistical software packages to Wisconsin Hospital Discharge data for the last three years. We then combined that data with the above noted Dartmouth HSAs and zip code level Federal census data provided by the University of Wisconsin to develop individual hospital service area results and the below table.

**Bottom line:** based on an average for this three year period, the Hospital Service Areas served by RWHC Hospitals are generating admissions for “ambulatory care sensitive conditions” into Wisconsin hospitals (whether RWHC hospitals or any other Wisconsin hospital) as follows:

**The Bacterial Pneumonia rate is 126% of the state average** with rates for individual Hospital Service Areas ranging from 83% to 241% of the state average.

**The Congestive Heart Failure rate is 108% of the state average** with rates for individual Hospital Service Areas ranging from 62% to 170% of the state average).

While Wisconsin is doing much better than the country as a whole, these admissions are seen as preventable so the emerging expectation is for even states like Wisconsin to reduce the number of these cases.

**Selected AHRQ Prevention Quality Indicator Rates (PQI)  
For Discharges from Any Wisconsin Hospital between 10/1/00 to 9/30/03  
For ZipCodes in RWHC Member Hospital Service Areas (HSA)\***

<b>Dartmouth HSA*</b>	<b>Bacterial Pneumonia Rate/ 100K Population</b>	<b>Percent of WISC Rate</b>	<b>Congestive Heart Failure Rate/ 100K Population</b>	<b>Percent of WISC Rate</b>
<b>LOW</b>	264	83%	266	62%
<b>WISC</b>	317	100%	398	100%
<b>RWHC</b>	401	126%	429	108%
<b>HIGH</b>	764	241%	678	170%

\* An HSA is a cluster of zipcodes named by the town or city where the greatest proportion (plurality) of residents in each zipcode were hospitalized.

These rates are not age or gender adjusted; they do not reflect out of state hospitalizations.

**Major caveats:** this is a statement about what is going on in the community not what is going on within the hospital. It describes the population of people residing in the zip codes within an HSA, whether or not they use your facility. The data is not a “sample” but an actual average of discharges over the last three years. The data is not age or gender adjusted, so any comparison among HSA needs to be done cautiously.

Enclosed is AHRQ description of these two indicators and their limitations. **While local providers can significantly effect PQI rates (and employers will increasingly expect them to do so) most understand that a broad community wide initiative is required.**

### Next Steps

**One hospital based community wide approach is the Western Maine Center for Heart Health** (a department within the 70 bed Franklin Memorial Hospital in Farmington Maine). WMCHH, an individual department in a not-for-profit hospital, works with other entities, such as physician practices, school systems, employers, insurers, Bureau of Health, Maine Cardiovascular Health, universities, and research departments. The center’s mission is to develop coordinated community approaches to reduce the health and economic burdens of cardiovascular disease in rural West-Central Maine. Enclosed is a more detailed description.

Closer to home, **Ft Atkinson’s Heart Failure Clinic**, was highlighted at the recent Wisconsin Rural Health Conference. The Clinic follows patients on a routine basis to ensure the treatment

plan is followed, address early symptoms and continue patient education after discharge. Enclosed is a press release on the recently opened clinic.

*September 3<sup>rd</sup>*

The AHRQ Prevention Quality Indicators (PQIs) can “flag potential problems resulting from a breakdown of health care services by tracking hospitalizations for conditions that should be treatable on an outpatient basis, or that could be less severe if treated early and appropriately.” While tracking ambulatory care sensitive conditions based on hospital discharge data, **PQI rates indicate what is going on in the community not what is going on within the hospital.** They help describe the health of the population of people residing in the zip codes within a Hospital Service Area (HSA), whether or not they use local physicians or hospital.

The unadjusted PQI is not a “sample” but an actual count of discharges over three years, shown as an annual average. The age adjusted PQI shows what the rate would be expected to be if the local population age mix was at the state average. Age adjusted makes area to area comparisons more reasonable; the adjusted data is a better indicator for absolute need of services—i.e. a community with a much older population than average, even though it may be doing relatively well, may have a relatively higher percentage of local residents that would benefit by the right community-wide interventions.

The Hospital Service Areas served by RWHC Hospitals are generating admissions for “ambulatory care sensitive conditions” (ACSC) into Wisconsin hospitals (whether RWHC hospitals or any other Wisconsin hospital) for the two most prevalent ACSCs in Wisconsin as follows.

**Not Age Adjusted** (noted above)

The **Bacterial Pneumonia** RWHC rate is **126%** of the state average with rates for individual Hospital Service Areas ranging from **83% to 241%** of the state average.

The **Congestive Heart Failure** RWHC rate is **108% of the state average** with rates for individual Hospital Service Areas **ranging from 62% to 170% of the state average.**

**Age Adjusted** (summary below)

The **Bacterial Pneumonia** RWHC age adjusted rate is **111% of the state average** with rates for individual Hospital Service Areas **ranging from 71% to 189%** of the state average.

The **Congestive Heart Failure** RWHC rate is **100% of the state average** with rates for individual Hospital Service Areas **ranging from 63% to 149%** of the state average.

**Selected AHRQ Prevention Quality Indicator Rates (PQI)  
For Discharges from Any Wisconsin Hospital between 10/1/00 to 9/30/03  
For ZipCodes in RWHC Member Hospital Service Areas (HSA)\*  
Age Adjusted**

<b>Dartmouth HSA*</b>	<b>Bacterial Pneumonia Rate/ 100K Population</b>	<b>Percent of WISC Rate</b>	<b>Congestive Heart Failure Rate/ 100K Population</b>	<b>Percent of WISC Rate</b>
<b>LOW</b>	224	71%	252	63%
<b>WISC</b>	317	100%	398	100%
<b>RWHC</b>	353	111%	397	100%
<b>HIGH</b>	599	189%	593	149%

\* An HSA is a cluster of zipcodes named by the town or city where the greatest proportion (plurality) of residents in each zipcode were hospitalized.  
These rates are not gender adjusted; they do not reflect out of state hospitalizations.

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The age adjusted data (compared to not age adjusted) does pull down the higher rates but major variation remains amongst RWHC member HSAs. While RWHC and Wisconsin are doing much better than the country as a whole, these admissions are seen as largely preventable so the emerging expectation will be to reduce the number of these cases.

The RWHC Quality Roundtable has begun to develop specific recommendations re “best practices” to improve CheckPoint’s “Pneumococcal Screening and/or Vaccination” and will hopefully conclude their work this Fall.

Online resources from the American Heart Association and American College of Cardiology for both clinical and community-wide interventions re Congestive Heart Failure (distributed by email to Board on August 3<sup>rd</sup>) can be found at:

***ACC/AHA guidelines for the evaluation and management of chronic heart failure in the adult***  
[http://www.guideline.gov/summary/summary.aspx?doc\\_id=3114&nbr=2340&string=CONGESTIVE+AND+HEART+AND+DISEASE](http://www.guideline.gov/summary/summary.aspx?doc_id=3114&nbr=2340&string=CONGESTIVE+AND+HEART+AND+DISEASE)

***American Heart Association Guide for Improving Cardiovascular Health at the Community Level***  
<http://circ.ahajournals.org/cgi/content/full/107/4/645>