Intelligence for the **new** healthcare

iVantage™ Health Analytics

RHPI
RURAL HOSPITAL PERFORMANCE IMPROVEMENT

Competing on Analytics - Using Metrics to Drive Performance

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Learning Objectives

1. Understand the performance based assessment of rural healthcare in America using metrics

2. Learn how to use metrics to drive rural hospital performance

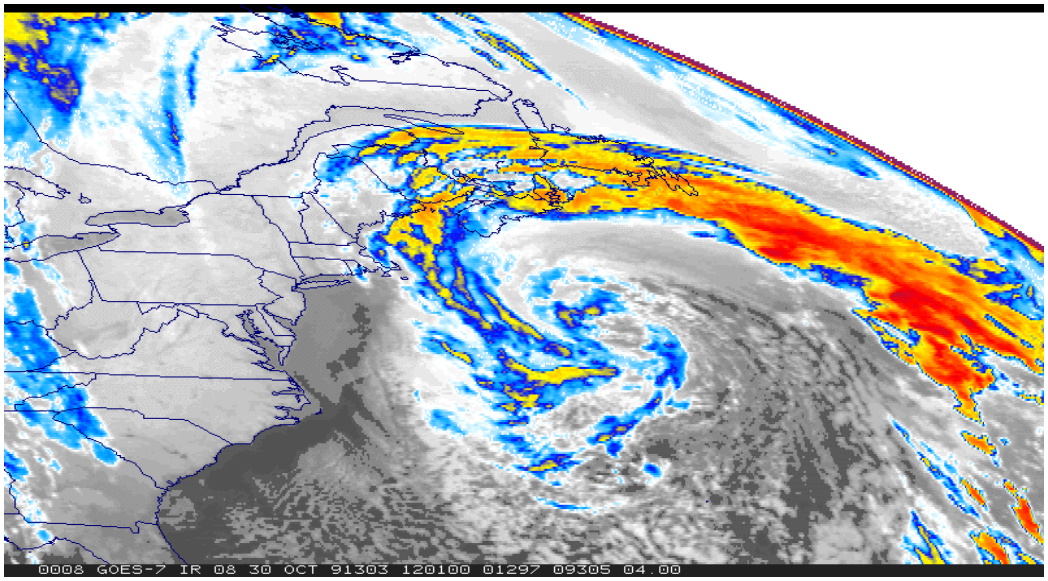
3. Learn how to create networks with other rural hospitals to offer greater value to patients. Understand how to measure their performance using metrics.

Overview

- The Perfect Storm: The Need for Improved Performance in Rural Hospitals
- The Research Surrounding High Performing Rural Hospitals and Networks
- The National Research Surrounding Rural Versus Urban Hospitals: A Performance Based Assessment of Rural Healthcare in America Using Metrics
- The Evolution of Rural Hospital Strategy
- The Five Principles of Strategy Focused Rural Hospitals
- Designing the Rural Hospital Strategy in 45-60 days: A 4 Step Process using Metrics
- Six Things Boards Should do to Support the Strategy
- The Six Main Drivers of Successful Organizational Performance
- How to Create Networks with other Rural Hospitals
- Using Metrics for Improved Performance in Rural Hospitals
- What is a Strong Rural Hospital?

The Perfect Storm:

The Need to Use Metrics to Drive Performance in Rural Hospitals

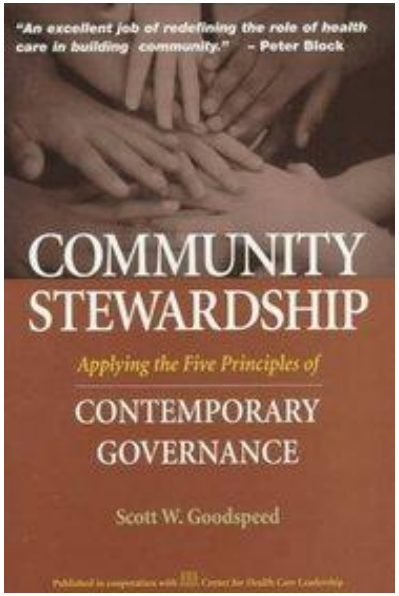


- The healthcare environment is more complex with healthcare reform
- Capital needs: growing aging plants, aging population, population growth, capital needs for IT and physician recruitment
- Reserves: depleted with decline in investments
- Operating Income: reduced due to higher debt costs, more uninsured, deferred procedures
- Philanthropy: more difficult in the current economy
- Some confusion about ACO's and the role of the rural hospital

The Research Surrounding High Performing Rural Hospitals and Networks

High Performing Rural Hospitals Ask Five Key Questions:

1. Where are we today? “Situation Analysis”
2. Where should we be tomorrow? “Goal Formulation”
3. How shall we get there together? “Resource Allocation”
4. Are we getting there? “Performance Monitoring”
5. Does our culture support our strategy? (2005)



Applying the Five Principals of Contemporary Governance
Research based on 1841 responses from Board Chairs across the United States
1999 and 2005

Governance Institute Fellowship Research and AHA Book

Introduction (Available at iVantagehealth.com)

1. The purpose of this National Study is to provide new information, analysis and interpretation regarding the performance of rural hospitals relative to their urban counterparts. Information employed in the Study are based on publicly-available data files, the Hospital Strength Index™ and the latest Medicare Shared Savings data files.
2. For the purpose of the Study, all US general acute care hospitals are divided into two geographic-based cohorts (urban vs. rural) using the industry standard Office of Management and Budget (OMB) geographic designation.
3. The count of Medicare Beneficiaries is listed below:

Count of Medicare Beneficiaries in CMS 2010 Denominator File (Adjusted to Person Years)

Type	Rural	Urban	Total	Rural % of Total
Part A (Hospital Insurance)	8,063,452	26,842,037	34,905,489	23.1%
Part B (Supplemental Medical)	7,596,727	24,363,337	31,960,064	23.7%

National Rural Versus Urban Findings on Metrics

Summary of Medicare Beneficiary Payment Findings

- Approximately **$7.2 billion** in annual savings to Medicare alone if the average cost per urban beneficiary were equal to the average cost per rural beneficiary.
- Approximately **$2.2 billion** in annual cost differential (savings) occurred in 2010 because the average cost per rural beneficiary was **3.7% lower** than the average cost per urban beneficiary.
- Approximately **$9.4 billion** per year is the existing and potential differential between Medicare beneficiary payments for rural vs. urban including the opportunity for savings if all urban populations could be treated at the rural equivalent.

National Rural Versus Urban Findings

Summary of Medicare Beneficiary Payment Findings

- Per-capita **Inpatient Hospital Service** payments for rural beneficiaries are **2% less** costly than payments for urban beneficiaries.
- Per-capita **Physician Service** payments for rural beneficiaries are **18% less** costly than payments for urban beneficiaries.
- Per-capita **Outpatient Service** payments for rural beneficiaries are **14% more** costly than payments for urban beneficiaries.

National Rural Versus Urban Findings

Summary of Hospital Performance Findings

- **Neither** the rural nor urban cohort dominates performance across the CMS Process of Care topic areas (PN, HF, AMI, SCIP and OP).
- There is **no significant performance variation** on 30-day readmission rates at the benchmark levels for the two hospital study groups. There is nominal performance variation on 30-day all-cause mortality rates.
- Rural hospital performance on HCAHPS patient experience survey measures is **better** than urban hospitals.
- For three of the four price and cost efficiency measures based on Medicare Cost Reports, rural hospital performance is **better** than urban hospitals.

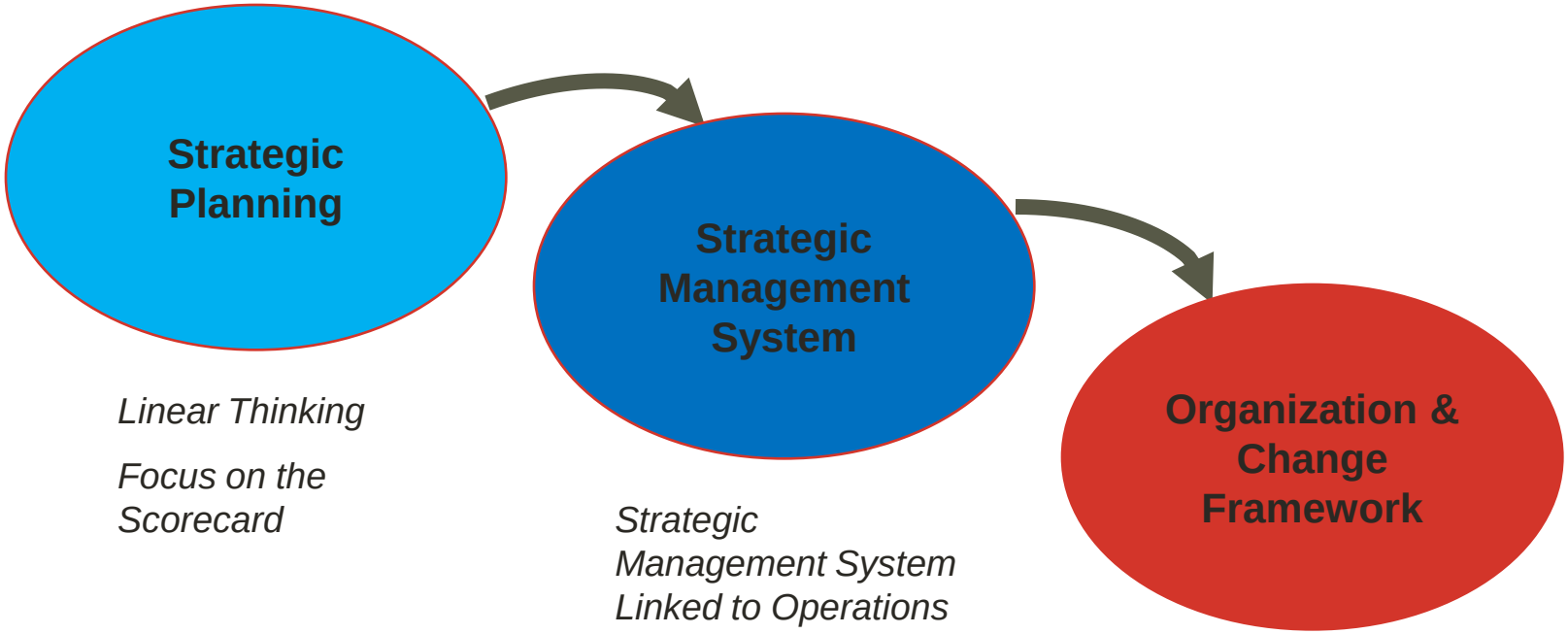
National Rural Versus Urban Findings

Summary of Emergency Department Performance Findings

- The mean **Total Wait Time** in a rural Emergency Department is approximately **half as long** as the wait in an urban Emergency Department (98 vs. 247 minutes).
- The mean **Wait Time to see a Physician** in a rural Emergency Department is nearly **2 times less** than the wait in an urban Emergency Department (29 vs. 56 minutes).
- **More than 50%** of all Emergency Department visits to Critical Access Hospitals were categorized as low acuity cases.

Comments and Conclusions?

Evolution of Rural Hospital Strategy



Linear Thinking

Focus on the Scorecard

Strategic Management System Linked to Operations

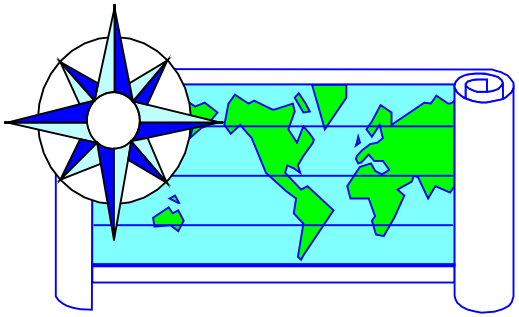
Challenge Assumptions

Strategy Focused Rural Hospitals

Strategy/Networks/Metrics

Focus on Culture, Alignment and Execution Strategy Focused Meetings. Links to Budget, Performance Reviews and Compensation

Evolution of Rural Hospital Strategy



Continuous Dynamic Disruptive Process

External market assessment
Internal cultural and qualitative assessment

Disciplined Analysis

Strategy Formulation

Strategy Execution

Strategy Monitoring

Preferred or Breakthrough Future

Strategic Themes
Quality and customer service
Growth and provider relations
Financial performance
People/Infrastructure/Technology

Accountability/Ownership

Metrics and Actions
Strategy is Everyone's Job

Scorecard to Track Performance
Strategy Focused Board and Management Meetings

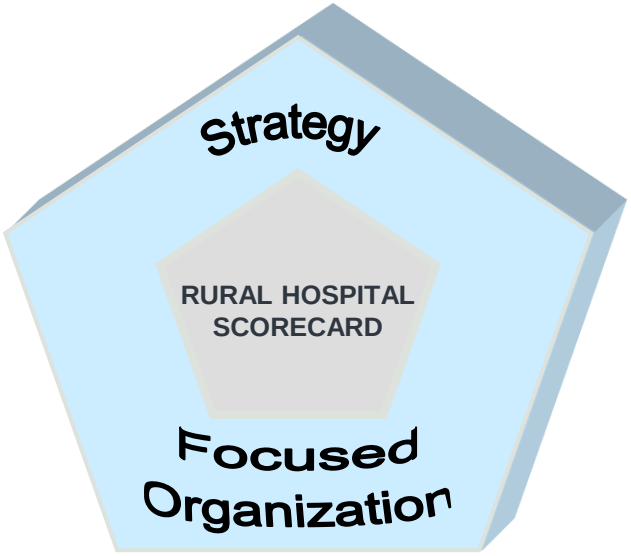
The Five Principles of Strategy Focused Rural Hospitals

TRANSLATE STRATEGY

- ❑ *Mission / Vision*
- ❑ *Strategy Maps*
- ❑ *Scorecard*
- ❑ *Targets*
- ❑ *Initiatives*

ORGANIZATION ALIGNMENT

- ❑ *Community*
- ❑ *Hospital/Departments*
- ❑ *Employees*
- ❑ *External Partners*



EVERYONE'S JOB

- ❑ *Strategic Awareness*
- ❑ *Goal Alignment*
- ❑ *Linked Incentives*

EXECUTIVE LEADERSHIP

- ❑ *CEO Sponsorship*
- ❑ *Managers Engaged*
- ❑ *"New Way of Managing"*
- ❑ *Accountable for Strategy*
- ❑ *A Performance Culture*

CONTINUAL PROCESS

- ❑ *Linked to Budgeting*
- ❑ *Linked to Ops. Mgmt.*
- ❑ *Management Meetings*
- ❑ *Feedback System*
- ❑ *Learning Process*

Designing the Rural Hospital Strategy in 45-60 Days: A Four Step Process Using Metrics

Step 1: Environmental and Market Assessment/Key Interviews

- The key interviews, along with the market assessment, are one of the most important ingredients in the development of the strategic plan. The results of the interviews are integrated into the Hospital's strategic plan and are suggestive of strategic themes, objectives, and initiatives.
- The environmental and market assessment includes the following elements:
  - Overview of the service area (including primary, secondary, target, and network service area definition)
  - Service area demographics
  - Competitive analysis
  - Medical staff analysis
  - Hospital analysis
  - Hospital utilization and market share
  - Financial results and trends

Step 2: Identify the Preferred Vision, Strategic Themes and Measures/Metrics

- The purpose of step 2 is to affirm the mission of the hospital and to gain clarity and agreement on the vision over the next three to five years, focusing on the needed strategies and metrics to move the organization toward its preferred future.

Designing the Rural Hospital Strategy in 45-60 Days: A Four Step Process Using Metrics

Step 3: A Written Strategic Plan is Developed Reflecting Specific Objectives:

- Understand the perspectives of the Medical Staff, Board and Executive Management Team;
- Quantify the demand for existing services as the analytical foundation for planning;
- Characterize the projected growth and change in usage of the market;
- Analyze the historical performance of clinical services, financial outcomes, and key operating indicators to determine organizational capacity;
- Evaluate regional opportunities for collaboration and leverage existing investments in capital and organizational infrastructure;
- Develop a strategic plan with clear, measurable objectives;
- Summarize strategic objectives into a scorecard to enable management level initiative development and Board monitoring; and
- Facilitate an all day retreat to share the results of the strategic plan with management, board and medical staff leadership.

Refer to Rural Hospital Strategic Planning Template

Designing the Rural Hospital Strategy in 45-60 Days: A Four Step Process Using Metrics

Step 4: Strategic Planning Retreat

- The purpose of the all day retreat is to share the results of the plan with the executive management team, the board and medical staff leadership. The retreat culminates with clear action steps and accountabilities for implementation of the strategic plan. **(Sample Board retreat agenda)**

Step 5: Strategy Execution Workshop/Cultural Assessment

- The strategy execution workshop that will focus on successful execution of the hospital strategic plan using the scorecard framework. **(Sample strategy execution workshop agenda)**
- Clear accountabilities, metrics/deliverable, person responsible, scorecard, target and completion date.

QUALITY AND CUSTOMER SERVICE PILLAR

Strategic Focus	Action Items	Measurement/Deliverable	Person Responsible	Score Card	Target Date	Completion Date
Next 12 - 18 Months						
1. Create a culture of safety so each and every employee feels empowered to take actions for improved patient safety						
a.						
b.						
c.						
d.						
2. Adopt the Institute for Healthcare Improvement's eight steps to achieving patient safety and high reliability and create a safety culture						
a.						
b.						
c.						
d.						
e.						

Link Metrics to Objectives in Your Hospital Strategic Plan

Quality and Customer Service Theme

Objectives: To provide the highest level of healthcare in partnership with our physicians and community, meeting the needs of those we serve. To be our service area's first choice for healthcare, consistently exceeding expectations

Metrics:
- Achieve top 10 percentile for CMS Core Measures
- Achieve 95th percentile for all satisfaction scores
- Achieve 100% of selected patient safety goals
- Have zero serious events in 2012

Staff Development Theme

Objective: To recruit and retain quality employees to meet the needs of our customers and organization

Metrics:
- Maintain a turnover rate of 10% for 2012
- Achieve an employee survey return rate of 75% in 2012
- Achieve an overall rating of 4.5 on the employee survey results in 2012
- Achieve a 4.5 rating on mission survey question in 2012
- Achieve a 4.5 rating on opportunities to learn and grow survey question in 2012
- Achieve a 4.6 rating on employee feeling valued survey question in 2012
- Achieve a physician satisfaction level of 85% in 2012
- Number of physicians recruited

Link Metrics to Objectives in Your Hospital Strategic Plan

Growth Theme

Objective: To increase hospital's total revenue through enhancements of existing services and expansion of new services.

Metrics: Revenue from referrals from the secondary market
Net revenue growth in targeted specialty areas
Inpatient market share
Revenue increase in select areas
New patient volume to physician practices
Percent of net revenue growth
Diagnostic and ancillary volume and net revenue growth, i.e., lab, imaging, pharmacy

Financial Health Theme

Objective: Achieve profitability by maximizing net income through increased revenue and controlling costs and build financial requirements at the grow level (total margin)

Measures: % Increase in total revenue for 2012
Maintain bad debt at 10% or less for 2012
Maintain departmental revenue and expenses within 5% of budget for 2012
Decrease AR days to 55 by 2012
Reduce overtime by 50% by 2012

Grow = Debt Service + 1.2 X Depreciation + 4.0% of Op Expense

Sustain = Debt Service + 1.2 X Depreciation

Survive = Debt Service

Strategic Planning Timeframe: 45-60 Days

Memorial Hospital
Strategic Planning Timeframe-Events and Benchmarks 2012

Task I: Environmental/Market Assessment and Key Interviews

1.Data Request and Review
2.Onsite Interviews
3.Strategy Execution Education
4.CEO Progress Report to Board
5.Prepare Market Assessment

Task II: Identify the Preferred Vision, Strategies and Measures

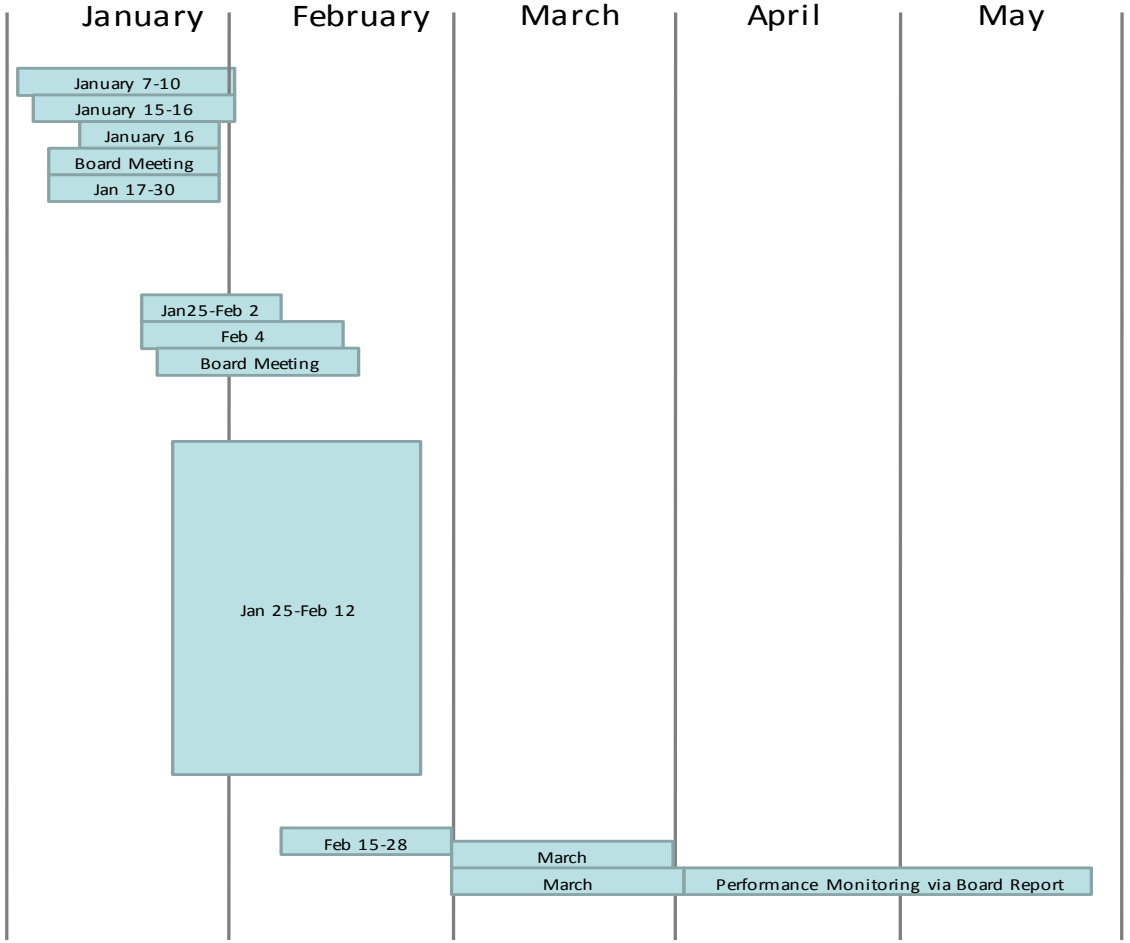
1.Gain Clarity on vision
   a) Draft vision
2.Draft Strategies and Measures
3.CEO Progress Report to Board

Task III: Strategic Plan Development

1.Draft Strategic Plan, including:
   a) Table of Contents
   b) Overview of Service Area
   c) Service Area Demographics
   d) Hospital Utilization and Market Share
   e) Hospital Analysis
   f) Medical Staff Analysis
   g) Financial Results and Trends
   h) Mission, Vision and Values
   i) Key Strategies, including: Case for Action, Executive Champion, Measure Targets, Initiatives, and Action Steps

Task IV: Strategic Planning Retreat

1.Strategic Planning Retreat
2.Strategy Execution Assistance
3.CEO Progress Report to Board



45-60 Days is the Preferred Timeframe

Six Things Boards Should Do To Support the Strategy

1. **Develop Board Ground Rules Such As:**
    - Board materials are sent out a week in advance;
    - To request that an item be put on the agenda a call “must” be made to the CEO and Board Chair prior to the meeting;
    - We will begin and end on time;
    - We will respect people’s opinions;
    - We will put the past in the past;
    - Only one person speaks at a time and no one dominates the discussion;
    - There will be no side bar conversations; and
    - We will try to create a real dialogue.

2. **Design the Board Agenda so that it Tracks With the Strategic Plan. Talk about Strategically Relevant Issues.**
3. **Monitor Hospital Performance by Focusing on the Most Important Strategic Items.**
    - Financial Health
    - Quality and Customer Service
    - Growth and Provider Relations
    - Staff Development
4. **Avoid Operational Minutia and Drilling Down.**
5. **Commit to Establish and Maintain a Board Culture that is Open, Respectful and Fair.**
6. **Review Board Performance and Meeting Time Together.**

The Six Main Drivers of Successful Organization Performance

1. **Understand current reality or what's really going on in the internal and external environment by conducting a qualitative and quantitative assessment.**
    - Trust but verify
    - A market assessment is key
    - They compete on analytics
2. **Have a clearly defined preferred future or vision. Put a stake in the ground 2-3 years from today.**
3. **Adopt and execute the five principles of strategy focused rural hospitals.**
4. **Create a constructive culture, get the right people on the bus and provide the right incentives.**
5. **Create networks with other rural hospitals to offer a broader range of services and value to patients. Create a redefined network service area.**
6. **Use metrics to create a competitive advantage. Understand the overall health of the healthcare organization and network using metrics.**

    Hospital Strength Index™
    - Overall Strength
    - Financial Strength: Financial Stability Index
    - Value-Based Strength: Quality Index, Outcomes Index, Patient Perceptions Index, and Cost and Charges Index
    - Market Strength: Competitive Strength Index, Competitive Intensity Index and Market Size and Growth Index

How to Create Networks with Other Rural Hospitals and Use Metrics to Drive Performance

Questions and Comments on Designing the Rural Hospital Strategy?

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Next:

How to Create Networks with Other Rural Hospitals and Use Metrics to Drive Performance

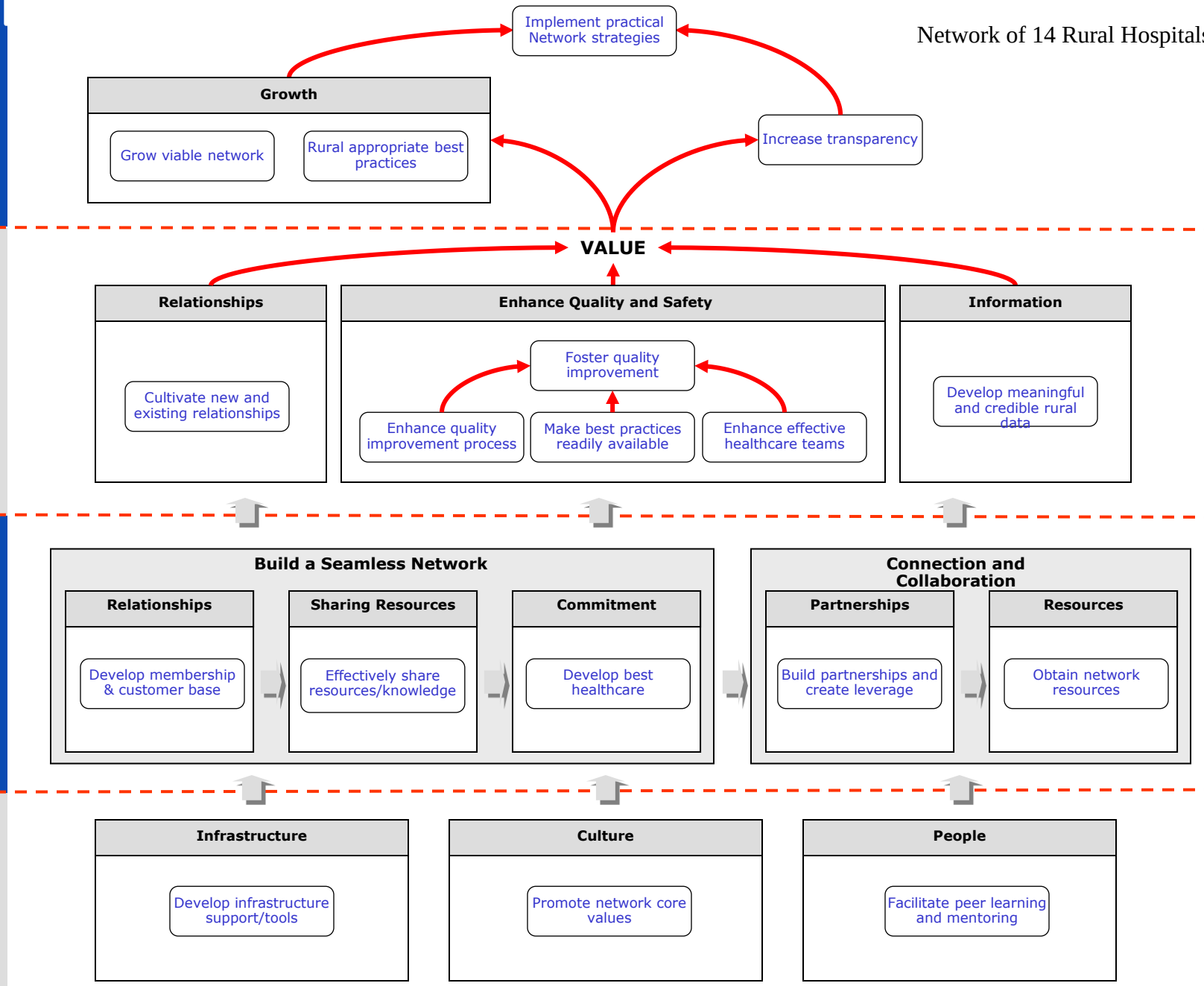
How to Create Networks with Other Rural Hospitals and Use Metrics to Drive Performance

National	Regional	State	Hospital
			
Benchmarks Research	Benchmarks Collaboration	Benchmarks Research Quality Improvement Financial Performance Strategy Networks	Benchmarks Research Quality Improvement Financial Improvement Satisfaction Improvement Department Initiatives

1. Rural Hospital Network Strategy Map and Emergency Department Wait Time and Satisfaction (10 Hospitals)
2. Rural Hospital Network: Quality and Finance (20 Hospitals)
3. Rural Hospital Network: Flex Medicare Beneficiary Quality Improvement Project (MBQIP) (16 Critical Access Hospitals)
4. The Pennsylvania Critical Assess Hospital Coalition Innovative Projects (12 Hospitals)

Rural Hospital Network Strategy Map 2012

Network of 14 Rural Hospitals



Rural Hospital Network: Emergency Department Wait Time and Satisfaction

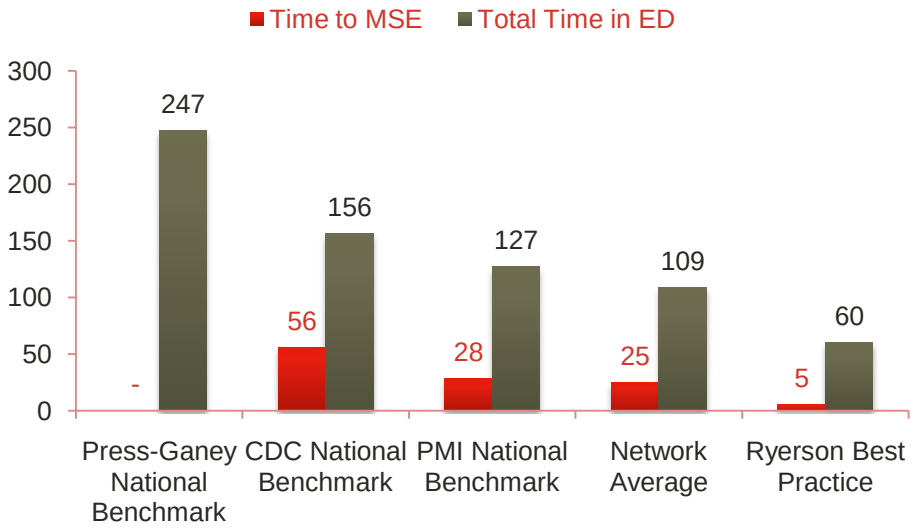
- 2011 iVantage National ED Study Benchmarks: "Rural Relevant"

  (2.3 million patient encounters)

  - 28 minutes to ED Provider
  - 127 minutes Total ED Time
  - *If you would like to participate in this study **free of charge**, please leave your business card and we will contact you with more information.*

- Network Averages (10 CAHs)
  - 25 minutes to ED Provider
  - 109 minutes Total ED Time
- CDC National Benchmarks
  - 56 minutes to ED Provider[1]
  - 156 minutes Total ED Time (median)[1]
- Press Ganey National Benchmarks
  - 247 minutes Total ED Time[2]

Benchmarks are averages unless otherwise noted

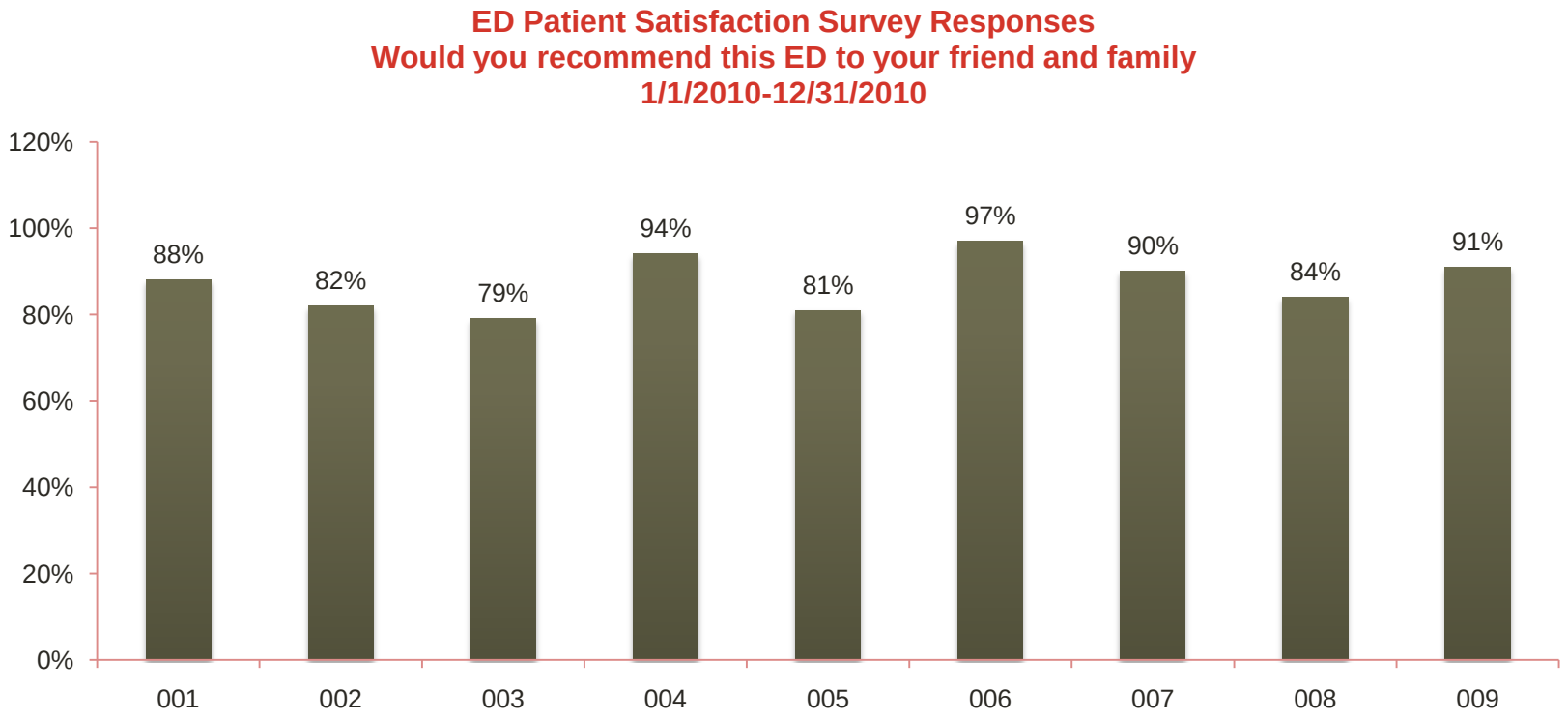


1. Niska, Richard, Farida Bhuiya, Jianmin Xu. "National Hospital Ambulatory Medical Care Survey: 2007 Emergency Department Summary. National Health Statistics Report 2010. http://www.cdc.gov/nchs/data/nhsr/nhsr026.pdf
2. "Pulse Report 2010 Emergency Department: Patient Perspective on American Healthcare". Press Ganey, May 2010. http://PressGaney.com/galleries.default-file/2010_ED_Pulse_Report.pdf

Rural Hospital Network: Emergency Department Satisfaction

Network of 10 Rural Hospitals

"Would You Recommend This ED to Your Friends & Family"



State Average – 87%

Rural Hospital Network: Quality and Finance

Network of 20 Rural Hospitals

NEW PROJECTS

This year the project will expand to include:

Financial Benchmarks *Emergency Department Benchmarks* *Operational Benchmarks*

EXPANDED

The *Quality* focus of the project will also expand to all three phases of the *Medicare Beneficiary Quality Improvement Program (MBQIP)* developed by the Federal Office of Rural Health Policy (FORHP). This will position Network hospitals in the vanguard of this national initiative. The components of the three phases for MBQIP are:

CMS Core Measures (IP) *Outpatient Core Measures (ED)* *Transfer Communication Measures (ED)* *Pharmacy* *HCAHPs*

ACTIVE PARTICIPATION

Hospital *leadership* will be instrumental in the CAH *network* development of comparable analytics. More importantly your active participation will result in powerful analytics for your hospital like those on the reverse side of this letter. In short, while this project maintains a quality focus it is also targeted at the financial and operational center of rural health.

LEADERSHIP

Department of Health and iVantage requests your participation at four webinars and four meetings:

CEOs *CFOs* *Quality Managers* *ED Directors*

Rural Hospital Network: Improving Rural Access to Medicare Beneficiaries (MBQIP)

Project Period Years (Sept through August)	Measures	Activities
Year 1: 2010-2011		Planning for the project
Year 2: 2011-2012	Phase 1 (PN & HF)	Plan for QI activities and assist with technical assistance (TA) around data collection and analysis
Year 3: 2012-2013	Phase 2 (OP & HCAHPS)	Annual Benchmarking data will be available from Phase 1. Plan QI activities and TA for Phases 1 & 2
Year 4: 2013-2014	Phase 3 (Pharmacist & ED Transfer Communication)	Annual Benchmarking data available from Phases 1 & 2. Plan QI activities and TA for all phases
Year 5: 2014-2015	Hospitals continue reporting on all Phases	Annual Benchmarking data available from all phases. Plan QI activities and TA for all phases

Rural Hospital Network: MBQIP Network Summary Data Taking Quality One Step Further

Network of 20 Rural Hospitals
MBQIP Network Scorecard

MBQIP - Quality Improvement
Community Hospital
Q1/2010 - Q1/2011

Phase I Measures	Target	2010Q1	2010Q2	2010Q3	2010Q4	2011Q1	2011Q2
CMS Core Measures							
Pneumonia Topic (All-or-None)	100%	60%	63%	80%	80%	44%	
PN-2: Pneumococcal Vaccition	100%	100%	88%	100%	80%	33%	
PN-3b: Blood Cultures	100%	100%	80%	100%	100%	71%	
PN-4: Adult Smoking Cessation	100%	0%	0%			50%	
PN-5c: Initial Antibiotic Received	100%	100%	100%	0%			
PN-6c: Initial Antibiotic Selection for CAP	100%	75%	80%	100%		100%	
PN-7: Influenza Vaccition	100%	80%			100%	71%	

	Target	2010Q1	2010Q2	2010Q3	2010Q4	2011Q1	2011Q2
Heart Failure (All-or-None)	100%	40%	60%	0%	50%	0%	
HF-1: Discharge Instructions	100%	50%	80%	0%	0%	0%	
HF-2: Evaluation of LVS Function	100%	60%	60%	100%	100%	100%	
HF-3: ACEI or ARB for LVSD	100%	0%	100%	67%			
HF-4: Adult Smoking Cessation	100%			0%	100%		

30-Day Readmission Rates: Pneumonia and Heart Failure

Rural Hospital Network: MBQIP Detail Data Quality at the Network and National Levels

CMS Core Measures

Heart Failure (HF)

Hospital	HF-1		HF-2		HF-3		HF-4		HF All-or-None
283	56%	18	64%	22	100%	5	0%	2	62%
284	72%	53	95%	55	100%	12	100%	15	87%
285	96%	27	100%	33	86%	7	100%	6	97%
286	75%	24	76%	33	83%	12	100%	3	58%
287	88%	8	100%	11	67%	6	100%	2	89%
291	95%	20	84%	31	86%	7			77%
297	82%	11	93%	14	100%	2	100%	1	89%
299	100%	40	96%	50	100%	9	100%	4	96%
234	46%	13	79%	14	100%	2	100%	1	36%
282	75%	8	100%	8	100%	2	67%	3	86%
292	68%	79	87%	108	89%	35	100%	15	82%
251	59%	22	51%	35	56%	18	67%	3	55%
Network	**76%**	323	**85%**	414	**89%**	117	**85%**	55	83%
National	77%		88%		85%		86%		84%

Rural Hospital Network: MBQIP Physician Scorecard Taking Quality One Step Further

Network of 20 Rural Hospitals

CMS Core Measures

Quality Improvement and physician-level dashboards

Community Acquired Pneumonia (PN)

		Score	Count	Medical Staff Comparison Mean	Count	Low	High
PN-2	Pneumococcal Vaccination Status	78%	18	39%	19	0%	78%
PN-4	Smoking Cessation Counseling	100%	8	100%	8	100%	100%
PN-6	Antibiotic Selection	78%	18	89%	19	78%	100%
PN-7	Influenza Vaccination	62%	13	62%	13	62%	62%

Community Acquired Pneumonia (PN)

		External Comparison Mean	Count
PN-2	Pneumococcal Vaccination Status	89%	1201
PN-4	Smoking Cessation Counseling	87%	338
PN-6	Antibiotic Selection	90%	1002
PN-7	Influenza Vaccination	87%	830

Rural Hospital Network: Improving Rural Access to Medicare Beneficiaries

Project Period Years (Sept through August)	Measures	Activities
Year 1: 2010-2011		Planning for the project
Year 2: 2011-2012	Phase 1 (PN & HF)	Plan for QI activities and assist with technical assistance (TA) around data collection and analysis
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Rural Hospital Network: Improving Rural Access to Medicare Beneficiaries

- The goal of the Flex Medicare Beneficiary Quality Improvement Project (MBQIP) is to improve rural quality care access for Medicare beneficiaries served by critical access hospitals (CAHs).

- This initiative addresses the challenges of defining and reporting rural-relevant quality measurements and adopting proven clinical delivery models that drive quality and performance-based value.

Network of 16 Critical Access Hospitals

Rural Hospital Network: Improving Rural Access to Medicare Beneficiaries Phase 2: HCAHPS

Network of 16 Critical Access Hospitals

Network CAH Flex Project

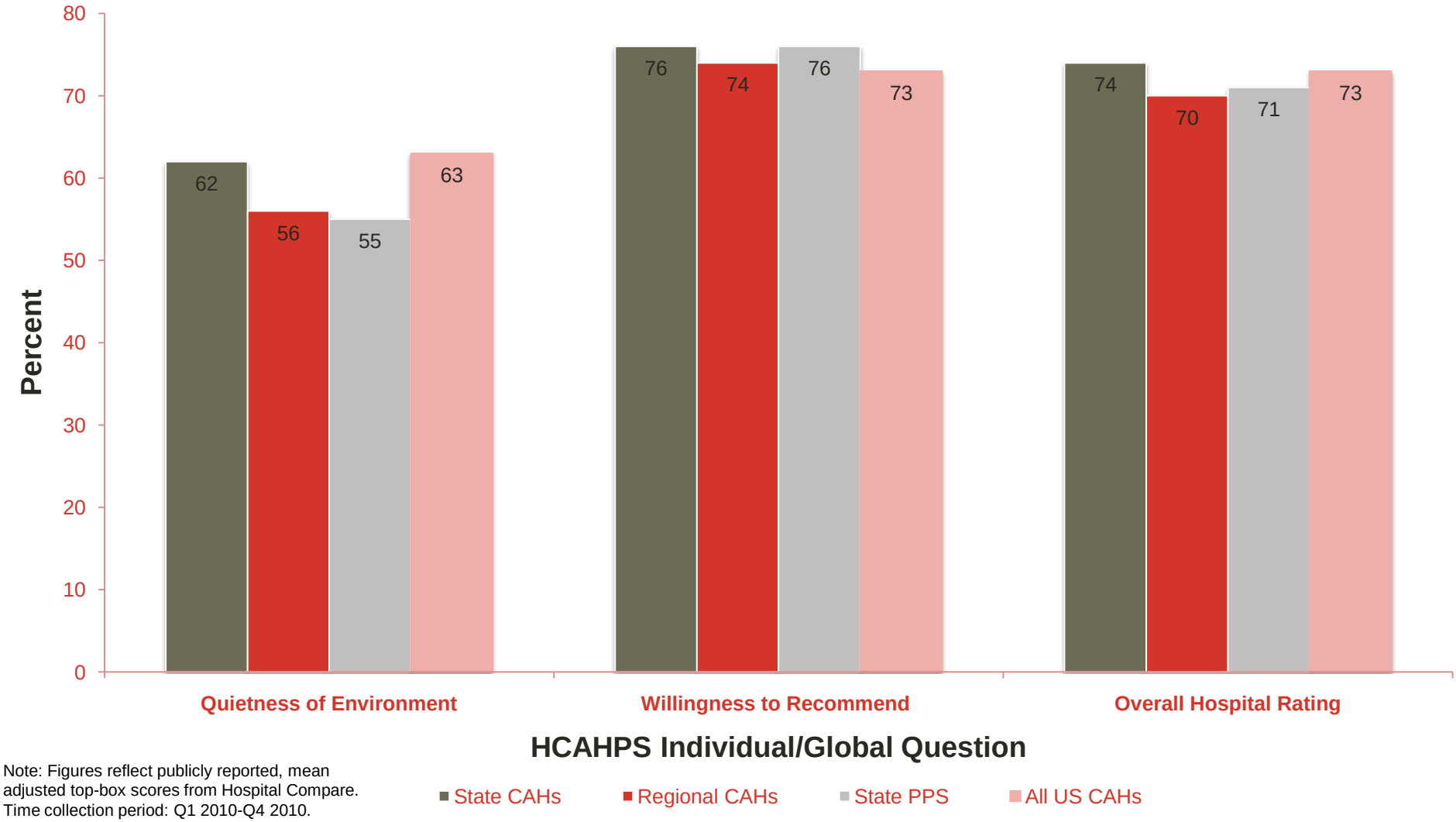
HCAHPS – January 2010 – December 2010

Org ID	Nurse Communication	Doctor Communication	Received help as soon as they wanted it	Pain was well controlled	Staff explained about medicines before giving them	Room and bathroom were clean	Area around room was quiet at night	Given information about what to do during recovery	Hospital Rating	Would recommend the hospital
247	86.0%	83.0%	77.0%	74.0%	68.0%	82.0%	52.0%	77.0%	77.0%	74.0%
502	76.0%	81.0%	67.0%	70.0%	61.0%	82.0%	61.0%	82.0%	71.0%	70.0%
503	78.0%	82.0%	76.0%	71.0%	64.0%	72.0%	62.0%	89.0%	70.0%	65.0%
504	80.0%	81.0%	75.0%	73.0%	65.0%	82.0%	66.0%	84.0%	75.0%	70.0%
505	77.0%	79.0%	69.0%	68.0%	59.0%	77.0%	62.0%	84.0%	74.0%	77.0%
284	76.0%	77.0%	74.0%	64.0%	59.0%	76.0%	54.0%	81.0%	64.0%	55.0%
285	78.0%	79.0%	71.0%	72.0%	60.0%	75.0%	58.0%	88.0%	69.0%	72.0%
286	74.0%	81.0%	68.0%	71.0%	56.0%	81.0%	48.0%	84.0%	70.0%	71.0%
287	82.0%	87.0%	79.0%	77.0%	67.0%	80.0%	56.0%	88.0%	74.0%	74.0%
507	87.0%	89.0%	85.0%	78.0%	73.0%	82.0%	66.0%	82.0%	78.0%	80.0%
289	81.0%	78.0%	71.0%	70.0%	66.0%	81.0%	63.0%	79.0%	70.0%	60.0%
291	87.0%	87.0%	85.0%	78.0%	74.0%	90.0%	72.0%	90.0%	84.0%	79.0%
293	80.0%	82.0%	70.0%	76.0%	66.0%	71.0%	61.0%	88.0%	75.0%	66.0%
508	84.0%	77.0%	77.0%	75.0%	64.0%	80.0%	71.0%	87.0%	68.0%	69.0%
250	84.0%	75.0%	76.0%	73.0%	65.0%	83.0%	60.0%	89.0%	82.0%	85.0%
299	82.0%	83.0%	73.0%	72.0%	66.0%	77.0%	54.0%	89.0%	73.0%	79.0%
Network CAHS	**81.5%**	**82.1%**	**75.3%**	**72.7%**	**65.5%**	**80.6%**	**59.0%**	**85.4%**	**74.6%**	**73.1%**
All CAHS	**79.9%**	**83.4%**	**72.5%**	**72.0%**	**63.9%**	**79.3%**	**61.8%**	**83.1%**	**71.5%**	**71.9%**
All Hospitals	**75.5%**	**80.1%**	**63.6%**	**69.1%**	**59.9%**	**70.8%**	**57.7%**	**81.5%**	**66.7%**	**69.0%**

**Data compiled from Hospital Compare*

Rural Hospital Network: Improving Rural Access to Medicare beneficiaries Phase 2: HCAHPS

HCAHPS: Mean Individual/Global Item Scores by State



Note: Figures reflect publicly reported, mean adjusted top-box scores from Hospital Compare. Time collection period: Q1 2010-Q4 2010.

Rural Hospital Network: Finance at the Network and National Levels

Network of 20 Rural Hospitals

Finance	Network Median Scores				Most Recent Quarter		
	2010Q2	2010Q3	2010Q4	2011Q1	Network Target	Network Median	All Hospital Median
Days Cash on Hand	55.8	49.1	65.0	81.0	65.0	81.0	66.4
Days in Net Accounts Receivable	48.8	52.7	46.4	49.0	46.4	49.0	52.9
EBITDA Margin	8.4%	7.1%	11.2%	8.8%	11.2%	8.8%	7.6%
Net Income	$84,065	$9,506	$298,841	$223,658	$298,841	$223,658	$240,681
Operating Expense per Adjusted Admission	$5,605	$6,862	$7,274	$4,881	$7,274	$4,881	$5,371
Operating Profit Margin	1.9%	0.2%	4.1%	4.5%	4.1%	4.5%	-1.2%
Salary Expense as % of Total Operating Expense	38.5%	37.7%	40.1%	39.9%	40.1%	39.9%	40.8%

Q1 2010 vs. Q1 2011 Network Median Scores

	Q1 2010	Q1 2011	Change
Days Cash on Hand	58.4	81.0	22.6
Days in Net AR	52.2	49.0	3.2
EBITDA	7.8%	8.8%	1.0%
Net Income	$41,043	$223,658	$182,615
Operating Expense per Adjusted Admission	$5489	$4,881	$608
Operating Profit Margin	-3.4%	4.5%	7.9%
Salary Expense as % of Total Operating Expense	39.2%	39.9%	.7%

Rural Hospital Network:
Finance at the Network and Ownership Type Levels

Network of 20 Rural Hospitals

Q1 2011 Network Median Scores by Ownership

	Independent	County	System Owned	Network Avg.
Days Cash on Hand	51.2	107.9	109.5	81.0
Days in Net AR	54.0	46.8	44.3	49.0
EBITDA	5.7%	8.8%	14.6%	8.8%
Net Income	$3,543	$140,226	$594,731	$223,658
Operating Expense per Adjusted Admission	$4,390	$5,371	NA	$4,881
Operating Profit Margin	-0.2%	2.5%	9.6%	4.5%
Salary Expense as % of Total Operating Expense	39.9%	41.3%	35.6%	39.9%

Rural Hospital Network:
Finance at the Hospital, Network and National Levels

Network of 20 Rural Hospitals

Finance Dashboards

Monitoring of hospital specific financial measures with local, state and national focus

Hospital Code	EBITDA	EBITDA Margin	Operating Margin	Salary Expense % of Operating Revenue	Salary Expense % of Operating Expense	Current Ratio	Days Cash on Hand	Days in Net AR	Average Age of Plant	Net Income	Operating Expense per Adjusted Admit
246	$2,843,987	11.8%	-14.0%	49.8%	36.0%	1.2	9	49.5	53.9	-$1,853,209	$3,551
Network	$4,297,910	10.4%	2.9%	45.0%	38.8%	2.8412	91.9618	48.7735	30.7941	$2,137,247	$6,651
US		8.2%	-3.6%		43.1%		65.9	49.9		$1,055,428	$6,350

How to Create Networks with Other Rural Hospitals

Pennsylvania CAH Coalition

- *Scale*: 12 of 13 CAHs participating
- *Start Date*: Flex FY 2002
- *Funding*: Flex pays for iVantage consulting (one contract)
  SHIP pays for basic RPM website (pooled)
  Hospitals pay for RPM customizations (ad hoc)
- *Leadership*: Larry Baronner, Flex Coordinator
- *Partners*: Hospital Association of Pennsylvania
  Quality Insights of Pennsylvania (QIO)
  Penn State University (graduate students)
  Department of Health
  Pennsylvania Health Care Quality Alliance

How to Create Networks with Other Rural Hospitals

A Simple Improvement Framework

1. Identify one or two QI Projects Per Year
2. Recruit Volunteer CAHs (denominator)
3. Assess Performance of Volunteers (Numerator)

$$\frac{\text{\# Hospitals Showing Improvement}}{\text{\# Hospitals Participating}} \quad \frac{12}{15} = 80\%$$

- Evaluate Performance Based on Volunteering CAHs
- What did the network do to help the CAHs that did NOT improve?
- How did the network leverage knowledge from CAHs' that DID improve?

How to Create Networks with Other Rural Hospitals

The Pennsylvania Network Accomplishes Innovative Projects

- Medication Management Evaluation Project (ISMP)
- Pneumonia Project (Quality Insights)
- AMI/Chest Pain Project (Quality Insights)
- CAH Nurse Manager Academy (Penn State)
- CAH Department Manager Leadership Academy (Penn State)
- Rural Community Balanced Scorecards (iVantage)
- Community Benefit Demonstration Project (iVantage/Flex)
- ED Transfer Communication Demonstration Project (iVantage/Flex)
- Gaining Strategic Edge CEO Project (iVantage)
- CAH Employee Development Training Modules (iVantage)
- PA CAH Public Reporting (PHCQA)
- PA CAH Economic Analysis (Penn State)

Questions and Comments on How to Create Networks with Other Rural Hospitals?

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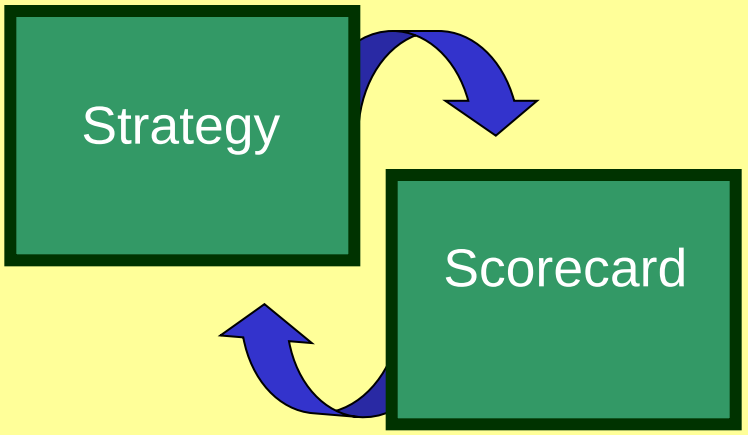
Next:
Using Metrics for Improved Performance in Rural Hospitals

Using Metrics for Improved Performance in Rural Hospitals

The Central Premise of Metrics

Measurement Starts with Strategy



Measurement Motivates

"It's not what you expect...it's what you inspect."

"What you measure is what you get."

"If you can measure it, you can manage it."

Using Metrics for Improved Performance in Rural Hospitals

Key Points

- Metrics enable the hospital/network to track its progress against its strategy
- You should have enough measures to accurately track your progress and make necessary changes but not so many that the process becomes cumbersome
- There should always be a “indicator/metric library” that spells out the definition and how the metric is calculated
- **Each can receive a “indicator/metric library” appropriate for rural hospitals and networks**
- Link metrics to objectives in your hospital or network strategic plan

Using Metrics for Improved Performance in Rural Hospitals: Quality

Modified Board Report: *Quality*

Quality	Prior	Current	Trend	Target	Frequency	Six-Month Trend
AMI Topic (All Or None) Measures the percentage of patients meeting all eligible measures for the Acute Myocardial Infarction (AMI) topic area	NA	70%	▶	100%	Quarterly	
HF Topic (All Or None) Measures the percentage of patients meeting all eligible measures for the Congestive Heart Failure (CHF) area	50%	73%	▲	100%	Quarterly	
PN Topic (All Or None) Measures the percentage of patients meeting all eligible measures for the Pneumonia (PN) topic area	100%	79%	▼	100%	Quarterly	
SCIP Topic (All Or None) Measures the percentage of patients meeting all eligible measures for the Surgical Care Improvement Project (SCIP) topic area	0%	90%	▲	100%	Quarterly	

Using Metrics for Improved Performance in Rural Hospitals: A Network Scorecard

	CAH #1	CAH #2	Indiana CAH	All US CAH
Finance	(n=8)	(n=4)	(n=34)	(n=1,256)
Net Income	$832,768	$1,500,748	NA	$1,055,428
EBIDA	7.3%	12.6%	10.4%	8.2%
Operating Expense per Adjusted Admit	$5,888	$7,275	NA	$6,350
Salary Expenses as % of Operating Expense	52.1%	38.0%	40.3%	43.1%
Days in Accounts Receivable	36.1	32.8	42.9	49.9
Days Cash on Hand	101.0	80.7	72.6	65.9
Operating Margin	1.1%	1.1%	2.4%	-3.6%
*Cost Report benchmarks based on hospitals with end of fiscal year in 2009 or 2010				
Quality (CMS Core Measure Index)				
AMI	98	98	95	93
HF	84	95	87	80
PN	86	93	88	86
SCIP	91	97	90	92
*Index Score is the average of all measures across each CMS Core Topic				
Attitudes				
HCAHPS (Would you recommend?)	68	76	70	70
Market				
Medicare Market Share	26%	35%	29%	NA
Percent Population 65+	11%	15%	14%	NA
Adjusted Admissions	4032	4626	NA	4230

WHAT IS A STRONG HOSPITAL?

Holistic Evaluation of Market, Operations and Finance

- A Strong Hospital has the following characteristics:
  - Dominant market share with growing demand
  - Diffuse competition
  - Outstanding quality and safety programs
  - Loyal, satisfied patients
  - Efficient and appropriately priced services
  - Strong balance sheet with surplus capital
  - High margin services

Market

Value-Based

Financial

HOSPITAL STRENGTH INDEX

STRENGTH INDEX COMPONENTS

Using Data & Analytics to Benchmark Performance

Market Strength

What is the hospital's market share, level of competition and the future healthcare demand of its core service area?

Value-Based Strength

Does the hospital provide high quality and safe clinical services, and are its patients loyal and satisfied?

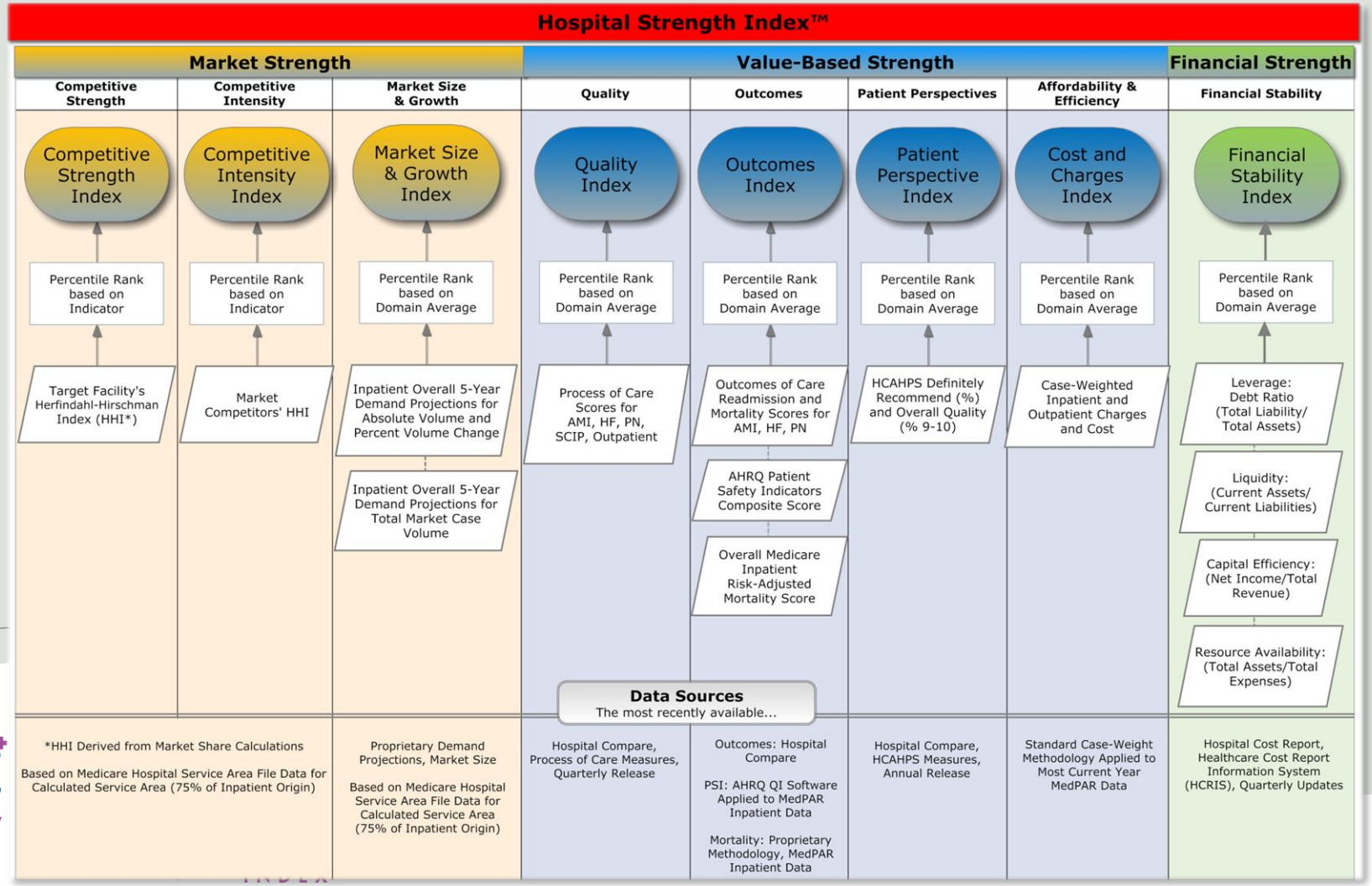
Financial Strength

What is the hospital's long-term financial position and does it generate adequate margin and return on capital?

HOSPITAL STRENGTH INDEX

STRENGTH INDEX COMPONENTS

Framework Summary



STRENGTH INDEX COMPONENTS

Using Data & Analytics to Benchmark Performance

Market Strength

What is the hospital's market position, level of competition and the future healthcare demand of its service area?

Competitive Strength Index	+	Competitive Intensity Index	+	Market Size and Growth Index
Market Position		Market Diffusion		Future Healthcare Demand

HOSPITAL STRENGTH INDEX

STRENGTH INDEX COMPONENTS

Using Data & Analytics to Benchmark Performance

Value-Based Strength

Does the hospital provide high quality and safe clinical services, and are its patients loyal and satisfied?

Quality Index	+	Outcomes Index	+	Patient Perception Index	+	Cost and Charges Index
Clinical Processes		Clinical Results		Attitudes		Pricing & Efficiency

HOSPITAL STRENGTH INDEX

STRENGTH INDEX COMPONENTS

Using Data & Analytics to Benchmark Performance

Financial Strength

What is the hospital's long-term financial position and does it generate adequate margin and return on capital?

Financial Stability Index

- Balance Sheet Ratios
- Income Statement Ratios

Financial Position

HOSPITAL STRENGTH INDEX

Benchmarking

Assessing Your Performance Against Peers

Nat'l. Percentile Rank	Overall Strength	Financial Strength	Competitive Strength				Market Strength		
	HSI™	Financial Stability	Quality	Outcomes	Patient Perspective	Cost/Charges	Competitive Strength	Competitive Intensity	Market Size/ Growth
Your Hospital	**76**	**77**	**90**	**61**	**63**	**95**	**76**	**65**	**79**
Hospital B	61	74	86	65	37	100	58	11	59
Hospital C	61	97	86	88	32	54	3	78	49
Hospital D	39	27	17	54	60	41	52	29	29
Hospital E	67	97	98	82	20	43	35	68	92
Hospital F	50	76	94	83	6	70	33	36	3

Top Quartile 3rd Quartile 2nd Quartile 1st Quartile

HOSPITAL STRENGTH INDEX

Using Metrics for Improved Performance in Rural Hospitals

HSI Category Composite Report
Award Year 2011

SAMPLE STATE NETWORK

HOSPITAL STRENGTH INDEX

Provider Name	PPS/CAH Designation	Overall Composite	Market Strength Index	Value Based Strength Index	Financial Strength Index
#000000000803	CAH	34.71	20.80	25.16	99.32
#000000000795	CAH	3.39	22.49	0.94	21.26
#000000000805	CAH	8.75	46.85	3.32	31.39
#000000000783	CAH	21.80	42.38	22.85	29.37
#000000000799	CAH	68.66	66.24	51.04	58.67
#000000000794	CAH	63.12	9.36	82.31	95.74
#000000000789	CAH	4.58	17.46	5.19	23.80
#000000000804	CAH	46.26	21.55	64.49	46.22
#000000000792	CAH	5.59	13.02	8.24	47.76
#000000000787	CAH	2.81	41.41	2.92	2.06
#000000000797	CAH	10.62	25.93	14.50	5.16
#000000000786	CAH	20.76	58.63	9.38	79.08
#000000000788	CAH	4.40	20.11	4.44	5.71
#000000000807	CAH	40.29	62.58	30.39	14.83
#000000000802	CAH	58.18	23.01	85.81	23.10
	Provider Average	**24.52**	**30.67**	**25.38**	**43.54**
	Provider Median	**14.66**	**23.01**	**10.80**	**31.39**
	STATE PPS Median	**60.90**	**75.38**	**64.85**	**48.26**
	STATE CAH Median	**14.66**	**23.01**	**10.80**	**31.39**
	All STATE Median	**57.98**	**72.97**	**61.39**	**46.40**

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How to Interpret this Report

This report contains provider-level data from the Hospital Strength Index™, a broad performance scorecard based on publicly available data. For each facility appearing in the table above, **HSI Percentile Ranks** measure relative strength related to, and aggregated from, performance in three categories: **Market, Value-Based, and Financial.** Percentile scores reflect category-level performance of a given hospital or hospital cohort to all U.S. hospitals included in the study. Circles next to the score are conditionally formatted by quartile. Blanks indicate that data were not available.

Quartile Color Scale

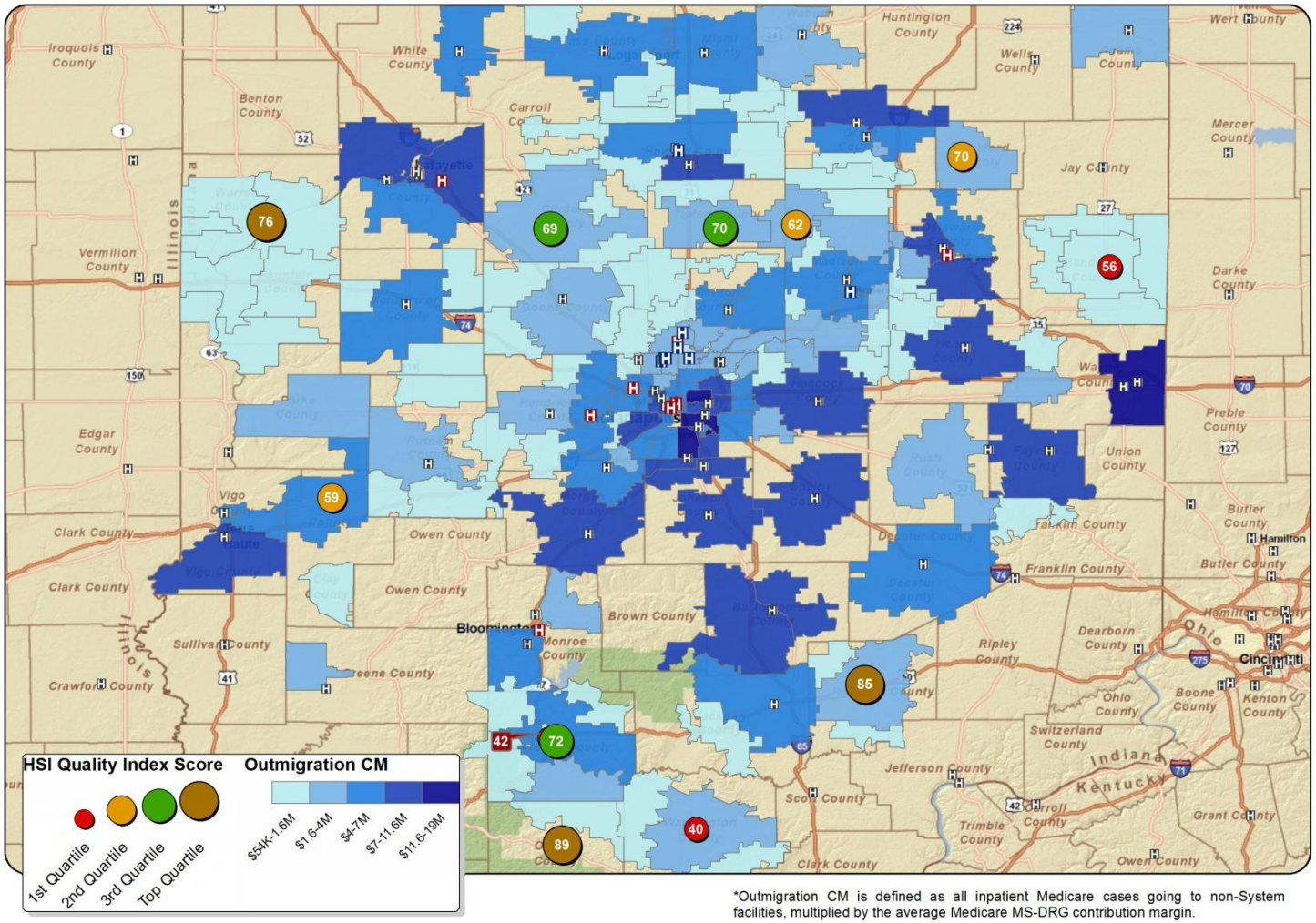
Top 2nd 3rd 4th

iVantage
Intelligence for the new healthcare
877.842.4998
www.hospitalstrengthindex.com

Using Metrics for Improved Performance in Rural Hospitals: A Network Scorecard

Rural Hospital Networks - HSI Quality Index Percentile Rankings

Shading Represents Outmigration Contribution Margin by Zip Code*



*Outmigration CM is defined as all inpatient Medicare cases going to non-System facilities, multiplied by the average Medicare MS-DRG contribution margin.

Thank You for Participating

Questions and Comments

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