



HEALTH CARE AND HUMAN SERVICES POLICY, RESEARCH, AND CONSULTING - WITH REAL-WORLD PERSPECTIVE.

# Evaluation of Services for Comprehensive and Ongoing Technical Assistance to Rural Hospitals in the Mississippi Delta Region: Year One Report

September 17, 2009

# Presentation Outline

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1. Introduction
2. Methodology
3. Program Outcomes
4. Conclusion and Selected Recommendations

# Introduction

- Rural hospitals typically face greater challenges than urban ones, including:
  - Lower patient volumes.
  - Smaller reimbursements.
  - Fewer health professionals,
  - More patients that are older and/or with more chronic conditions, and
  - Greater financial stress.<sup>1, 2</sup>
- To help address these unique challenges, HRSA's Office of Rural Health Policy (ORHP) supports the Mississippi Delta Region Hospital Performance Improvement (RHPI) Project.



<sup>1</sup> "Quality Through Collaboration: The Future of Rural Health," Institute of Medicine, 2005.

<sup>2</sup> The National Advisory Committee on Rural Health and Human Services, "Health Care Quality: The Rural Context," April 2003.

# Purpose of the Evaluation

The Lewin Group was commissioned to conduct the program's first external evaluation. Primary areas of focus during year one of a two year evaluation included:

- Profiling consulting services received and hospitals' overall satisfaction with consultants.
- Examining the extent consultant recommendations were adopted and challenges encountered.
- Profiling outcomes to date.
- Assessing sustainability and transferability of gains achieved.
- Identifying possible future program opportunities and refinements.



# Multi-Method Evaluation Methodology

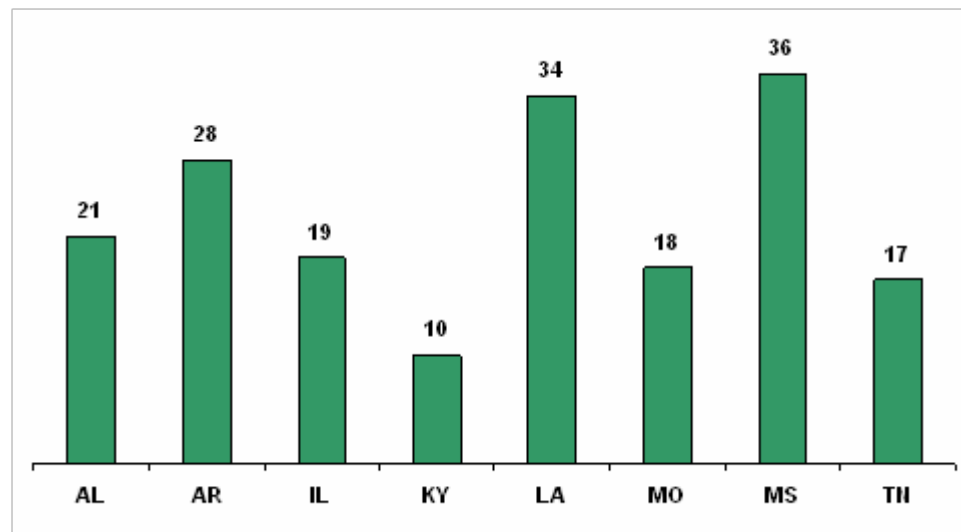
- **Document Review:** Reviewing annual reports and other program documents.
- **On-line Assessment:** Fielding a 38 question online assessment of participating rural hospitals. 40% response rate achieved.
- **Pair-wise Financial Outcomes Assessment:** Comparing financial performance trends among eight RHPI participating hospitals with eight comparable and RHPI eligible non-participants.
- **Interviews:** Conducting semi-structured interviews with key program stakeholders to build upon on-line assessment data.
- **Site visit:** Conducting a day-long site visit to a promising practice site with demonstrated success in implementing RHPI consultant recommendations.



# Trends in RHPI Hospital Eligibility

- Hospital eligibility was initially limited to rural critical-access hospitals of 49 or fewer beds and hospitals in designated areas in the 240 counties in the Delta Regional Authority (DRA).
- In 2008, eligibility expanded to include a total of about 183 hospitals with up to 200 beds or rural hospitals contiguous to a DRA-designated area.

Number of 2008 RHPI Eligible Rural Hospitals by State

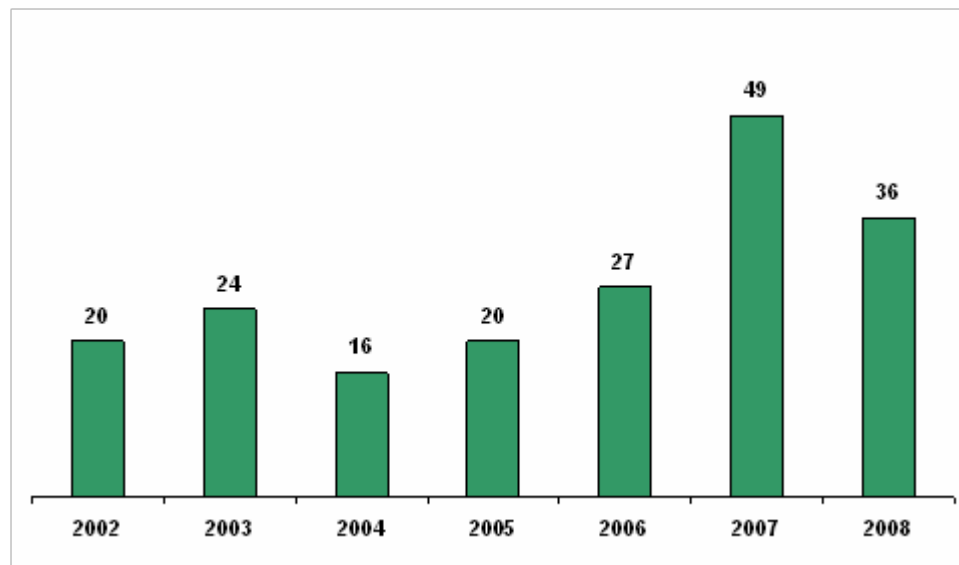


Source: Mountain States Group data

# Levels of RHPI Program Participation

- The number of Delta hospital applications for consulting services has more than doubled from 30 in 2003 to 69 in 2008.
- There has been a subsequent rise in demand both in the number of annual consultations provided and 35 hospitals are on the waiting list for 2010.
- Yet a number of RHPI eligible providers have not participated in the program.

## Annual Trends in Number of RHPI Hospital Consultations



Source: Mountain States Group data

## Reported Reasons for RHPI Non-Participation

## Efforts to Mitigate Non-Participation

<p>A number of eligible non-participating hospitals are reportedly owned by large for-profit healthcare systems with centrally controlled corporate structures that are internally focused. Tennessee was cited as a prime example by respondents.</p>	<p>MSG reportedly is reviewing and focusing upon this issue in their FY2009 outreach efforts.</p>
<p>The menu of consulting services may not always fit specific hospital needs or are not current topics of interest.</p>	<p>MSG has expanded the list of available services and consultants; and works with hospitals to tailor services to fit their individual needs.</p>
<p>Management staff in rural hospitals often have multiple responsibilities, i.e., “wear many hats”, limiting time and resources available to apply for and actively participate in consulting engagements.</p>	<p>MSG has refined the application process to make it easier and more efficient.</p>
<p>In the early stages of the program, there were reportedly concerns among some hospitals regarding possible “strings attached” to federally funded technical assistance programs.</p>	<p>MSG conducted educational meetings and outreach through state partners to allay these concerns.</p>

# Trends in RHPI Consulting Service Offerings

- Prior to 2008, the availability of hospital consulting services focused on a popular full performance improvement assessment (PIA) and/or a combination of a balanced scorecard, primary options assessment, chargemaster update, community engagement through the Rural Health Works Program, and feedback assessments.
- As of 2008, both service offerings and the pool of consultants have been expanded, informed by hospital and state partner feedback.
- About half of hospital respondents reported their most recent consulting services focused on financial performance improvement, business office operations, and revenue cycle management.



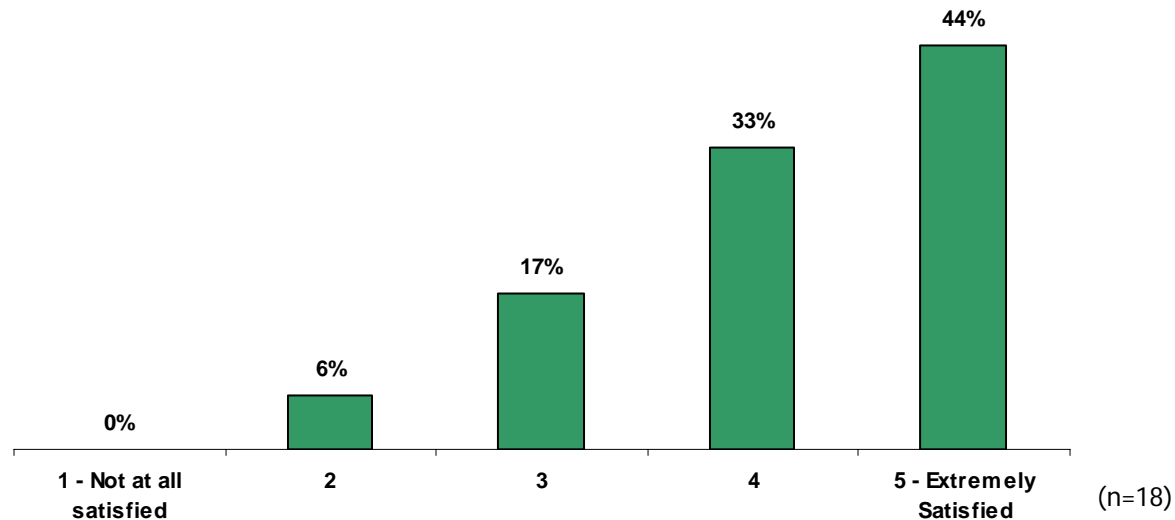
# Menu of Current RHPI Consulting Service Offerings

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|---|--|
| <ul style="list-style-type: none"><li>■ Financial Performance Improvement Assessments</li><li>■ Quality improvement and quality program development</li><li>■ Balanced Score Card</li><li>■ Lean Process Planning &amp; Value Stream Mapping</li><li>■ Strategic planning</li><li>■ CAH billing, reimbursement and compliance</li><li>■ Revenue Cycle Management</li><li>■ Business Office Operations Assessment</li><li>■ Master Site Planning</li><li>■ Physician Practice management</li></ul> | <ul style="list-style-type: none"><li>■ Governance and Board development</li><li>■ Leadership development / mid-level management training</li><li>■ Succession planning</li><li>■ Customer service</li><li>■ Community engagement, outreach and marketing</li><li>■ Performance Evaluations / Staffing Productivity Analysis</li><li>■ Employee and Patient Satisfaction Assessments</li><li>■ Clinical Recruitment Analysis</li><li>■ Nursing Quality and Models of Care Analysis</li><li>■ Economic Impact Assessments</li></ul> |
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# Expertise of and Satisfaction with RHPI Consultants

- Virtually all on-line assessment respondents felt that RHPI consultants understood their hospital and its needs, possessed high or very high levels of technical skills and expertise, and would recommend them to other rural hospitals.
- Over three-quarters of respondents reported being very or extremely satisfied overall with their consultants.

Levels of Rural Hospital Overall Satisfaction with RHPI Consultants



# Identifying Positive ROI from Adopted Performance Improvement Initiatives

## Three sources of information:

- Feedback from interviews with state partners and hospital senior leaders.
- Responses from the online assessment.
- Outcomes from comparing financial performance trends among a pair-wise sample of eight participating and eight eligible but non-participating Delta hospitals.

More than two-thirds of online assessment respondents and most interviewees report a positive ROI from PI initiatives. However, "hard" ROI was hard to quantify due to other confounding internal/external factors.

"We used RHPI consultants three times. They were clearly a major player in the improvement of gross revenue here from \$19 million in 2003 to about \$35 million this year."

HOSPITAL CEO

"The positive ROI is a dramatic improvement in patient satisfaction scores. We strongly believe that this will have a direct impact on repeat business."

HOSPITAL CEO

"Bills are being processed quicker and follow-up collections by our billers are being done more expeditiously and effectively."

HOSPITAL CEO

# Comparative Financial Performance Assessment Design Overview

**Method for Conducting Pair-Wise Hospital Selection:** One participating and one comparable eligible non-participating hospital from each Delta state was selected for analysis based on variables correlating with financial health, including:

- Bed size
- Adjusted patient days
- Average daily census (acute and swing beds, separately)
- Medicare Inpatient Payer Mix
- Percent of revenue from outpatient services
- Presence of a nursing home unit
- Ownership status

**Performance Measures Analyzed:** For each hospital, data were extracted from the FY 2000-2006 Medicare Cost Reports and AHA annual surveys and trends in the following measures were calculated:

- Profitability (Total Margin, *Operating Margin*)
- Liquidity (Current Ratio, *Days in Patient Accounts Receivable*)
- Capital Structure (Equity Financing)
- Asset Efficiency (Total Asset Turnover)
- Cash Flow (Cash Flow to Total Debt)

# Summary of Performance Measure Definitions

- **Total Margin (Profitability):** This indicator measures overall hospital profitability.
- **Current Ratio (Liquidity):** This widely used measure compares the dollars held in current assets with current liabilities. High values imply that a hospital can better meet short-term obligations.
- **Equity Financing (Capital Structure):** This indicator measures the percentage of total assets financed by equity vs. debt. High (or low) ratios may imply that a hospital needs more debt (or equity) financing to better balance its overall financing practices.
- **Total Asset Turnover (Asset Efficiency):** This is an index of the revenue generated per dollar of asset investment. Higher values for this ratio may be seen as an indicator of higher efficiency.
- **Cash Flow to Total Debt (Cash Flow):** Comparing the current funds available from operations to total debt, declining values for this ratio may indicate future debt repayment problems.

# Hospital Sample Frame for Pair-Wise Comparison of Financial Performance Trends

The RHPI participating and comparable program eligible non-participating hospitals from each Delta state selected for pair-wise comparisons are shown below.

Delta State	RHPI Participating Hospital	Non-Participating Hospital
Alabama	Jackson Medical Center	L. V. Stabler Memorial Hospital
Arkansas	Ashley County Medical Center	Baptist Health Medical Center
Illinois	Hamilton Memorial Hospital District	Memorial Hospital of Chester
Kentucky	Livingston Hospital & Healthcare Services	Parkway Regional Hospital
Louisiana	East Carroll Parish Hospital	Citizens Medical Center
Mississippi	Sharkey Issaquena Community Hospital	Covington County Hospital
Missouri	Perry County Memorial Hospital	Missouri Southern Healthcare
Tennessee	Gibson General Hospital	Bolivar General Hospital

# Summary of RHPI Hospital Post-PIA Financial Performance Trends: FY2000-FY2006

RHPI participants demonstrated improved post-PIA financial performance. Improvements outnumbered declines by a ratio of about four to one.

State	Profitability (total margin)	Liquidity (current ratio)	Capital Structure	Asset Efficiency	Cash Flow
AL	✓	✓	N/A	✓	✓
AK	✓	✓	✓	✓	✓
IL	✓	✓	✓	✓	✓
KY	✓	✓	✗	✓	✓
LA	✗	✓	✓	✓	✗
MS	✗	✗	✓	✗	✗
MO	✓	✓	✓	✓	✓
TN	✓	✓	✗	✓	✓



Improvement in RHPI hospital performance



Decline in RHPI hospital performance

# Comparison of RHPI Participating Hospitals Post-PIA Performance Trends to Non-Participating Comparators FY2000-FY2006

Comparative trends in performance were mixed. RHPI hospitals performed better in 20 indicators and worse in 14.

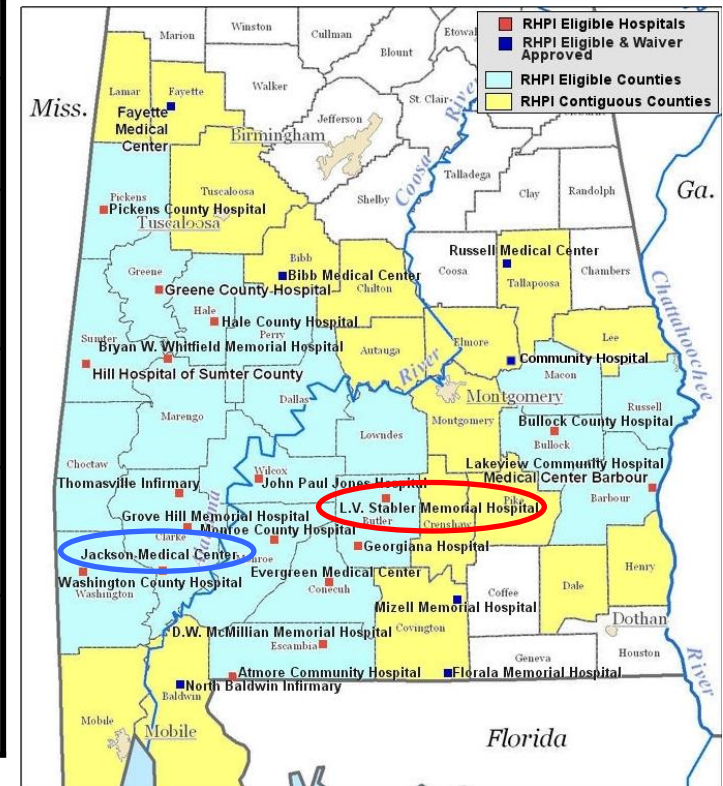
State	Profitability (total margin)	Liquidity (current ratio)	Capital Structure	Asset Efficiency	Cash Flow
AL	✓	✓	NA	✓	✓
AK	✗	✓	✓	✓	✓
IL	✗	✓	✓	✓	✗
KY	✓	✓	NA	✓	✓
LA	✗	✗	✗	✓	✗
MS	✗	✓	✓	✓	✗
MO	✗	NA	NA	✗	✓
TN	✗	✓	✗	✓	✗

# Jackson Medical Center, Alabama:

## An Example of Superior Overall Performance

Jackson Medical Center (JMC) showed consistent post-PIA improvement and surpassed Stabler Memorial Hospital (SMH) across all indicators.

Measure	Results
Profitability (total margin)	JMC showed rapid post-PIA improvement and greater profitability.
Liquidity (current ratio)	JMC current ratio grew and became consistently higher and more stable post-PIA than SMH.
Capital structure	N/A
Asset efficiency (asset turnover)	JMC asset turnover grew post-PIA and remained consistently higher than SMH.
Cash flow	From a poor pre-PIA position JMC showed rapid post-PIA improvement and surpassed SMH.

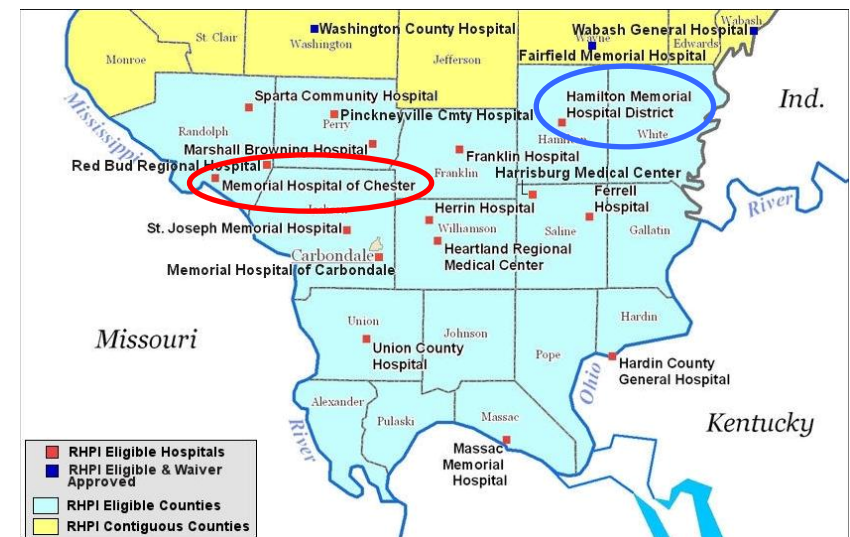


# Hamilton Memorial Hospital District (HMHD), Illinois

## An Example of Continuous Hospital Improvement

Although behind Memorial Hospital of Chester (MHC) in some areas, HMHD showed post-PIA financial improvements across all measures.

Measure	Results
Profitability (total margin)	Impressive HMHD post-PIA improvements (from -2.3% to 6.5%), but MHC improved even more.
Liquidity (current ratio)	HMHD had a consistently higher but declining post-PIA current ratio compared to MHC.
Capital structure	Both HMHD and MHC had stable post-PIA capital structures.
Asset efficiency	HMHD had consistently higher post-PIA asset turnover.
Cash flow	Despite some post-PIA improvement, HMHD lagged behind MHC.



# Limitations of Comparative Hospital Financial Performance Findings

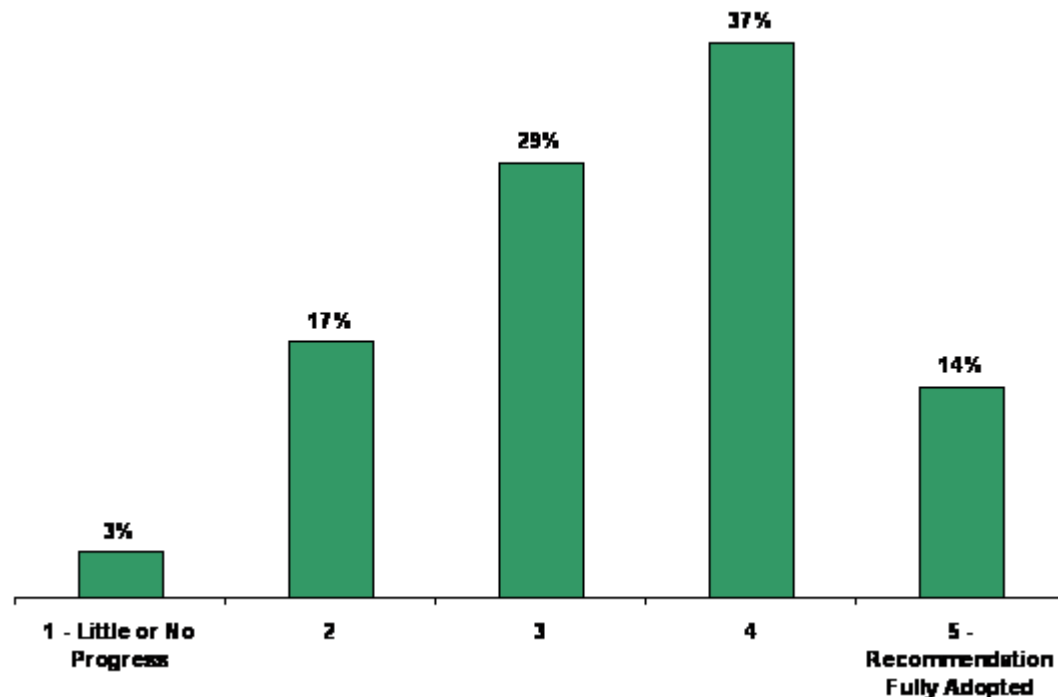
The findings of this study are subject to several limitations:

- **Small sample size:** Results may not be representative of the entire population of participating and eligible non-participating hospitals.
- **Data quality and consistency:** The quality of some Medicare data may be uncertain and there may be variations in financial reporting across hospitals.
- **Comparison variables used:** Hospitals were grouped for comparison using variables that influence financial performance. Since other variables may also influence performance, caution should be exercised generalizing conclusions based solely on these outcomes.

# Progress Made Implementing Consultant Recommendations

- Slightly over half of online assessment respondents reported either very substantial progress or full adoption of consultant recommendations.
- About one-third reported encountering major challenges in implementing RHPI sponsored consultant recommendations.

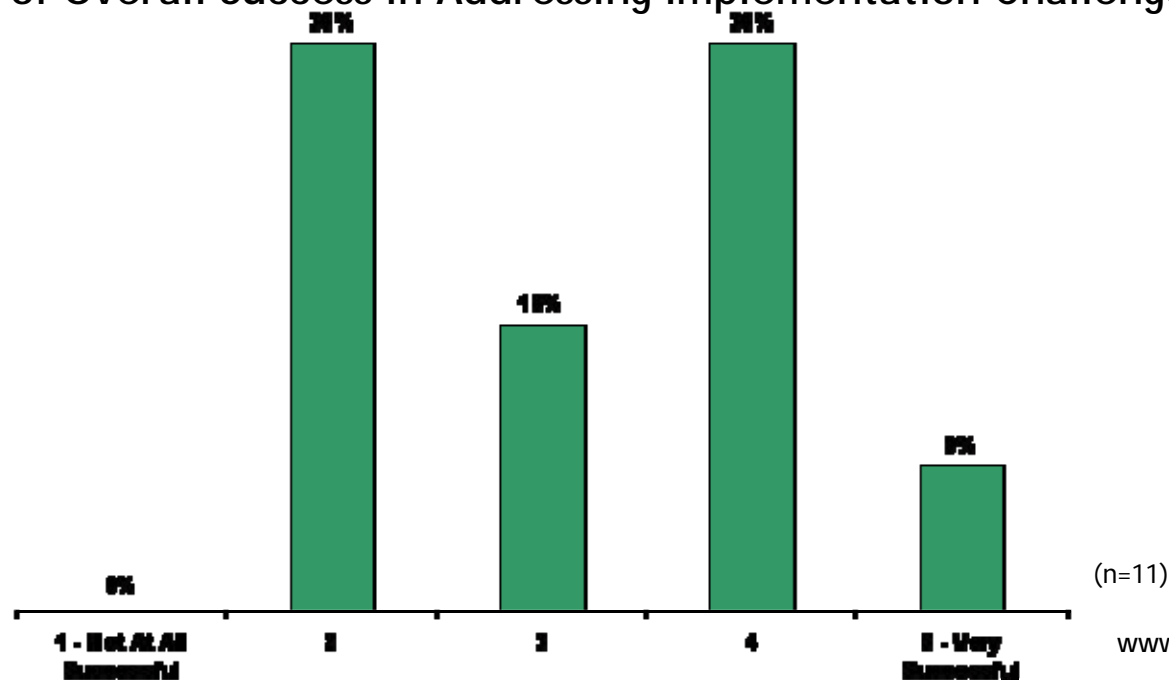
Progress to Date towards Adopting RHPI Consultant Recommendations



# Challenges Encountered Implementing Consultant Recommendations

- Success in overcoming major implementation challenges was reportedly mixed.
- About 40% of hospitals unable to adopt recommendations cited internal issues: 1) leadership turnover and/or lack of sustained leadership support and 2) inability to gain physician and/or staff buy-in.
- Another one-third pointed to environmental factors, including health professional shortages and state Medicaid payment cuts.

Levels of Overall Success in Addressing Implementation Challenges



# Unanticipated Outcomes Encountered Implementing Consultant Recommendations

Despite carefully developed work plans, about 40% of respondents reported experiencing unanticipated outcomes implementing consultant recommendations.

“We expected someone to come in and help us write our policy and procedure manual using templates or examples from other hospitals and leave us with a finished product. The consultant came in and taught us how to write our own policy and procedure manual and we had to do most of the work.”  
HOSPITAL CEO

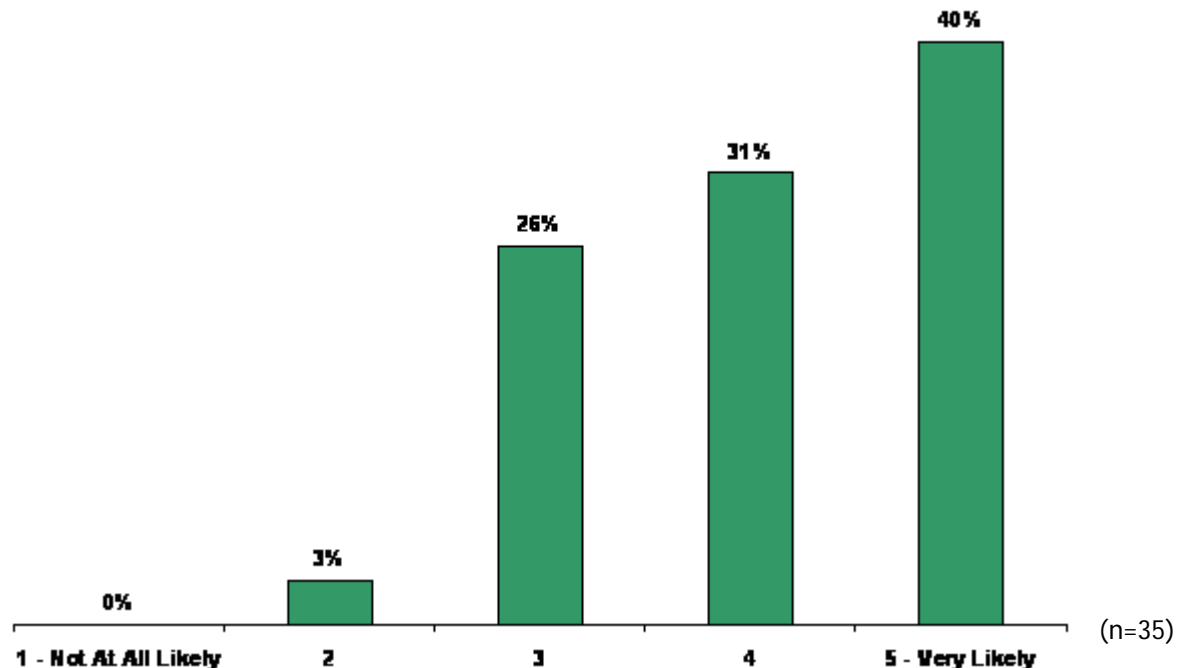
“We did not realize just how bad the charge master and revenue cycle processes were. Implementing consultant recommendations is having a much bigger impact than expected.”  
HOSPITAL CEO

“An unexpected outcome was the identified need to make changes in some low to mid-level management personnel in order for the hospital to follow through with the appropriate action.”  
HOSPITAL CEO

# Sustainability of Implemented Consultant Recommendations

- About 70% of online respondents reported a strong likelihood of sustaining their performance improvement gains.

Likely Sustainability of RHPI Funded Performance Improvement Gains



# Reported Challenges to Sustaining Hospital Performance Improvement Gains

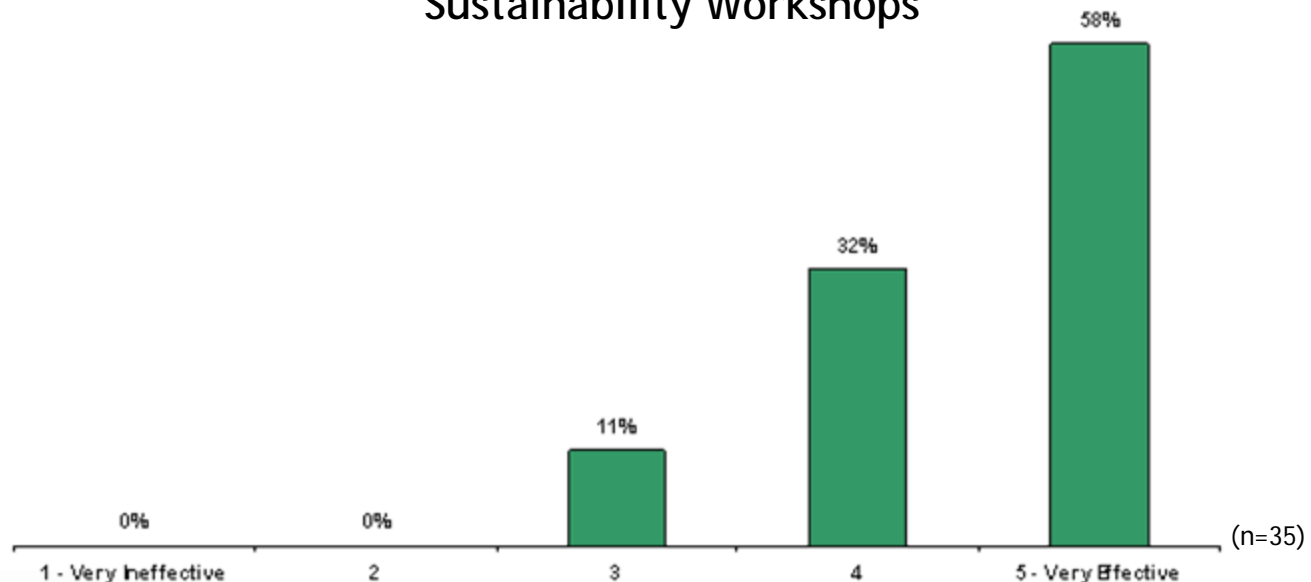
- On-line assessment and interview respondents cited: 1) high senior management turnover; 2) limited staff resources with multiple responsibilities; and 3) the complexity of operating in resource challenged environments as key sustainability challenges.
- Most respondents reported not obtaining external financial or other support to sustain some or all of their PI gains.
- A minority obtained support from state partner organizations, including state hospital associations, offices of rural health and the RHRC.
- Informal consultant support was also favorably cited.
- Hospitals cited the merits of RHPI sponsored middle management leadership training to help build the culture needed to ensure ongoing hospital-wide commitment to sustainability.



# Satisfaction With RHPI Sustainability Workshops

- RHPI sponsors workshops designed to support sustainability by focusing on performance management and working with hospitals to build on infrastructure developed during their consultations.
- More than half (54%) of hospital respondents have attended these forums and most rate them highly.

## Summary of RHPI Hospitals' Overall Satisfaction Levels with Sessions in Sustainability Workshops



# Summary of Factors Influencing Sustainability of Gains Achieved

**Leadership and Organizational Commitment to Sustainability.** Leadership must clearly communicate technical assistance goals to all staff so that they understand the value to the organization. The vigor and commitment with which a project is implemented is a critical success factor to achieving sustainability.

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**Obtaining Board and Physician Buy-In.** It is important to have buy-in of the Board and physicians before implementing technical assistance recommendations. Buy-in is significantly more likely if board members and physicians are engaged early in the process and are aware of the tangible value of proposed programs.

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**Establishing On-going Performance Measurement.** A commitment to performance measurement and evaluation is needed to avoid entropy. Continuing on-going performance measurement enables program participants to determine whether performance gains are being sustained and advanced or if remedial action is necessary.

# Summary Conclusion

- Evaluation findings suggest that overall the RHPI Program has established a solid record of achievement and occupies a unique niche in the arena of safety-net rural hospital performance improvement. Stakeholders encourage its further spread.
- The Program can help Delta hospitals face the challenges of the 21<sup>st</sup> century by supporting adoption of management practices that:
  - Improve financial health and patient safety.
  - Provide the optimum physical and operational clinical care environment.
  - Improve operational cost-effectiveness.
- Doing so will help ensure a strong rural hospital anchor that supports the IOM's call for developing healthy rural communities by focusing on both patient and population health.
- The following recommendations are intended to build upon program strengths.



# Selected Recommendations

**Consider carefully targeted program expansion if resources are available.** Given program success to date there is strong support to build additional rural health capacity by increasing the number of consulting service offerings and expanding the model within current states and to new high need regions, such as Appalachia.

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**Consider program offerings that support rural provider networking.** In recognition of the important role hospitals play in care coordination, consider a greater focus on consultant service offerings to support networking. For example, HIT networking is a pressing priority to support building community systems of care and knowledge transfer in this area is needed in rural communities.

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**Consider incorporating a formal evaluation component into the program.** Informants agreed that incorporating an evaluation component into RHPI consulting services is important to measure outcomes, evaluate accomplishments and acquire the ongoing feedback needed to help institutionalize hospital performance gains achieved.

# Selected Recommendations (Cont.)

Consider leveraging “gold standard” designated program alumni that RHPI participants could utilize as a technical assistance resource. Recruiting sites highly successful implementing and sustaining RHPI sponsored programs as TA centers would provide opportunities for others encountering implementation challenges or struggling to sustain gains achieved to learn “first hand” from their successful counterparts.

Continue exploring opportunities to build program synergies. Successes to date may provide opportunities to heighten program visibility and alignment with other rural health programs in the Delta region, such as HRSA’s Section 330A programs. Also consider supporting an RHPI program alumni network or association to maximize interaction and collaboration in areas of common interest.