SPECIAL INDUSTRY REPORT

# 4th ANNUAL

# Rural Hospital Replacement Facility Study 2008

*How Replacement Facilities Impact Operations and the Bottom Line: Findings from the Field*

*prepared and sponsored by* STROUDWATER ASSOCIATES

*sponsored by* DOUGHERTY MORTGAGE LLC

NEENAN architecture

Rural communities that have built a Critical Access Hospital have pioneered a new era. Find out how a replacement facility impacted their operations and bottom lines.


# Table of Contents

PROVIDENCE VALDEZ HOSPITAL, VALDEZ, AK

*The 2008 Rural Hospital Replacement Facility Study is prepared and sponsored by*

Stroudwater Associates
800.947.5712

Eric K. Shell, Principal
eshell@stroudwaterassociates.com

Brian R. Haapala, Principal
bhaapala@stroudwaterassociates.com

*sponsored by*

Dougherty Mortgage LLC

NEENAN architecture


design by annie|catherine, Westbrook, Maine
printed by Spectrum Printing, Portland, Maine

The 2005, 2006 and 2007 studies are available on the worldwide web at: ruralhospitalreplacement.org

COVER PHOTOS: TOP LEFT: WEATHERFORD HOSPITAL, OK; BOTTOM LEFT: HUDSON HOSPITAL, WI; RIGHT: GRAND RIVER MEDICAL CENTER, CO.

OUR LADY OF VICTORY HOSPITAL, STANLEY, WI

EXECUTIVE SUMMARY ..... 3

STUDY PURPOSE AND SCOPE ..... 4

DEMOGRAPHICS AND SERVICE AREA ..... 8

VISION AND PLANNING ..... 9

PRE- AND POST-REPLACEMENT VOLUME EXPERIENCE ..... 10

STAFFING ..... 12

PROVIDER RECRUITMENT ..... 13

PARTICIPANT DIRECTORY ..... 14

FINANCIAL IMPACT ..... 16

ACCESS TO CAPITAL ..... 17

CONTINUED CAPITAL INVESTMENTS ..... 18

QUALITY AND PERFORMANCE IMPROVEMENT ..... 19

IMPACT TO THE LOCAL ECONOMY ..... 20

CONCLUSIONS ..... 21

APPENDIX A: Self Evaluation Questions and Actions Steps for CEO Initiated Board Education ..... 22

APPENDIX B: Hospital-level Detail on Charts of Annualized Performance ..... 23

ACKNOWLEDGEMENTS ..... 27

# Executive Summary

The fourth special industry report of rural hospital facility replacements presents the successes, barriers, quantifiable measures and first hand experience reported by rural communities that have undertaken a replacement project.

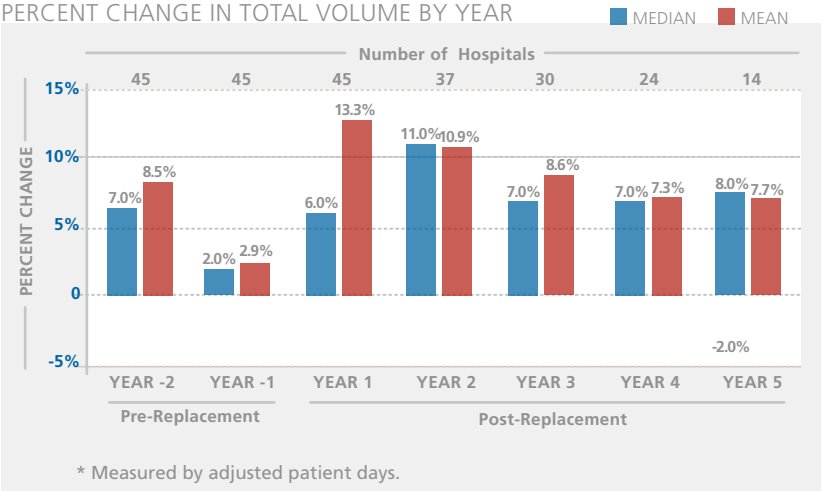
The majority of rural hospitals were built during the era of inpatient medicine and do not accommodate outpatient services, upgrades in clinical and diagnostic tests, and technologies required to maintain relevancy in their communities. This overwhelming need is resulting in a growing number of facility investments in spite of broader economic concerns. This year's study includes 45 participants. Twelve chose to relocate two or more miles and indicated that federal regulations, specifically the 75% rule, were not a hindrance.

The findings of the 2008 study indicate that overall the volume effect of a replacement facility is positive. Among hospitals with at least two years of experience, modest pre-replacement growth of 2.7% per year jumped to 9.9% per year post-replacement. The reported increases reflect compounded growth: 9.9% in the first year, followed by another 9.9% in the second year.

Experiences in the inpatient volumes varied significantly, from annual increases of 28% to losses of 22%, with a median annualized change of 3%. Growth in outpatient visits is reported more consistently, with an annual growth rate of 4.7% increasing to annual growth of 11.5% per year over the first two years after replacement. With new, expanded spaces specifically designed for outpatient services, the reported growth in outpatient volumes is not surprising.

Higher patient volumes and/or expanded services resulted in an increase in gross FTEs of 3.8% per year. Hospital CEOs consistently referred to a new facility as a recruitment and retention tool

PERCENT CHANGE IN TOTAL VOLUME BY YEAR




* Measured by adjusted patient days.

for providers and staffing alike. Increases to overall staffing are reported along with increased efficiencies; staffing is able to support a greater patient volume in the replacement facility than in the old buildings.

The increases to efficiency help financial performance, as do the additional capital payments made through CAH status. The study shows financial performance suffers in the first year of the replacement and then recovers in subsequent years, on average. The increased costs to pay for the new building decrease cash reserves, and management of cash flow is a critical step in getting through the startup of operations in a new facility. CEO interviews indicated that overall financial performance is the foremost concern for rural leaders in the decision-making process.

The sources of capital for hospitals pursuing projects in today's market are more limited. On a positive note, federal programs to support CAH replacement projects remain an important and viable source of financing. In addition, the role of affiliations in helping CAHs access capital will likely increase in prominence.

The results of the study cannot be interpreted as a cause and effect relationship. "If you build it, they will come," is an expression of faith, not the results of this study. Instead, the study supports the process of learning and discovery; each community can use the study to envision 'what could be' and determine its own course. In its format and presentation, the topics to guide this conversation are organized as stand-alone sections, and supporting questions are offered in Appendix A to initiate the dialogue.

# Study Purpose and Scope

OKEENE MUNICIPAL HOSPITAL, OKEENE, OK

## *The Purpose*

Leaders in rural communities share an enormous responsibility. Top among all the challenges is ensuring access to affordable, quality healthcare. With the hospital providing some of the best jobs, supporting broader economic development, and retaining the older population in the community, investment in rural hospitals has a broad appeal. Yet, the dollars for new buildings are significant and the challenge is daunting.

The Rural Hospital Replacement Study captures the experience of peer communities. The purpose of this multi-year study is to gather both the hard evidence and the helpful stories from CAH leaders nationwide. These communities made a decision to replace their hospital facility and have seen their projects to fruition. From them, there is much to learn.

The study is an educational resource primarily for hospital leadership, board members, rural physicians, and community decision makers. Over the years, it has also positively impacted local, state and federal policy-makers, bankers, and others in their support for rural hospital investment.

Readers are encouraged to use the study data to generate discussion with community members about investments in the future of their local healthcare system. It stimulates discussions about 'what could be' in both the volume and quality of services. Questions and action steps for leadership use are included in Appendix A.

### INTERVIEW TOPICS

- *How did the organization access capital?*
- *What were the goals of the replacement facility?*
- *What barriers to initiating the project were overcome?*
- *Is the facility meeting the expected volumes?*
- *Any impact on payer mix?*
- *Has the new facility supported performance improvement initiatives?*
- *Did the new facility have an effect on provider or staff recruiting/retention?*
- *What would you change about the facility if you could?*
- *What would you recommend to other organizations considering replacement?*
- *What was the economic impact of the replacement hospital?*
- *Did the hospital relocate?*
- *Any impact of the CMS 75% rule regulating CAH relocations?*
- *Is the hospital pursuing additional capital projects?*

COMMUNITY HOSPITAL OF BREMEN, BREMEN, IN

# Study Purpose and Scope

## *The Participants*

Rural hospital leaders from every region of the country generously contribute their data and perspectives to the study. As the activity in rural hospital building and hospital construction increases, more and more stories must be captured.

The Federal Office of Rural Health, state offices of rural health and state hospital associations review and provide input on candidate hospitals for the study. Stroudwater Associates independently contacted all of the nominated facilities to confirm that the project was a replacement facility and to solicit their participation in the study.

A total of 56 eligible facilities were identified. Forty-five hospitals participated in the study (80%). Thirty-seven of these facilities had two or more years experience, and thirty hospitals had three or more years. The table below shows the growth in the study back to 2005.
Eight new rural hospitals were identified but excluded from the study because they did not have an historical basis of operations (a.k.a., "Greenfield Hospitals"). Stroudwater identified an additional forty hospital replacement projects under development, or completed, but not occupied by January 1, 2008.

The number of replacement projects has risen substantially since the inception of the study in 2005. And we are aware of many more communities that are in the early stages of consideration. The rise in the number of projects and continued interest in the study reflect the challenges of aging, inadequate CAH facilities. As the infrastructure ages, it becomes increasingly difficult to provide quality care in these facilities.

GROWTH IN THE STUDY FROM 2005~PRESENT

| | Eligible CAHs | Participating # | Participating % | Participants by Years in New Facility 1+ # | 1+ % | 2+ # | 2+ % | 3+ # | 3+ % |
|---|---|---|---|---|---|---|---|---|---|
| **2005** | 27 | 20 | 74% | 20 | 100% | 11 | 55% | 8 | 40% |
| **2006** | 30 | 24 | 80% | 24 | 100% | 19 | 79% | 13 | 54% |
| **2007** | 39 | 33 | 85% | 33 | 100% | 27 | 82% | 25 | 76% |
| **2008** | 56 | 45 | 80% | 45 | 100% | 37 | 82% | 30 | 67% |

### ELIGIBILITY CRITERIA

1) Designated as Critical Access Hospitals (CAHs),

2) Replaced clinical areas between January 1, 1998 and January 1, 2008,

3) Operations in the community for at least three years prior to the replacement.

SOUTHERN COOS HOSPITAL AND HEALTH CENTER, BRANDON, OR

Thirteen new hospitals joined the study in 2008:

Amery Regional Medical Center (WI)
Calais Regional Hospital (ME)
Faulkton Area Medical Center (SD)
Fulton County Medical Center (PA)
Grand River Medical Center (CO)
Harney District Hospital (OR)
Okeene Municipal Hospital (OK)
Rhea Medical Center (TN)
Saint James Health Services (MN)
Sanford Luverne (MN)
Southwest Health Center (WI)
Weatherford Regional Hospital (OK)
Yuma District Hospital (CO)

# Study Purpose and Scope

## *The Process*

Stroudwater uses both quantitative and qualitative data in the study. Operating and financial data from three years of pre-replacement and up to five years post-replacement is gathered. This includes data on volumes, staffing, and financial performance. Stroudwater uses publicly available cost report data, and participating hospitals verify the accuracy of the data and supplement the request with year-to-date experience.

The quantitative analysis was followed by an interview with the hospital leadership to mine additional insight into the underlying conditions that changed volumes, operations, or financial performance. Stroudwater completed 41 interviews centered on how the replacement projects influenced quality, recruitment and retention, community impact and hindsight advice.

The study design was reviewed and endorsed in prior years by an advisory panel which includes government, academic and financial expertise, as well as a national non-profit entity whose mission is to build capacity in rural hospitals. The 2008 study followed the same methodology.

### QUANTITATIVE DATA

| VOLUMES | OPERATING EFFICIENCY | FINANCIAL |
|---|---|---|
| discharges | gross FTEs | operating margin |
| patient days | FTEs per adjusted discharge | EBITDA |
| outpatient visits | operating expense per adjusted discharge | days cash and investments on hand |


DRUMRIGHT REGIONAL HOSPITAL, DRUMRIGHT, OK

## *Study Design*

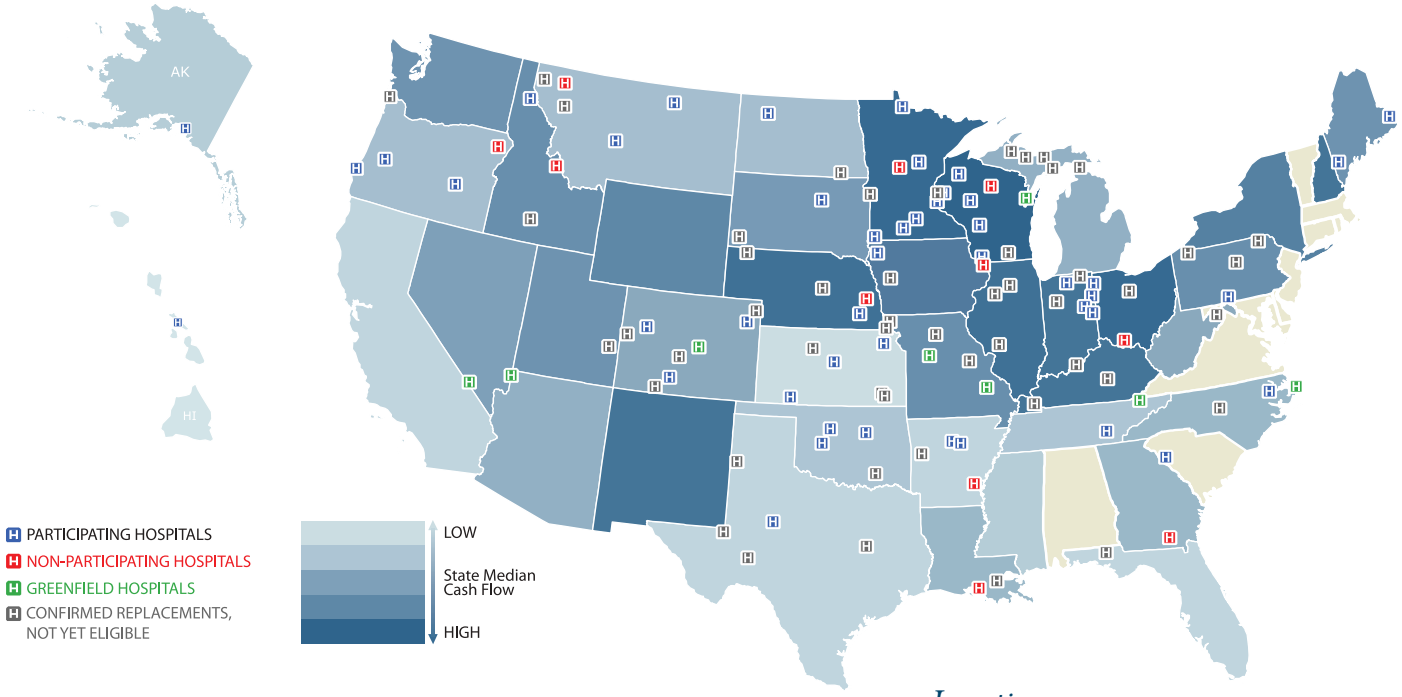
The study does not follow an experimental design with hospitals randomly selected for participation—quite the contrary, as these hospitals operate in the 'real world' with differences in market potential, levels of competition, physician support and management experience. These are just a few of the factors that play into the unique make-up of each hospital's operational outcomes. The results of the study cannot be interpreted as a cause and effect relationship. "If you build it, they will come" is an expression of faith, not the results of this study.

The comparison of data before and after the replacement project begins to control for differences within the community. The interviews provide further understanding and guidance on key factors, including but not limited to the new facility. With 23 states represented, the study begins to represent geographic diversity. In addition, the analysis of population and other community characteristics shows that as a cohort, replacement communities are not markedly different than other rural hospital communities. Differences in historical financial performance, access to capital, fundraising or management team experience were not controlled in the study.

Data reported in the study reflect both positive and negative performance and interviews both good and bad experiences. By virtue of these variances, rural hospitals across a broad continuum may gain valuable insight from the data and commentary collected in the study.

MOLOKA'I GENERAL HOSPITAL, KAUNAKAKAI, HI

# Study Purpose and Scope




## Location

Critical Access Hospitals designated under the necessary provider criteria are subjected to Federal rules when relocating their facility. The rules require CAHs on a new site to offer at least 75% of the same services, patients, and staff following relocation. Non-compliance with the 75% rule, as it is known, is the potential termination of CAH status. This makes the rule a weighty consideration in replacement projects and in some cases, it is reported that hospital leaders eliminate replacement as an option out of fear.

Among the many factors to consider in a facility investment, the experience of hospitals that have successfully completed projects under the 75% rule strongly suggests that it is not a barrier to replacement. CAH executives report the process was clear and straightforward. Several emphasized the importance of open consistent communication with the CMS Regional Offices during the planning process, and others noted the importance of thoroughly responding to requests for information. Overall, the risks in the application of the 75% rule were reported as minimal.

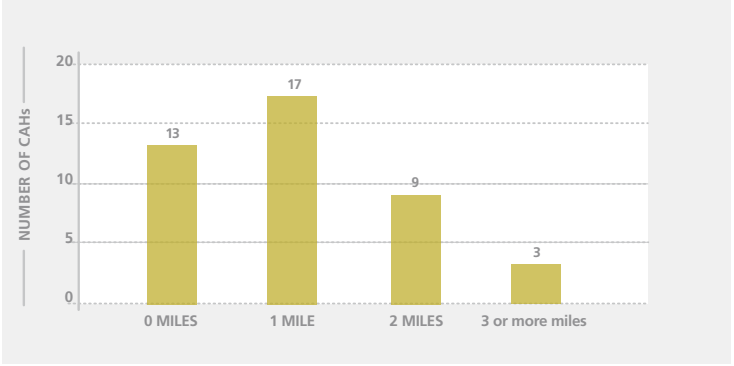
### FEDERAL RELOCATION RULES

*"Our CFO did a great job submitting data demonstrating we met the 75% rule."*

*"Letter was written during construction. Got a 3 sentence letter back from CMS saying we maintained CAH status."*

*"No problem. We felt we could give them the data they needed."*

DISTANCE CAH RELOCATED FROM FORMER CAMPUS




The majority of replacement hospitals were one mile or less from the original campus

# Demographics and Service Area

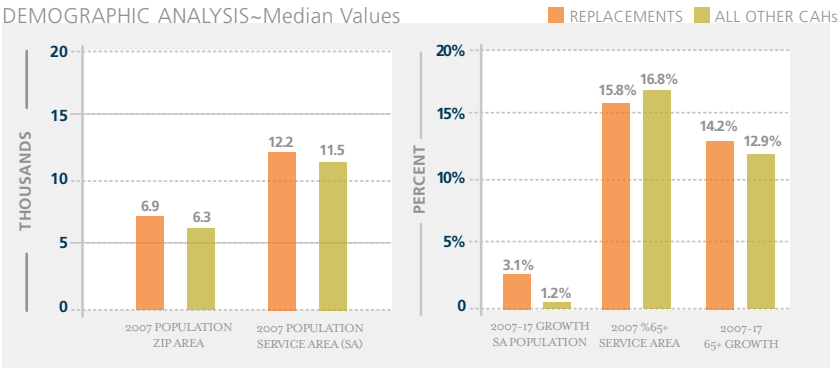

RIVER'S EDGE HOSPITAL AND CLINIC, ST. PETER, MN

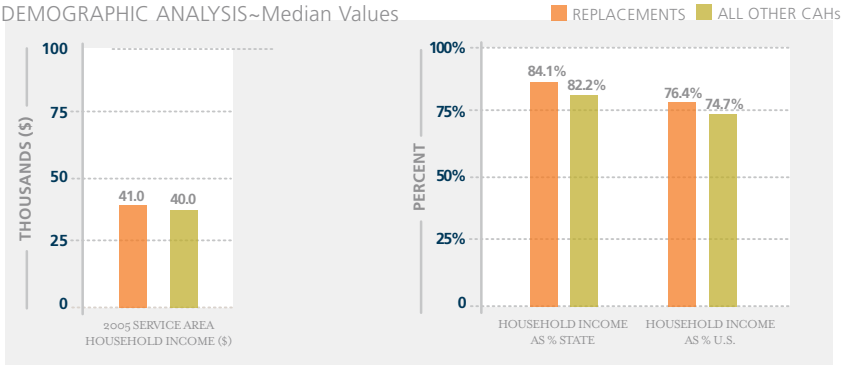
## *Population*

A common question about the replacement communities is: "Are they different from us?" Communities range in the size of their immediate zip code from 1,750 to 29,000. And as a group, replacement communities are not significantly different than all other Critical Access Hospitals.

The 2007 median population in the immediate area, as defined by the zip code, for replacement communities was 6,900 compared to 6,300 in all other CAH communities. Using the Dartmouth Atlas definitions of service area, the median population of replacement communities was 12,200 compared to 11,500 for all other CAHs. Replacement communities showed 10-year growth in their service area of 3.1%, compared to 1.2% for CAHs nationally.

Making up more of the population and with higher than average use rates, individuals over the age of 65 are a key population cohort for rural facilities. Non-replacement CAH communities have a higher percentage of the over 65 population, 16.8%, than the replacement CAH communities, 15.8%, while both groups are higher than the 12.6% rate nationwide (2007). The over 65 population is also growing significantly for both replacement and all other CAH communities, at 14.2% and 12.9%, respectively, compared to increases of 10.3% nationally (10-year growth projections).




## *Household Income*

Rural communities typically lag national averages in household income, and the results of this analysis show that both replacement and non-replacement rural hospitals serve economically disadvantaged communities. The national median household income (MHI)for replacement communities is 76.4% of the U.S. median. Non-replacement communities are at 74.7% of the national median. As a percentage of state MHI, replacement communities are at 84.1% and non-replacement communities at 82.2%. This translates to a MHI of approximately $41,000 for replacement communities as compared to $40,000 for non-replacement communities.


GRAND RIVER MEDICAL CENTER, RIFLE, CO

# Vision and Planning

## WHY REPLACE: VISION

*"We can't afford a new facility? We can't afford not to have a new facility."*

*"Back in 1950, it was a perfect location, but as the community grew access became a problem."*

*"We were failing as a hospital. The longer we put it off, the more at risk we were of becoming irrelevant."*

*"Could not imagine renovating an old site and getting same outcomes for efficiency, patient experience, etc."*

*"If any way to make it happen financially, do it. Level of care and quality of service is not comparable to old Hill-Burton hospital."*

*"No toilets in rooms, heating and cooling were inefficient."*

*"Physician recruitment, community satisfaction, upgrade of CT to 64 slice and other technology."*

## FIRST STEPS: PLANNING

*"To win community support, we kept staying on message like a political campaign."*

*"City council united to keep the land for 'industry'; we helped them understand healthcare is an industry."*

*"Engage community — transparency: what are we doing and why are we doing it?"*

*"If you're a community hospital don't ignore the community — get involved early."*

*"We started in 1996 to build the financial balance sheet to support capital needs."*

*"Give much more attention to replacement over renovating. Sacrifice so much when just renovating."*

*"Hire a financial consultant first to determine what you can afford BEFORE going to architects."*

*"Three partners you must find first: 1) financial partner 2) reputable pre-construction firm 3) financing partner."*

*"Be leery of CAH consultants — there are a lot of CAH consultants running around out there."*

*"Address patient amenities and experience entirely."*

*"Use shelled space if you can afford any at all."*

*"Architects designed for averages, not peaks, imaging and lab get jammed up."*

*"Involve clinicians in upfront design to improve patient flow, efficiency, and communication."*

*"Look out more than three years. We ran out of space after three years."*

## *Driving Factors in Replacement Projects*

Replacement projects in the study share a number of common goals, but range significantly in the financial commitments to get there. Some projects are completed on the same campus and focus on replacing clinical areas with renovation of other spaces for on-going administrative use. Other projects not only replace the entire hospital, on a new site, but also include substantial Medical Office Buildings, long term care centers, and other non-hospital services. Developing a facility solution is clearly not a one size fits all approach.

In all cases, the millions of dollars invested to undertake a facility replacement project reflects a major community decision. The decision often rests with the board of trustees, but benefits greatly from broader community participation and support. Hospital leadership reports that engaging the community during the planning, financing, and construction phases translates to pride of ownership and an uninterrupted commitment to the project over the long term.

Leadership is at the core of the replacement process. The successes and failures of executives seeking to engage and to sustain the commitment of the board, the community, and the community stakeholders are documented through-out this study. Driving factors for replacement facilities were reported in three categories: improving the financial viability of the organization over the long-term, the inability to meet community healthcare expectations in the old facility, and the space to improve and grow clinical service delivery.

> *"Give much more attention to replacement over renovating Sacrifice so much when just renovating."*

In all cases, the benefits of building new outweighed the costs of renovating the existing facility.

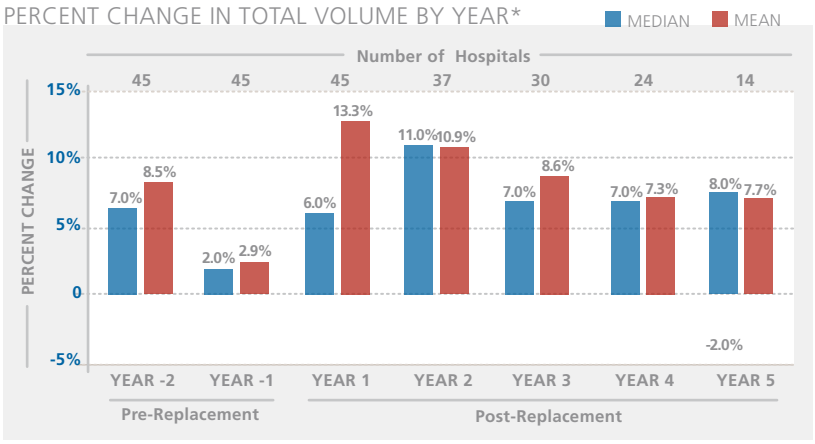
# Pre- and Post-Replacement Volume Experiences

Understanding what happens to patient volumes was one of the driving factors in starting the study, and it continues to be a major point of interest. Each hospital's service mix and volumes is different. While all provide more outpatient than inpatient services, the rates vary. The study uses the same approach to studying total volume as all of the national hospital benchmarking services. Specifically, inpatient units of service are converted into total units using an outpatient adjustment factor. The higher the percentage of outpatient services, the higher the adjustment factor. Stroudwater uses adjusted patient days as the measure for total volume in the replacement study.

## *Total Volume*

Results from the study show post-replacement growth in total patient volumes. The median percent change in total volume for Year 1 pre-replacement was 2.0%. This tripled to 6.0% the first year in the new facility and jumped again to 11% in Year 2 post-replacement. Among hospitals with at least two years of experience, modest pre-replacement growth of 2.7% per year jumped to 9.9% per year post-replacement. The reported increases reflect compounded growth: 9.9% in the first year, followed by another 9.9% in the second year.

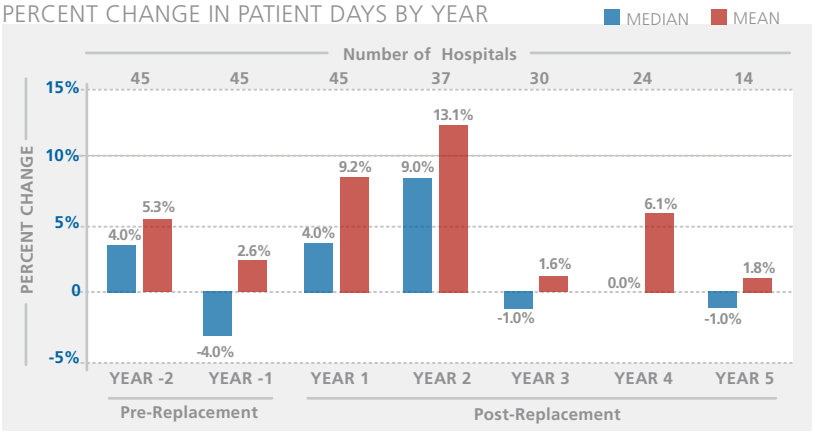
See Appendix B – Fig. 1: Annualized Change in Total Volume




*Measured by adjusted patient days.

## *Inpatient Volumes*

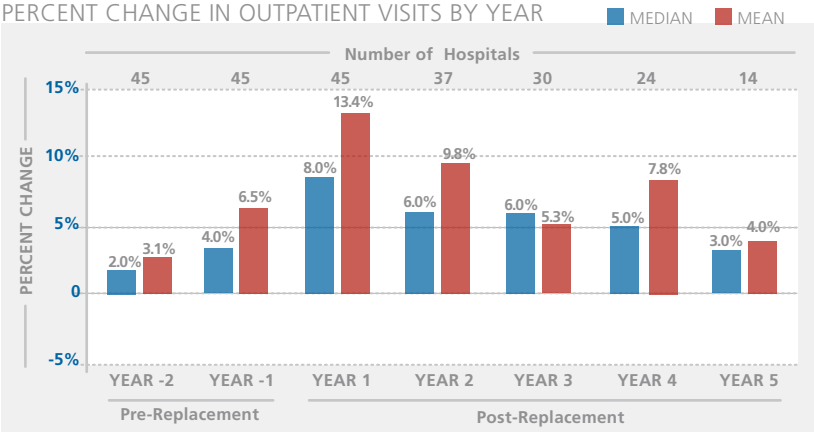
Experiences in the inpatient volumes varied significantly, from annual increases of 28% to losses of 22%, with a median annualized change of 3%. Comparing the change from the two years prior to two years post-replacement, an average annual 1.2% decline was reversed to a 5.3% per year increase following replacement. Interviewees noted that some volume declines in inpatient services were planned and strategic, such as downsizing the number of beds available. Other changes were due to the loss of physicians, changes in service (e.g., discontinuing obstetrics), and in some cases, the effects of increased competition.



FULTON COUNTY MEDICAL CENTER, MCCONNELLSBURG, PA

# Pre- and Post-Replacement Volume Experiences

PERCENT CHANGE IN OUTPATIENT VISITS BY YEAR

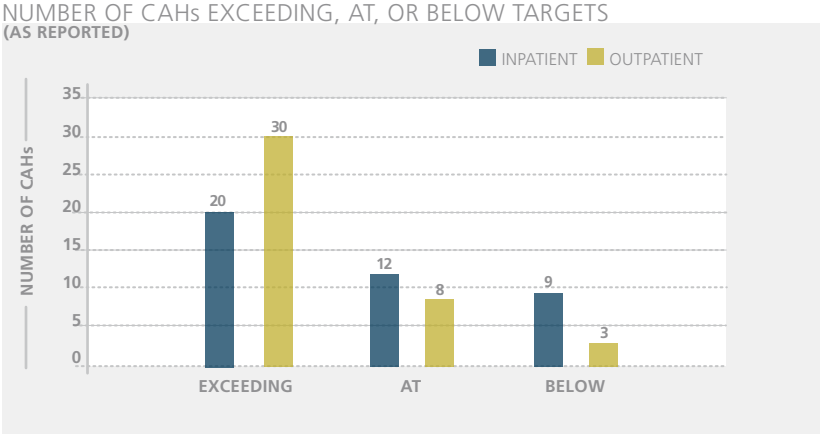



## *Outpatient Visits*

Growth in outpatient visits is reported by all hospitals. A marked increase in Year 1 revealed the mean more than doubling the prior year, 13.4% versus 6.5% and a median at twice the prior year, 8.0% versus 4.0%. The growth rate slowed but remained positive in each year post-replacement.

The experience of individual participant hospitals was as high as a 33% annual increase. Hospitals increased outpatient services at an annual rate of 4.7% over the two years prior to the replacement. This increased to a median increase of 11.5% per year over the first two years after the replacement.

NUMBER OF CAHs EXCEEDING, AT, OR BELOW TARGETS
(AS REPORTED)




No one wants to set a target and fail to achieve it. Instead, setting a conservative target and exceeding the low expectations is preferred. This approach appears to hold true among the rural replacement projects, as well. Most of the leaders report volume targets well in excess of their expectations.

### ACTUAL VERSUS FORECAST

*"Way ahead of initial projections."*

*"Volumes continue to increase, OP in particular."*

*"Recently losing IP market share but OP is keeping up."*

*"IP lower than expected but OP is exceeding targets. Largest increase in volumes is in the ER."*

*"IP has not met expectations but OP is $1M over projection."*

*"We were able to create margin in second year due to increased volume."*

*"Surgery program increased 94%"*

*"Original feasibility study projected $1M loss in Year 1 and breakeven Year 3. We are already at breakeven in Year 1 and will be profitable next year."*

*"Build in growth plans to original design."*

*"Expect influx in patient volumes so plan and staff accordingly."*

# Staffing


MITCHELL COUNTY HOSPITAL, COLORADO CITY, TX

## *Recruitment and Efficiency*

The qualified healthcare industry is facing severe shortages in staff. A number of rural communities are facing these challenges today, while others are planning for the future. Replacement facilities are reporting higher staffing levels overall and an improved ability to fill staffing positions because of the facility investment. Most promising is the increased efficiency reported by replacement facilities; staffing is able to support higher patient volumes than in the old buildings.

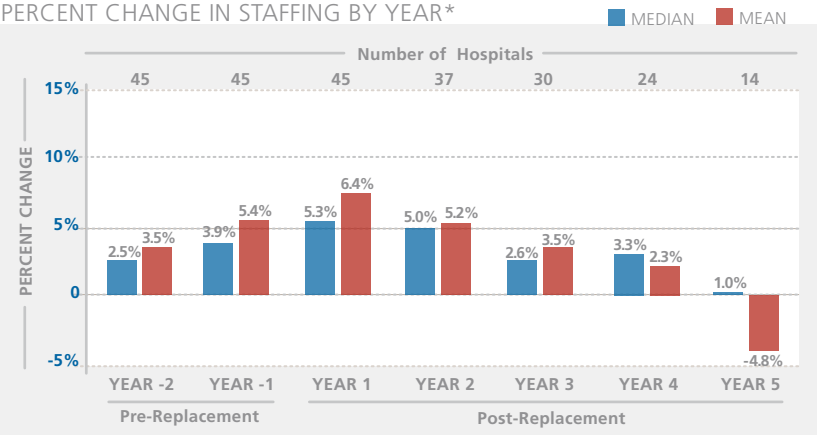
Median pre-replacement versus post-replacement growth was 3.7% to 5.0%. The small differences from before and after the facility project demonstrate that hospitals were adding staff in anticipation of the new facility, and then continued to increase after the facility was opened. Forty of the 45 CAHs experienced a net increase in staff post-replacement (88%).

Without exception, participants indicated that a replacement facility made recruitment and retention easier. Five reported low to very low turnover and attributed staffing consistency to a sense of ownership on behalf of those who participated from the planning stages forward and to a positive work environment. Seventeen reported no openings in nurse staffing. Difficulties beyond the new facility, however, were cited in the ability to recruit and retain nurses at five of the participant CAHs.

A standard measure of staff efficiency is the ratio of staff-per-unit-of-service. Of the 45 participant CAHs, 32 reported improved staffing efficiencies. This decline is due to a reduction in standby capacity, a major source of inefficiency in rural hospitals. All but one hospital reported an increased ability to recruit staff.

See Appendix B - Fig. 2 Annualized Change in Staffing and Fig. 3 Annualized Change in Staffing Efficiency.

PERCENT CHANGE IN STAFFING BY YEAR*




*Measured by Full Time Equivalents (FTE)

### EFFICIENCIES

*"Clean rooms 20% faster to help with infection control."*

*"Nursing is more efficient which results in a reduced wait time."*

*"Put radiology and lab together because they share staffing."*

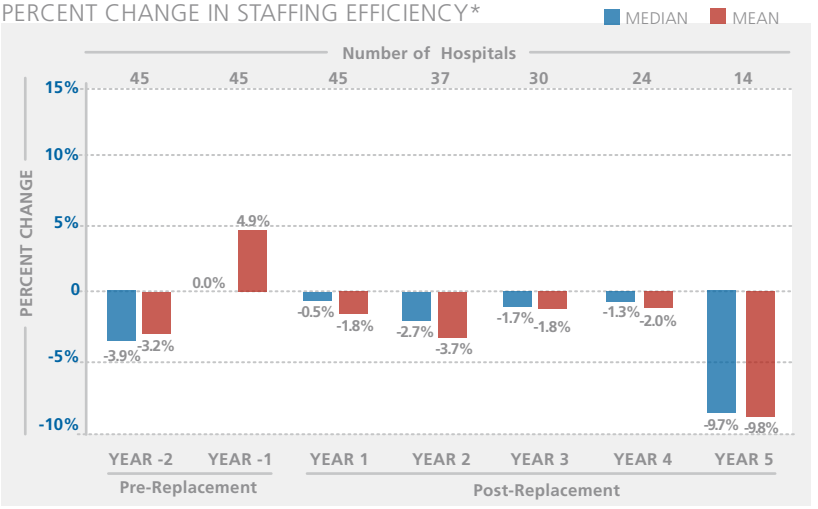
### STAFF RECRUITMENT

*"Firmly believe that with the new facility, local kids will want to get nursing degree and work at home."*

*"Hired CEO because of new facility, 'I wanted to be a part of this.'"*

*"Prior to new facility, DON was pulling her hair out trying to recruit and keep nurses. Nurse staff has stabilized, able to recruit a lab tech."*

PERCENT CHANGE IN STAFFING EFFICIENCY*




*Measured by FTEs per Adjusted Patient Day

### PROVIDER RECRUITMENT

*"Got cold letters from out of state physicians seeing if there are openings."*

*"Locum clinic doctor signed on full-time two days after new facility opened."*

*"Have built this facility so that we could recruit new MDs when current MD retires."*

*"Doctors are seeking us out — we're not advertising."*

*"Did not even have to recruit, FPs contacting us about vacancies."*

### SPECIALIST RECRUITMENT

*"Visiting subspecialties has been a 'gold mine'. Say dedicated space is first rate, better than their own practices."*

*"Additions for 2007 including urologist full time and orthopedist 1.5 days per week."*

*"Facility has no more space for new providers."*

*"We have 5 internists, that was our goal. Added one FP during the year."*

*"The last two doctors we signed did a walk-through and they basically asked, 'Where do I sign up?'"*

*"Retained both physicians from last year and recruited two more."*

*"Physicians had been on several interviews and said this was the best facility they had seen."*

*"Had two PCPs in private clinic forever — just recruited third and fourth MDs!"*

ORANGE CITY MUNICIPAL HOSPITAL, ORANGE CITY, IA

## *Positive Impact on Recruitment*

The number of physicians being trained in the United States is simply inadequate to meet the population's healthcare needs. Shortages are even more severe for primary care physicians. Because of the shortages, many hospitals are forced to bring in out-of-town contracted physicians to provide primary care. And the competition for the physicians has increased the costs and further reduced the supply to rural communities.

Notwithstanding, a subset of physicians recognizes the quality of life offered in rural communities. The providers are not only open to the tradeoffs in lifestyle for income, they seek it.

The analysis of volumes pre-and post-replacement in this study reflects how important it is to have physicians aligned with the hospital. The most successful replacement hospitals demonstrate deep levels of physician support. As new services are developed, physicians support appropriate utilization. As more specialists come to the community, physicians refer patients. In some cases, the chief advocate for the replacement facility was an individual physician or the medical staff as a whole.

Rural replacement facilities are a major component of physician recruitment strategies. With the medical staff in many rural areas near retirement, current shortages of primary care will likely worsen. Of the 41 hospitals interviewed, all but one reported that the facility has a positive impact on their ability to recruit. A new facility is a recruitment strategy.

# Participant Directory

**Abbeville Area Medical Center**
420 Thompson Circle
Abbeville, SC 29620
Richard Osmus 864.366.5011

**Adams County Memorial Hospital**
1100 Mercer Avenue
Decatur, IN 46733
Marvin Baird 260.724.2145

**Amery Regional Medical Center**
265 Griffin Street East
Amery, WI 54001
Michael Karuschak 715.268.8000

**Baptist Health Medical Center**
1800 Bypass Road
Heber Springs, AR 72543
Edward Lacey 501.887.3000

**Bertie Memorial Hospital**
1403 South King Street
Windsor, NC 27983
Jeff Sackrison 252.482.6268

**Blackford Community Hospital**
410 Pilgrim Boulevard
Hartford City, IN 47348
Steven West 765.348.0300

**Bridgton Hospital**
10 Hospital Drive
Bridgton, ME 04009
John Carlson 207.647.6000

**Calais Regional Hospital**
24 Hospital Lane
Calais, ME 04619
Harrell Connelly 207.454.7521

**Community Hospital of Bremen**
1020 High Road
Bremen, IN 46506
Scott Graybill 574.546.2211


**Community Memorial Hospital**
208 North Columbus
Hicksville, OH 43526
Mel Fahs 419.542.5560

**Cottage Grove Hospital**
1515 Village Drive
Cottage Grove, OR 97424
541.942.0511

**Crete Area Medical Center**
2910 Betten Drive
Crete, NE 68333
Carol Friesien 402.826.2102

**Drumright Regional Hospital**
610 West Street Bypass
Drumright, OK 74030
Daryl Morris 918.382.2300

**Ellsworth County Medical Center**
1604 Aylward Street
Ellsworth, KS 67439
Roger Pearson 785.472.3111

**Faulkton Area Medical Center**
1300 Oak Street
Faulkton, SD 57438
Jay Jahnig 605.598.6262

**Fulton County Medical Center**
214 Peach Orchard Road
McConnellsburg, PA 17233
Jason Hawkins 717.485.6109

**Grand River Medical Center**
501 Airport Road
Rifle, CO 81650
Martie Wisdom 970.625.1510

**Harney District Hospital**
557 West Washington
Burns, OR 97720
Jim Bishop 541.573.8329

**Hayward Area Memorial Hospital**
11040 North State Road 77
Hayward, WI 54843
Barbara Peickert 715.934.4244

**Holton Community Hospital**
1110 Columbine Drive
Holton, KS 66436
Ron Marshall 785.364.2116

**Hudson Hospital**
405 Stageline Road
Hudson, WI 54016
Marian Furlong 715.531.6000

**Lake Wood Health Center**
600 Main Avenue South
Baudette, MN 56623
SharRay Palm 218.634.2120

**Mitchell County Hospital**
997 West Interstate 20
Colorado City, TX 79512
Linda Mize 325.728.3131

# Participant Directory

**Moloka'i General Hospital**
280 Puali Street
Kaunakakai, HI 96748
Janice Kalanihuia 808.553.5331

**Mountainview Medical Center**
16 West Main Street
White Sulphur Springs, MT 59645
Jan Kilgard 406.547.3321

**Mountrail County Medical Center**
615 Sixth Street SE
Stanley, ND 58784
Mitch Leupp 701.628.2424

**Okeene Municipal Hospital**
207 East F Street
Okeene, OK 73763
Shelly Dunham 580.822.4417

**Orange City Municipal Hospital**
1000 Lincoln Circle Southwest
Orange City, IA 51041
Martin Guthmiller 712.737.4984

**Our Lady of Victory Hospital**
1120 Pine Street
Stanley, WI 54768
Cynthia Eichman 715.644.5571

**Ozark Health Medical Center**
2500 Highway 65 South
Clinton, AR 72031
Kirk Reamey 501.745.9502

**Phillips County Medical Center**
311 South 8th Avenue East
Malta, MT 59538
Ward Van Wichen 406.654.1100

**Providence Valdez Medical Center**
911 Meals Avenue
Valdez, AK 99686
Sean McAllister 907.835.2249

**Rhea Medical Center**
9400 Rhea County Highway
Dayton, TN 37321
Ken Croom 423.775.1121

**Rio Grande Hospital**
1280 Grand Avenue
Del Norte, CO 81132
Arlene Harms 719.657.2510

**River's Edge Hospital and Clinic**
1900 North Sunrise Drive
St. Peter, MN 56082
Colleen Spike 507.931.2200

**Riverwood Healthcare Center**
200 Bunker Hill Drive
Aitkin, MN 56431
Michael Hagen 218.927.5501

**St. James Medical Center – Mayo Health System**
1101 Moulton and Parsons Drive
St. James, MN 56081
Matt Grimshaw 507.375.3391

**Sanford Luverne**
1600 North Kniss Avenue
Luverne, MN 56156
Mark Henke 507.283.2321

**Shoshone Medical Center**
25 Jacobs Gulch
Kellogg, ID 83837
William Russell 208.784.1221

**Southern Coos Hospital and Health Center**
900 11th Street SE
Brandon, OR 97411
James Wathen 541.347.2426

**Southwest Health Center**
1400 East Side Road
Platteville, WI 53818
Anne Klawiter 608.348.2331

**St. Vincent Randolph Hospital**
473 Greenville Avenue
Winchester, IN 47394
Cheech Alabarawo 765.584.0004

**Tomah Memorial Hospital**
321 Butts Avenue
Tomah, WI 54660
Philip Stuart 608.372.2181

**Weatherford Regional Hospital**
3701 East Main Street
Weatherford, OK 73069
Debbie Howe 580.774.2314

**Yuma Distric Hospital**
100 West 8th Avenue
Yuma, CO 80759
John Gardner 970.848.5405

# Financial Impact


CALAIS REGIONAL HOSPITAL, CALAIS, ME

## *Range of Financial Results*

Hospitals' financial performances in the study vary widely. This reflects the variation in the volume performance, as previously reported, as well as the local conditions of payments from insurance companies and increases to the uninsured. In the first year post-replacement, the hospitals in the study lost 1% on average. This was reversed in Years 2 through 5 with positive margins of 1-5% following. Financial studies looking at the impact of new facilities will most likely reflect a downturn in overall financial performance for the first year of the project.

### *Operating Efficiency*

Critical Access Hospitals are complex financially, but the basic economics are no different than any business: improvements to efficiency will improve financial performance. Year 1 increase in costs per unit of service is 13.5%. These results might cause concern, if they were not moderated in future years by much lower rates of 1-4%. In the first year of the replacement, all of the additional capital costs are reflected in the financial statements, but over time, those costs are spread over more and more patients.

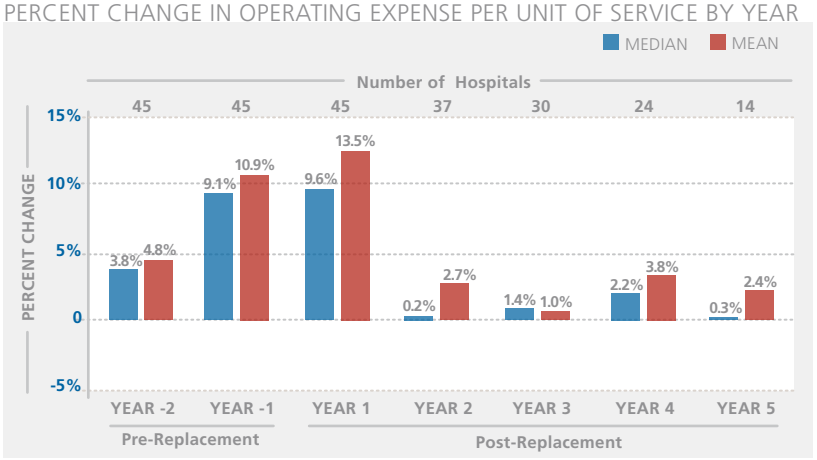
### *EBIDTA Margin*

An alternative measure of financial performance eliminates the impact of the capital costs. There is much less variation in this measure and nearly all CAHs reported positive results. This reflects both the growth in services as well as the higher reimbursement for capital costs (interest and depreciation) included in the CAH payments from Medicare.

### *Average Days Cash*

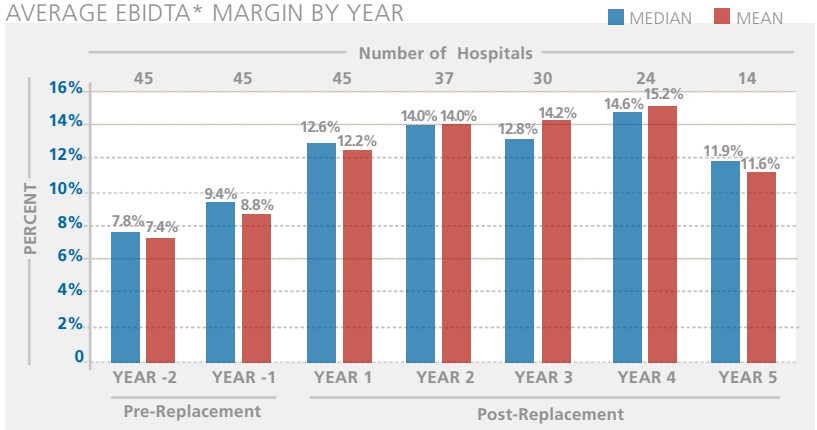
The availability of resources for day-to-day operations, as reflected by the Average Days Cash, shows the impact over time in the ability to cover operating expenses and maintain cash reserves. The median value of 78 days, for the year immediately before replacement, decreases for the first two years in the study, to 68 and 62 days in Year 1 and Year 2 respectively. Cash balances then increase in Years 3 and 4.

PERCENT CHANGE IN OPERATING EXPENSE PER UNIT OF SERVICE BY YEAR



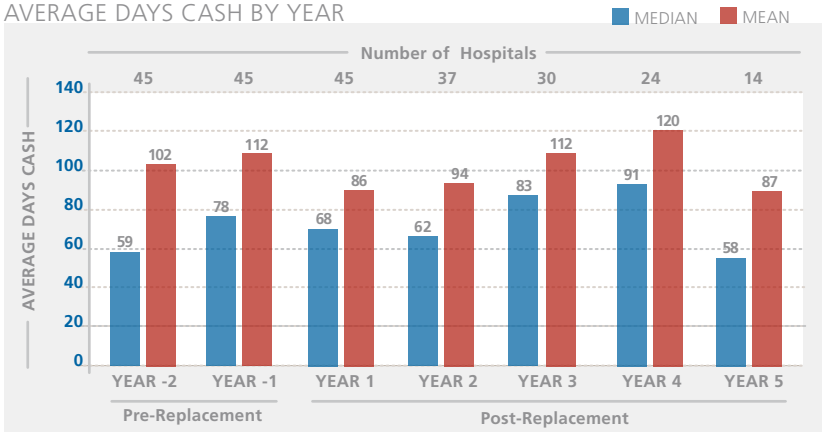

See Appendix B- Fig. 4 Annualized Change in Operating Expenses per Unit of Service.

AVERAGE EBIDTA* MARGIN BY YEAR




* Earnings before Interest, Taxes, Depreciation and Amortization as a percent of total revenues.

AVERAGE DAYS CASH BY YEAR



# Access to Capital

In each year of the capital study, different environmental factors impact the results. No changes are more fundamental this year than the significant disruption to the capital markets, first to auction rate bonds and bond insurers and later with the entire municipal bond market and letter of credit banks. While the market changes are highly significant and disruptive in the short term, no one yet knows with certainty how they will ultimately impact longer term access to capital for Critical Access Hospitals.

In the early days of the Critical Access Hospital program, there was a shortage of capital. The FHA/HUD 242 and USDA programs helped increase capital by providing a guarantee on a high percentage of the project's funding. For hospitals that were part of a larger system, replacement hospitals were supported as part of the system-wide strategy.

In 2006, and during the first half of 2007, the availability of capital increased significantly. For the first time, Critical Access Hospitals could issue bonds directly with "unrated" costs of issuance only marginally higher than the large hospital "rated" credits. The agencies responsible for making these rating decisions were expressing more and more interest in Critical Access Hospitals, and a wide variety of banks and bond insurers were willing to extend credit enhancement to Critical Access Hospital bond issues as well.

Many of the projects reflected in this year's study were funded when capital was widely available and comparatively cheap by recent and historical standards. For a project completed in 2007, funding was secured in early- to mid-2006, prior to the disruptions to the bond market triggered by the sub-prime mortgage crisis. In addition, hospital income from investment returns has taken a massive hit with the decreased performance in the overall stock market. While it is generally expected the bond markets will recover in 2009 and investment incomes will improve, the impact in healthcare lending will be felt for some time. Lasting impacts on philanthropy and bottom line revenue growth may also linger.

Presently, the sources of capital for hospitals pursuing projects in today's market are again more limited. Bond insurance is no longer available, fewer banks are providing loans to hospitals, and with the economy in recession, the tax basis should not be relied upon to fund replacement debts. On a positive note, federal programs to support CAH replacement projects remain an important and viable source of financing. In addition, the role of affiliations in helping CAHs access capital will likely increase in prominence.

### FINANCING SOURCES

*"Barrier was financial constraint imposed by prior year losses."*

*"Sold 30% of old building to City Council."*

*"No variable exposure on bonds."*

*"Hire a financial advisor who is neutral."*

*"Conventional loan, fixed revenue, bonds, city sales tax."*

### FUNDRAISING

*"President of the capital campaign was initially one of the skeptics."*

*"Identified key leaders in each age bracket, developed a Powerpoint for them to present at community meetings."*

*"Feasibility study done to evaluate fund-raising, study indicated no support from community, elected not to do major capital campaign."*

*"Local physician chaired the capital campaign … Raised $3.2 million in a community of 11,000."*

*"Raised cash and pledges of $1.6 million through development dollars."*

The bottom line: Critical Access Hospitals will need to be increasingly creative in developing financing strategies and accessing capital. Fundraising as noted in interviews will become increasingly important. The replacement study will continue to track the sources of funding available. Below is the experience to date:

Guarantee from System: 9
Guarantee from County/City: 6
HUD 242/USDA: 15
Tax Exempt Revenue Bonds: 8

# Continued Capital Investments

## *Recruitment and Efficiency*

The evidence from the study also shows that many hospitals have either initiated, or are in the planning stages of, a follow on facility investment. These projects cost more than they would have if done at the time of the original replacement, due to inflation in health care construction costs.

> *"Board would have been more aggressive in the planning stages if they knew, during the planning stages, what they know today."*

Defining reasonable volume expectations, linking these to the market and coordinating this aggregate data to the availability of space is a core component of facility planning. Continued investment in the facility, whether planned or in response to higher than expected volumes, was shared by a number of hospitals in the study.

### CONTINUED FACILITY DEVELOPMENT

*"Had shell for third OR, currently in process of equipping it to support anticipated volumes."*

*"Talking about reusing the original site for assisted living, rehab, botanical garden or office space."*

*"Probably should have gone with something larger."*

*"Plan on room to grow."*

*"Adding ten more spaces for parking."*

*"Looking to expand by adding procedure room, cardiac rehab, and pharmacy."*

*"Starting to look at more space for visiting specialists."*

*"Design to be more flexible for expansion or build additional unused space. We built to fit the operation at the time of expansion."*


WEATHERFORD HOSPITAL, WEATHERFORD, OK

HOLTON COMMUNITY HOSPITAL, HOLTON, KS

# Quality and Performance Improvement

## GENERAL QUALITY

*"Without new facility, same old same old."*

*"Design of new unit is much safer; OB is a locked unit."*

*"Private bathrooms and rooms to prevent patient falls and isolate patients with infections."*

*"Proximity of clinic and physicians helps with quality scores, communication barrier eliminated."*

*"Design quality and safety into rooms: rounded corners, grab bar strategically placed."*

*"Heated sidewalks for safety in outside access."*

## REDUCED INFECTIONS AND ERRORS

*"Surgery recovery rooms are separate and all IP rooms are private which has contributed to reduced infections."*

*"Continue to maintain close to zero surgical infection rates."*

*"This year very, very, very low post surgical infection rates."*

*"Surgeon from a for-profit surgery center told patient he would prefer to do surgery at our hospital because infection rate so low."*

*"Staff enthusiastically began 5 Million Lives campaign."*


CALAIS REGIONAL HOSPITAL, CALAIS, ME

Malcolm Gladwell, author of *Blink*, writes it takes about two seconds to form a lasting impression. Once formed, these impressions are hard to overcome, even when presented with data to the contrary.

Lasting first impressions are highly relevant for both patients and staff of replacement facilities. Rural leader interviews noted a positive impact on quality from general cultural improvements, to better functioning and collaboration, to specific design features. A number of hospitals referenced specific quality and perfomance improvement approaches, including the Planetree model, while others pursued general improvements.

The national dialogue on quality and patient safety has increased since the beginning of the rural hospital replacement study. While Critical Access Hospitals are exempt from some national reporting on quality, they are not exempt from the need to demonstrate the quality of services to an increasingly consumer-directed market.

The Center for Health Design notes in its recently published guide to evidence based design that while there are many studies linking space and quality, more systematic research is needed. If this is true for the large hospital projects referenced in the guide, it is even more so the case for rural hospitals, where practices reflect greater complexity than simply smaller versions of large hospitals.

The qualitative evidence provided by rural hospital replacement projects is compelling and warrants additional quantitative study by academics.

# Impact to the Local Economy

HARNEY DISTRICT HOSPITAL, BURNS, OR

The importance of healthcare to the development of the local economy is well-documented in national studies.

*Communities know that health care is critical to the physical and mental well being of its citizens; however, health care is also critical to the economic well being of the community. If local health care should disappear, as much as 20 percent of the local economy would go with it.*

~ RURAL HEALTH WORKS

Rural hospital leaders report a wide range of economic development activities believed to be related to the replacement project. This includes additional community infrastructure projects, such as schools, as well other healthcare and even private business development. Perhaps most importantly, rural hospitals help retain the community's population base, particularly among the retiree population.

## CONTINUED FACILITY DEVELOPMENT

*"Opening new K-12 school. New hospital contributed to voters to pass new school. Combined these attract new families."*

*"Town council keenly realizes that hospital will attract industry."*

*"Continue to add staff to promote program growth — increased from 200 to 400 FTEs."*

*"New high school construction is underway."*

*"The community has a better sense of pride in itself and comfort that healthcare services can be delivered locally."*

*"20 acres, three blocks north of the hospital, just acquired to develop a community center."*

*"Large parcel across the street has been cleared by private developer for medical space."*

*"Talking to private developer about developing medical space on our campus."*

*"New MOB being built by physicians. New retail and housing are growing."*

*"When we are selling a company on our community, the hospital is a key place."*


BAPTIST HEALTH MEDICAL CENTER, HEBER SPRINGS, AR

# Conclusions

HUDSON HOSPITAL, HUDSON, WI

SOUTHERN COOS HOSPITAL AND HEALTH CENTER, BRANDON, OR

The positive evidence from rural replacement projects is compelling. The increased number of Critical Access Hospitals pursuing replacement projects both strengthens the study and compels other communities to consider the impact for themselves.

Among the most consistent themes are:

- Patient volumes generally increased beyond expectations
- Staffing increased for higher volumes and/or new services
- Increasing efficiencies in service delivery
- Facility investments are a physician recruitment strategy
- Improved ability to recruit and retain staff in an increasingly competitive environment
- Direct and indirect economic development consistently reported

Generalizing the results and lessons learned for all Critical Access Hospitals is not recommended. Instead, the study supports the process of learning and discovery; each community can use the study to envision 'what could be' and to determine its own course. In its format and presentation, the topics to guide this conversation are organized as stand-alone sections, and supporting questions are offered to initiate the dialogue on the next page, Appendix A.

# Appendix A


CRETE AREA MEDICAL CENTER, CRETE, NE

## *Self evaluation steps and action steps when considering a replacement*

### ACCESS TO CAPITAL

*Self Evaluation Questions*

How does the historical financial status rate on commonly used financial ratios?
What is the debt capacity for capital investment based on historical operations?
What financial improvement opportunities exist to increase debt service?
Are there unexplored options for partnering to increase access to capital?
As project costs are developed, do they reflect "all in" costs or only construction?

*Action Steps*

Identify debt service prior to design and update often as new information is developed.
Determine operating improvements that can prepare the organization for a large capital investment.
Ensure the financing plan integrates with the strategic and facility plans.
Evaluate multiple programs and options for the financing team.

### DRIVING FACTORS IN FACILITY REPLACEMENT

*Self Evaluation Questions*

What is the remaining useful life of the building? Major mechanical equipment? Medical equipment?
How much investment in and maintenance of an old facility is anticipated?
Is the current facility limiting inpatient or outpatient growth?
Is the current facility able to be staffed efficiently?
Are costs incurred by staffing multiple units or departments that could be consolidated?
What do healthcare professionals say about the adequacy of facilities?

*Action Steps*

Solicit input from staff and physicians on the facility questions; encourage "outside the norm" thinking about what would be possible without facility constraints.
Develop a quantitative picture of facility assets, the remaining useful life and the amount of investment needed.
Discuss results within the Board and community with decision-makers.
Develop specific goals for facility improvements.

### HOSPITAL AND COMMUNITY LEADERSHIP

*Self Evaluation Questions*

How would a facility investment help meet or expand the current vision?
What patient safety and quality practices could be improved?
What does the community know about the status of the facility? About the costs to improve?
How is the community being engaged in the facility project? Who is responsible for community education?
Have all facility options been explored? Is the preferred facility option defendable to the community?

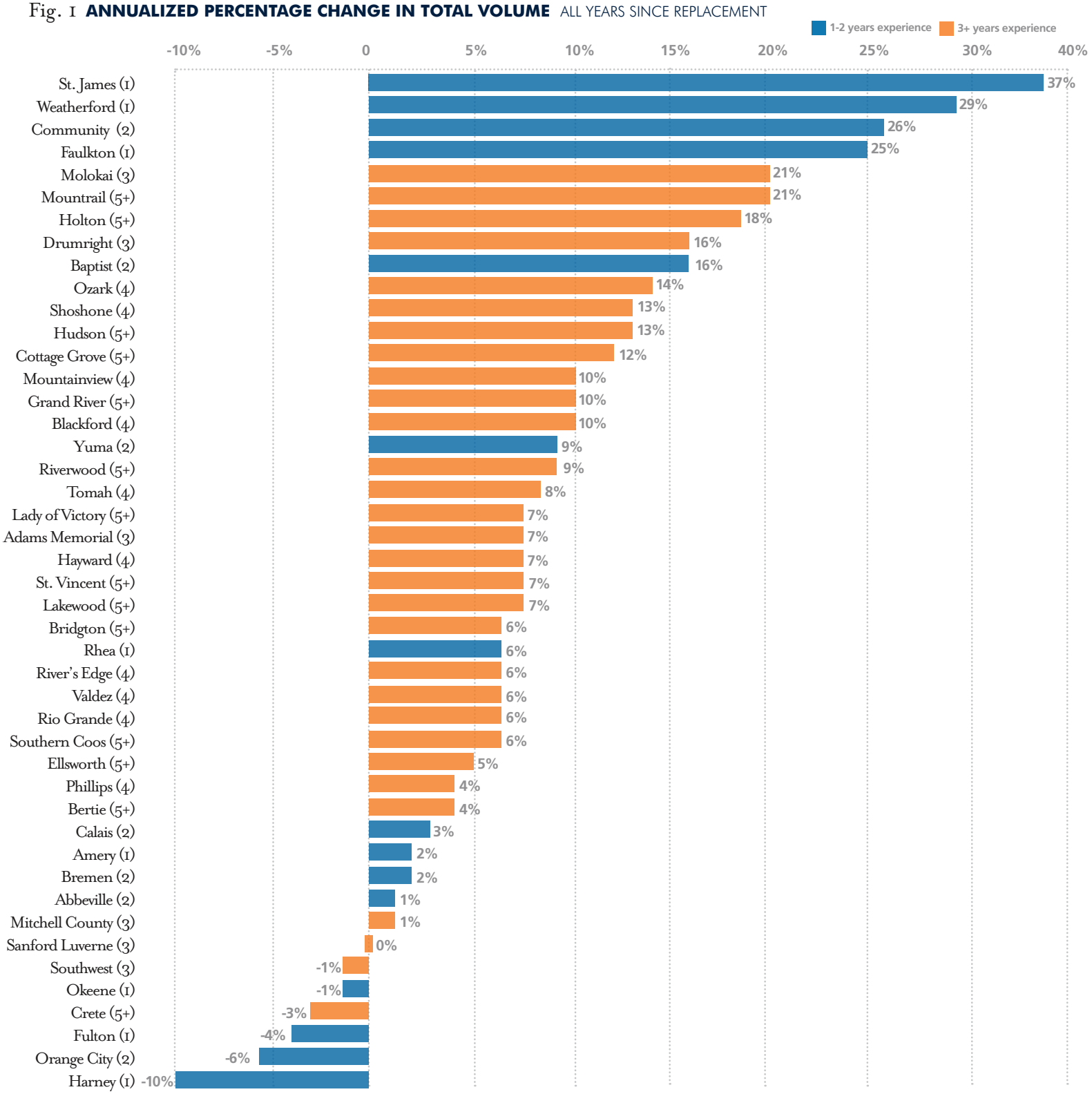
*Action Steps*

Identify influential people and groups and establish accountabilities to engage them in support of the initiative.
Seek broad participation involving constituencies, Include administration, physicians, line managers and community representatives.
Utilize focus groups and other data to validate designs and get feedback on priorities.
Guide the analysis of facility options using a Steering Committee of eight to ten representatives.
Engage technical assistance for specialized expertise.

# Appendix B

*Hospital-level Detail on Charts of Annualized Performance*

Fig. 1 **ANNUALIZED PERCENTAGE CHANGE IN TOTAL VOLUME** ALL YEARS SINCE REPLACEMENT

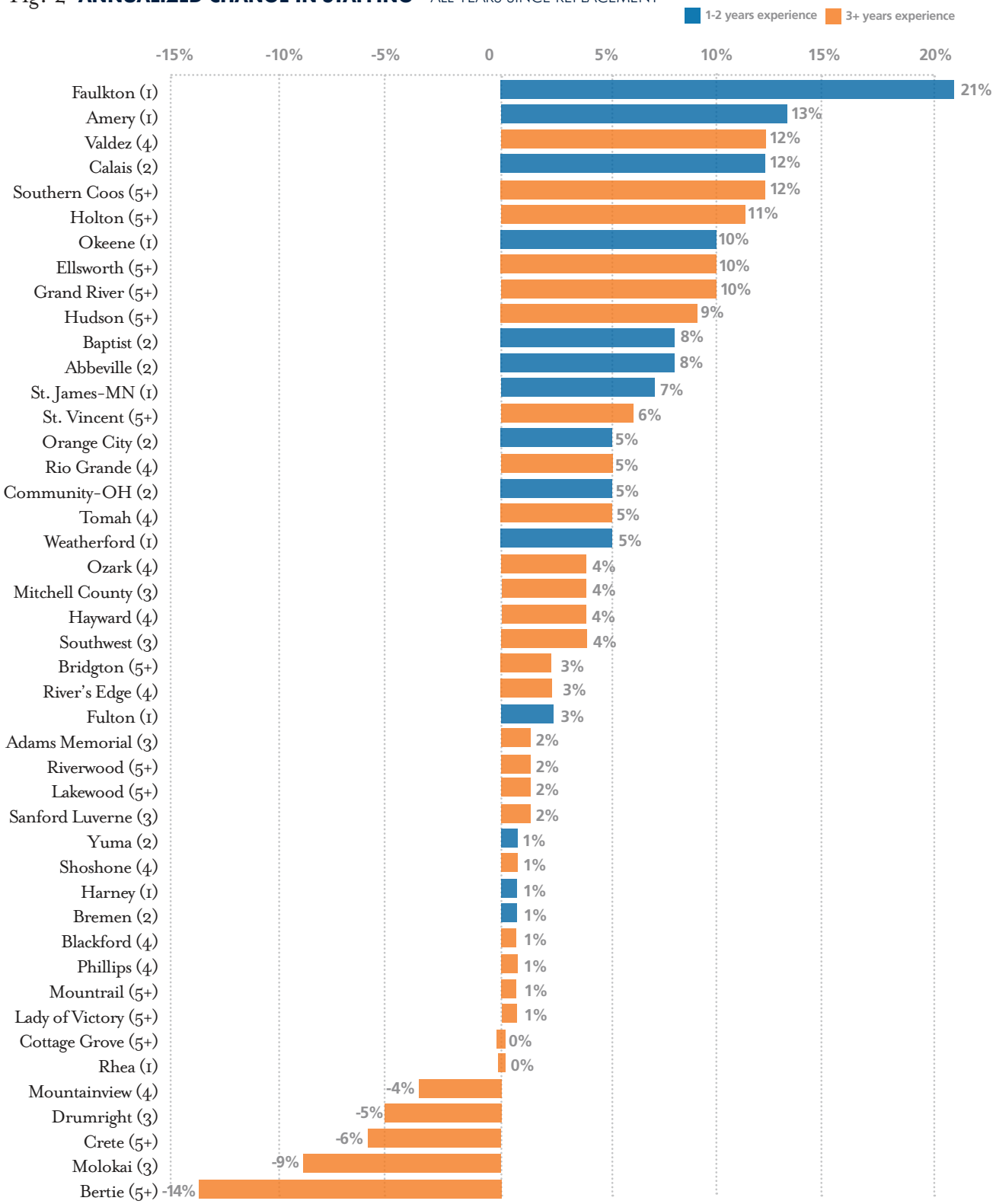


# Appendix B

*Hospital-level Detail on Charts of Annualized Performance*

ABBEVILLE AREA MEDICAL CENTER, ABBEVILLE, SC

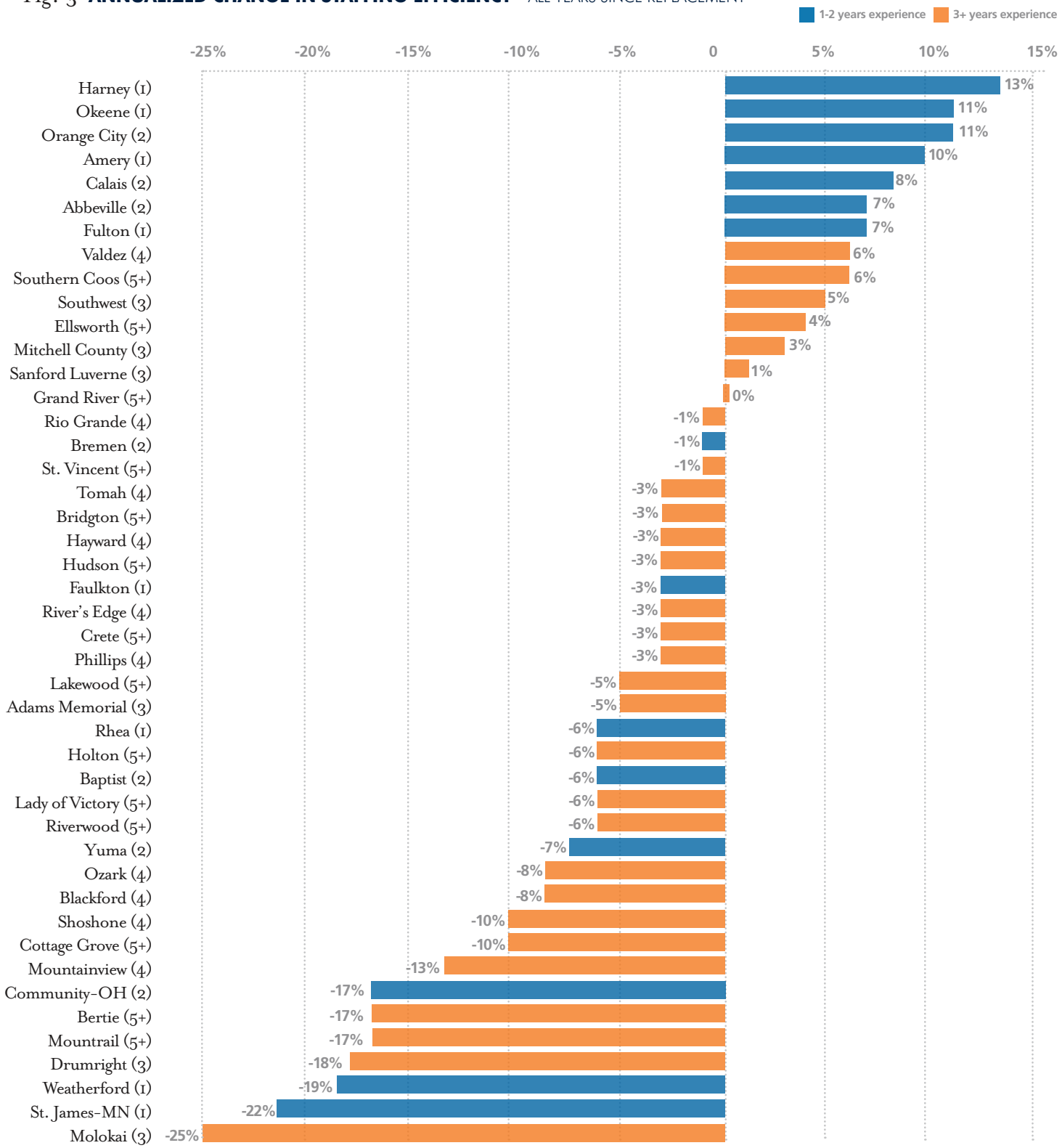
Fig. 2 **ANNUALIZED CHANGE IN STAFFING** ALL YEARS SINCE REPLACEMENT



# Appendix B

*Hospital-level Detail on Charts of Annualized Performance*

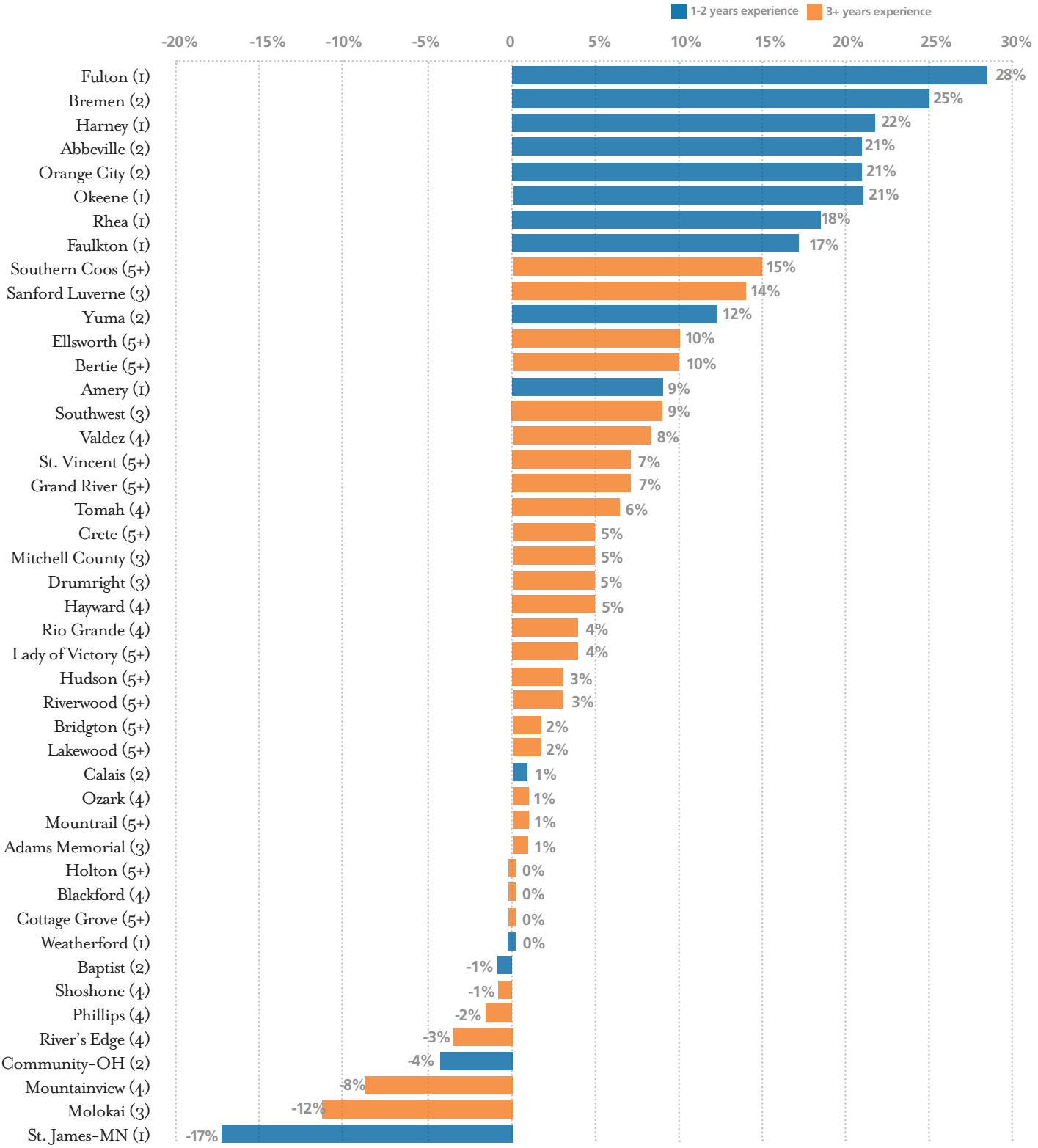
Fig. 3 **ANNUALIZED CHANGE IN STAFFING EFFICIENCY** ALL YEARS SINCE REPLACEMENT



# Appendix B

*Hospital-level Detail on Charts of Annualized Performance*

Fig. 4 **ANNUALIZED CHANGE IN OPERATING EXPENSE PER UNIT OF SERVICE** ALL YEARS SINCE REPLACEMENT



RIO GRANDE HOSPITAL, DEL NORTE, CO

# Acknowledgements

The sponsors wish to thank the participating hospitals for their commitment to this project and dedication in providing helpful advice to others at the beginning stages. The study reflects the hard work of great teams and their contributions make this a better study each year. Stroudwater Associates is available to answer any questions regarding the study or questions specific to a hospital considering a replacement facility. Contact information for rural hospital experts for each of the sponsors is an additional resource for follow up.

## Stroudwater Associates

Stroudwater Associates is a prominent healthcare advisory firm with a dedicated team that is passionate about the health of rural people and places. With offices in Portland, Maine; Atlanta, Georgia; Austin, Texas; and Scottsdale, Arizona; Stroudwater provides strategic, financial, facility planning, and operational consulting services to a national clientele—from academic medical centers to small, rural hospitals, and from integrated health systems to stand-alone community hospitals.

Since 2005, Eric Shell and Brian Haapala have authored the Rural Hospital Replacement Study and presented the findings at national and regional conferences.

**Eric Shell**, Principal, 207.221.8252
*EShell@StroudwaterAssociates.com*

**Brian Haapala**, Principal, 207.221.8264
*BHaapala@StroudwaterAssociates.com*

## Dougherty Mortgage LLC

Dougherty Mortgage LLC is a full service mortgage banking firm committed to the revitalization of America's rural hospitals.

Dougherty & Company LLC, an affiliate company of Dougherty Mortgage LLC, has successfully brought cutting-edge financing methods to acute care hospitals and senior living facilities in both metropolitan and rural markets throughout the United States. Combining proven experience in tax-exempt bond financing with specialization in FHA lending programs administered by HUD, Dougherty is unequaled in their commitment and experience to serve rural hospitals.

**Charles Ervin**, Vice President, 406.763.9016
*CErvin@doughertymarkets.com*

**Kurt Apfelbacher**, Vice President, 612.376.4083
*KApfelbacher@doughertymarkets.com*

## The Neenan Company

One of the nation's top 100 design-builders, The Neenan Company is rethinking the way buildings are designed and constructed. At Neenan, we bring together professionals of many disciplines to work concurrently, under one roof -- entwining design, functionality and cost -- to create cost effective, sustainable solutions for our clients. The Neenan Company specializes in the design and construction of Critical Access Hospitals, Medical Office Buildings, Clinics, Surgery and Imaging Centers, and Professional Office Buildings.

**Michael Curtis**, Vice President, 303.291.1819
*michael.curtis@neenan.com*

*prepared and sponsored by* STROUDWATER ASSOCIATES

*sponsored by* DOUGHERTY MORTGAGE LLC

PHOTOS: TOP LEFT:BLACKFORD COMMUNITY HOSPITAL, HARTFORD CITY, IN; BOTTOM LEFT: YUMA DISTRICT HOSPITAL, YUMA, CO; RIGHT: AMERY REGIONAL MEDICAL CENTER, AMERY, WI.

Stroudwater Associates
50 Sewall Street Suite 102
Portland, ME 04102
800.947.5712
stroudwaterassociates.com