

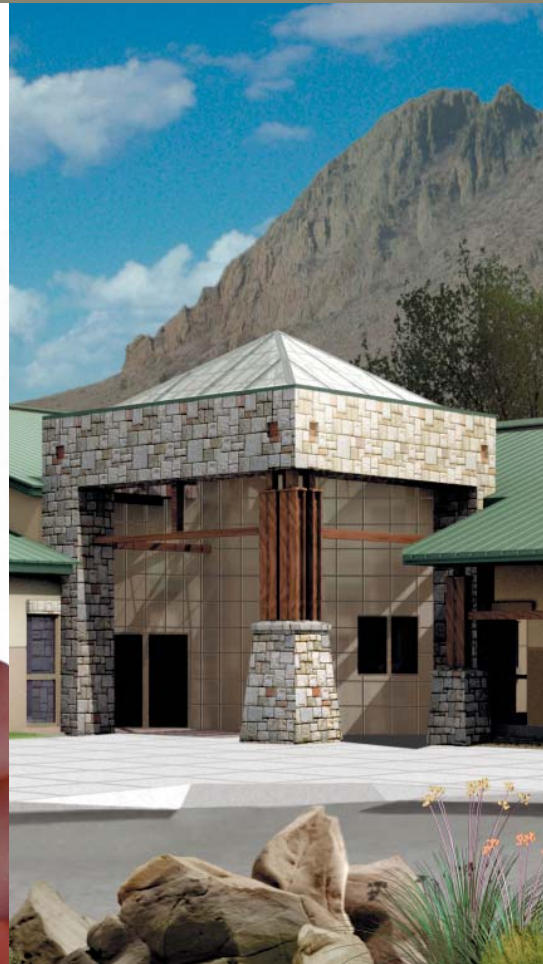
Special Industry Report

Rural Hospital Replacement Facility Study

Replacement Facility Impact on Rural
Hospital Operations and Bottom Line:
Findings From the Field

Prepared and Sponsored by
STROUDWATER ASSOCIATES
Sponsored by RED CAPITAL GROUP

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



Rural Hospital Replacement Facility Study

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

Written by Eric K. Shell, CPA, MBA and Brian R. Haapala, MHSA, CHE

Participating Hospitals:

Bertie Memorial Hospital (NC)
 Bridgton Hospital (ME)
 Cottage Grove Hospital (OR)
 Crete Area Medical Center (NE)
 Ellsworth County Medical Center (KS)
 Hayward Area Memorial Hospital (WI)
 Holton Community Hospital (KS)
 Lakewood Health Center (MN)
 Mitchell County Hospital (TX)
 Mountainview Medical Center (MT)
 Mountrail County Medical Center (ND)
 Our Lady of Victory Hospital (WI)
 Ozark Health (AR)
 Phillips County Medical Center (MT)
 Rio Grande Hospital (CO)
 Riverwood Health Center (MN)
 Shoshone Medical Center (ID)
 St. Peter Community Hospital and Health Care (MN)
 St. Vincent Randolph (IN)
 Tomah Memorial Hospital (WI)

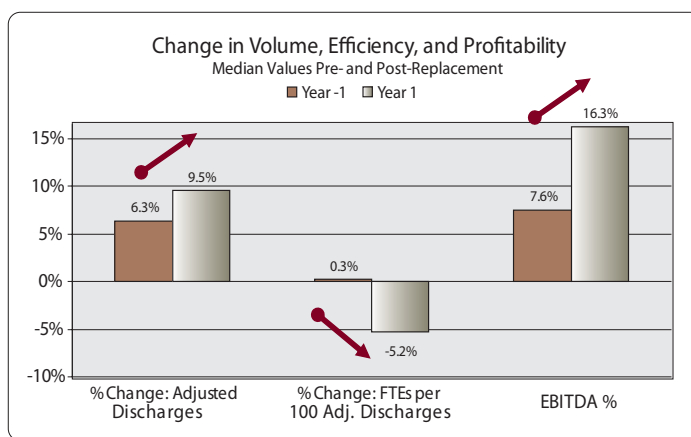
Executive Summary

The Balanced Budget Act of 1997 created the Critical Access Hospital (CAH), a specially designated rural hospital that qualifies for cost-based payments for Medicare services. Now numbering over 1,100, CAHs make up the majority of rural hospitals, and despite many being Hill-Burton facilities that are 40-50 years old, few have replaced their infrastructure citing high risks and costs, among other barriers.

While recent studies of larger replacement hospitals documented performance gains in excess of industry averages for volume growth and increased efficiency, did the same hold true for small, rural hospitals? RED CAPITAL GROUP and Stroudwater Associates decided to find out by analyzing the experiences of the growing number of CAHs that had completed a facility replacement. RED and Stroudwater's goal was to find answers to questions such as: What were the driving factors for rural hospitals that led to a facility replacement? What did the rural hospitals hope to achieve and were they successful in achieving their goals after the facility was built? Where did they access capital? And importantly, what lessons were learned and what advice would these replacement facility, rural hospitals share with others?

In this study, rural leaders pointed out both strategic and operational constraints as driving factors in the replacement decision. For some, the new hospital was simply the only way to meet licensure requirements, while others considered new service development

and retention of market share. The results were nearly universally positive, although to varying degrees -- rural communities that built new CAH hospitals not only experienced increased market share and local usage of services, but also reported enhanced clinical performance, improved workforce recruitment and retention, and improved quality performance efforts overall. In addition to the new facility itself, contributing factors to the performance differences included changes in community size and makeup, and management team experience.



Study Purpose and Scope

The Purpose

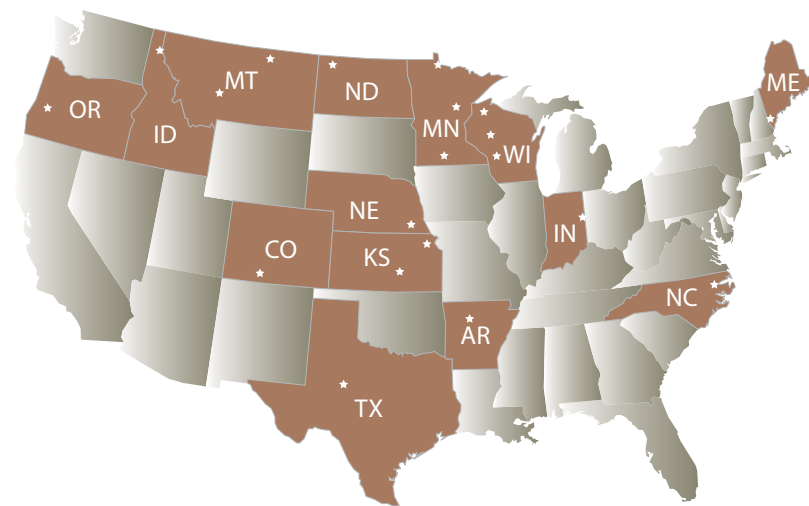
The purpose of the study was to determine the impact associated with a new facility, using the experiences of small, rural hospitals that had been replaced. Two recent studies have explored the impact of facility replacement in larger organizations: "Should I Stay or Should I Go?" (American Express Tax Advisors, 2004) and "The Impact of Facility Replacement on Market Financial Performance" (Kaufman Hall, 2005). These studies both concluded

that replacement hospitals experienced volume, efficiency and profitability gains in excess of industry averages. The studies also acknowledge, however, that the risks are “huge” and that some facilities are struggling financially post-replacement. Would large hospital experiences of volume and efficiency gains be consistent in rural hospitals or would there be a uniquely rural experience?

The Participants

The list of replacement facility CAHs was compiled based on information gathered by the Federal Office of Rural Health and supplemented with additional information provided by State Offices of Rural Health and/or state hospital associations. A total of 27 CAH organizations were identified with 20 volunteering to participate in the study (74%).

The CAHs that financed and constructed new facilities can be considered “early adopters” and may differ in significant ways from other CAHs. In particular, differences in service area, physician support, and management experience, for example, influence the outcomes of any operation, independent of the “bricks and mortar.”



27 CAH organizations were identified with 20 volunteering to participate in the study (74%)

The Process

Without an adequately sized, randomly selected sample or comparison group, the study focused on pre- and post-replacement differences to gain insight on critical success factors for rural replacement facilities. Stroudwater analyzed two years of pre-replacement information for volumes, operating costs,

and overall profitability and 1 to 6 years of post-replacement operating experience depending on replacement facility in-service dates. Representatives from each participating hospital reviewed publicly available data for prior fiscal years, made corrections as necessary, and supplemented with the most recent information. The analysis examined both the average and hospital-specific pre- and post-replacement experience for the following:

- Volumes: Admissions, patient days, outpatient visits, adjusted discharges
- Operating efficiency: FTEs and operating expense per adjusted discharge
- Financial: Operating margin and EBIDTA

Interviews with CEOs/CFOs following data analysis provided additional insights into the “stories” of how the projects have been completed. Each interview, conducted with the hospital CEO, CFO, or both, addressed the following 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?

Stroudwater invited all participating hospitals to review the data analysis and findings prior to the public report, and in addition, the study was advised both in the design and in the reporting by an Advisory Panel of independent experts (see right).



Bertie Memorial Hospital
Windsor, North Carolina



Bridgton Hospital
Bridgton, Maine

Critical Access Hospital Study Advisory Panel

Jerry Coopey,
Federal Office of Rural Health Policy

Terry Hill,
Rural Health Resource Center

Ira Moscovice,
University of Minnesota

Larry VanHorn,
University of Rochester

Charles Ervin and
Eric Mestemaker,
RED CAPITAL GROUP



Cottage Grove Hospital
Cottage Grove, Oregon



Crete Area Medical Center
Crete, Nebraska

Driving Factors in Facility Development

Findings

Preparation for a new hospital in today's healthcare environment generally must take into account industry trends, the unique challenges of rural hospitals, and the best practices in rural hospital business development. In this study, rural leaders pointed out both strategic and operational constraints as driving factors in the replacement decision. For some hospitals, the new hospital was simply the only way to meet licensure requirements, while others considered new service development and retention of market share, as illustrated below in the words of the leaders themselves:

"We were able to use the new facility as the plan for correcting code and compliance violations."

"We had 58 violations under 2000 Life Safety Code. We were not going to be given any exemptions."

"X-Ray, ER and Outpatient areas were incredibly crowded."

"We wanted a better design to increase surgical care and grow outpatient areas. We also wanted all of our physicians at one location."

"We had a 64 bed facility that had not seen census exceed 20 in years. Our nurse staffing was not efficient."

"We had a shaky infrastructure and small, double rooms that shared bathrooms."

"We wanted to project an image of quality healthcare."

"We are in a relatively competitive market and wanted to retain/grow market share."

Takeaways

It is clear from the 20 hospitals studied that there is no "silver bullet" justification for a replacement facility; however, the general themes provide guidance for organizations considering replacement:

1. Compliance: Is the current facility beyond repair for basic compliance? How far will compliance-focused investments and maintenance of an old facility go toward a new building?

2. Service constraints: Is the current facility limiting growth in existing service areas? Is the lack of space constraining the development of new services and the recruitment/retention of healthcare professionals?
3. Market share growth: Does market share information show outmigration for the types of patients that can be treated locally? Are amenities such as private rooms a limiting factor in the current facility?
4. Operating efficiencies: Is the current facility able to be staffed efficiently? Are travelers, overtime, or other costs incurred by staffing multiple units or departments that could be consolidated?

Project Barriers and Leadership Findings

A common theme emerged from the experiences of the 20 participating hospitals related to barriers encountered: Extensive up front work is needed to convince stakeholders of both the need for replacement and the ability to repay loans. Administrators often cited a multiple year process involving repeated community presentations to build a broad base of support for the project. Many also noted that leadership for the project coming from the Board or a community stakeholder was an important aspect of success—providing the CEO with support and delivering the message as one community member to another.

"It took us four years to plan the new facility and five years to get the necessary political support from the community."

"We had to convince the community that we could afford the project by raising awareness of both the need and ability to pay."

"We had to convince our board and community that this was a real option and convince HUD that we could afford it."

"Our community had to increase taxes to pay for the hospital so we had to demonstrate a need."

"We started with community/Board leaders and had them champion the project."

"Make sure every important community stakeholder is on board with the project."

Takeaways

Recommendations from participating CAHs reflect best practices in facility development, including:

1. The foundation for successful implementation of any program, but especially a new facility initiative, depends on how effectively different constituency groups are engaged and activated in support of the initiative.
2. No one person or type of stakeholder should control the plan. In fact, a well-managed process involves representatives from various constituencies within the hospital:
 - Administrative leadership,
 - Physicians,
 - Departmental managers, and
 - Community representatives.
3. Focus groups, including both internal and external stakeholders, and an active Steering Committee of eight to ten representatives are effective in guiding the discussion of alternatives.

Project Scope and Finances Findings

Prior to engaging the community, each facility went through some form of planning or feasibility analysis, and other than determining the financial feasibility early on in the process, a variety of approaches were used. Generically, determining the project scope and finances requires:

- A. An understanding of the community needs,
- B. A consideration for how demographic and technological trends will affect future needs,
- C. The proposed strategic direction for the hospital, and
- D. A projection of expected future clinical volumes.

Each of these areas are required elements for projecting future financial performance, which in turn defines the amount of capital the organization can access and the size and scope of project undertaken.

CAH leaders offered the following recommendations for other hospitals:

“Understand both what you can afford and community needs.”

“You must get strategy and finances in order before going to the capital markets.”

“Make sure to put ‘replaced’ numbers next to ‘renovated’ numbers. Often the increased volumes and improved efficiencies will support additional debt service.”

“Spend time talking to other CAHs and communities that have replaced their hospitals and learn from them.”

“Spend the money and get good consulting help – important consultants include feasibility consultant, architect, mortgage banker and construction/project manager.”

“Insist that the architect have rural experience.”

“Execute all architects and consultants that say Medicare will pay for the new facility!”

Takeaways

CAH leaders offer very practical advice in “doing your homework” prior to committing resources in the capital project. The rationale: it saves money, takes less time, and improves the outcome. Early planning work should put a strong emphasis on data analysis. When an oversight or error can cost hundreds of thousands of dollars in construction costs or lost revenue, the process must incorporate financial projections and operational plans. To the extent that such expertise is not available internally or within a system relationship, interviewees recommend retaining experts with an important caveat: resources with rural experience are necessary for planning, design, and financing.



Ellsworth County
Medical Center
Ellsworth, Kansas



Hayward Area
Memorial Hospital
Hayward, Wisconsin



Holton Community Hospital
Holton, Kansas



Lakewood Health Center
Baudette, Minnesota

Pre- and Post-Replacement Volume Experiences

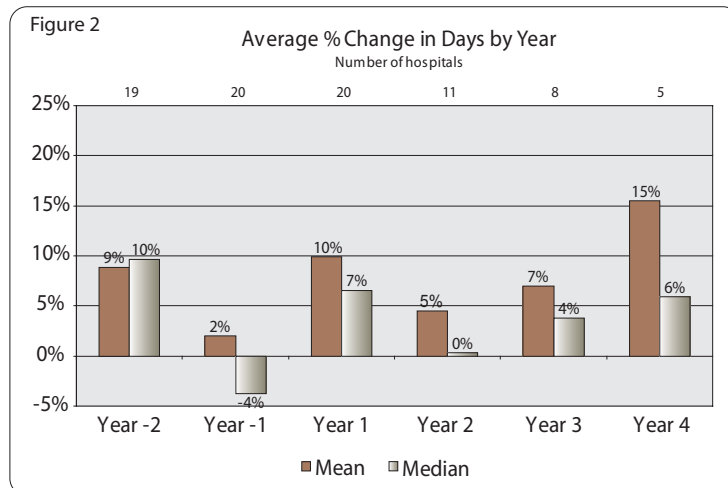
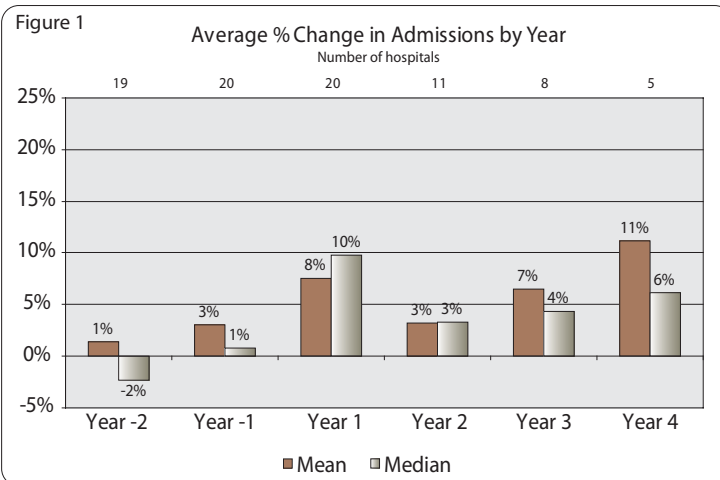
The projection of volumes can be considered both art and science. While nearly all CAHs reported being ahead of expectations, most readily admitted a conservative approach to determining future volumes. With only local guidance, the conservative approach is generally to estimate modest growth in volumes. However, assuming no change in volumes removes the rationale of serving more of the community. For rural hospitals envisioning replacement facilities, the multi-million dollar question then is: How much do I assume for volume growth?

Understanding what the experience has been of other CAHs that have replaced facilities was a driving factor behind this study. The results were nearly universally positive, although to varying degrees. However consistent the evidence, the expert panel was quick to advise, especially from the researchers' perspective, that "correlation is not causation" or in lay terms, the study cannot attribute the growth in volumes solely to the new facility. Factors beyond the scope of analysis would include changes in the community size and makeup and management team experience, for example.

Notwithstanding the limitations of the study, the differences between pre- and post-replacement experiences offer, for the first time, a CAH database of volume, cost, and financial data. Overall trends and average performance are presented below while more specific hospital-level experience is presented in Appendix A.

Admissions

Figure 1 shows the change in admissions pre- and post-replacement; the median increase for the first year was 10% (20 hospitals). For the five hospitals with four years of post-replacement experience, median admissions growth continued at 6%. On average, the contrast between the pre- and post-replacement trends is clear—slow to no growth pre- with moderate to high growth post-replacement. At the individual hospital level, 13 of the hospitals bettered their pre-replacement average in their new facility. Cottage Grove Hospital (OR) averaged 5% growth pre-replacement and in the first year of the new facility, admissions increased 31%. Among hospitals with three or more years in the new facility, Riverwood Health Center (MN) shows an annualized growth rate of 9% per year (see Figure 1a in Appendix A).



Inpatient Growth/Change in Days

Figure 2 shows the change in days, which like admissions, shows a general increase post-replacement. The median year one increase was 7%, slightly less than the increase in admissions, which indicates an overall reduction in the average length of stay. Phillips County Medical Center (MT) showed the highest growth with a 58% increase; however, as a frontier hospital, the numbers are small. It is also interesting to note that the top five hospitals (most growth) are in their first year of experience (see Figure 2a

in Appendix A). The five hospitals showing a decrease in volume indicate that external factors, including community perceptions and physician stability, continue to be strong influences on volume.

Hospital leaders interviewed offered the following thoughts on inpatient growth:

“In our original projections, we assumed a 24% growth over a nine-year projection period. We have grown 31% in two years and our market share increased from 32% to 36%.”

“Prior to replacement, we were the county’s third choice for hospital care with approximately 33% inpatient market share. Today, we are the county’s first choice with inpatient market share at 67%.”

“We exceeded all expectations; our CFO was very conservative in estimating volume growth.”

“We exceeded all volume growth projections. We have already exceeded our five year goals in 2½ years.”

Outpatient Growth

Hospital growth in outpatient visits increased on average by 10% (median) in year one of the replacement, as shown in Figure 3. The pre-replacement experience shows moderate growth in outpatient visits in contrast to the inpatient trend of little to no growth pre-replacement. Also unlike the inpatient data where the highest growth was in the first year hospitals, only one of the top five outpatient growth facilities is in its first year. Mitchell County Hospital (TX) has averaged 27% annual growth over its two year post-replacement history while Ellsworth Medical Center (KS) has averaged 26% annual growth over 6 years (see Figure 3a in Appendix A).

Hospital leaders interviewed offered the following thoughts on outpatient growth:

“Outpatient needs are greater than expected . . . we are adding an additional 9,000 square feet in specialty clinic space.”

“Seeing 7% growth in ER and urgent care as well as improved use of higher end diagnostics.”

“Significant growth in outpatient services resulting from growing specialty clinics. Our catchment area has expanded.”

“Real growth occurred on the OP side. We currently don’t have enough OP space.”

Adjusted Discharges

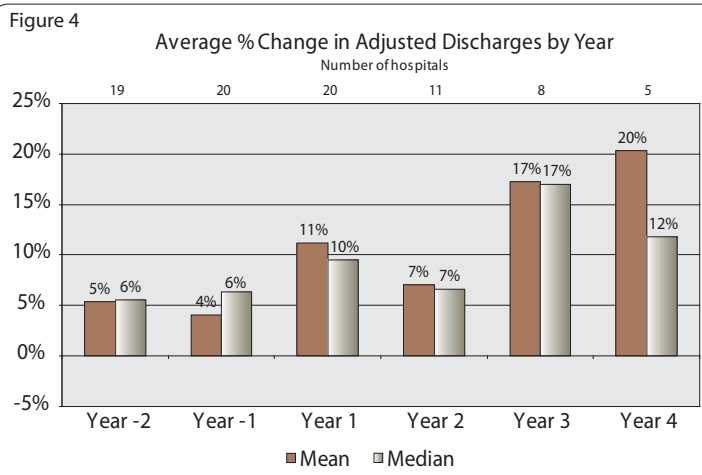
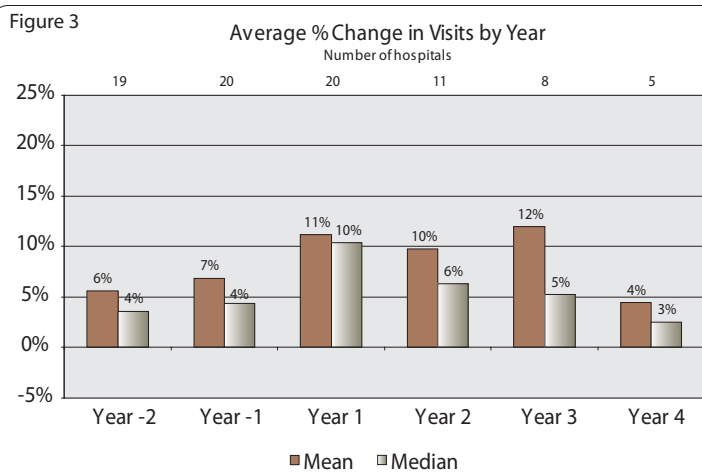
Figure 4 shows the average percent change in adjusted discharges; the ‘adjustment’ reflects a standard measure of performance by adjusting inpatient units up to reflect outpatient services. Reflecting the combined inpatient and outpatient experience, the average pre- and post-replacement experiences are consistent with inpatient and outpatient data reported previously. Thirteen hospitals realized higher annualized post-replacement growth compared to their pre-replacement average (see Figure 4a in Appendix A).



Mitchell County Hospital
Colorado City, Texas



Mountainview Medical Center
White Sulphur Springs, Montana





Mountrail County
Medical Center
Stanley, North Dakota



Our Lady of Victory Hospital
Stanley, Wisconsin

Administrators made the following recommendations for hospitals considering replacement:

“Involve all hospital stakeholders in the design process – it may take longer but outcomes will be significantly better.”

“Build in flexibility so that the facility can be expanded.”

“Build all private rooms.”

“Look ahead. Build for what you need in the future.”

“Inpatient care should be farthest from the front door. Ambulatory services should be easily accessed from the front entrance.”

“Do not underestimate the amount of time and commitment needed from local staff and be prepared for delays when moving into a new facility.”

increased operating efficiency. In most cases, the volume increases have reduced standby capacity for existing staff. This finding is supported by 17 of the 20 hospitals showing a decrease in staffing per unit (see Figure 5a in Appendix A). Two of the three hospitals not seeing efficiency gains were the same facilities that did not see overall volume growth. While overall reductions to FTEs were not common, a number of interviewees indicated the new facility offered additional flexibility in sharing staff between areas, such as the Emergency Room and acute floor.

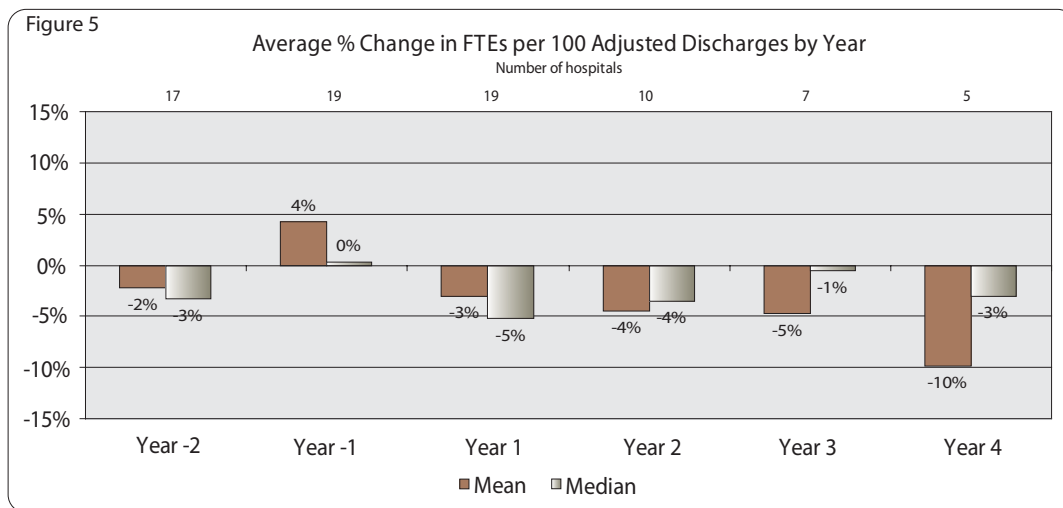
“We designed the hospital to be very efficient. We were able to reduce our nursing staff by 20% when we moved into the new facility. With only limited volume growth, we continue to meet our bottom line targets because of the staffing efficiencies.”

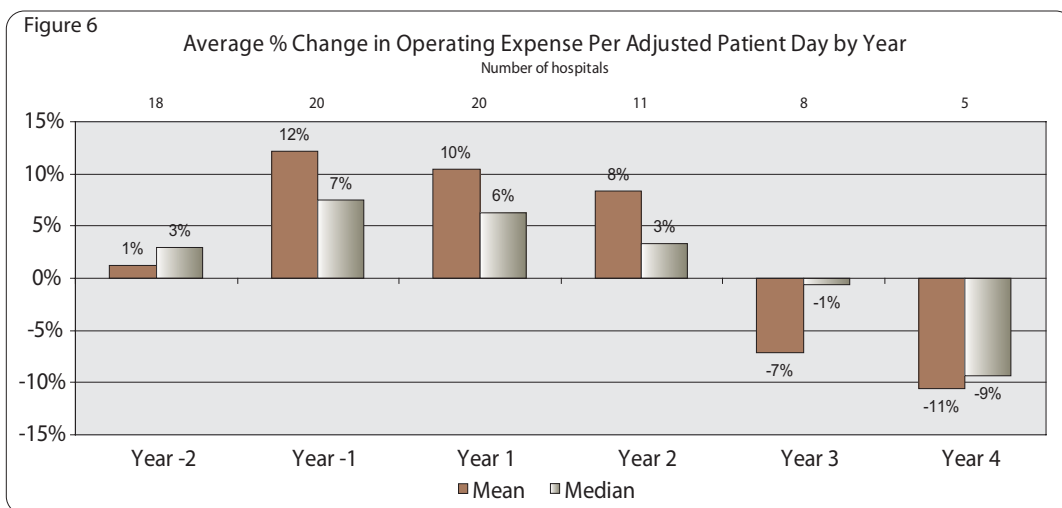
“The new facility was built with enough support service space to integrate services with our nursing home.”

“We were able to centralize nursing stations and cross train nursing staff, which has increased satisfaction.”

Pre- and Post-Replacement Cost/ Efficiency Experiences

Figure 5 shows the average percent change in staffing (FTEs) per unit of service. The median decrease in year one was 5% reflecting an





Operating Expenses

Figure 6 shows the average percent change in operating expenses per adjusted discharge (“unit costs”). The year one median increase is 6% for the 20 hospitals studied; however, for the subset of hospitals with multiple years of experience, the combined effect of volume growth and efficiency gains shows average decreases in unit costs beginning in Year 3. When compared to the rate of increase prior to replacement, 12 of the hospitals realized average rates of change that were lower in the new facility (see Figure 6a in Appendix A). This evidence, considering the limited number of hospitals included, contradicts the perception that construction of new CAHs will significantly increase costs.

Pre- and Post-Replacement Overall Performance

The volume and efficiency data offers great insights into the experiences of how operations have changed pre- and post-replacement for the 20 CAHs studied; however, the most common question from Board and CEOs is “Can we pay for it?”

Addressing this question requires looking beyond the numbers to some of the critical success factors seen in the CAHs studied. One of the most important factors, physician stability, has been enhanced by the new facility. Eighteen of 19 hospitals interviewed reported a positive impact on provider recruitment and retention:

“Since we moved into the new facility, we have recruited an FP, midlevel, and two board certified ER docs.”

“We have added two PAs and one internist in the past 12 months. We have also added specialty clinics including neurology, urology, GI, and ophthalmology.”

“Specialty physicians are now asking for more days.”

“We recently brought in a new, active general surgeon because of the plans for a new facility.”

“We have been able to successfully recruit specialty physicians to staff our clinics. We now have two cardiologists that generate \$5M in revenue for our hospital.”

In addition, staff recruitment and retention were also positively impacted in 17 of the hospitals, according to the interviews:

“We have no vacancies in RN or professional staff positions.”

“We had three RNs traveling by us on Interstate 90 to find a job in an urban hospital. They pulled off the highway and now work for us.”

“We have nurse applications that we don’t have positions for.”

“Our staff love the new building. It has rejuvenated them around our hospital. We have not used a contract nurse in three years.”

“We have the lowest turnover rate in the Region/State.”

“We have the highest employee satisfaction survey results in the system. Our nursing home turnover has decreased from 30% to 11% annually.”

Physician and staff retention are leading indicators for CAH success; high levels of loyalty and engagement support the volume growth and efficiency gains realized in many of the facilities.



Ozark Health
Clinton, Arkansas



Phillips County
Medical Center
Malta, Montana



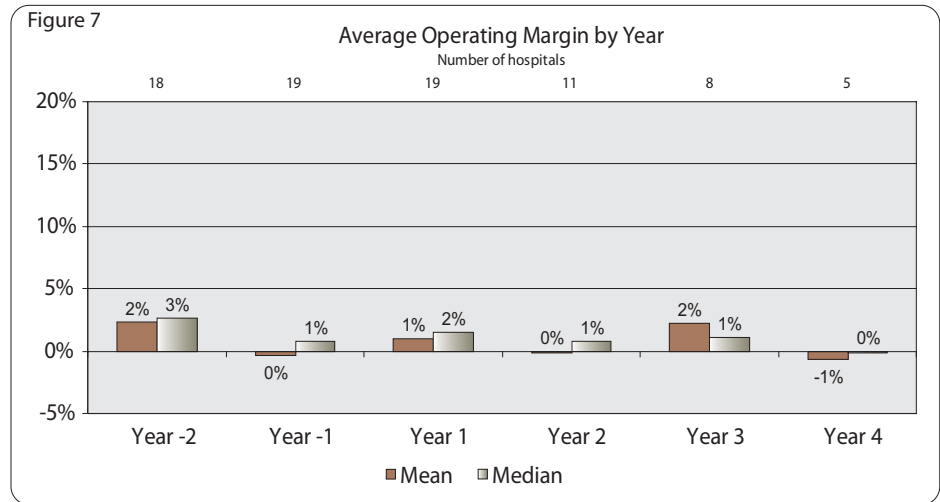
Rio Grande Hospital
Del Norte, Colorado



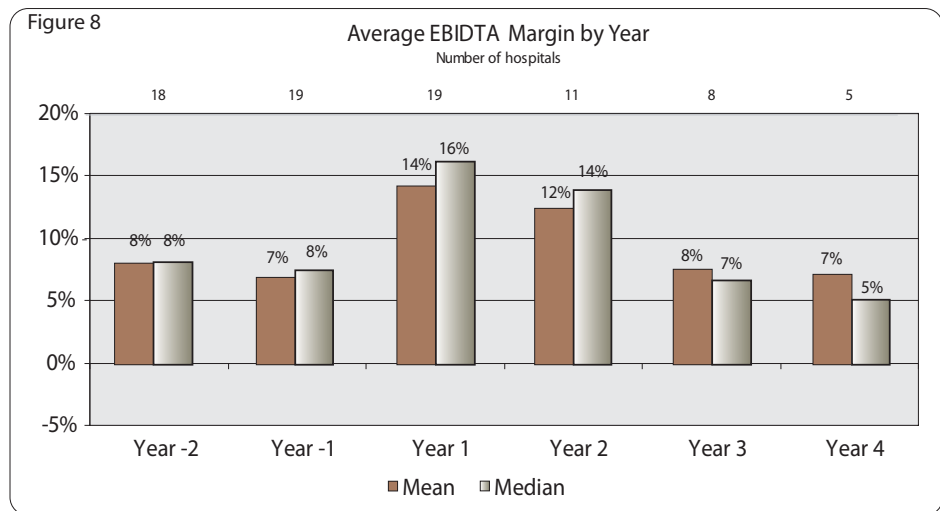
Riverwood Health Center
Aitkin, Minnesota

Financial Impact Operating Margin

Figure 7 shows the average operating margin by year. As indicated, the pre- and post-replacement averages do not vary significantly. Six of the hospitals increased their operating margin in year one performance over the pre-replacement experience—a significant accomplishment considering the incremental interest and depreciation costs associated with a new facility (see Figure 7a in Appendix A).



The impact of eliminating differences in pre- and post-replacement capital costs, as reflected in EBIDTA (Earnings Before Interest Depreciation Taxes and Amortization), shows a positive financial trend:



The median growth in profitability (excluding capital costs) was 16% in year one of the facility vs. 8% pre-replacement. On a hospital-by-hospital basis, there is much less variation with 16 hospitals improving EBIDTA in year one compared to pre-replacement average (see Figure 8a in Appendix A).

This demonstrates the positive financial impact of the volume and efficiency gains reported previously.

Access to Capital Findings

Each of the CAHs interviewed used a different mix of internal and external capital, as shown below:

- Guarantee from System: eight hospitals accessed capital through their affiliated system relationship, most often as part of a larger bond package;
- Guarantee from County/City: four hospitals used County/City backing to issue and/or guarantee the debt; and
- HUD/USDA/Private Placement: six hospitals used a variety of available programs to access capital independently.

Those CAHs that accessed capital independently often used a number of different programs to improve the hospital's credit. The programs most frequently cited were: HUD 242 mortgage insurance, USDA community facilities direct loan, USDA community facilities guaranteed loan, and USDA rural electric zero interest loans. Nearly all CAHs held major fundraising/capital campaigns to supplement external capital. Many reported exceeding their fund raising goals and one facility was able to raise enough money from the local community to fund the entire project.

Takeaways

CAHs that have successfully accessed capital have been opportunistic, often leveraging their relationships with larger hospitals or working with multiple programs to get the necessary resources. While any one of the approaches may be an option, interviewees cited pros and cons to each approach. CAHs considering a replacement should evaluate multiple options. For example, an independent CAH may look at the availability of capital based on its own situation, and it may also consider developing an affiliation as a strategy for increasing access to capital. Hospitals are also advised to focus on the "all in" costs (including up-front and on-going fees), as well as interest rates, timing, reporting requirements and other covenants.

Conclusions

The analysis of CAH experiences on a pre- and post-facility replacement basis fills an information deficiency that previously existed for these rural hospitals, and increases the amount of information available to other rural communities currently considering replacement and analyzing the difficult questions of whether a new facility is right for them. The 20 CAHs that participated in the study, while unique in many ways, saw their early successes influenced by factors such as:

- Service area: size, growth trends, age mix, health status, competition, and current market share;
- Pre-replacement vs. post-replacement service offerings;
- Changes in physician supply and/or capabilities; and
- Capabilities of the management team and community support.

The evidence is compelling that a new facility positively impacts CAH operations and is perhaps most significantly illustrated by growth increases experienced beyond the expectations of most CAH leaders:

- Patient days showed a median year one increase of 7%, with an annualized increase of 9% over the total experience to date.
- Post-replacement admissions and patient days exceeded pre-replacement averages in 13 hospitals, while year one increases in outpatient visits averaged 10%.

The CAHs studied have shown a mixed experience on operating costs adjusted for volume:

- Annualized changes in operating expense per adjusted patient day ranged from -25% to +19%.
- The average 7% decrease in FTEs per 100 adjusted discharges showed improved staffing efficiency, while 12 facilities had better unit cost experience with new facilities than the pre-replacement average.



Shoshone Medical Center
Kellogg, Idaho



St. Peter Community Hospital
and Health Care Center
St. Peter, Minnesota



St. Vincent Randolph
Winchester, Indiana



Tomah Memorial Hospital
Tomah, Wisconsin

Post-replacement financial performance was improved, when eliminating differences in capital costs between pre- and post-replacement periods:

- CAHs showed a 16% average EBIDTA margin in first year of replacement, while 16 hospitals improved EBIDTA in year one compared to pre-replacement average.

In addition to the qualitative analysis of this study, the following insights into CAH replacement were gleaned along with some “lessons learned”, as offered by participating hospitals:

- Facility deficiencies are the driving force in many projects.
- Involve stakeholders, including a community champion other than the CEO/Administrator.
- Using a network or affiliated partner to access capital is a common approach pursued for those having such relationships.
- A new facility presents the opportunity to strategically rethink what services need to be delivered and how the facility supports that strategy.
- Consider the positive examples of how new facilities can also support Performance Improvement and Information Technology initiatives.
- Improved provider recruitment and retention was a nearly universal experience.
- Focusing on “what the community needs” versus “what you can afford” is difficult, but necessary.
- Don’t be surprised if growth exceeds expectations and additional construction is needed.

Building a new facility is a once in a lifetime experience for most CEOs and rural hospital Board members. This study offers those key decision makers a unique look into what has happened at other hospitals.

Acknowledgements

RED CAPITAL and Stroudwater wish to thank the participating hospitals for their commitment to this project. We also wish to thank those who advised us on this project, for their contributions made this a better study. In addition to encouraging CAHs considering a replacement facility to follow up with individual hospitals that strike their interest, we are also available to answer additional questions.

For questions or additional information contact:

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Appendices A and B

Figure 1a

% Change in Admissions - Annualized Change Since Replacement

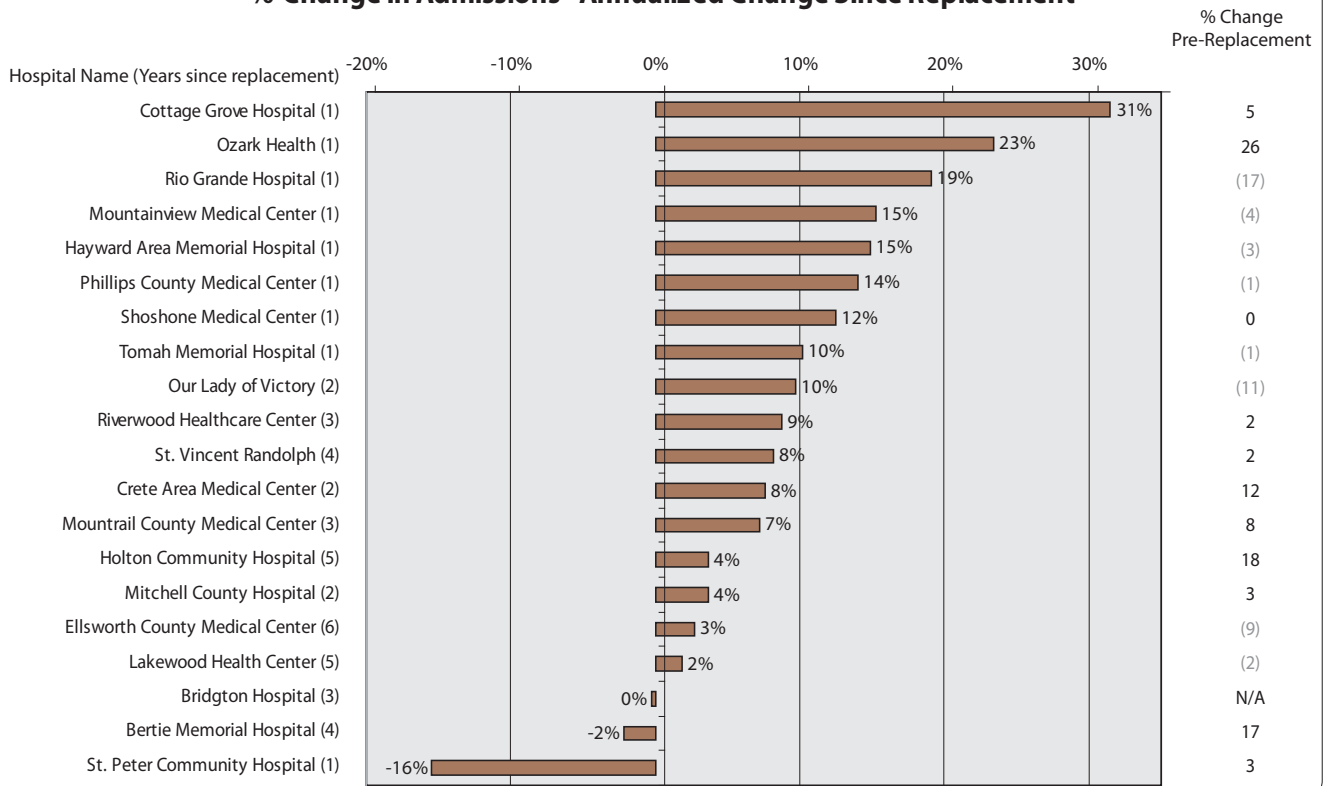
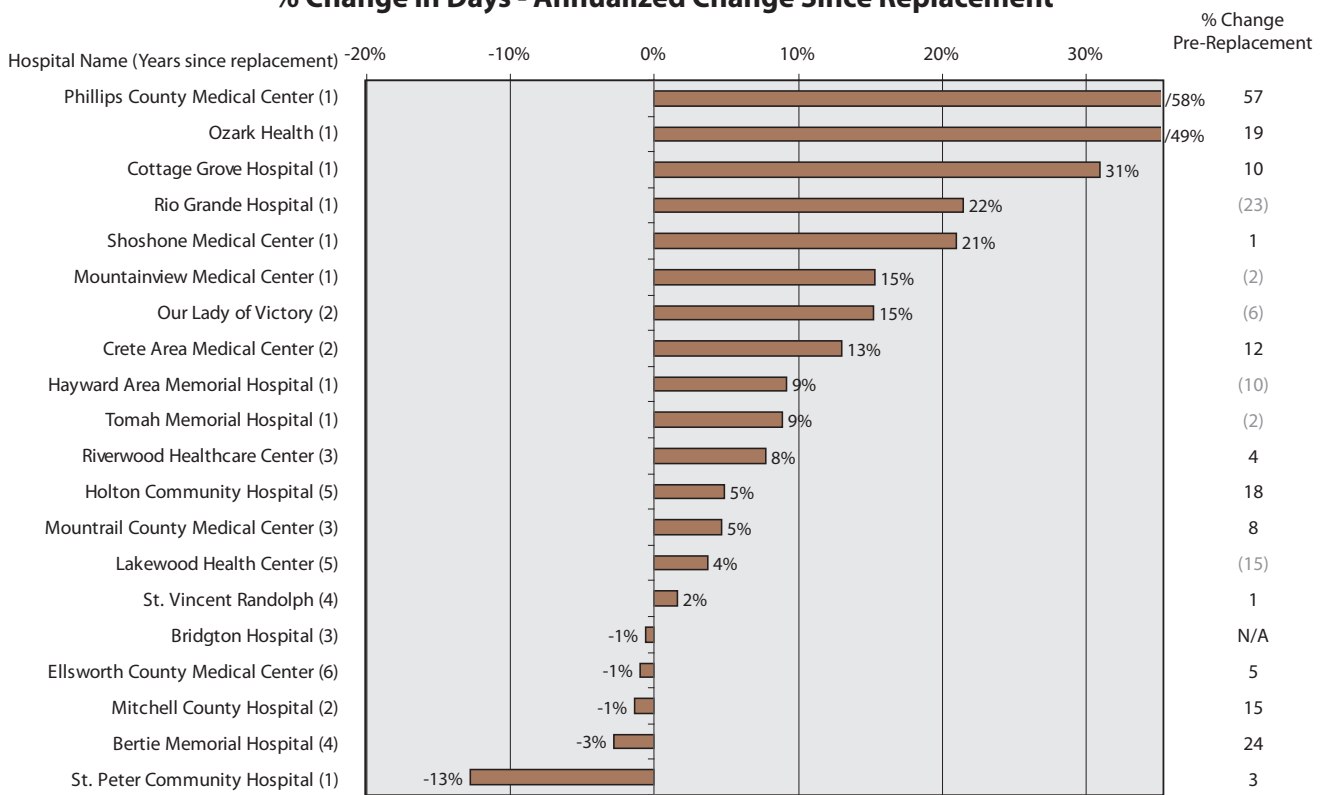


Figure 2a

% Change in Days - Annualized Change Since Replacement



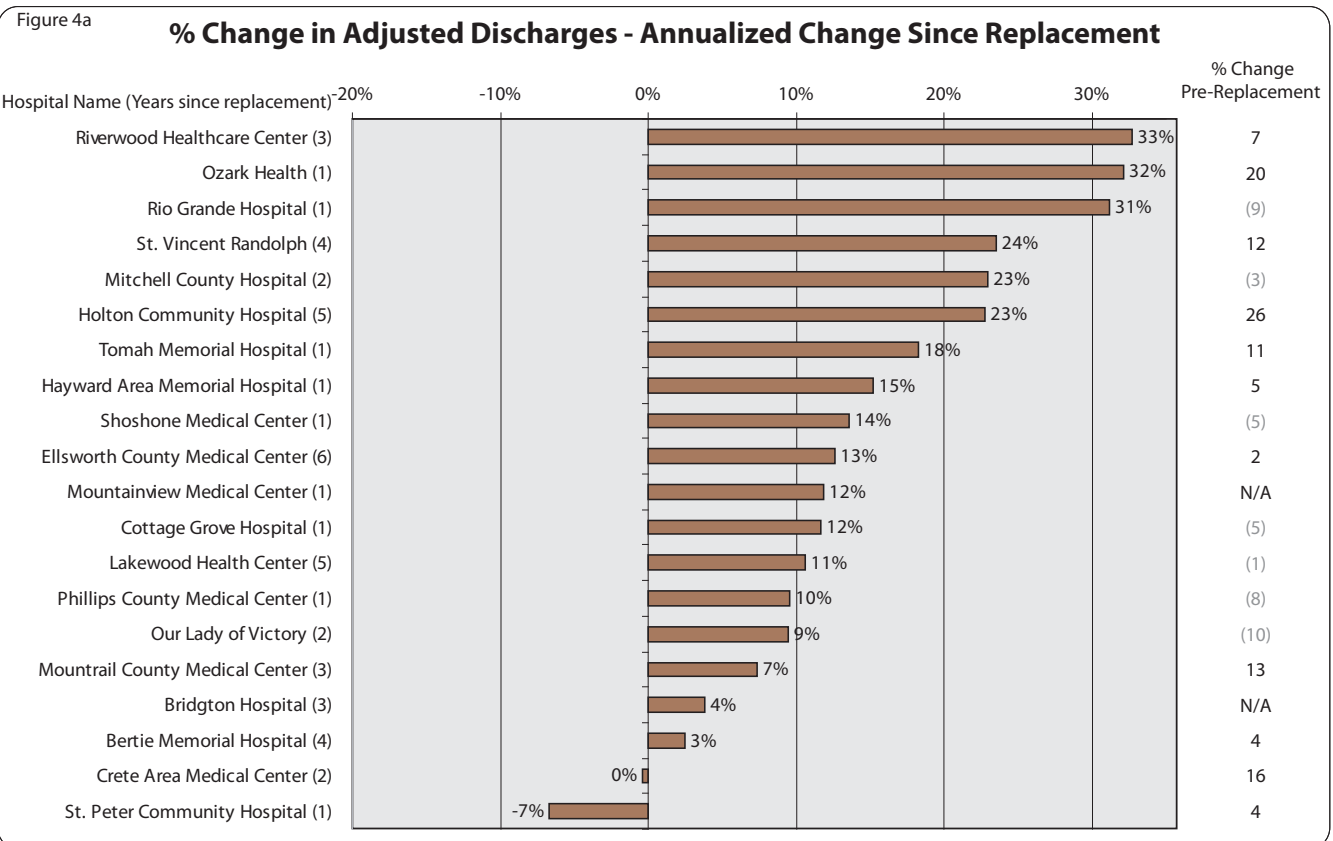
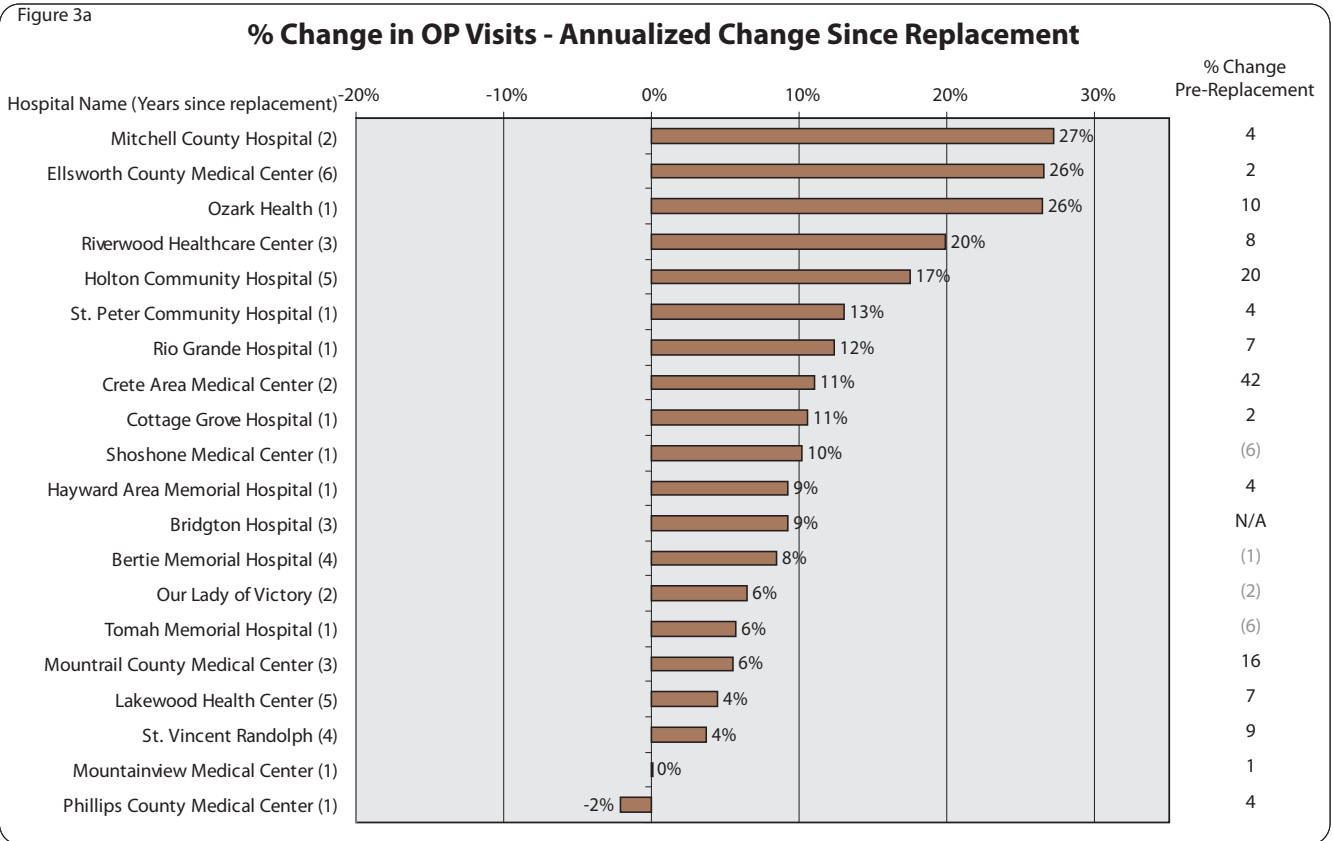


Figure 5a

% Change in FTEs per 100 Adjusted Discharges - Annualized Change Since Replacement

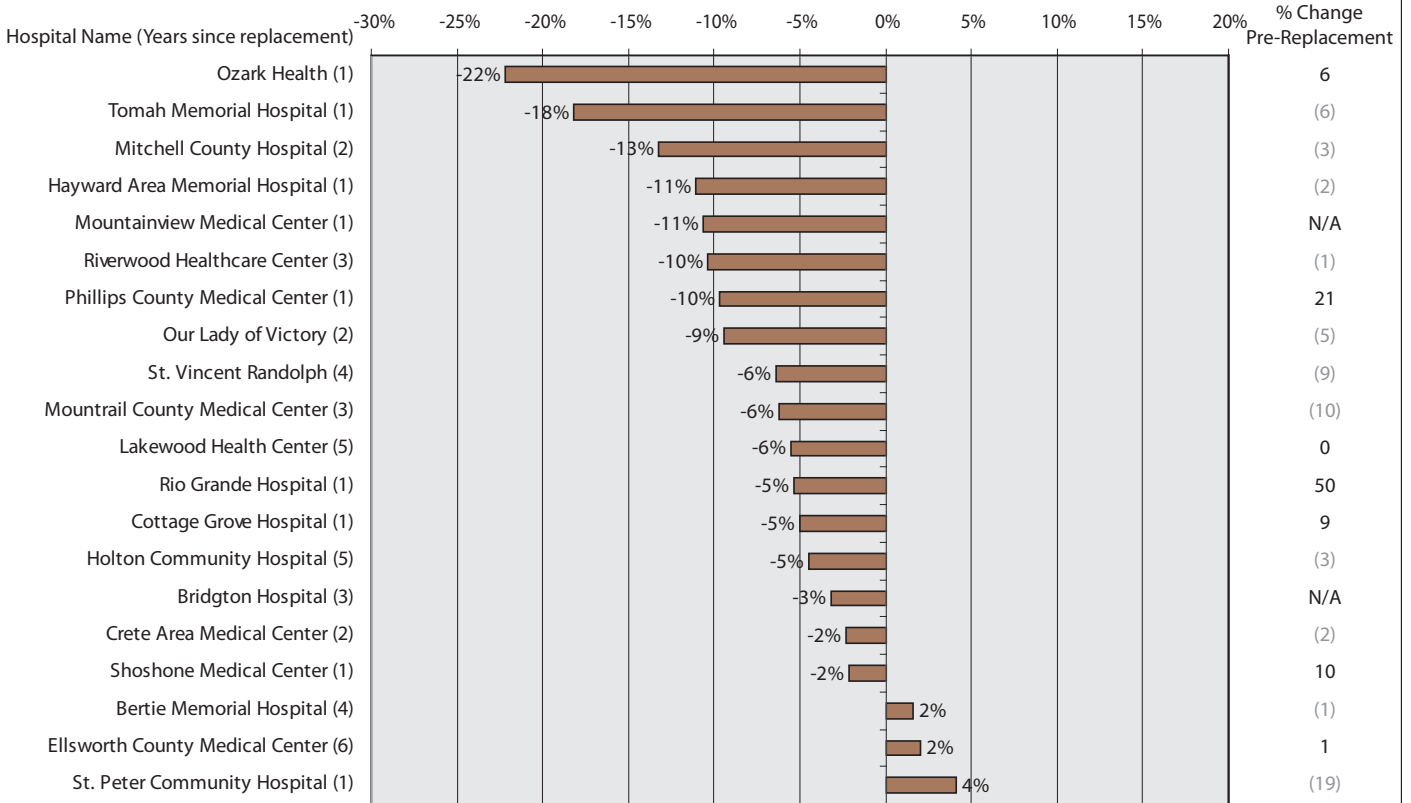


Figure 6a

% Change in Operating Expense per Adjusted Patient Day - Annualized Change Since Replacement

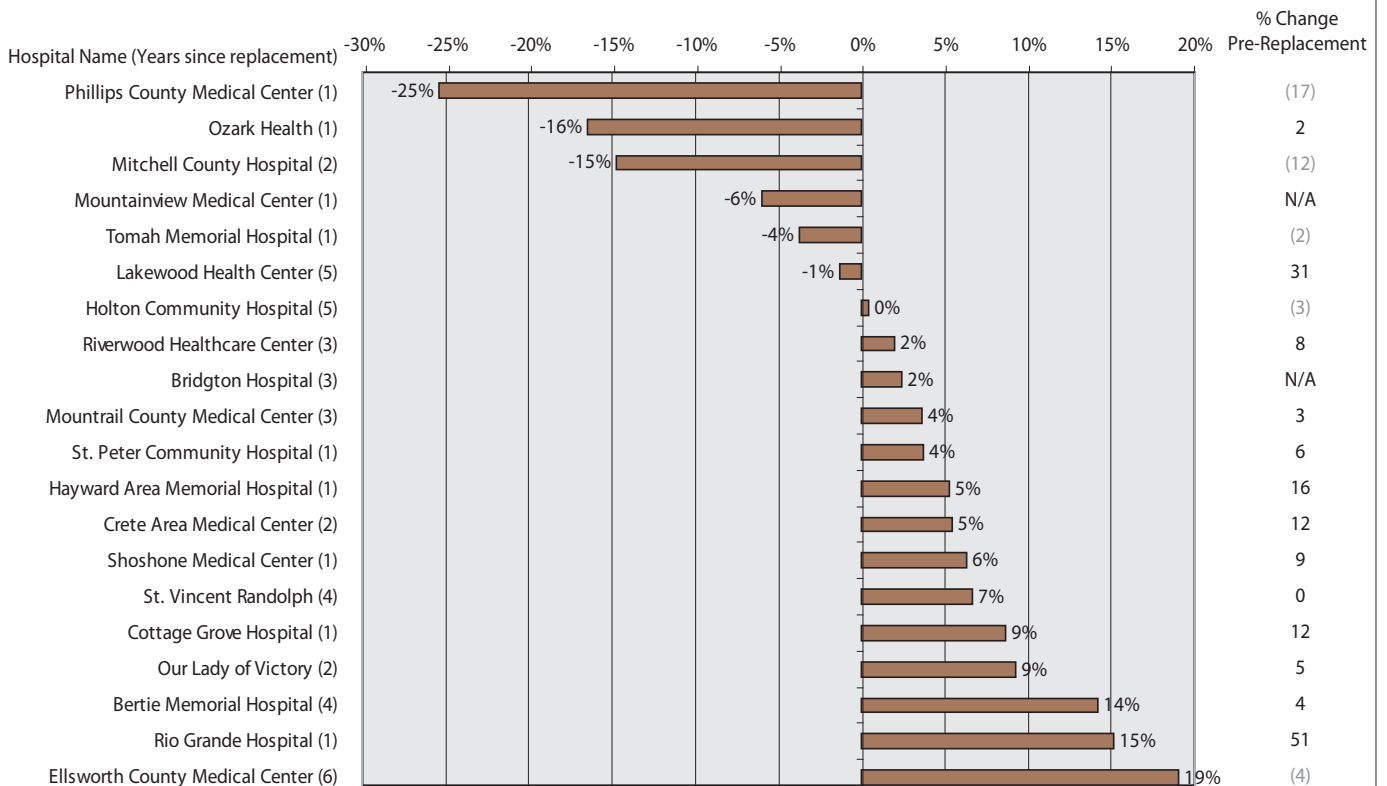


Figure 7a

Year One Operating Margin %

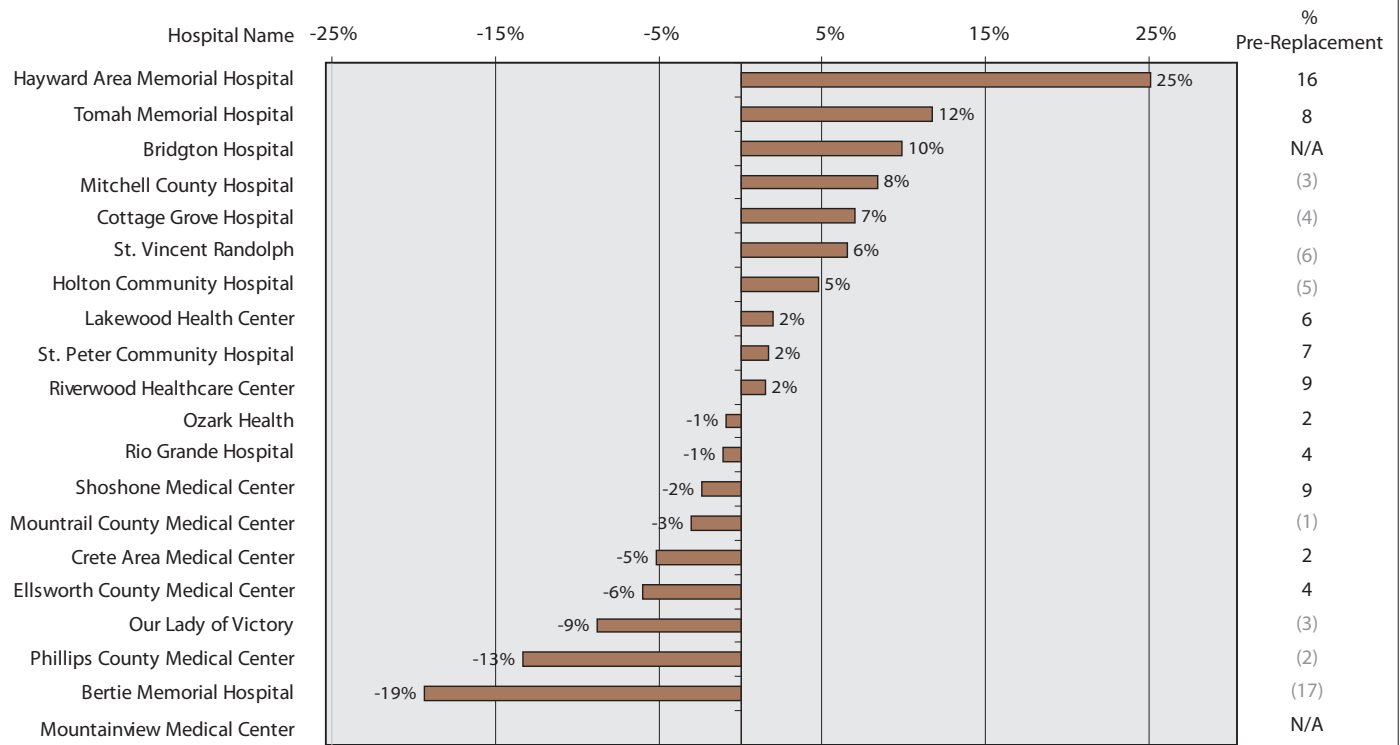
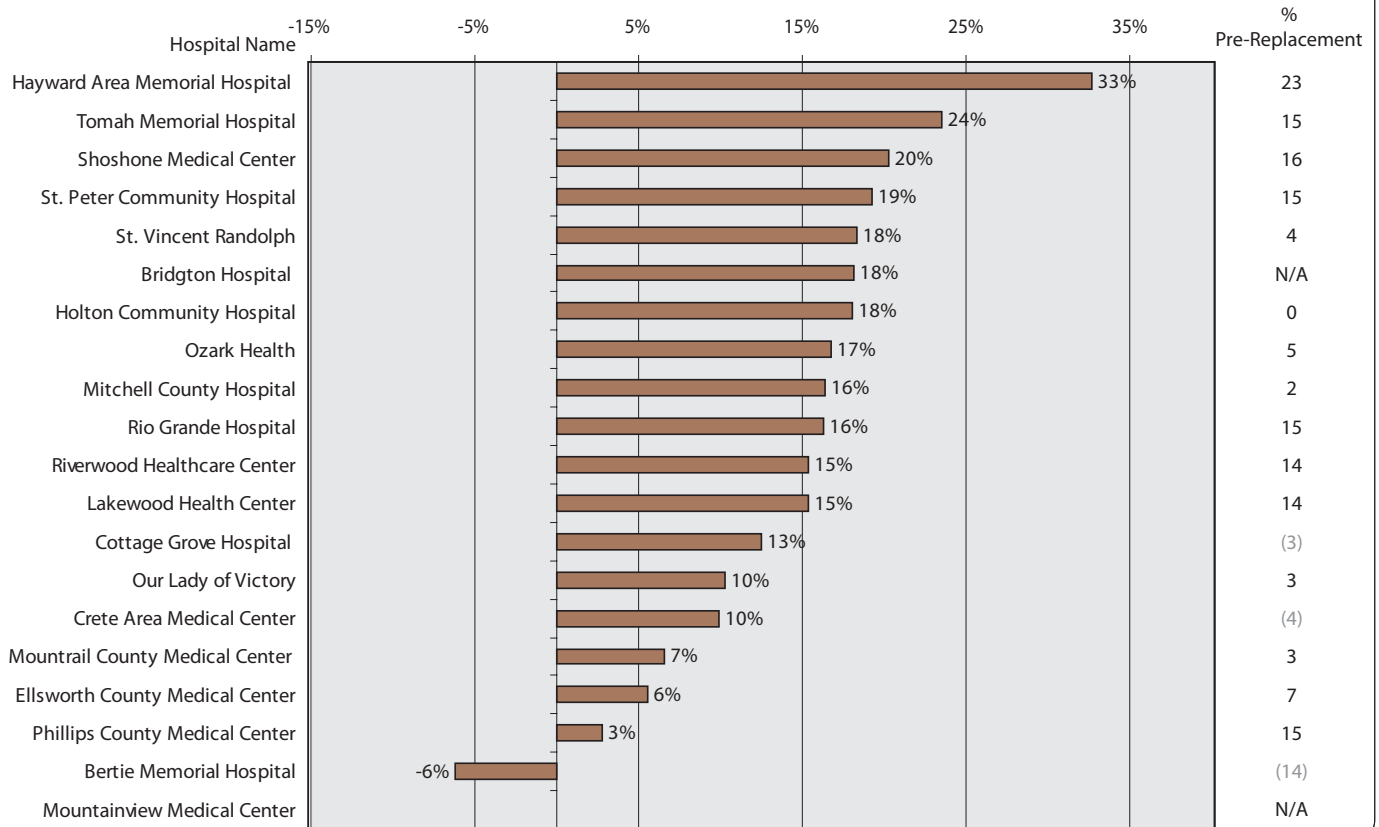
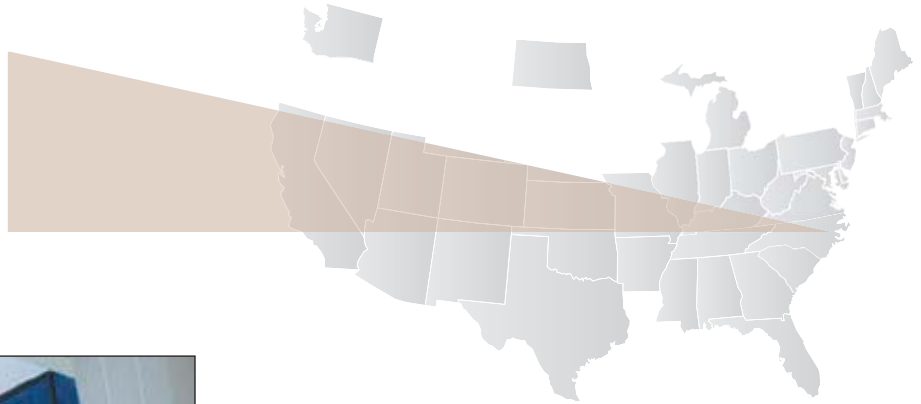


Figure 8a

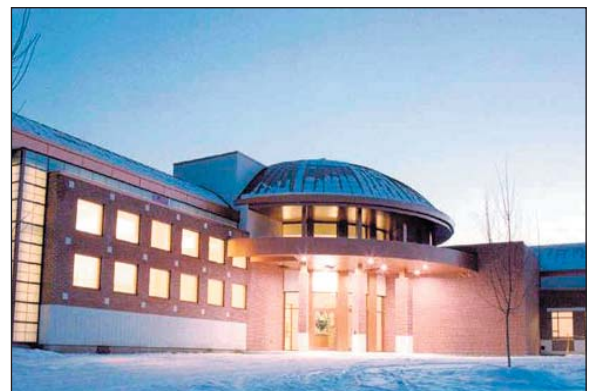
Year One EBIDTA Margin %

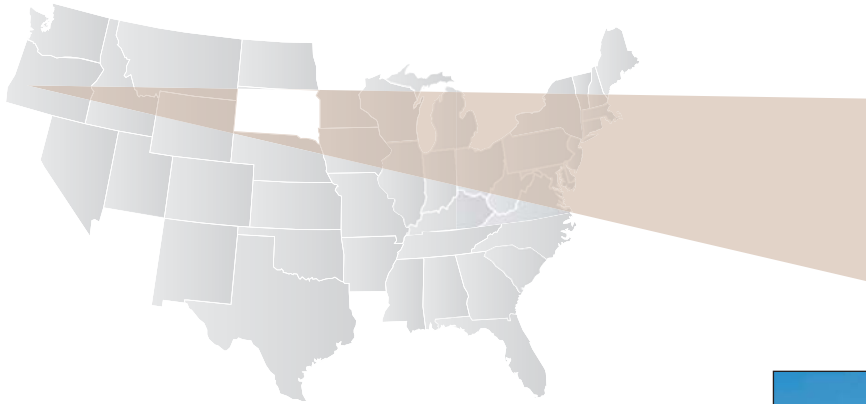


Bertie Memorial Hospital
Windsor, North Carolina
Jeff Sackrison, CEO
(252) 482-6268
\$10 million total project cost



Bridgton Hospital
Bridgton, Maine
John Carlson, CEO
(207) 647-6000
\$12 million total project cost

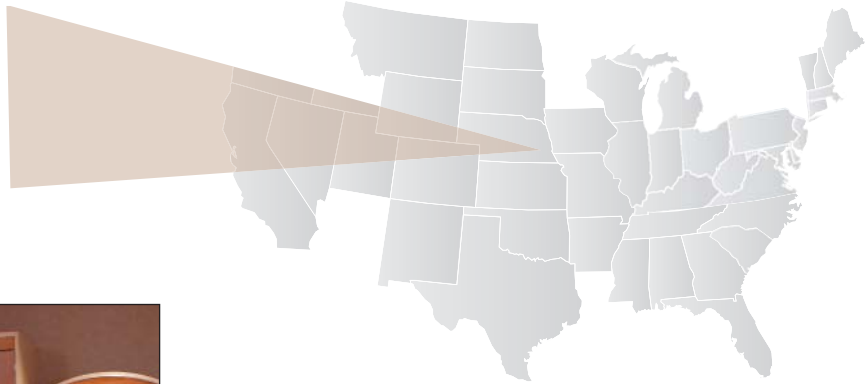




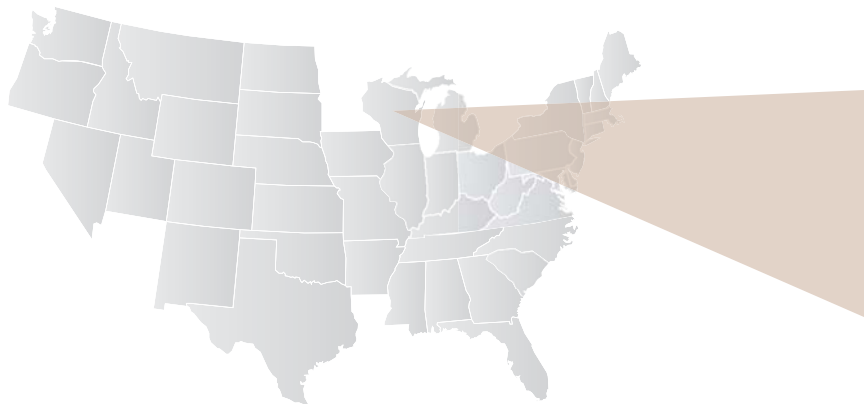
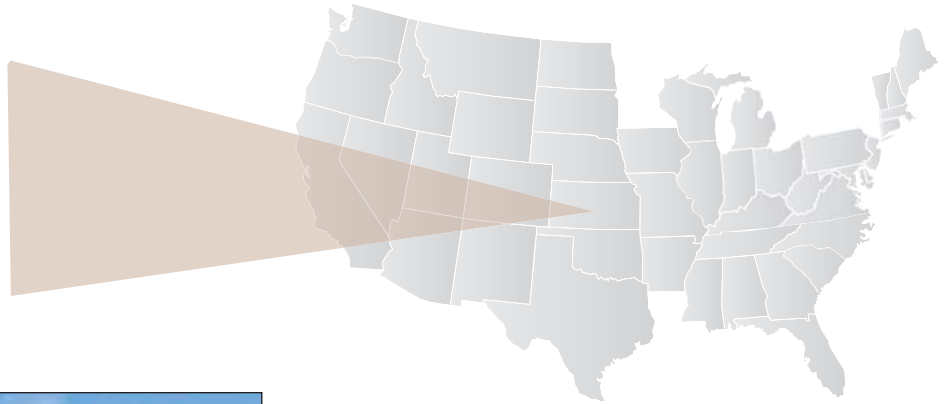
Cottage Grove Hospital
Cottage Grove, Oregon
Tim Hermann, CEO
(541) 942-0511
\$12.3 million total project cost



Crete Area Medical Center
Crete, Nebraska
Joe Lohrman, CEO
(402) 826-2102
\$16 million total project cost

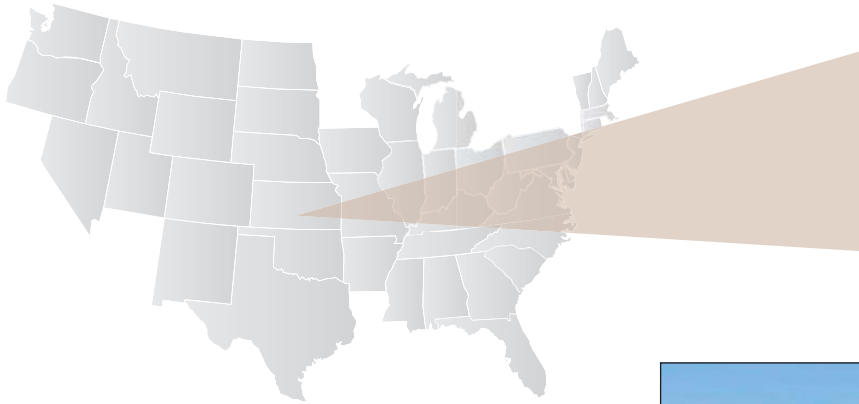


Ellsworth County
Medical Center
Ellsworth, Kansas
Roger Pearson, CEO
(785) 472-3111
\$4.2 million total project cost



Hayward Area
Memorial Hospital
Hayward, Wisconsin
Barbara Peickert, CEO
(715) 934-4244
\$7.5 million total project cost

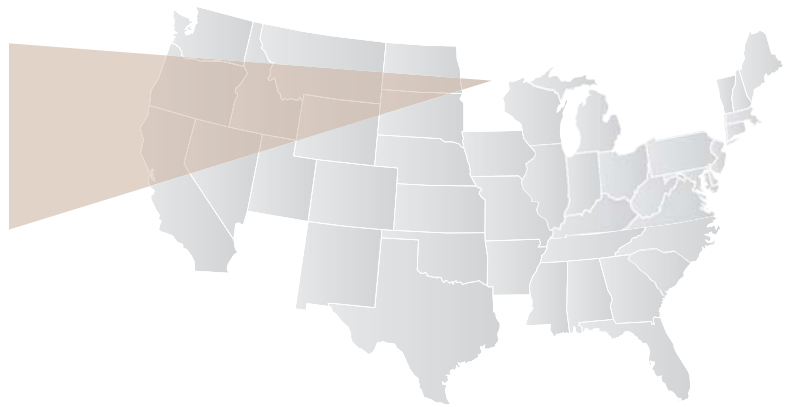




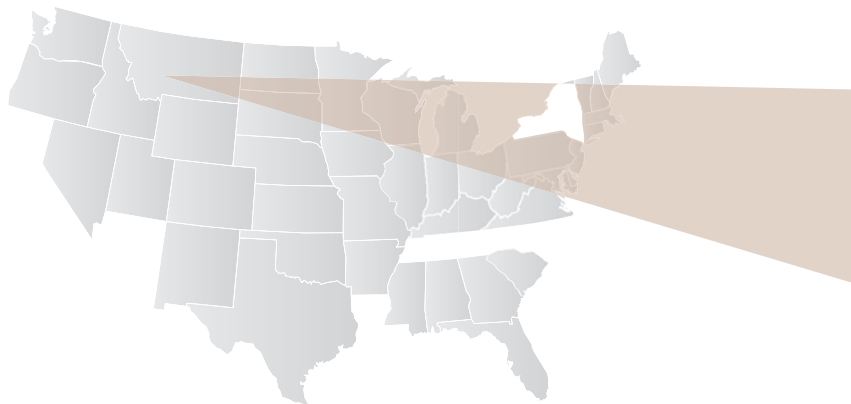
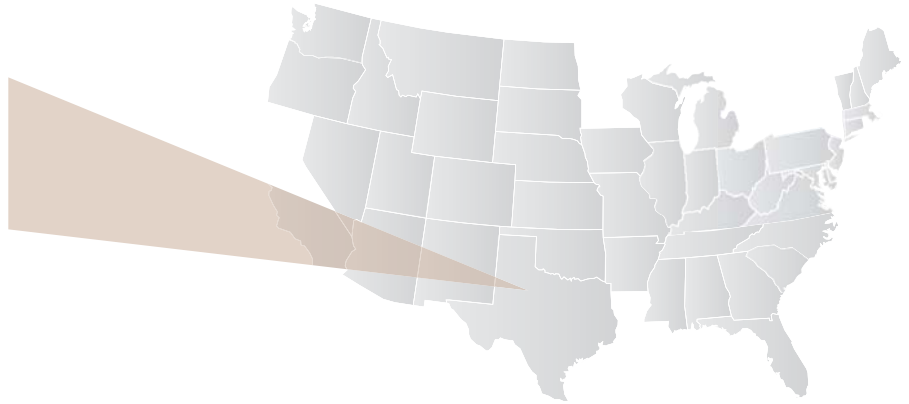
Holton Community Hospital
Holton, Kansas
James Fairchild, CEO
(785) 364-2116
\$5 million total project cost



Lakewood Health Center
Baudette, Minnesota
SharRay Palm, CEO
(218) 634-2120
\$8.3 million total project cost

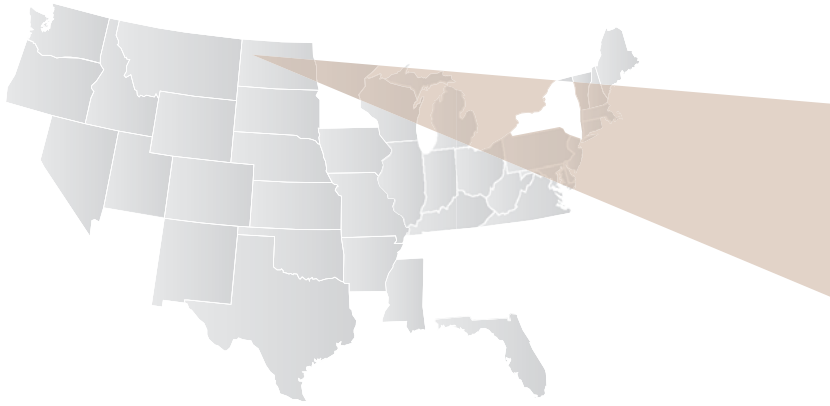


Mitchell County Hospital
Colorado City, Texas
Linda Mize, Administrator
(325) 728-3431



Mountainview Medical Center
White Sulphur Springs, Montana
Katharine Ann Campbell, CEO
(406) 547-3321
\$3.5 million total project cost

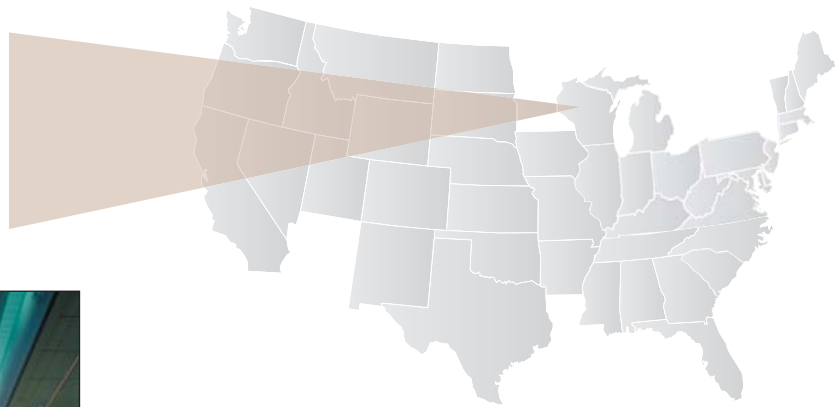




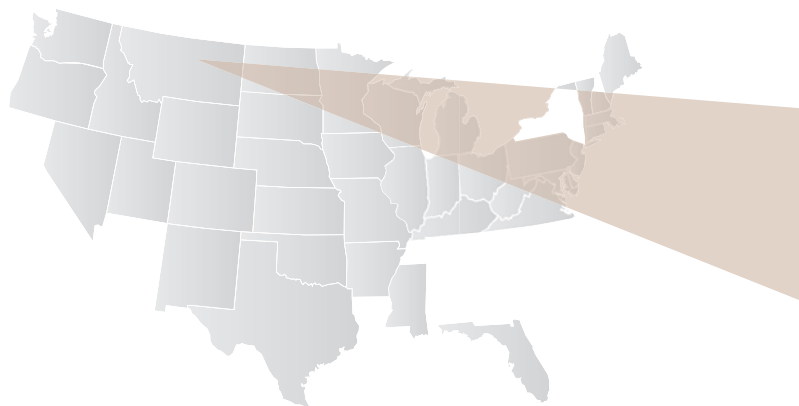
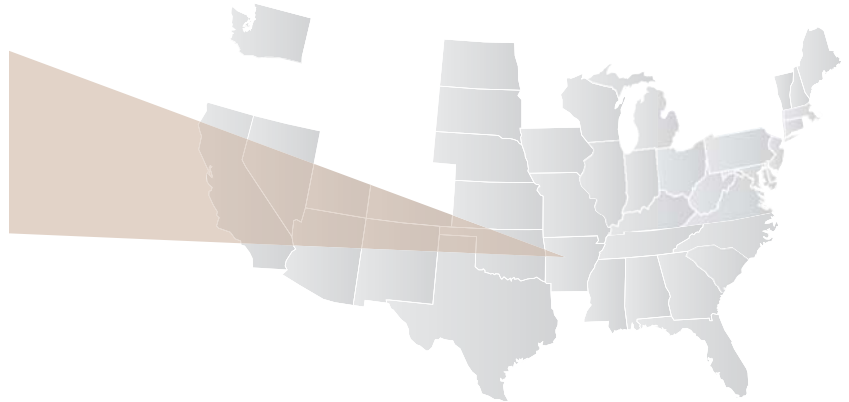
Mountrail County Medical Center
Stanley, North Dakota
Mitch Leupp, CEO
(701) 628-2424
\$3.55 million total project cost



Our Lady of Victory Hospital
Stanley, Wisconsin
Cynthia Eichmann, CEO
(715) 644-5571
\$16.7 million total project cost

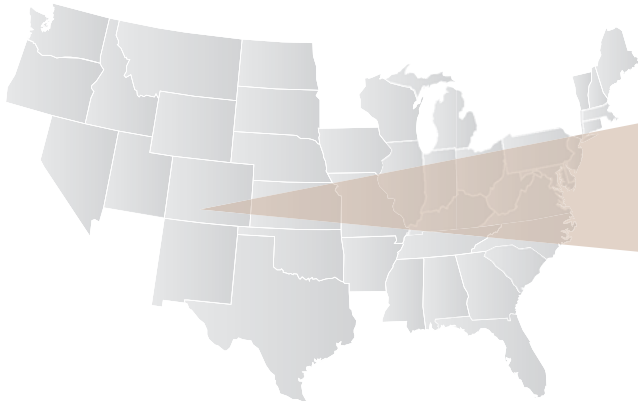


Ozark Health
Clinton, Arkansas
Kirk Reamey, CEO
(501) 745-9501
\$18.5 million total project cost



Phillips County Medical Center
Malta, Montana
Larry Putnam, CEO
(406) 654-1000
\$4.4 million total project cost

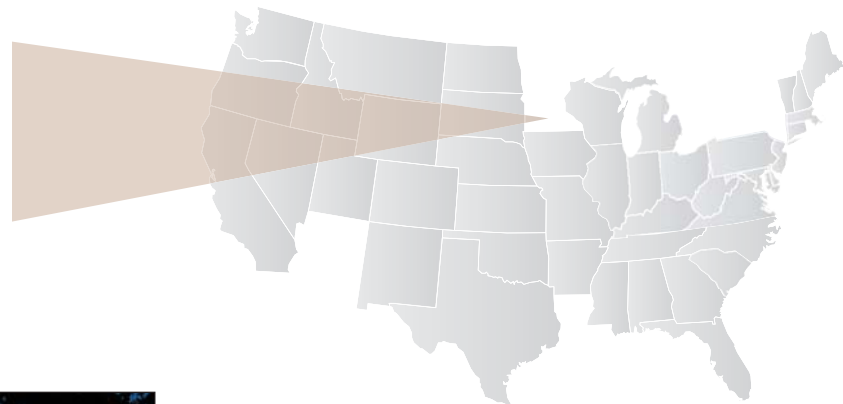




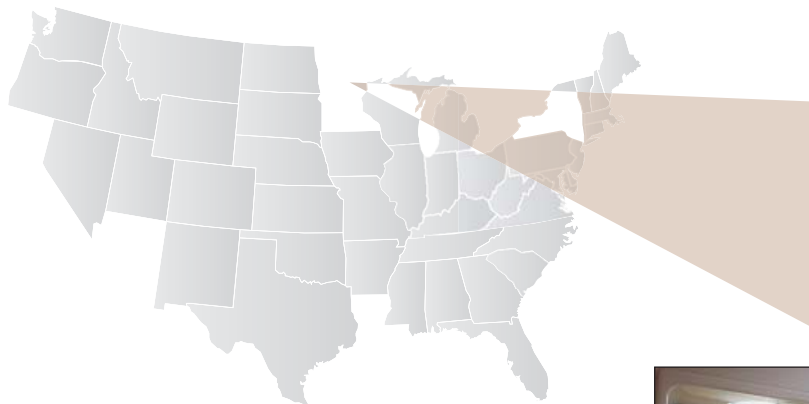
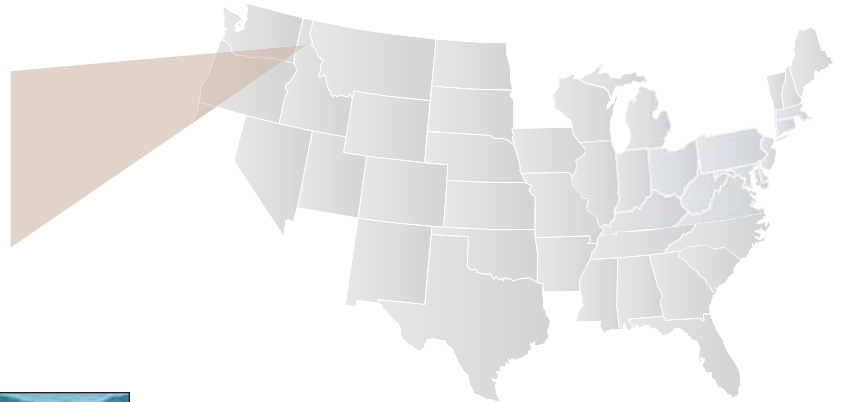
Rio Grande Hospital
Del Norte, Colorado
Norman Haug, MD, CEO
(719) 657-2510
\$11.2 million total project cost



Riverwood Health Center
Aitkin, Minnesota
Michael Hagen, CEO
(218) 927-5501
\$20 million total project cost

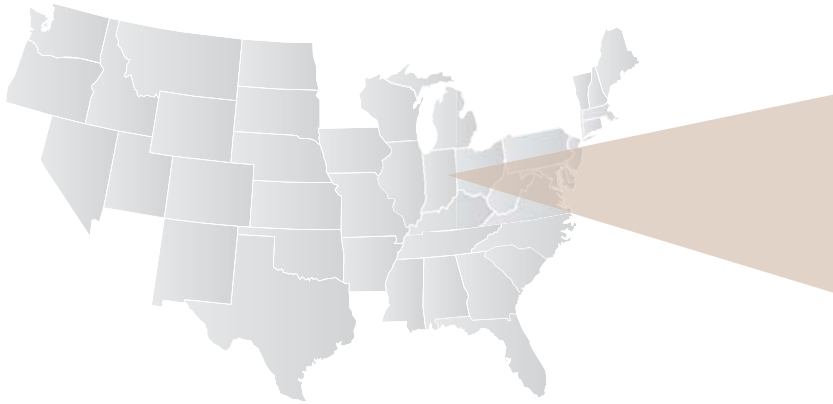


Shoshone Medical Center
Kellogg, Idaho
Gary Moore, CEO
(208) 786-0581
\$18.5 million total project cost



St. Peter Community
Hospital and Health Care Center
St. Peter, Minnesota
Colleen Spike, CEO
(507) 931-2200
\$14.8 million total project cost

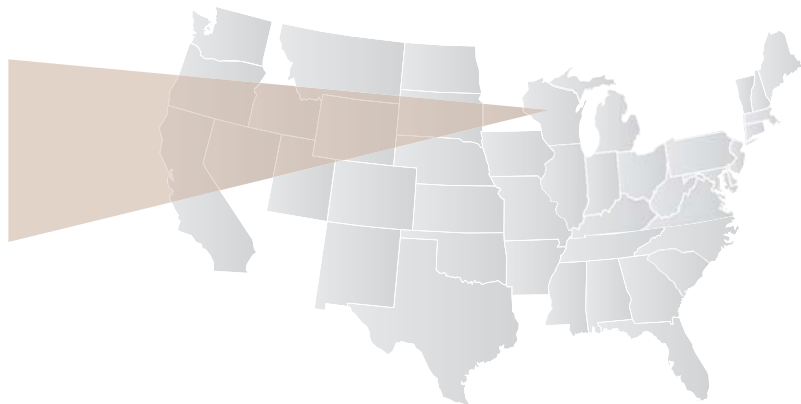




St. Vincent Randolph
Winchester, Indiana
Wayne Deschambeau, CEO
(765) 584-0004
\$16.5 million total project cost



Tomah Memorial Hospital
Tomah, Wisconsin
Toby Freier, CFO
(608) 372-2181
\$8 million total project cost



Rural Hospital Replacement Facility Study

Special Industry Report

Replacement Facility Impact on Rural Hospital
Operations and Bottom Line: Findings from the Field

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Endorsed by National Rural Health Association
Alan J. Morgan, Executive Director

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Federal Office of Rural Health Policy
Rural Health Resource Center
University of Minnesota
University of Rochester

