

ACO CASE STUDY  
MEMORIAL HERMANN: *HOUSTON, TEXAS*

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American Hospital  
Association



McManis Consulting

# ACO CASE STUDY

## MEMORIAL HERMANN: *HOUSTON, TEXAS*

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Memorial Hermann Healthcare System is a multi-hospital system serving the greater Houston area. Memorial Hermann has the largest share of the hospital inpatient market in the Houston metro area and has 21,000 employees in 129 locations. The system includes Memorial Hermann Hospital-Texas Medical Center (860 beds), eight suburban hospitals, three heart and vascular institutes, a rehabilitation hospital and research institute, a children’s hospital, a neuroscience institute and eight comprehensive cancer centers.

The Houston area is highly competitive. The locations of Memorial Hermann’s acute-care hospitals, as well as those of its competitors, are shown in Exhibit 1.

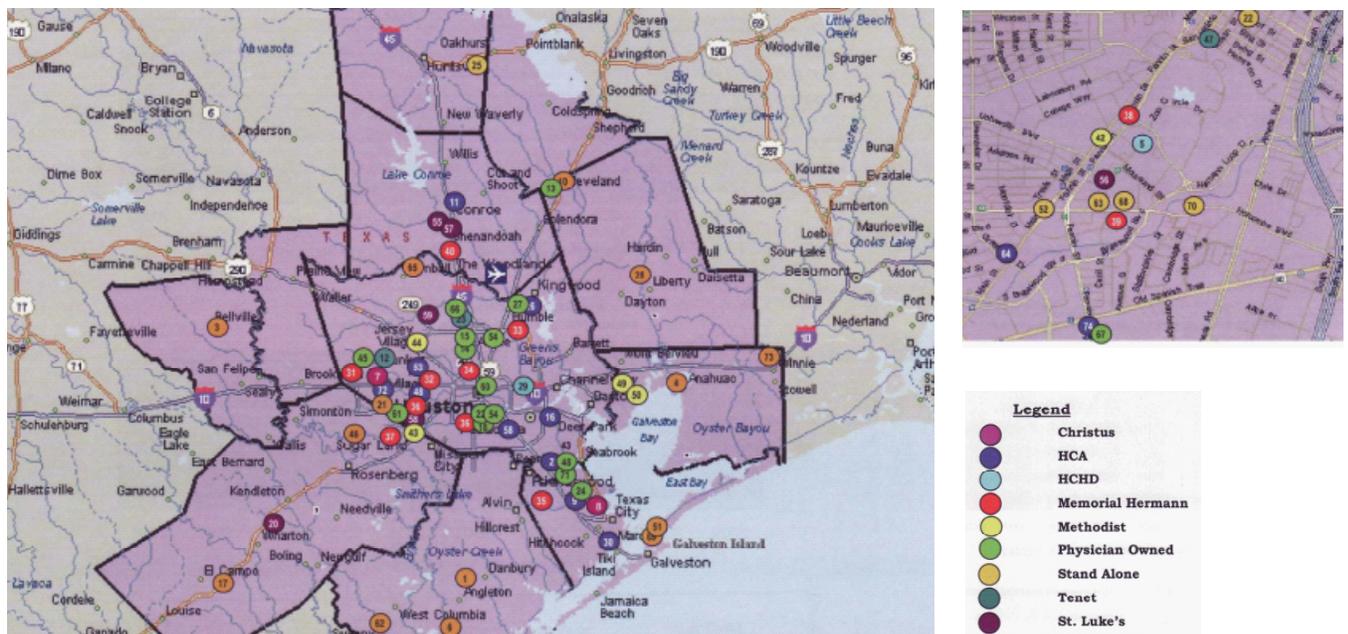
This is one of four case studies of organizations that are relatively far along in preparing for population health management and value-based reimbursement.

The case studies have been prepared by McManis Consulting, under the sponsorship of the American Hospital Association (AHA).<sup>1</sup>

Memorial Hermann was selected as a case study because it: (1) illustrates the transformation challenges facing a large multi-hospital system, working mostly with a fragmented private practice medical staff; (2) provides an example of a large, evolving clinically integrated physician network; and (3) shows the journey of a market leader, trying to maintain leadership while “changing on the fly” to new payment mechanisms.

<sup>1</sup>Two white papers based on this case study, and the other case studies, are available at [www.aha.org/ACOCasestudies](http://www.aha.org/ACOCasestudies).

### 1 LOCATION OF ACUTE-CARE HOSPITALS IN THE HOUSTON METRO AREA



The Memorial Hermann case study also represents an example of a market where larger employers are showing interest in contracting directly with health care providers.

## KEY ELEMENTS

Key elements for Memorial Hermann's strategy include:

- Board, management and physician leadership commitment to refocusing the organization;
- The transformation of MHMD, Memorial Hermann's closely affiliated physician independent practice association, into an effective clinically integrated network;
- Further developing Memorial Hermann's high performance culture and integrating it with MHMD.
- Implementing clinical information technology system-wide;
- Developing successful pilots to manage utilization;
- Developing a gainsharing pilot for Memorial Hermann's employee health plan;
- Taking on additional risk; and
- Managing overall market and financial performance while transforming the system.

### **Board, management and physician leadership commitment to refocusing the organization.**

Memorial Hermann's leadership has shifted from its emphasis on building market position and financial strength to building an organization that can thrive in an environment where providers are more accountable and more at risk for performance.

According to Memorial Hermann executives, area capacity is 4,000 beds over the needed level right now and there are five new acute-care hospitals coming on-line this year. Memorial Hermann has 1,000 of its total 2,920 system-wide beds vacant most days.

Memorial Hermann does not have the right number of physicians, beds, operating rooms, MRIs and other facilities for a new type of payment environment where the financial incentives will change. The distribution of facilities, which works well in the current fee-for-service environment, is too expensive for the anticipated

## MEMORIAL HERMANN

### *HISTORY AND EVOLUTION*

The Memorial Hermann system was formed in 1997 with the merger of the Memorial and Hermann systems (both of which were founded in the early 1900s).

The system's early strategy focused on improving financial strength and building market share. Market share was built in part by adding new geographically distributed inpatient capacity.

Memorial Hermann is the inpatient market share leader, with approximately 34 percent of the market.

Houston is a highly-competitive market for hospitals and health systems, and for physicians. The area's population continues to grow – there were 5.9 million residents of the Greater Houston metro area in 2009, with projections that the population will reach 6.6 million by 2014. More than one-third of the population is Hispanic.

Houston's population is younger than the national average with 8.6 percent over 65 years of age (compared with just over 13 percent nationally). More than one-third of the population is uninsured (self-pay), and this percentage is growing rapidly. Memorial Hermann's payer mix in 2010 (dollars) included 39 percent private health plans, 34 percent Medicare, 15 percent Medicaid, and 9 percent self-pay/uninsured.

The Houston health care marketplace is highly fragmented in terms of physicians; the vast majority of physicians are in small, independent practices. Many private practice physicians voice strong feelings against the trend for physicians becoming employees of health systems. Physician/health system relations in Houston are also influenced by the fact that Texas prohibits the corporate practice of medicine.

future environment. The changes needed may involve consolidating some of the high-cost tertiary programs that are currently being provided at multiple locations throughout the system.

Leaders of Memorial Hermann believe there is only one way to succeed in the environment ahead – to become more integrated. This includes evaluating the quality and cost of post-acute care providers over the next year.

*“We are moving more to value-based payment; no doubt about it. We have a little time to get ready for massive change in payment systems, but we have to be in motion now. Health care reform exacerbated the timeline for making this shift, but we would have had to do it regardless.”*

**– Dan Wolterman, President and CEO**

**The transformation of MHMD into an effective clinically integrated network.** Five years ago, when Memorial Hermann decided to become more clinically integrated, the organization offered all member physicians of its independent practice association (IPA) the opportunity to become clinically integrated. More than 2,000 of the 3,600 physicians in the IPA responded.

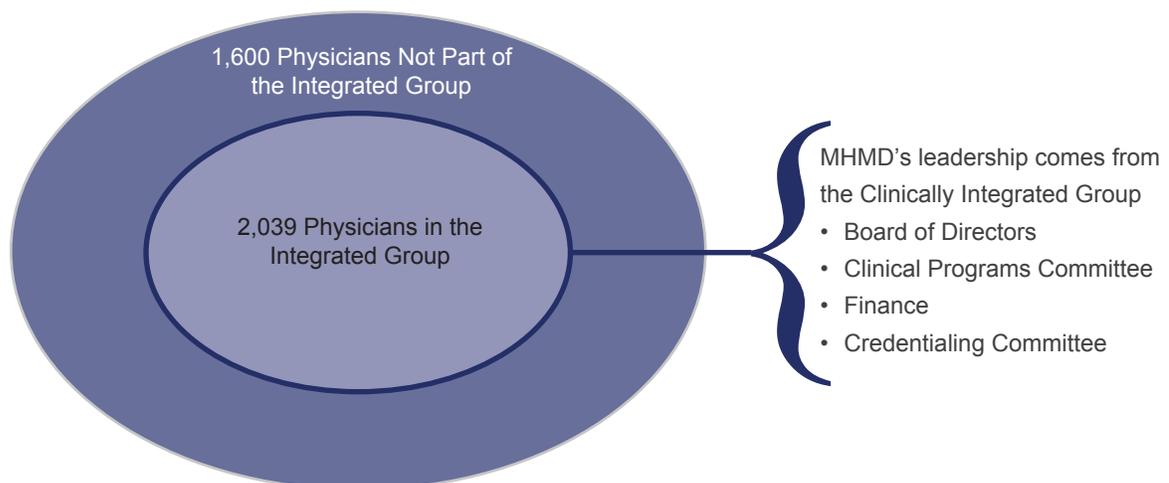
*“Early on our focus was clear — build the system, with the right locations, and build our financial strength. Memorial Hermann is now averse to ‘bricks and mortar.’ We are investing in IT, physician integration, and risk management.”*

**– Carrol Aulbaugh, CFO**

Physicians in the clinically integrated network (CIN) meet several criteria: they have to agree to develop and follow certain evidence-based protocols, to report their quality data monthly, to share clinical information, and to move toward a common electronic health record (EHR). The clinically integrated network has Federal Trade Commission (FTC) oral confirmation that it meets all the criteria for approval.

Over time, the expectation is that those members of the IPA who are not members of the CIN will either join the CIN or drop out of the IPA. (Some IPA members who had not joined the CIN were part of national physician organizations that maintained their own protocols.) Exhibit 2 shows the composition of MHMD.

## 2 COMPOSITION OF MHMD, OCTOBER 2010



In order to be on the board of MHMD, or on a committee, a physician must be a member of the CIN as well as the IPA. However, only the CIN members participate in bonuses.

MHMD is governed by a board of 20 physicians who meet every other month. The executive committee, made up of five physicians, meets monthly. (All of these physician leaders are part of the CIN.)

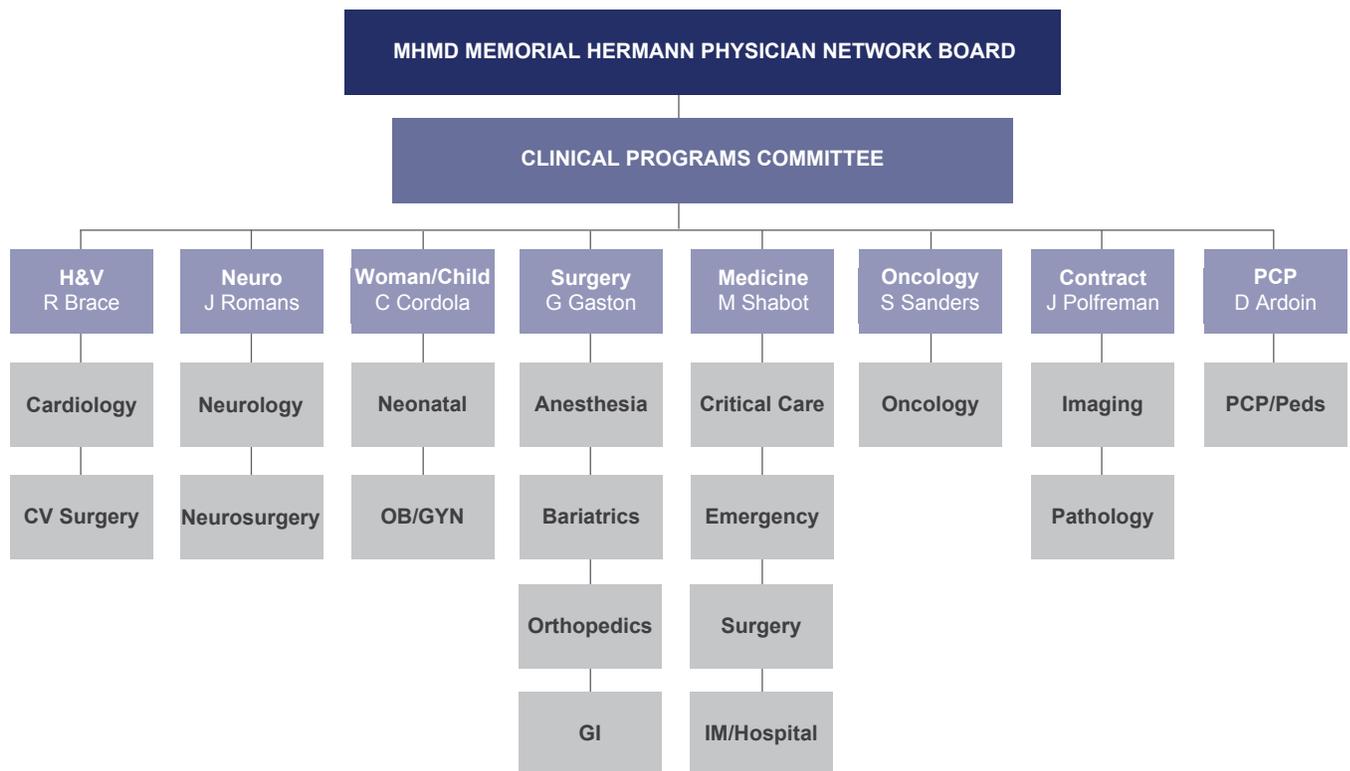
Responsibility for developing care protocols, chronic disease management strategies, and other key elements of Memorial Hermann’s approach to care management now falls on the Clinical Programs Committee (CPC) of MHMD. The CPC (see Exhibit 3) is organized into discipline-specific subcommittees. Each of the subcommittees (depicted in the boxes on the chart) includes approximately 20 physicians, with at least two from the staff of each Memorial Hermann hospital.

All physicians who are a part of this structure are in the CIN. The CPC is the surrogate for the medical staff of the hospitals and the system as a whole.

The CPC and its committees decide on what quality measures to monitor; for example, A1C hemoglobin for diabetes, mammogram referrals and colonoscopy referrals top the list. The CPC continuously works on inpatient formulary drugs, supply chain management including what devices to use, building order sets (more than 400 so far) and a review of patient safety indicators.

**Further developing Memorial Hermann’s high-performance culture and integrating it with MHMD.** Several members of the management team, including physician leaders, believe that Memorial Hermann’s high-performance culture will be an important attribute as it moves toward a different payment environment and works to bend the cost curve in the Houston health care marketplace.

### 3 MHMD’S CLINICAL PROGRAMS COMMITTEE



Each year Memorial Hermann establishes priorities within six strategic areas: (1) quality and safety; (2) patient experience; (3) physicians; (4) people; (5) operational excellence; and (6) growth. The core priorities within each of these strategies are referred to as “Big Dots.” Each Big Dot has a corresponding metric that measures how well the organization is doing in that particular area, and (when available) is benchmarked against national data. Examples of Big Dots are Centers for Medicare and Medicaid Services/Joint Commission core measures, physician satisfaction, employee retention, operating cash flow and growth in patient volume.

Management incentive plans are tied to these Big Dot metrics and reward participants for both overall system results and the performance of individual hospital campuses. The Big Dots also are continuously communicated to all 21,000 employees to ensure they understand what is important and to keep them engaged with how their role contributes to the overall success of Memorial Hermann.

Inpatient quality and safety is one area where the performance culture has contributed to success. For example, the system began following specific procedures to prevent ventilator-associated pneumonia (VAP) and hospital-acquired infections (HAI). Some Memorial Hermann hospitals have gone three years without a VAP, and the system averages fewer than a dozen HAIs a month over thousands of patients.

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*“Five or six years ago we didn’t think we could prevent these infections (hospital-acquired infections and ventilator-acquired pneumonia). They were like an act of God. But if you follow certain procedures to a “T,” you can prevent them almost every time. If I show you the curve of our infection rate and the point at which we started making measurements and publishing them, the rate goes down like it’s off a cliff.”*

**– Dr. Michael Shabot, CMO**

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Memorial Hermann has been the recipient of numerous awards for inpatient quality, including the 16th annual National Quality Healthcare Award, presented by the National Quality Forum in partnership with *Modern Healthcare* and the Studer Group. Looking ahead, the goal is to expand initiatives into ambulatory settings and integrate the approaches across inpatient and outpatient venues.

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*“We are just learning to crawl and walk relative to quality improvement at the ambulatory level. This is where we want more and more care to be delivered, so we have to get focused on it.”*

**– Dr. Michael Shabot, CMO**

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Memorial Hermann is betting its future on its 2,000+ physicians who are part of the CIN. The CIN within MHMD is the building block for Memorial Hermann to reposition itself as an accountable care organization.

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*“Basically, we are handing them (the clinically integrated network) the keys ... They will be setting the protocols and the care management strategies for the entire system.”*

**– Dan Wolterman, President and CEO**

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Memorial Hermann’s leaders recognize that the road ahead involves integrating MHMD’s emerging culture as a physician organization with Memorial Hermann’s culture as a health system – and creating a culture that is highly effective in delivering care across the continuum of services and locations.

**Implementing clinical information technology system-wide.** Memorial Hermann has been working with its information technology (IT) vendor (Cerner) since 1998 on a methodical plan to digitize the system. IT costs are a little less than 2 percent of the system’s total operating budget. IT has been consuming almost 20 percent of the capital budget.

All Memorial Hermann hospitals are now on the Cerner system. Memorial Hermann recently focused on the ambulatory electronic health record (EHR), data warehouse enhancements, management information systems and the linkages needed. Memorial Hermann is a data-driven organization that delivers up-to-date management information, almost instantaneously, to computer desktops across the whole organization. The system expects to meet Stage 1 meaningful use requirements in 2011 and Stage 2 requirements in 2012.

Memorial Hermann is offering a package arrangement to private practices – including Cerner’s ASP ambulatory EHR software and Dell hardware, certified with respect to federal economic stimulus grants – for \$350 per physician per month. (Note: An ASP, or Application Service Provider, EHR is a remotely hosted software system accessed via an Internet web browser.)

Memorial Hermann also has to accommodate many other physician EHRs. For example, the 600 physicians at the University of Texas–Houston Health Sciences Center, all of whom are members of the CIN, use Allscripts, a different EHR platform.

Among the private practices and employed physicians, it is estimated that 250 were currently on an EHR.

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*“Some MHMD physicians have had an electronic health record for four to five years now; however, others just don’t want it ... Of course, the stimulus dollars and CMS requirements may change this.”*

**– Richard Blakely, MD, head of physician alignment for Memorial Hermann**

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Memorial Hermann is working with Cerner to develop the Memorial Hermann Information Exchange (MHIE). Developing each link within MHIE to a different software package is a time-consuming, tedious process. Data from the EHRs are translated into a common care continuity document (CCD). This

is a common data set for each patient encounter, residing in the data warehouse. It is estimated MHIE development costs have been \$2.5 million and that annual operating costs for MHIE will be \$1.5 million.

To fill the data vacuum between now and the time when most practices are on an EHR, data from multiple sources are being integrated in the data warehouse and ambulatory care decision support systems. Other stop-gap measures include the collection of key clinical data on spreadsheets for analysis by the IPA staff.

#### **Developing successful pilots to manage utilization.**

With a high percentage of uninsured individuals in the Houston market place, Memorial Hermann is experimenting with ways to reduce costs through what it calls its COPE (Community Outreach for Personal Empowerment) program for the uninsured, and another initiative – Community CHF Chronic Disease Management Program – for Medicare patients.

To be eligible for COPE, patients must be self-pay or qualify for charity care, and have incurred at least five emergency department visits or three inpatient admissions in the past 12 months. They must agree to use a primary care medical or physician’s office for non-emergency care and to follow up with scheduled appointments.

Prior to enrollment in COPE, these 600 patients had 2,165 visits to the emergency department compared with 1,291 post enrollment. Pre-enrollment inpatient visits numbered 756; this dropped to 391 a year later. Savings for these patients were \$3.6 million, most in the past year.

Five hundred-forty Medicare patients voluntarily enrolled in a second pilot program. Pre-enrollment emergency department visits were 419; post-enrollment visits were up slightly to 467. However, inpatient visits dropped from 2,180 to 1,468 after the program kicked in. Total savings were \$6.5 million over two years with most of these savings occurring in the past 12 months.

These two pilot programs have many of the elements of accountable care in that the goal is to lower costs, mainly by reducing inpatient utilization.

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*“These are pilot programs but I think they tell us what can be accomplished if we scale them up. Plus, these two programs have similarities with what we need to do to become more focused on accountable care.”*

**– Physician leader, Memorial Hermann**

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**Developing a gainsharing pilot for Memorial Hermann’s employee health plan.** Memorial Hermann provides a variety of services through MHealth, a for-profit subsidiary founded in 2009. The scope of MHealth includes third-party administration (TPA) for self-insured employers, stop-loss insurance for self-funded clients, several preferred provider organization (PPO) plans, occupational medicine, disease management and corporate wellness programs.

Memorial Hermann’s 21,000 employees, plus dependents, were moved to MHealth a year ago. MHealth entered a gainsharing agreement with MHMD’s CIN whereby, if costs were lowered, a portion of the savings would go to MHMD’s CIN physicians.

This initiative with employees had several positive effects:

- It got MHMD’s CIN “onto the playing field” and demonstrated the group’s potential effectiveness.
- It provided a bonus payment of between \$2,500-\$4,000 per physician to members of the CIN – a tangible differentiation between members of the CIN and other members of MHMD, an incentive for members of the CIN to take it seriously, and a possible attraction for others to join.
- It helped reduce Memorial Hermann’s benefit costs and improved quality.

**Taking on additional risk.** Early in 2010, Memorial Hermann had the opportunity to bid on a Houston School District contract to cover 60,000 employees and their dependents and, at the last minute, declined to bid. The executive committee made the final decision

that MHMD physicians were not positioned to take the financial risks associated with a bid on this fixed-price contract, and turned it down.

At the time of this case study, Memorial Hermann and MHMD were bidding for all or a portion of the 66,000 lives of the City of Houston. This was a risk-adjusted, capitated contract. This time, MHMD leaders were ready to go forward, as was the system. This could be a \$312 million per year contract with the requirement that this amount be held constant for three years.

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*“We need to build the capabilities to respond to RFPs like the ones we have received from the school district and city. A company like Aetna knows how to do this; we don’t. But, I’m sure we will get there. I would like to see Memorial Hermann and its physicians go to health plans and employers and propose risk models rather than just reacting.”*

**– Carrol Aulbaugh, CFO**

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Memorial Hermann is identifying opportunities to enter performance-based contracts for large blocks of patient care where the patient population is spread over a wide geographic area. One example of such a group is State of Texas retirees. Discussions are also under way with other large systems about forming a regional accountable care organization.

Managing overall market and financial performance while transforming the system. Memorial Hermann’s financial performance has improved substantially since the system was formed in 1997. Neither Hermann nor Memorial hospitals were financially strong at the time of the merger. It took three or four years following the merger for operating margins and financial conditions to improve significantly. Memorial Hermann does not have a large charitable foundation to fall back on; therefore, improving the system’s balance sheet has been a priority. The system has about \$1.1 billion in outstanding bonds, and needs to make sure these obligations are maintained at investment grade.

Memorial Hermann's operating statements reflect a steady, continuing improvement in the system's financial position. This was viewed by Memorial Hermann management as being critically important as the system positions itself for the future.

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*“As part of preparing for a future that will involve less fee-for-service and more fixed payments, Memorial Hermann has reduced its proportion of labor expense from 45% to 40%. The cost of supplies has been reduced from 18% to 14%. We are maxed out in terms of reducing our expenses.”*

**– Dan Wolterman, President and CEO**

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The system has taken several steps to ensure continued favorable financial performance. This includes the engagement of Wellspring, a financial and process re-engineering consulting firm. They will provide an analysis of gaps and opportunities and recommendations on consolidation of services.

### **CHALLENGES AHEAD**

Memorial Hermann's leadership recognizes that there is much more work ahead. For example:

- **The challenge of operating in two payment environments.** Memorial Hermann is fully aware that it is beginning to operate with one foot in fee-for-service and another in the fixed-price world. Memorial Hermann can't ignore the fee-for-service side; this is where the system will generate the cash flow to fund the shift to accountable care.

- **Extending and adjusting the management culture to include the entire continuum of care.** The current management model has served Memorial Hermann well in managing the hospital system. Now it must evolve to work well in taking into account care provided in physician practices and elsewhere. This includes the development of a post-acute care network.
- **MHMD culture.** There is a recognized need for continuing to develop an aligned culture among physicians who are part of MHMD.
- **Extending case management.** Many patients lack a medical manager, and studies show that following discharge, more than half never see a physician for follow up. Memorial Hermann needs to go further in case management.
- **Adding primary care physicians.** Collaboration with physicians and building a primary care network is one of the biggest challenges facing Memorial Hermann.
- **Engaging in physician leadership development.** Developing more quality physician leaders is essential.

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*“There's lots of hope for MHMD. However, there is a need for a massive cultural shift to get where we need to go.”*

**– Member of Memorial Hermann management team**

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