Health Policy Publication

Missouri Foundation for Health

Analyzing the Impact of the 2005 Medicaid Changes on the Financial and Service Health of Missouri Hospitals

2009

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Introduction

In 2005, the Missouri Legislature instituted substantial changes to the state's Medicaid program. According to the Missouri Department of Social Services about 100,000 Missourians lost coverage and another 300,000 experienced changes due to reductions in covered services. A 2008 MFH study, conducted by the Washington University Center for Health Policy, found that 8 percent of adult survey participants who lost their Medicaid coverage in 2005 were able to access employer-sponsored insurance. Of the remaining, 90 percent of those who lost Medicaid eligibility were either added to the ranks of the state's uninsured (62%) or regained eligibility/became newly eligible for public coverage through Medicaid or Medicare (28%).

This study examines the impact of the 2005 Medicaid changes, not on the specific individuals impacted, but on the broader health care safety net. In particular, this paper uses data from Missouri's hospitals to examine the effect of these changes on the financial and service health of these institutions.

The Scope and Process of the Study

In an effort to fully understand the ramifications of these actions, Health Management Associates, Inc. (HMA), a national health policy research and consulting firm, analyzed Missouri hospital financial and operational changes and community health center financing in order to assess the impact of the 2005 changes on Missouri's safety net. Data were secured through the Missouri Hospital Association (MHA) who provided HMA with a comprehensive data set that consisted of 152 hospitals for the years 2003 through 2007.

HMA then cleaned and organized the MHA dataset to allow for an analysis across time and within meaningful sub-groups. HMA combined data records where hospitals had merged during the study period and dropped hospitals from the study if they closed at any point or for any period during the study period. Hospitals were then categorized into meaningful subgroups (e.g., ownership class, Medicaid concentration, urban/rural/critical access, teaching, etc.) based on where a hospital stood in 2007 and these categories were then applied throughout the study years. HMA chose to analyze these data by averages within subgroups rather than looking at each hospital individually. While this approach masks the impact on specific hospitals, it does portray the general pattern of impact and the relative effect of the Medicaid changes. Where convenient HMA portrays ranges within subgroups to show the diversity that is present in any analysis of this type. By studying the two years before the changes were made and the two years after the changes, HMA believes that the remaining 110 acute care hospitals accurately portray the system wide effects of the 2005 changes.

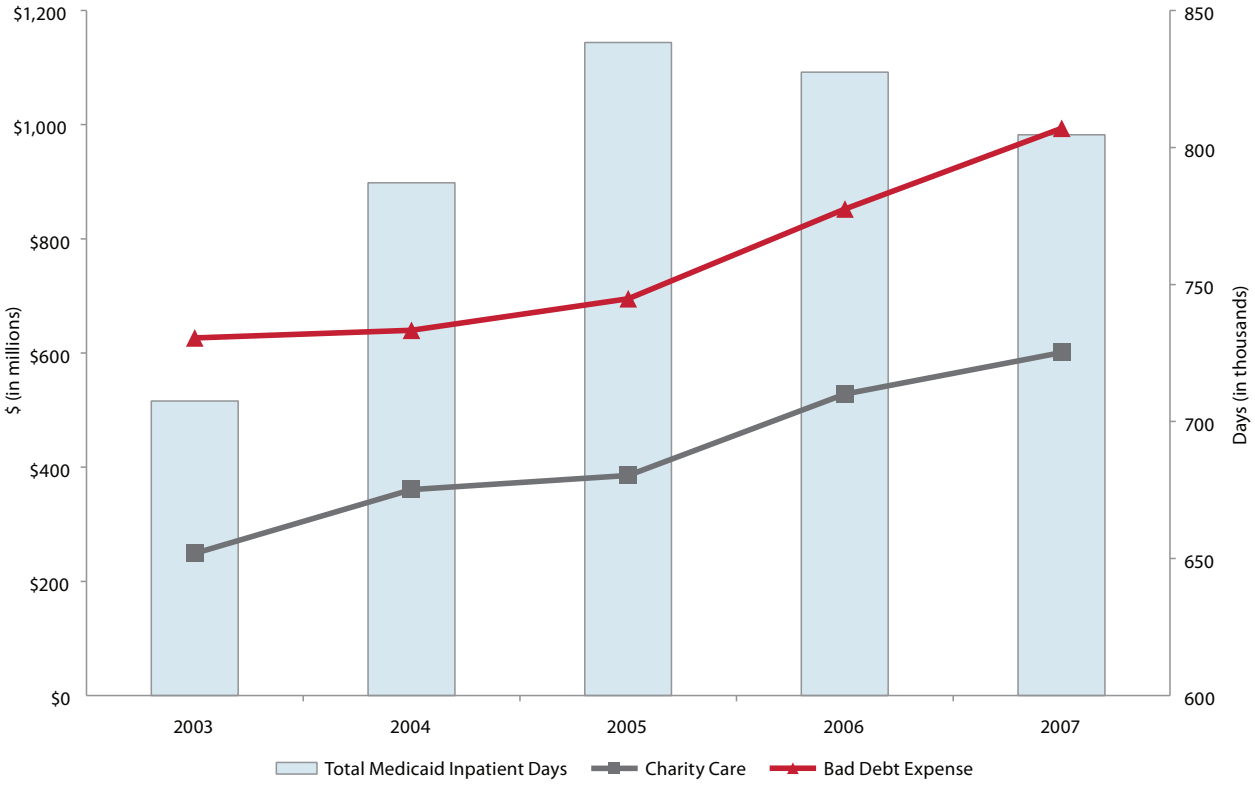
Key Findings

Overall Industry Impacts

While the overall changes made at the state level may have saved the state monies, those savings have either been passed on to the private commercial market in increased charges or have been

absorbed by the provider market through increases in charity care and/or bad debts. These changes took resources that could have been used to serve the general community and made them meet the needs of those previously covered by the state's Medicaid program.

Exhibit 1: All Hospitals – Medicaid Days, Charity and Bed Debt Expense



Specifically, analysis shows a discernible decrease in the number of Medicaid days along with clear increases in charity care and bad debt beginning in 2005, the year of the state changes. (Exhibit 1)

Over the five year period, analysis of the net operating income (revenues from operations minus operating expenses) shows a relatively stable hospital market in Missouri (starting in 2003 with operating margins in the 3 to 4 percent range). The operating margins did dip during 2004 and 2005 and then rose to historical levels by 2007(Exhibit 2). Nevertheless, it is important to remember that this is an analysis of average margins; individual hospitals could exhibit significantly different patterns. Exhibit 3 shows that even though the average appears stable, approximately 20 percent of Missouri hospitals are operating at a loss from operations. These hospitals are most at risk for significant loss as a result of major environmental change.

Exhibit 2: All Hospital Impacts

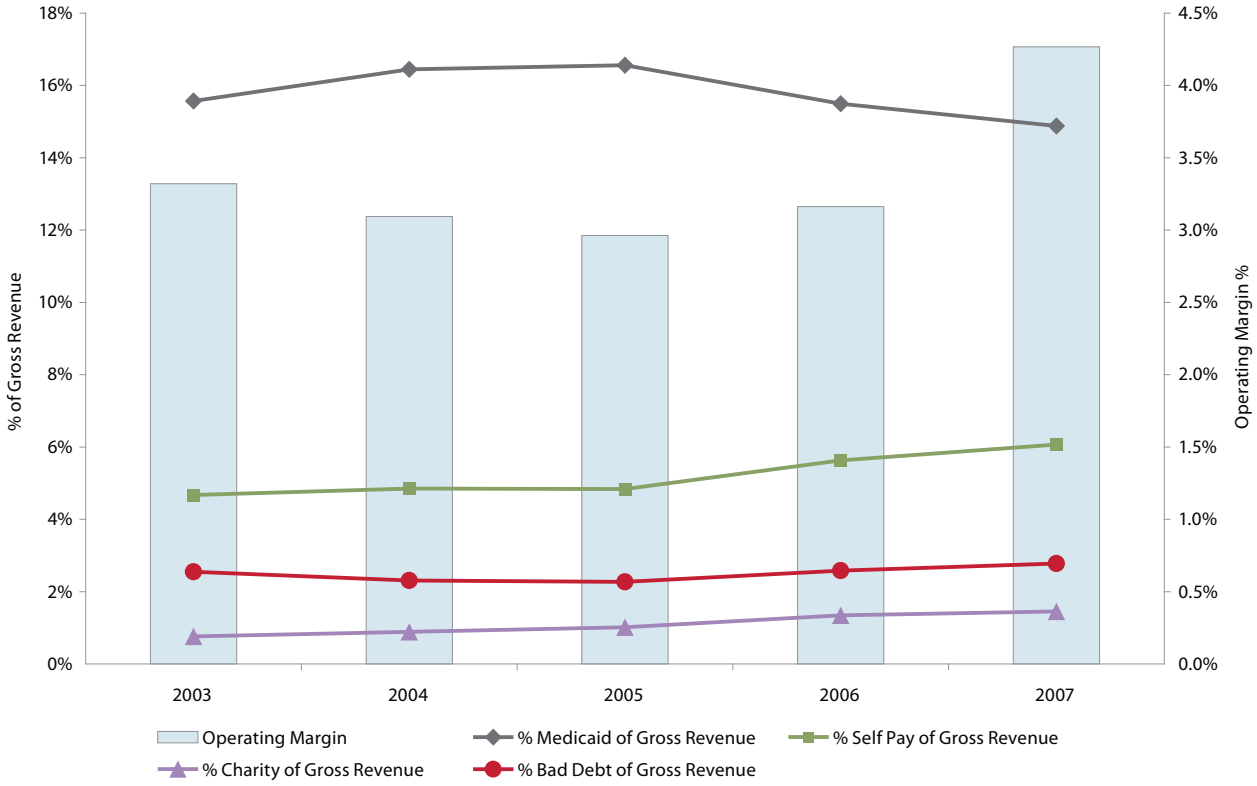
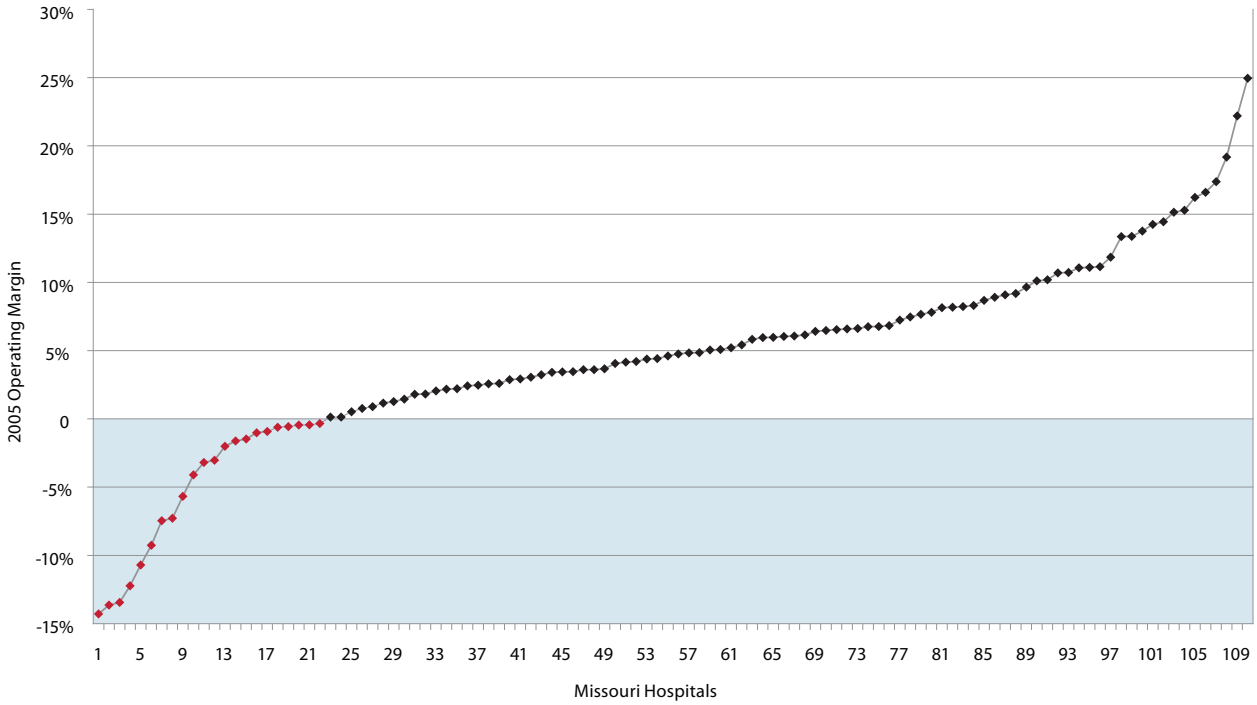


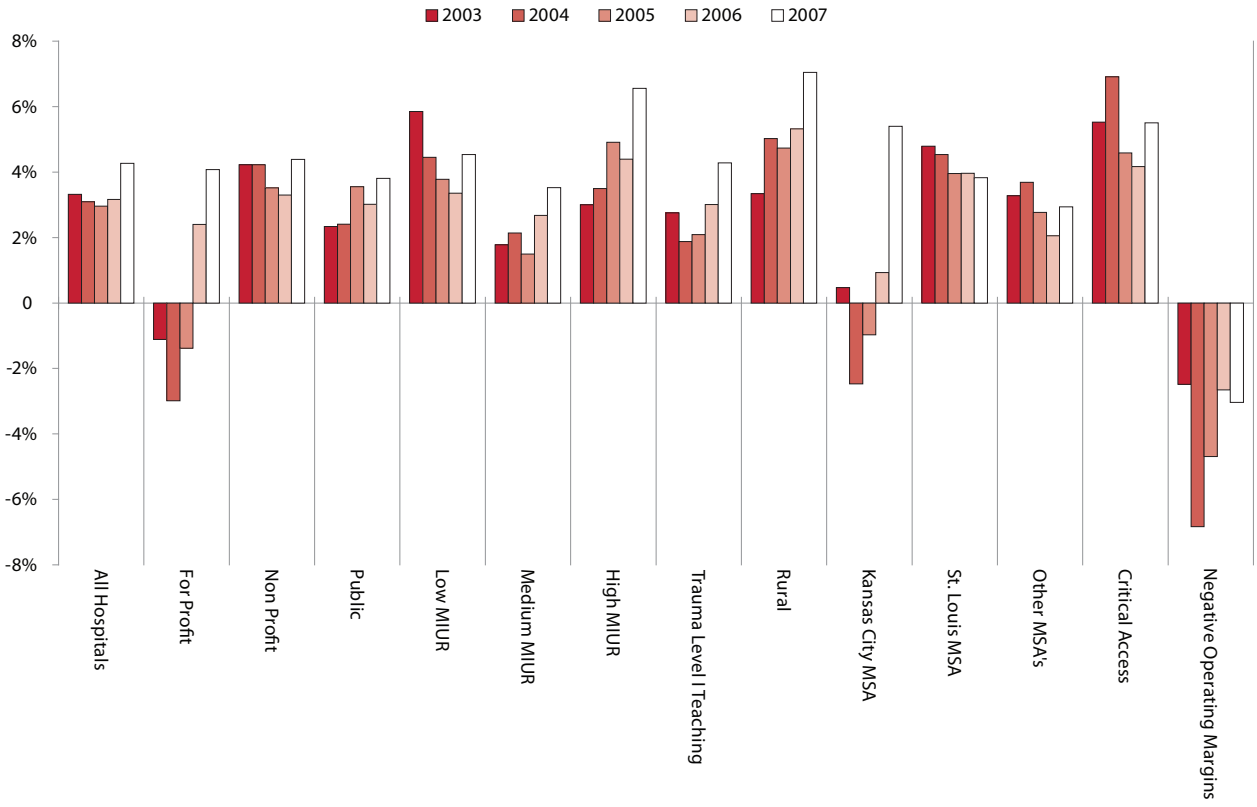
Exhibit 3: 80% of Hospitals Operate in the Black



While there may be a variety of other environmental factors affecting some of these indicators, it can safely be said that the changes in state eligibility played a reinforcing or even dominant role in the changes observed.

Subcategories of hospitals (individual hospitals may appear in multiple subcategories) show declines in operating margins including hospitals serving low levels of Medicaid patients and St. Louis area hospitals. Hospitals showing marked adjustment period declines followed by restoration to historical levels include not-for-profit hospitals, critical access hospitals, Kansas City area hospitals, and Level I trauma/teaching centers. Hospitals showing relatively stable adjustment periods include other urban hospitals. Hospitals showing improvements include public hospitals, for-profit hospitals, high level of Medicaid patient hospitals, and rural hospitals (Exhibit 4).

Exhibit 4: Operating Margins by Hospital Peer Groups

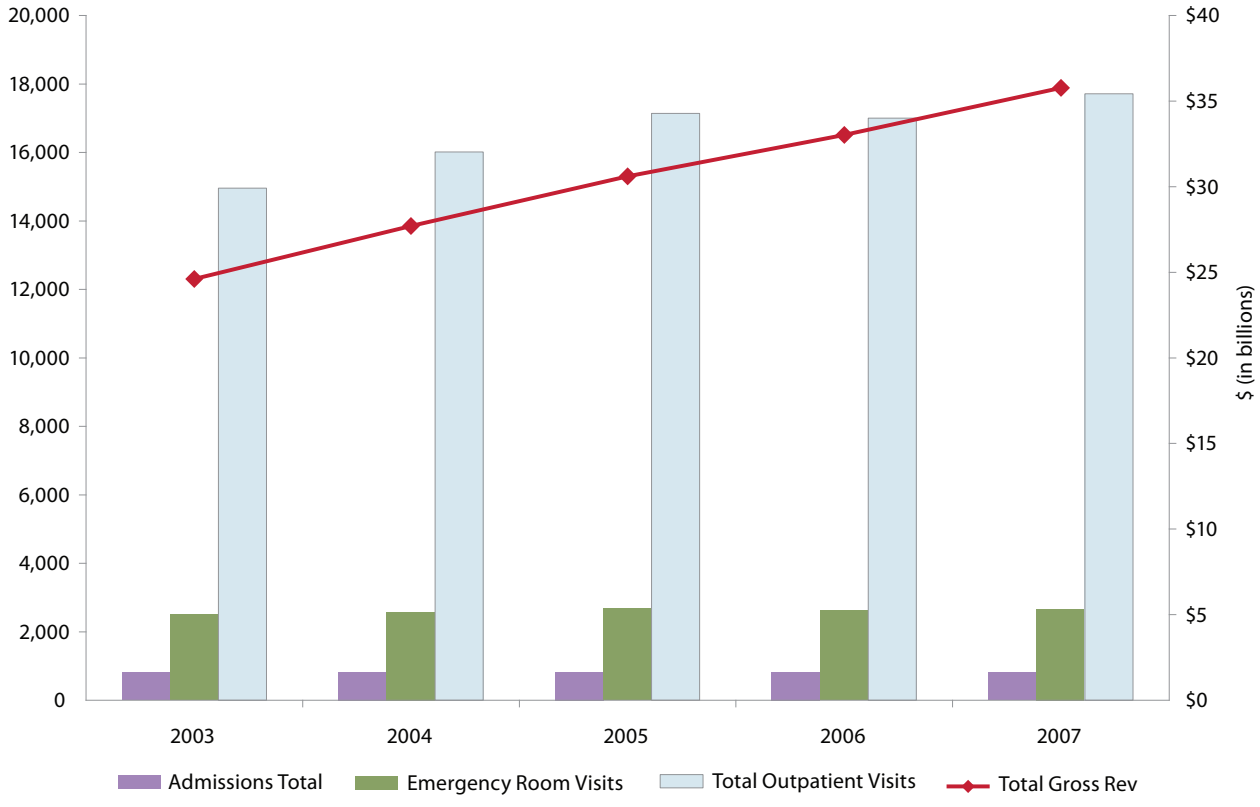


The result of the transition was an initial increase and then consistent decrease in Medicaid payments (as a percent of total payments) coupled with a significant increase in the number of self pay patients appearing at hospitals. Medicaid payments as a percent of gross revenue rose from 15.57 percent in 2003 to 16.56 percent in 2005 with a steady drop back to 14.88 percent in 2007. Prior to the Medicaid changes, self pay services were rising at about 1 percent per year. During and after the transition, they jumped to about 10 percent per year. While hospitals provided more charity care in the early stages, they stabilized these services in later years. As a result, bad debt rises dramatically throughout the time period. Normally, this type of pattern would have placed hospitals in a financial downswing. However, supplemental Medicaid payments increased during transition and while not fully covering the growth of

the uninsured, at least mitigated it some. These patterns help explain the drop in total margin and then the stabilization that was observed earlier (Exhibit 2).

To see if hospitals attempted to recover lost Medicaid revenue with an increase in revenue from charge-based payers, HMA evaluated trends in overall gross revenue (Exhibit 5). The 2003 to 2004 growth rate was 12.5 percent, a fairly high annual rate. From 2004 to 2006 the rate increased to 19.2 percent and from 2006 to 2007 it dropped to 8.3 percent. To better understand what factors affect these gross revenue patterns, HMA analyzed outpatient and inpatient revenue separately to determine if the growth was price or volume driven. Inpatient gross revenues increased by 37.8 percent from 2003 to 2007, which was driven almost entirely by price since volume of services increased by less than 1 percent (0.54%). Outpatient gross revenues increased faster than inpatient (56.8% versus 37.8%). Outpatient volumes explained 33 percent of the growth while prices explained 66 percent of the growth (Exhibit 5). In general, gross revenue growth is mostly tied to price increase and not volume increases, which confirms the need of hospitals to recover more revenue from charge based payors to make up for decreases in payments from other payers.

Exhibit 5: Components of Services



During the early years of transitions of this type, it is often difficult for patients to know where to secure care because their medical homes have been disrupted. As a result, patients may use the emergency room (ER) more often and stay longer once admitted, which is reflective of a decline in primary care services. In 2005, the year of the changes, two immediate impacts can be seen: ER visits increase and patients stayed longer, reversing trends before and after the impact.

Both of these patterns would be indicative of patients losing their medical homes and seeking care when they became sicker.

And while outpatient visits, as well as ER visits, grew from 2003 to 2007 (18.44% and 6.16% respectively), the difference in growth indicates that non-ER related outpatient services grew faster than ER related outpatient services.

Impacts by Ownership Category (Public, For-Profit, Not-For-Profit)

The 37 publicly owned hospitals (State, County, District-owned,) have seen an increased profitability throughout the time period rising from 2.3 percent to 3.8 percent. This is a direct result of increased local taxes, a modestly increasing charity care load, a decreasing Medicaid load (with the exception of the transition year), and a decreasing average length of stay. Despite this, the public hospitals were below the statewide average operating margin of 4.27 percent

The 17 for-profit hospitals started out the time period losing money as a class and the last two years have turned things around and are now showing positive bottom lines (near 4.1%). They did this by having modest charity care growth, reducing the number of staffed beds, a large drop in neonatal admissions, a decreasing length of stay, and a significant reduction in Medicaid volumes particularly between 2006 and 2007.

The 56 not-for-profit hospitals started the time period with a modest growth, followed by a large dip during the transition period (2005), which appears to stabilize by 2007. Their operating margin ends at 4.4 percent, just above the statewide average. They have seen significantly more Medicaid, charity care, and bad debt throughout the time period. As a percentage of total gross revenue, charity care has increased 110 percent. Not-for-profit hospitals have experienced a 39 percent increase in local tax subsidies during the study period.

Impacts by Volume of Medicaid Services Provided

To analyze impacts by the amount of Medicaid patients not-for-profit and for-profit hospitals serve, hospitals were grouped into three groups based on their Medicaid Inpatient Utilization Rate (MIUR). The MIUR statistic is the percentage of total days that are Medicaid. High Medicaid hospitals provide more than 26.3 percent of their inpatient days of care to Medicaid patients; moderate Medicaid hospitals provide between 18.1 percent and 26.3 percent; and low Medicaid hospitals provide less than 18.1 percent Medicaid days. These thresholds were set based on HMA experience in other states at the mean, and the mean plus one-half standard deviation above the mean.

The seven high MIUR hospitals saw their operating margins increase significantly over the time period rising from 3 percent to 6.6 percent, which is above statewide averages. Even while their charity care rose initially and then stabilized, their bad debts have routinely dropped, reflective of their stable Medicaid service and modest self pay growth. They increased neonatal admissions and reduced staffed beds while having a very low length of stay increase. They continued to receive stable local tax subsidies.

The 21 medium MIUR hospitals started at a relatively low 1.8 percent operating margin and then experienced a significant drop in net income during the transition period (2005). They have since returned to below average statewide margins of 3.5 percent. They saw a significant growth in the amount of charity care provided every year, as well as an increase in bad debt. These trends are reflective of their 50 percent growth in self-pay patients while serving a relatively stable Medicaid population. They received a stable local tax subsidy, saw a stable length of stay, experienced an increase in neonatal admissions, and their bed capacity rose during transition and substantively returned to pre-transition levels.

The 45 low MIUR hospitals experienced a slight increase in net income from 2003 to 2004, followed by a drop in 2005, with slight improvement following. Overall, low MIUR hospitals saw their operating margins drop from 5.8 percent to statewide average levels of 4.5 percent. This group saw the highest growth in the amount of charity care and bad debt provided (percentagewise) while experiencing a decrease in the amount of gross revenue attributable to Medicaid coupled with a modest growth in self-pay patients. They also saw a 26 percent drop in neonatal admissions, a drop in length of stay, and a reduction in their bed capacity by 7.75 percent.

Impacts by Geographical Location of Hospitals

For purposes of this study, Missouri was divided into four regions: Kansas City Metropolitan Statistical Area (MSA), St. Louis MSA, other urban MSA's, and rural. Critical Access rural hospitals were also analyzed separately to determine the effects of alternative Medicare payment policies on this important subset of hospitals.

The 17 Kansas City MSA hospitals experienced a significant decrease in operating margin from 2003 to 2005. Hospitals in this area have since recovered to a 5.4 percent operating margin, which is above statewide averages. Charity care has steadily increased throughout this time period reaching a level more than triple what it was in 2003. Bad debt also experienced a 39 percent growth during this time period, which reflects the consistent growth in the number of self-pay patients. Over the five year period local tax revenue increased by 40 percent, special Medicaid payments increased, the number of staffed beds decreased, and length of stay decreased modestly.

The 23 St. Louis MSA hospitals experienced a declining operating margin pattern. While starting the period in relatively good shape (4.8% margins), they show a steady decline over the next several years with a temporary increase in 2006 and then a continued decline in 2007 (3.8% margin) to below statewide averages. Charity care steadily increased each year reaching a level more than double what it was in 2003. Bad debt rose, but at a relatively low rate of 19 percent growth during the time period which reflects the modest growth in the number of self-pay patients.

The 13 other urban MSA hospitals experienced a fluctuating operating margin pattern. Operating margins started below statewide averages (3.3%), increased between 2003 and 2004, dropped significantly for 2005 and 2006, and then rose again in 2007 to 2.9 percent which is below statewide levels. Charity care steadily increased each year reaching a level almost double what it was in 2003. Bad debt rose steadily reaching a level more than double what it was in 2003. This reflected the almost stable percentage of revenue associated with self-pay patients

between 2003 and 2006 and a significant growth in 2007 of almost 20 percent. Medicaid share of revenue showed a very different pattern, it steadily rose during transition and then dropped back to initial levels by 2007. Because no local tax monies supported other urban hospitals, they had to rely solely on payments from private insurance, Medicare, and Medicaid.

The 53 rural hospitals experienced a steadily improving operating margin. Starting below (3.3%) the statewide average, rural hospitals rose every year reaching a 7 percent margin for 2007. Current bed capacity was stable in the rural areas. Charity care exploded during this time period ending at a level almost 3 times what it was in 2003. Bad debt also steadily increased ending at a level more than double what it was in 2003. These patterns reflect the steadily increasing proportion of self-pay revenue and the rising then falling Medicaid share of patient revenue pattern.

Impacts on Level I Trauma and Teaching Hospitals

The 25 Level I and teaching hospitals saw their operating margins drop during 2004 and 2005 and then return to slightly improved levels (4.3%) which were similar to statewide averages. The trauma/teaching hospitals have a modest overall financial picture with patient margins below state-wide margins. The amount of charity care provided in trauma/teaching hospitals increased 158 percent over the time period while bad debt grew by 40 percent. Self-pay share of revenue grew by 48 percent while Medicaid share of revenue has remained stable. Teaching hospitals have 72 percent of neonatal admissions while five years ago they provided 57 percent of the neonatal work. Length of stays remain stable for these hospitals and local tax subsidies have increased by 40 percent.

Impacts on Critical Access Hospitals

The 25 Critical Access rural hospitals, a subset of rural hospitals that meet additional federal standards for delivery to underserved rural areas and who are paid costs by Medicare, maintained better than statewide operating margin levels throughout the study time period. While experiencing a drop in operating margins during the 2005 to 2006 periods (4.2%), their operating margins return to 2003 levels in 2007 (5.5%). Charity care exploded during this time period reaching a level in 2007 almost five times what it was in 2003. Bad debt also more than doubled during this period reflecting the 33.5 percent growth in the percentage of revenue coming from the self-pay category. Medicaid's share of revenue has remained steady while local tax subsidies have steadily increased.

Conclusion

In summary, the overarching effect of the 2005 state changes in benefit levels and eligibility in the Missouri Medicaid program was to take what was a budgetary problem at the state level and pass responsibility for its solution to local communities across Missouri. In some cases, that solution was an infusion of local tax dollars into public and other high-volume hospitals. In others, it was scaling back other community services and/or increasing the cost of care provided to private pay patients by suburban and rural hospitals to offset their increases in charity care and bad debt.

MFH
Missouri Foundation for Health

1000 St. Louis Union Station, Suite 400
St. Louis, Missouri 63103
T 314.345.5500 • F 314.345.5599
Toll-free 800.655.5560
www.mffh.org

Health Care Foundation
OF GREATER KANSAS CITY

2700 East 18th Street, Suite 220
Kansas City, MO 64127
T 816.241.7006 • F 816.241.7005
Toll-free 877.241.7006
www.healthcare4kc.org