

**The Financial Benefits of  
Critical Access Hospital Conversion for  
FY 1999 and FY 2000 Converters**

*Working Paper Series*

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## EXECUTIVE SUMMARY

As of November, 2003, 834 small rural hospitals have converted to Critical Access Hospital (CAH) status. A primary benefit of converting to CAH status is to receive cost-based payments (rather than prospective payments) from Medicare. The small rural hospitals that converted in FY 1999 experienced an average increase in Medicare inpatient and outpatient payments that exceeded \$500,000, in fiscal year 2000 inflation adjusted dollars. While Medicare payments increased by 36%, Medicare patient days declined by 8%.

Prior to January 1, 2004, a hospital had to have 15 or fewer acute care beds and 25 or fewer total beds including swing beds to be eligible for CAH conversion. For this reason, the program has primarily attracted hospitals with a low average daily census. These small hospitals frequently had high costs per discharge and often suffered operating losses prior to conversion. In fact, over half of the hospitals that converted to CAH status in either FY 1999 or 2000 were losing money prior to conversion. CAH status dramatically changed the financial status of converting hospitals. Hospitals that converted in 1999 saw their total profit margins rise from -2.5% to an average of 2.3% one year after conversion and 3.7% two years after conversion. Most of the FY 1999 converters can now afford capital improvements, and the data indicate that capital expenditures started to grow significantly two years after conversion. Profit margins for fiscal year 2000 converters increased from a mean of 0% to 2% following conversion, and we expect those margins to grow further as CAHs adjust their operations to maximize their profitability given their new Medicare payment structure.

The CAH program has contributed significantly to the financial viability of small rural hospitals. This is likely due to a one-time shift to cost-based reimbursement as well as behavioral changes induced by higher payment rates. After conversion, CAHs expanded their outpatient and swing bed services and reduced their home health and SNF operations. However, it is important to emphasize that conversion to CAH status was not responsible for all of the financial changes experienced by CAHs. Approximately half of the increase in inflation-adjusted facility revenue was due to increases in non-Medicare sources.

Future analysis of the financial viability of CAHs will need to address the impact of the rural-oriented provisions of the recent Medicare Prescription Drug Improvement, and Modernization Act which include the expansion of the bed limit for CAHs and the establishment of distinct part rehabilitation and psychiatric units in CAHs.

## INTRODUCTION

Following the enactment of the Rural Hospital Flexibility Program in 1997, small rural hospitals were allowed to convert to Critical Access Hospital (CAH) status. A primary reason for converting to Critical Access Hospital status was to receive cost-based Medicare reimbursement for outpatient and acute inpatient services. The number of hospitals converting to CAH status grew rapidly after Congress added benefits for CAHs with the Balanced Budget Refinement Act (BBRA) of 1999 and the Benefits Improvement and Protection Act (BIPA) in 2000. As of November 2003, there were 834 CAHs representing over 15% of the hospitals in the United States and almost 40% of rural hospitals.

Hospitals have an incentive to convert to Critical Access Hospital (CAH) status if they expect the cost of caring for Medicare patients to exceed Medicare's prospective payment rates. Prior to January 1, 2004, a hospital had to have 15 or fewer acute care beds and 25 or fewer total beds including swing beds to be eligible for CAH conversion. For this reason, the program has primarily attracted hospitals with a low average daily census. If a rural hospital has an acute census that frequently exceeds 15 patients, the hospital has to weigh the benefit of cost-based reimbursement for Medicare patients against the sacrifice of reducing their number of acute beds.<sup>1</sup> In addition to limiting beds, CAHs must limit the average length of stay of acute patients to 96 or fewer hours, but this is rarely a binding constraint. Another conversion requirement is that CAHs must be either (a) more than 35 miles by primary road and 15 miles by a secondary road from another hospital, or (b) certified as a "necessary provider" by their state with CMS verification. While 65% of CAHs do not meet the mileage requirements (WWAMI, 2003), states have certified almost all small rural hospitals as "necessary providers" making them

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<sup>1</sup> The recent passage of the Medicare Prescription Drug, Improvement and Modernization Act of 2003 allows CAHs to increase their number of acute care beds to 25.

eligible for CAH status if they were willing to limit themselves to 15 acute patients and 25 total beds. In addition to certifying hospitals as “necessary” providers, states also have the authority to designate hospitals as “rural.”

This paper tracks the impact of Critical Access Hospital (CAH) status on the financial condition of rural hospitals one and two years after conversion to CAH status. We compare hospitals’ Medicare revenue and financial performance in pre-conversion years (1996-1998) with post-conversion years (2000-2001). The pre-conversion to post-conversion financial changes for CAHs are compared to changes that took place at small rural hospitals that did not convert to cost-based Medicare reimbursement. Fiscal year 2000 performance will reflect the impact of BBA and BBRA rules on hospitals that converted in 1999. Fiscal year 2001 financial performance will reflect the BBA, BBRA, and BIPA legislation on hospitals that converted in 1999 and 2000. The key aspects of the three pieces of legislation are shown in Table 1.

### **CRITICAL ACCESS HOSPITAL INCENTIVES**

The following discussion identifies the major types of incentives rural hospitals will face after conversion to CAH status.

#### **Hospital-Based Home Health Agencies and SNFs**

During most of the 1990s, home health care and skilled nursing care received cost-based payments from Medicare. Financial consultants recommended that hospitals make home health agencies and skilled nursing facilities (SNFs) subsidiaries of the hospital since a portion of the hospital’s overhead could then be allocated to the home health agency and the hospital-owned SNF (Fogel, 1994). The hospital would then get cost-based reimbursement for the portion of its overhead expenses allocated to these two subsidiary organizations. The Balanced Budget Act of 1997 (BBA) reversed these incentives. Critical Access Hospitals now receive cost-based

**Table 1****CAH Legislation and Regulation**

<b>Legislation</b>	<b>Key Aspects of CAH Legislation</b>
BBA (1997)	<ul style="list-style-type: none"> <li>• The CAH program is enacted and allows cost-based payments for outpatient and acute inpatient services for small rural hospitals that choose CAH status.</li> <li>• In contrast to Sole Community Hospitals, CAHs receive cost-based reimbursement based on current rather than historical cost.</li> <li>• States can decide which hospitals are “necessary providers.”</li> </ul>
BBRA (1999)	<ul style="list-style-type: none"> <li>• Length of stay is limited to an <u>average</u> of four days rather than four days for each patient.</li> <li>• Beneficiary coinsurance for lab tests is eliminated.</li> <li>• States are allowed to determine which hospitals are “rural.”</li> </ul>
BIPA (2000)	<ul style="list-style-type: none"> <li>• Cost-based reimbursement of “on-call” payments to physicians.</li> <li>• CAHs receive cost-based reimbursement for Medicare swing-bed patients. In January 2001 CMS clarifies that it will assume routine Medicaid-type patient costs are equal to routine Medicaid revenue per day and that routine SNF-type patients costs per day are equal to routine acute patient costs.</li> </ul>

reimbursement while SNFs and home health agencies receive prospective payment. Hospitals no longer have an advantage to have their overhead allocated to SNFs and home health agencies because home health and SNF overhead is not eligible for cost-based reimbursement. This change provides an incentive for Critical Access Hospitals to divest themselves of their SNFs and home health agencies.

### **Swing Beds**

While there is an incentive for CAHs to divest themselves of their SNFs and home health agencies, there is also an incentive to expand swing bed use because swing beds receive a liberal form of cost-based reimbursement from Medicare. In fiscal year 2000, CAHs received payments for Medicare patients in swing beds based on the average rates paid to nursing homes in the area. Starting with fiscal years beginning after December 20, 2000, the Centers for Medicare and Medicaid Services (CMS) estimates the *routine cost* of caring for Medicare post-acute patients by “carving out” the estimated cost of long-term care patients (HCFA, 2001). This “carve out” method assumes that the cost of treating long-term-care patients (Medicaid or private) is equal to the average Medicaid per diem payment in the state. Any financial losses on Medicaid patients will be partially allocated to Medicare patients in swing beds and acute beds. This allows the CAH to recoup part of their Medicaid losses with increased Medicare payments. In addition, private-payer long-term care costs will be partially allocated to Medicare patients if routine costs for private payer patients exceed Medicaid per diem payments in the state. This creates an opportunity for generating a profit on Medicare post-acute patients in states where Medicaid rates are lower than the full routine costs of caring for private and Medicaid long-term care patients.

After Medicaid-type routine “costs” are “carved out” of total routine inpatient costs, the remaining costs are allocated to all acute patients and Medicare-type post-acute patients based on the number of days they spend in the hospital. Specifically, the routine costs per day for Medicare acute patients and for Medicare post-acute patients are now assumed to be the same, and equal to the weighted average routine cost per day calculated as described. Compared to the previous way by which Medicare reimbursed hospitals for their routine acute-patient costs, this “carve out” method for determining routine inpatient costs per day could itself bring about a simple shift in Medicare reimbursed amounts for routine care from the inpatient-acute side to the non-acute side. This would happen if acute patients on average have actual routine costs that exceed post-acute patient actual routine costs. Moreover, the greater the actual routine costs of acute patients exceed those of non-acute patients, the larger would be the shift in Medicare reimbursed amounts for routine care from the inpatient-acute side to the non-acute side.

Any increase in Medicare reimbursed amounts for swing-bed use contains two impacts from the “carve out” method. First, it includes any increases due to the way Medicaid and private-payer nursing facility-costs are approximated by Medicaid payment rates (i.e. are “carved out”). Second, there can be increases that are due to shifts from the acute-side. It is because of these latter shifts, and their unknown amounts, that it is not appropriate to consider Medicare swing-bed reimbursements separately from acute inpatient reimbursements. This “carve out” method of determining routine costs started in 2001 and is expected to significantly increase the amount of costs allocated to swing bed patients and significantly increase swing-bed payments to CAHs. The use of CAHs for post-acute care should be most profitable in states with low Medicaid rates, other things equal, since the amount “carved out” of costs is smallest in these states resulting in a larger amount that is allocated to Medicare acute and post-acute patients.

## **Donations and Tax Payer Support**

The CAH program is beneficial to hospitals that receive a significant amount of support from local governments or from charitable donors. For example, assume a hospital receives \$500,000 from local government and \$100,000 from local donors per year. If these funds are spent on hospital services and 50 percent of these services go to Medicare beneficiaries, then Medicare costs increase by \$300,000 and Medicare will increase reimbursement by \$300,000. The \$300,000 in extra Medicare payments that stem from spending donations is the first in a series of ripple effects. As higher Medicare revenues are spent, Medicare reimbursement grows even higher. The net result is that (for a hospital that spends 50% of its revenue on Medicare patients) cost-based reimbursement could serve as a 100% matching grant for government and charitable donations. Due to the matching-grant aspect of cost-based reimbursement, the CAH program will be most beneficial to those hospitals in communities that are both committed to their hospital and wealthy enough to provide the hospital with taxpayer and charitable contributions. Hospitals with substantial community support will benefit more from the CAH program if that community support continues after conversion.

## **Capital Expenditures**

Medicare patients represent over 50 percent of most converting hospitals' discharges. Prior to conversion, when a CAH spent money on higher salaries or new equipment, Medicare did not adjust their payment structure. After conversion, Medicare will reimburse hospitals for a portion of any additional capital expenditures. While we expect capital expenditures to increase following conversion compared to what they would have been, the timing of the capital expenditures is not certain. Lenders may want to see improved financial performance before lending, and even if lenders would provide loans for projected improvements, it may take years

to develop renovation plans, arrange financing, and start construction (Gregg et al., 2003). We may not see significant increases in capital spending during the first or even second year after conversion, but there may be major capital improvements in subsequent years.

### **Sole Community Hospitals**

The Sole Community Hospital program pays hospitals based on the historical cost of providing care rather than on current costs. Hospitals are paid based on historical costs to prevent some of the incentives for expenditure increases described above. In general, if a hospital's costs are rising, they would have an incentive to convert to CAH status from Sole Community Hospital status. However, some hospitals will want to continue to receive Sole Community Hospital payments if their costs are falling due to improved efficiency, increased volume, or a reduction in community donations. We do not expect all small rural hospitals with Sole Community Hospital status to convert to CAH status.

### **On-Call Payments**

Starting in fiscal year 2001, CAHs began to receive payments for the cost of on-call physicians that are not located on the hospital premises. Medicare will pay a CAH a portion of its on-call payments to physicians who agree to come into the hospital when needed. The Medicare share of on-call payments is based on Medicare's share of the use of emergency department services. The availability of on-call reimbursement increases the incentive for CAHs to use higher on-call payments to recruit and retain physicians. Since the Medicare cost report data does not specifically identify on-call payments to hospitals, we are unable to track the extent to which this provision is assisting small hospitals.

## DATA COLLECTION METHODS

### CAH Data

We compare indicators of hospital financial performance from pre-conversion years (1996 to 1998) to post-conversion years (2000 and 2001). Fiscal Year 2001 data were the most recent Medicare Cost Report data available when the study was conducted in the summer and fall of 2003. To limit the influence of outliers, we use the mean financial statistics from the 1996 to 1998 fiscal years and compare them to the corresponding statistics from fiscal year 2000 and fiscal year 2001. There are 102 rural hospitals that meet this criterion for being a 1999 converter. Among these 102 hospitals, we were able to obtain fiscal year 2000 financial data on 98 converting hospitals. Of the 98 rural hospitals, we were able to obtain fiscal year 2001 data on 77 hospitals.

Although we could have presented the fiscal year 2000 data on the full set of 98 rural hospitals and the fiscal year 2001 data on just the subset of 77 of those hospitals with 2001 data, we have used the 77 rural hospitals with both years' data in our tabular presentation below. We do so for two reasons. First, the changes over the study period (1996-1998 to 2000-2001) were quite similar for the 77 hospitals and the full sample of 98 hospitals. Also, by following the same group of converting hospitals over two post-conversion years, we can be certain that differences from fiscal year 2000 to fiscal year 2001 are not the result of differences in the included rural hospitals. We emphasize that while we expect that certain benefits of CAH conversion will occur immediately, other aspects of conversion (such as decisions to increase capital expenditures) may take years to be seen in the data.

We also have a sample of 129 rural hospitals that converted in fiscal year 2000 that were excluded from the comparison group for the 1999-converters above. For this second group of

converters, we can only look at one year of post conversion data (fiscal year 2001). Having two groups of converters (1999 and 2000) allows us to compare the impact of conversion among the early converters and the second wave of converters.

To account for inflation, we used the Hospital Input Price Index that is reported by CMS to adjust all financial data to Year 2000 prices. This ensures that year 2000 data are comparable with data from earlier years and with fiscal year 2001 data. We chose to convert all financial data into fiscal year 2000 dollars to make the results from this study comparable to those from our previous study that used only one year (2000) of post-conversion data from fiscal year 1999 converters (Stensland, Davidson and Moscovice; 2003).

### **Selecting Comparison Hospitals**

Because hospitals choose to convert to CAH status rather than being assigned CAH status at random, it is challenging to construct a comparison group that would provide an unbiased picture of what converting hospitals would have experienced if the CAH program were not available. We used rural hospitals with under 50 beds that did not convert by the end of 2001 for a comparison group. We excluded rural hospitals that converted prior to 1999 and rural hospitals that converted in 2000 or 2001 from our comparison group since they would have operated under different financial incentives than non-converting hospitals. Using these criteria, we were able to identify 397 rural hospitals with under 50 beds that had not converted to Critical Access Hospital status by 2001 and had filed complete 2001 cost reports by the time the data for this study was obtained from the Centers for Medicare and Medicaid Services. The hospitals in this comparison group tend to have more beds and more revenue than converting hospitals. Consequently, they may have experienced economies of scale that CAHs did not have and may have performed slightly better than CAHs would have if they had not converted.

In our previous study (Stensland et al., 2003), we considered using hospitals with fewer than 25 beds as the comparison group. We decided not to use this alternative for two reasons. First, the sample size of the comparison group fell to under 100 hospitals. Second, in our previous study we found almost identical results using the sample of rural hospitals with less than 50 beds rather than the sample with less than 25 beds.

## **RESULTS**

We present the financial data for the FY 1999 converters in Table 2 and in Figure 1, and for the FY 2000 converters in Table 3 and Figure 2. The tables show changes in utilization of services by Medicare patients, Medicare costs and revenues, categories of expenditures, aspects of debt and donor support, profitability and operational characteristics. In each table these changes are provided both for the CAH-converting hospitals and for the group of 397 non-converting comparison hospitals. Figure 1 and Figure 2 illustrate the sources of an average CAH's additional revenue and show how that revenue was spent.

Table 2 presents pre- and post-conversion statistics for FY 1999 converters and for the comparison group of 397 non-converting small rural hospitals. It shows profit margins for the 77 early converters rising from a *negative* 2.8% prior to conversion to 2.3 percent in 2000 and 3.7% in 2001. Over this same period, the 397 comparison hospitals experienced a decline in their margins from a positive 2.1% in the 1996-1998 period to a positive 1.6% in fiscal year 2001. Related to this comparative financial gain for the converters, Medicare outpatient revenue increased by 50%, and Medicare inpatient revenue (including swing bed services) increased by 29% over the period FY 1996-1998 to FY 2001. In contrast, the non-converting hospitals experienced a 29% decline in Medicare outpatient revenues (excluding hold-harmless payments) and a 3% gain in total Medicare inpatient revenue (including swing bed services). Both the

**Table 2**  
**Impact of CAH Conversion on Operations and Key Financial Indicators, FY 1999 Converters**

Variable	Rural Hospitals That Became CAHs during FY 1999 (n=77)					Non-Converting Rural Hospitals with Under 50 beds (n=397)			
	Mean FY 1996-1998	FY 2000	FY 2001	Real Growth <sup>1</sup>	Growth Rate	Mean FY 1996-1998	FY 2001	Real Growth <sup>1</sup>	Growth Rate
Hospital discharges	356	318	319	-37	-10%	916	988	72	8%
Medicare swing days	451	501	531	80	18%	479	496	17	4%
Medicare acute + swing Days	1273	1095	1169	-104	-8%	2451	2414	-37	-2%
<i>Revenue<sup>1</sup></i>									
Medicare outpatient <sup>2</sup>	\$473,245	\$624,724	\$711,909	\$238,664	50%*	\$729,740	\$517,610	-\$212,130	-29%* <sup>3</sup>
Medicare inpatient revenue (incl. swing beds) <sup>3</sup>	\$916,677	\$1,029,350 <sup>3</sup>	\$1,179,900 <sup>3</sup>	\$263,223	29%	\$2,184,522	\$2,254,937	\$70,415	3%
Aggregate inpatient revenue/aggregate days	\$720	\$940	\$1,009	\$289	40%*	\$891	\$934	\$43	5%*
Total facility revenue	\$5,264,524	\$5,891,655	\$6,361,331	\$1,096,807	21%*	\$9,717,313	\$11,142,008	\$1,424,694	15%*
<i>Expenditures<sup>1</sup></i>									
Number of employees	91	91	91	0	0%	139	147	8	6%*
Annual salary per FTE	\$27,632	\$28,682	\$28,972	\$1,612	6%	\$29,421	\$30,575	\$1,154	4%
Capital expenditures	\$416,967	\$491,987	\$700,203	\$283,236	37%*	\$769,740	\$832,112	\$62,372	8%*
Interest expense	\$25,449	\$28,691	\$34,200	\$8,751	34%	\$72,331	\$84,238	\$13,277	17%
Depreciation expense	\$234,721	\$269,007	\$276,371	\$41,650	18%	\$459,527	\$538,716	\$79,189	17%
<i>Financial Structure<sup>1</sup></i>									
Debt to assets ratio	48%	51%	47%	-1%	-2%	44%	48%	4%	9%
Donor and government support	\$161,572	\$140,379	\$136,821	-\$24,751	-15%	\$191,775	\$206,299	\$14,524	8%
<i>Profitability<sup>1</sup></i>									
Total profit	-37,043	\$224,931	\$321,547	\$358,590	NA <sup>4</sup>	\$262,553	\$279,358	\$16,805	6%
Profit margin <sup>3</sup>	-2.8%	2.3%	3.7%	+6.5%	NA <sup>4</sup>	2.1%	1.6%	-0.6%	-24%
<i>Service offerings</i>									
Swing beds	90%	92%	94%	4%	4%*	78%	83%	5%	6%*
SNF beds	28%	25%	23%	-4%	-18%	28%	26%	-3%	-7%
Home health	51%	42%	32%	-19%	-37%*	61%	53%	-8%	-13%*

<sup>1</sup> To calculate "Real Growth," financial statistics have been converted to FY 2000 dollars using the CMS index of hospital input prices.

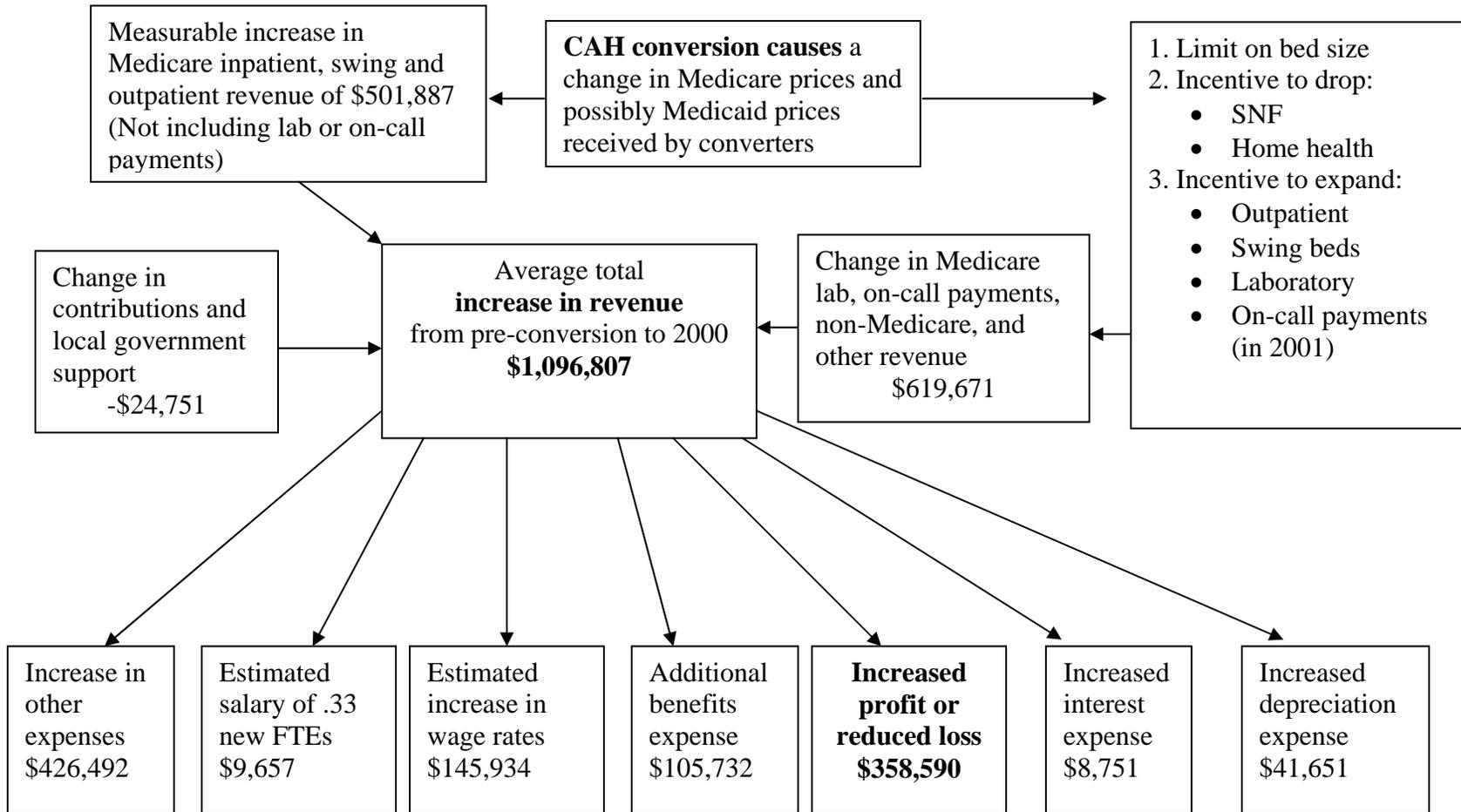
<sup>2</sup> Outpatient revenue does not include payments for laboratory services or payments to on-call physicians. Non-converters outpatient revenue does not include temporary hold-harmless outpatient payments. The hold harmless payments will compensate these hospitals for much of their lost Medicare outpatient revenue.

<sup>3</sup> Most of the increase in inpatient payments of \$150,550 from FY 2000 to FY 2001 is due to an increase in swing bed payments of \$237,417. Medicare acute reimbursement declined by \$86,867, due to new cost-accounting rules. Due to the change in cost-accounting methodology, changes in acute and swing bed payments should not be evaluated separately.

\*An asterisk indicates that the mean percentage change for converters is significantly different from the mean percentage change for non-converters using a T-test with a P<.05 criterion. We use percentage change rather than absolute change since CAH-converting hospitals are significantly smaller on average than non-converting hospitals.

Figure 1

**Mean Sources and Uses of Increased Revenue Following FY 1999 CAH Conversions (n=77)**  
 (All revenues and expenditures have been adjusted for inflation and converted into FY 2000 dollars)



Source: Medicare Cost Reports, 1996-2001.

**Table 3**  
**Impact of CAH Conversion on Operations and Key Financial Indicators, FY 2000 Converters**

	Rural Hospitals That Became CAHs during FY 2000 (n=129)				Non-Converting Rural Hospitals with Under 50 beds (n=397)			
	Mean FY 1996-1998	FY 2001	Real Growth <sup>1</sup>	Growth Rate	Mean FY 1996-1998	FY 2001	Real Growth <sup>1</sup>	Growth Rate
Hospital discharges	500	463	-38	-8%	916	988	72	8%*
Medicare swing days	428	518	90	21%	479	496	17	4%
Medicare acute + swing days	1530	1398	-132	-9%	2451	2414	-37	-2%
<i>Revenue<sup>1</sup></i>								
Medicare outpatient <sup>2</sup>	\$549,484	\$784,334	\$234,850	43%*	\$729,740	\$517,610	-\$212,130	-29%* <sup>3</sup>
Medicare inpatient revenue (incl. swing beds) <sup>3</sup>	\$1,260,553	\$1,421,008	\$160,455 <sup>3</sup>	13%*	\$2,184,522	\$2,254,937	\$70,415	3%*
Aggregate inpatient revenue/aggregate days	\$824	\$1,017	\$193	23%*	\$891	\$934	\$43	5%*
Total facility revenue	\$6,899,116	\$8,194,640	\$1,295,523	19%*	\$9,717,313	\$11,142,008	\$1,424,694	15%*
<i>Expenditures<sup>1</sup></i>								
Number of employees	95	104	8	8%	139	147	8	6%
Annual salary per FTE	\$28,401	\$29,797	\$1,397	5%	\$29,421	\$30,575	\$1,154	4%
Capital expenditures	\$541,173	\$439,144	-\$102,029	-19%	\$769,740	\$832,112	\$62,372	8%*
Interest expense	\$25,460	\$42,147	\$16,488	65%	\$72,331	\$84,238	\$13,277	17%
Depreciation expense	\$285,410	\$339,163	\$53,753	19%	\$459,527	\$538,716	\$79,189	17%
<i>Financial Structure<sup>1</sup></i>								
Debt to assets ratio	45%	54%	9%	20%	44%	48%	4%	9%
Donor and government support	\$206,455	\$208,501	\$2,045	1%	\$191,775	\$206,299	\$14,524	8%
<i>Profitability</i>								
Total profit	119,087	\$270,155	\$151,068	127%	\$262,553	\$279,358	\$16,805	6%
Profit margin	0.0%	2.0%	2.0%	NA	2.1%	1.6%	-0.6%	-24%
<i>Service offerings</i>								
Swing beds	82%	96%	14%	17%	78%	83%	5%	6%
SNF beds	26%	25%	-1%	-4%	28%	26%	-3%	-7%
Home health	41%	33%	-9%	-22%	61%	53%	-8%	-13%

<sup>1</sup> To calculate "Real Growth," financial statistics have been converted to FY 2000 dollars using the CMS index of hospital input prices.

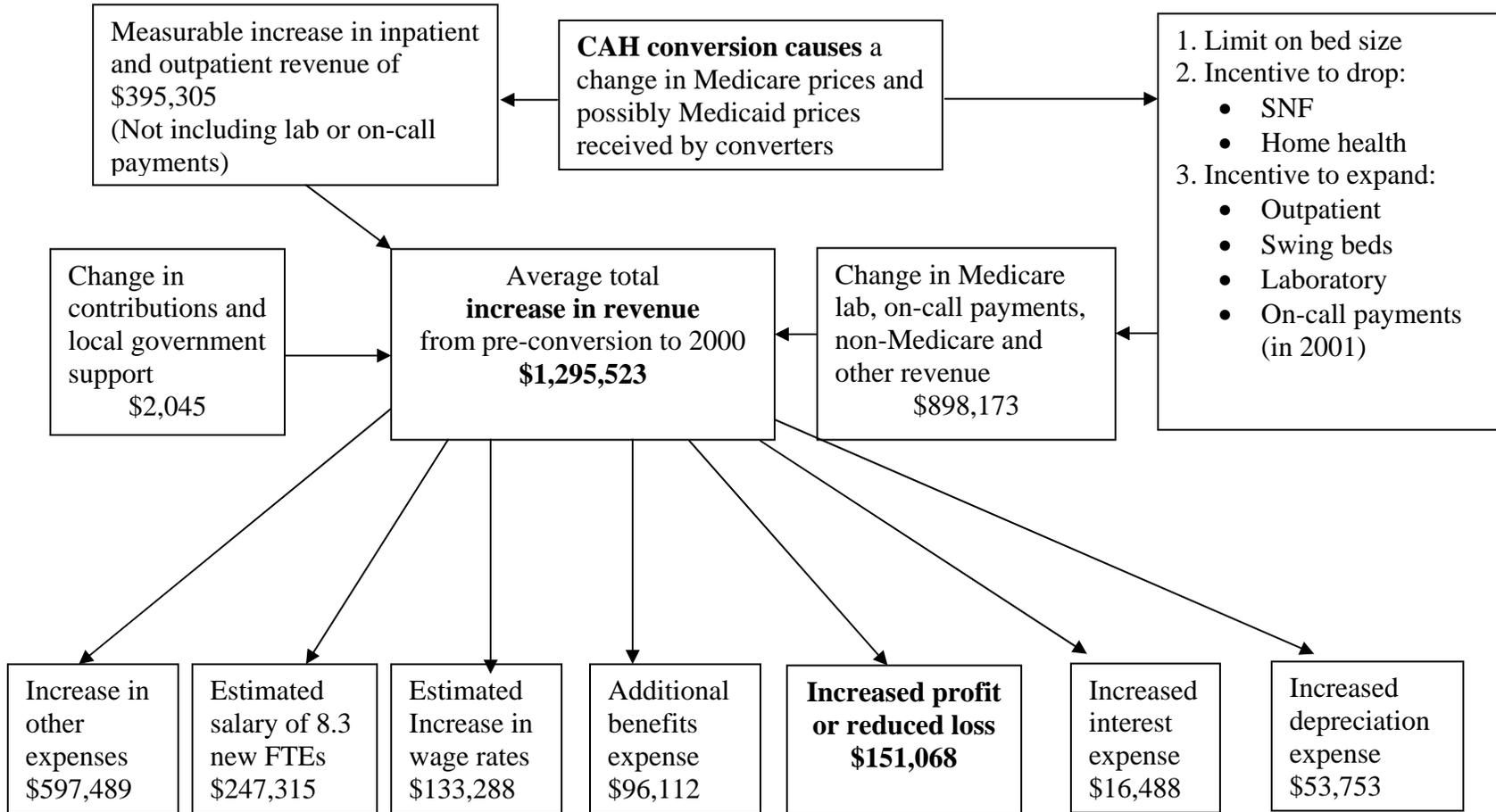
<sup>2</sup> Outpatient revenue does not include payments for laboratory services or payments to on-call physicians. Non-converters outpatient revenue does not include temporary hold-harmless outpatient payments. The hold harmless payments will compensate these hospitals for much of their lost Medicare outpatient revenue.

<sup>3</sup> Most of the increase in inpatient payments of \$160,455 from 1996-1998 to FY 2001 is due to an increase in swing bed payments of \$256,242. Medicare acute reimbursement declined by \$95,787 primarily due to new cost-accounting rules. Due to the change in cost-accounting methodology, changes in acute and swing bed payments should not be evaluated separately.

\*An asterisk indicates that the mean percentage change for converters is significantly different from the mean percentage change for non-converters using a T-test with a P<.05 criterion. We use percentage change rather than absolute change since CAH-converting hospitals are significantly smaller on average than non-converting hospitals.

Figure 2

**Mean Sources and Uses of Increased Revenue Following FY 2000 CAH Conversions (n=129)**  
 (All revenues and expenditures have been adjusted for inflation and converted into FY 2000 dollars)



Source: Medicare Cost Reports, 1996-2001.

converters and non-converters experienced drops in total Medicare inpatient days (acute and post-acute), although the decline for the converters was larger. Medicare swing bed days increased by 18% over this period for the converters, but by only 4% for the non-converters. Combining changes in Medicare inpatient revenue and inpatient days, on average the Medicare payments per inpatient day (sum of acute and post-acute) rose from \$720 to \$1,009 for the converters – a 40% increase, while they increased by 5% for the non-converters.

Total facility revenue increased by 21% for the 1999 converters from the FY 1996-1998 period to fiscal year 2001, while they increased somewhat less, 15%, in the non-converters. For expenditure categories, the FY 1999 CAH-converters increased capital expenditures by 37% from the base-period to fiscal year 2001, while the non-converters' increase was 8% over the comparable period. Finally, both the proportion of FY 1999 CAH converters and the non-converters that offered SNF services and home health services declined, but at substantially higher rates for the CAH converters. Both had similar increases in the percentage with swing-beds, although the CAH converting hospitals had higher base-period levels.

Table 3 presents pre- and post-conversion statistics for FY 2000 converters and again for the comparison group of 397 non-converting small rural hospitals. Profit margins for the 129 converters rose from 0.0% prior to conversion to 2.0% in FY 2001. Over this same period, the 397 comparison hospitals experienced a decline in their margins from a positive 2.1% in the FY 1996-1998 period to a positive 1.6% in fiscal year 2001. Medicare outpatient revenue increased by 43%, and their Medicare inpatient revenue (including swing bed services) increased by 13% over the period FY 1996-1998 to FY 2001. In contrast, the non-converting hospitals experienced a 29% decline in Medicare outpatient revenues (excluding hold-harmless payments) and a 3% gain in total Medicare inpatient revenue (including swing bed services). Both these later

converters and non-converters experienced drops in total Medicare inpatient days (acute and post-acute), although the decline for the converters was larger. Medicare swing bed days increased by 21% over this period for the converters, but only by 4% for the non-converters. Combining changes in Medicare inpatient revenue and inpatient days, on average the Medicare payments per inpatient day (sum of acute and post-acute) rose from \$824 to \$1,017 for the converters – a 23% increase, while they increased by 5% for the non-converters.

Total facility revenue increased by 19% for the 2000 converters from the FY 1996-1998 period to fiscal year 2001, while they increased somewhat less, 15%, in the non-converters. For expenditure categories, the FY 2000 CAH-converters decreased capital expenditures by 19% from the base-period to fiscal year 2001, while the non-converters' increase was 8% over the comparable period. Finally, both the proportion of FY 2000 CAH converters and the non-converters that offered SNF services and home health services declined by similar percentages. The increase in the percentage with swing-beds for the CAH converting hospitals was substantially higher than for the non-converters.

### **Comparison of FY 1999 and FY 2000 Converters**

The Tables and Figures indicate that hospitals that converted in FY 2000 had relatively similar changes to hospitals that converted in FY 1999. The primary difference was that later converters tended to be slightly larger hospitals. After adjusting for inflation, fiscal year 1999 converters received an average of \$501,887 in higher Medicare inpatient and outpatient payments following conversion (not including lab or on-call payments). Fiscal year 2000 converters received an average of \$395,305 in additional Medicare payments for inpatient and outpatient services. Adjusting this total increase for differences in the size of the two groups of hospitals, Medicare payments for inpatient care per aggregate Medicare inpatient days increased

by \$289 for the early converters and by \$188 for the later converters. Both groups had almost identical absolute constant-dollar increases in Medicare outpatient payments over the FY 1996-1998 to FY 2001 periods. Expressed as a percentage growth rate, both early and later converters had substantial increases in Medicare outpatient revenues (50% and 43% respectively). While fiscal year 1999 converters experienced a 6.5%-point increase in profit margin, fiscal year 2000 converters experienced a 2%-point average increase in total margin. As late converters start to adjust their organizational structures to fully benefit from cost-based payment rules, their profit margins may rise to be closer to those of the 1999 converters.

From pre-conversion to post conversion, the FY 1999 converters experienced a 21% increase in total revenue while FY 2000 converters experienced a 19% increase in total revenue. Figure 1 shows how the FY 1999 converters spent the \$1,096,807 in additional total revenue. Increased profits, wages and benefits account for slightly more than half of this increase in revenue. Fiscal year 2000 converters had similar expenditure patterns, though they tended to spend more on additional employees and retained less as increased profits. In the case of both the FY 1999 and FY 2000 converters unexplained increases in expenses are approximately \$500,000 or \$5,000 per employee. Possible sources of growth in the unspecified costs include increased pharmaceutical costs, payments to on-call physicians, changes in insurance costs, contract labor costs, professional services costs, and errors or omissions in the reporting of wages.

### **Organizational Changes**

As noted, Critical Access Hospitals were limited to serving 15 acute care patients at one time. Since this limitation applies to *all* inpatients, it is likely to be responsible for at least some of the reduction in discharges at CAHs in the initial year after conversion. Specifically, there

were reductions in the number of discharges averaging 8 to 10 percent for both waves of converting hospitals, while over the same period the non-converting hospitals had an 8% increase in the number of discharges.

Some CAHs also divested themselves of SNFs and home health operations, likely responding to CAH financial incentives. Both waves of converters divested themselves of home health agencies at identical nine percentage point amounts in their first year after conversion. The earlier converters again dropped their home health agencies by a similar percentage point amount in their second year after conversion as well.

Both groups of converting hospitals on average expanded the amount of post-acute care being provided to Medicare patients. Hospitals that converted in FY 1999 experienced an 11% increase in Medicare swing days by their first year post-conversion, and by another 7% from the first to the second year after conversion. The later converting hospitals experienced a 21% increase in Medicare swing days by their first year post-conversion. Non-converting hospitals experienced a modest 4% increase in Medicare swing days over the same period.

### **Capital Expenditures**

Capital expenditures grew by 37% for the FY 1999 converters compared to a growth of 8% for non-converters, a difference that is statistically significant using a  $p < .05$  criterion. Capital spending two years after conversion (up 37%) was significantly higher than capital spending one year after conversion (up 18%). For the FY 2000 converters, we see a substantial decline in capital expenditures in the first year post-conversion, compared to their average in FY 1996-1998. For the reasons discussed earlier, capital spending may increase in the second and third years following conversion, even if it did not increase immediately after conversion. There

also can be considerable changes in capital expenditures due to their large size and infrequent occurrence.

### **Changes in Sources of Revenue**

For the FY 1999 CAH converters, inflation-adjusted total facility revenue increased by 21% from the baseline period to their FY 2001 average, while the non-converting rural hospitals experienced a 15% increase. These similar increases in inflation-adjusted total facility revenue mask considerable differences in how those increases were realized. For FY 1999 CAH converters, Medicare inpatient and outpatient revenues increased on average by similar absolute amounts, and together account for approximately one-half of the increase in inflation-adjusted total facility revenue. For the non-converters, Medicare outpatient revenues dropped significantly and Medicare inpatient revenues increased by a small amount, resulting in a 5% decrease in total Medicare revenues. All of the increase in inflation-adjusted total facility revenue for the non-converting hospitals arose from non-Medicare sources.

The higher growth in non-Medicare revenue at non-converters could be due to increases in private payer volume of services and prices. Stensland and Moscovice (2001) found that 50% of rural hospitals raised private payer prices as a response to cuts in Medicare payment rates that were enacted in the fall of 1997. An alternative explanation for why private payer revenue increased faster at non-converters is that those hospitals that expected the largest increases in private-payer admissions may have been less likely to convert to CAH status due to the limitation of having 15 acute beds.

### **DISCUSSION**

Over half of the hospitals that converted to CAH status in FY 1999 or FY 2000 were losing money prior to conversion. CAH status dramatically changed the financial status of these

hospitals. Hospitals that converted in FY 1999 saw their total profit margins rise to an average of 2.3% one year after conversion and to 3.7% two years after conversion. The FY 1999 converters appear more able to make capital improvements, especially by their second year after conversion. Profit margins for FY 2000 converters increased to 2% following conversion and they may grow further as CAHs adjust their operations to maximize their profitability given their new Medicare payment structure.

These results are consistent with hospitals altering their operations in response to the financial incentives of Critical Access Hospital payment rates. As we discussed earlier, swing bed payments can be larger than Critical Access Hospitals' costs. This may explain some of the increase in swing bed days following the implementation of the new swing-bed payment rules in 2001. After conversion, CAHs have been more likely to divest themselves of prospective payment subsidiaries, especially home health agencies, although non-converters are doing so as well.

It is clear that the CAH program has contributed significantly toward making most small rural hospitals financially viable. It is important to understand the distinct ways that CAH status contributed to this overall financial improvement. First, an important component of the overall increase in the financial viability of the CAH converting hospitals is likely due to a one-time shift to cost-based reimbursement. Rural hospitals have traditionally lost money on outpatient surgery and diagnostic services provided to Medicare patients, with small rural, Medicare-dependent hospitals averaging a *negative* 20% Medicare outpatient margin in 1999 (MedPAC, 2001). This was largely due to two features of previous payment policy: (i) reimbursement was cost-based for outpatient services (until August 2000) while it was prospective for inpatient services, resulting in many hospitals over-allocating fixed costs to outpatient services, and (ii) in

a policy response to this development, outpatient payment rates were reduced below those reported costs (MedPAC 2001). Consequently, full cost-reimbursed payment for Medicare outpatient services should eliminate those Medicare losses. This is reflected in the increase of Medicare payments for outpatient services by 50% for the FY 1999 converters and by 43% for the FY 2000 converters while there was a decrease of 29% in the same measure for non-converters.

Other factors, not necessarily one-time in their impact, also were likely to have contributed to some of the increase in Medicare outpatient payments. It's possible that as CAHs decreased their inpatient, SNF, and home health services, more of the CAHs fixed overhead costs were allocated to outpatient services. CAHs also may have expanded the volume of outpatient services provided to Medicare patients.

Second, approximately half of the increase in total Medicare payments for the FY 1999 converting hospitals was due to increases in Medicare inpatient payments (defined to include swing bed services), and some of this increase may have been one-time adjustments to cost-based reimbursement as well. However, the change in payment rules for swing beds could also account for some of these increased payments, especially from fiscal year 2000 to fiscal year 2001. We expect the impact of these changes to continue in the future as CAHs respond to higher payment rates.

We also emphasize that conversion to CAH status was not responsible for *all* of the financial improvements experienced by the converting hospitals. For FY 1999 converters, approximately half of the increase in inflation-adjusted total facility revenue from FY 1996-1998 to FY 2001 was due to increases in non-Medicare sources.

Finally, the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (CRS, 2003) has several provisions that will increase Medicare payments for rural health providers including the receipt of inpatient and outpatient reimbursement at 101% of reasonable costs for CAHs. In addition, the Act allows CAHs to:

- increase their bed limit from 15 to 25 beds with no restriction on the number of beds that can be used for acute care services, and
- establish distinct part rehabilitation and psychiatric units of up to ten beds that will not be included in the CAH bed count.

Future analyses of the financial effect of CAH conversion need to assess the impact of the behavioral response of institutions to these provisions.

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