

**The Financial Effects of  
Critical Access Hospital Conversion**

*Working Paper Series*

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January 2003

Working Paper #44

Support for this paper was provided by the Office of Rural Health Policy, Health Resources and Services Administration, PHS Grant No. 5U27-RH00233-03.

**Table of Contents**

EXECUTIVE SUMMARY .....ii

INTRODUCTION .....1

THE FINANCIAL INCENTIVES OF CRITICAL ACCESS HOSPITALS .....2

DATA COLLECTION METHODS .....4

    CAH Data.....4

    Comparative Data .....4

RESULTS .....6

    Organizational Changes .....9

    Financial Changes.....9

DISCUSSION .....10

REFERENCES .....12

## EXECUTIVE SUMMARY

The Balanced Budget Act of 1997 created the Rural Hospital Flexibility Program which allows small rural hospitals to apply for Critical Access Hospital (CAH) status and receive cost-based inpatient, outpatient and swing-bed payments from Medicare. The program has been extremely popular with almost one-third of the rural hospitals in the United States converted to CAH status by the end of 2002.

In this paper, we describe how the first wave of conversions affected rural hospitals' financial performance and organizational structure. The first wave of conversions included 102 hospitals that converted during their 1999 fiscal year. Of the 102 converters, we were able to obtain pre-conversion and post-conversion financial data on 80 hospitals. We compare changes that took place in the financial and organizational structure of these 80 hospitals to 419 small rural hospitals that did not convert to CAH status.

We found that CAH conversion is associated with a significant increase in Medicare revenue, hospital profits and costs per discharge. The rise in Medicare payments allows hospitals to improve their profitability, increase employee salaries, and increase capital expenditures. While the cost of increased Medicare payments are borne by federal taxpayers, it can create benefits for rural hospital employees and provide rural patients with access to more modern facilities.

## INTRODUCTION

The U.S. Congress created the Rural Hospital Flexibility Program (Flex Program) as part of the Balanced Budget Act (BBA) of 1997. The Flex Program has five primary goals including

- developing state rural health plans;
- assisting rural hospitals interested in being designated and certified as CAHs;
- improving quality of care;
- developing and strengthening hospital networks; and
- improving emergency medical services in rural communities.

The Flex Program has two major parts. The first part is a four-year, \$25 million per year grant program that awards up to \$775,000 to each state, to be used as needed to improve rural health systems. The second part is the Critical Access Hospital (CAH) program administered by the Centers for Medicare and Medicaid Services (CMS). It allows CAHs to be reimbursed indefinitely by Medicare for both inpatient and outpatient services on the basis of their current Medicare-allowable costs.

This paper tracks the impact of Critical Access Hospital conversions on the financial condition of rural hospitals. We compare revenue, expenditures and profits prior to conversion to their levels after conversion. We also report on whether converting hospitals are changing their organizational structure to reflect the incentives inherent in cost-based Medicare reimbursement. Both the financial and organizational changes taking place at Critical Access Hospitals are compared to changes taking place at small rural hospitals that did not convert to cost-based Medicare reimbursement.

A primary reason that hospitals convert to Critical Access Hospital status is that their boards believe cost-based reimbursement from Medicare will increase Medicare payments and

improve hospital profitability and sustainability. An increase in Medicare payment rates via cost-based reimbursement is expected to have four effects. First, Medicare payments for inpatient and outpatient services are adjusted (usually upward) to match the allowable cost of providing Medicare services. Second, there is a change in hospitals' financial incentives that could induce converters to increase the volume of services that qualify for cost-based reimbursement and decrease the volume of services that still receive prospective payment. Third, the net cost of raising salaries and increasing staffing and capital expenditures at CAHs is reduced due to the increase in Medicare reimbursement. Fourth, there is an incentive to increase debt levels since interest expenses and depreciation expenses will partially be paid by increased Medicare reimbursement.

### **THE FINANCIAL INCENTIVES OF CRITICAL ACCESS HOSPITALS**

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 (Fogel, 1994). The benefit of moving the home health agency or SNF under the hospital umbrella was that a portion of the hospital's overhead could then be allocated to the home health agency and the hospital-owned SNF. The hospital would then get cost-based reimbursement for the portion of its overhead expenses allocated to these two organizations. The Balanced Budget Act of 1997 reversed these incentives. Critical Access Hospitals now receive cost-based reimbursement while SNFs and home health agencies receive prospective payment. Hospitals no longer want their overhead allocated to SNFs and home health agencies because home health and SNF overhead is no longer eligible for cost-based reimbursement. Therefore, there is a financial

incentive for Critical Access Hospitals to divest themselves of their SNFs and home health agencies.

While there is an incentive to divest SNFs and home health agencies, there is also an incentive to expand swing bed use because swing beds receive cost-based reimbursement from Medicare. Starting with fiscal years beginning after December 20, 2000, CMS estimates the cost of caring for Medicare type patients by taking total swing bed costs and subtracting the payments for serving Medicaid patients (HCFA, 2001). This method implies that the cost of treating Medicaid patients is equal to Medicaid payments. Any losses on Medicaid patients will be partially allocated to Medicare patients in swing beds allowing the CAH to recoup part of their Medicaid losses with increased Medicare payments. This cost accounting system makes the operation of swing beds significantly more attractive for CAHs than operating SNF beds.

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 expenditures, reducing the financial burden placed on local taxpayers, local patients and local donors. Thus, we might expect to see a significant increase in these expenditures since their burden on the local community falls. While rising costs need to be monitored closely, there are potential benefits to these expenditures as well. Higher expenditures on personnel and more advanced equipment may improve the quality of care delivered at rural facilities. For example, prior to CAH conversion a rural hospital may have decided that the cost of a CT scanner could not be justified given the hospital's resources. Following conversion, the effective cost (full cost less increases in Medicare reimbursement) of the CT scanner may fall.

This reduction in the effective cost of acquiring equipment could lead to the purchase of a new CT scanner and improved medical care.

## **DATA COLLECTION METHODS**

### **CAH Data**

We compare indicators of hospital financial performance from pre-conversion years (1996 to 1998) to post-conversion data in fiscal year 2000. Fiscal Year 2000 data was the most recent data available when the study was conducted in the fall of 2002. 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. Data from fiscal year 2000 are considered post-conversion data for all hospitals that converted during their 1999 fiscal year or by the first day of the fiscal year 2000. There are 102 rural hospitals that meet this criterion for being a 1999 converter. We were able to obtain financial data on 80 of the 102 converters from Medicare cost reports. Of the 22 converters omitted from our study, nine were omitted for not having cost reports on file with Centers for Medicare and Medicaid Services and 13 were omitted due to filing either a cost report for a partial year or a cost report that was missing key variables. We are unable to determine if any of these reasons for omission from our sample are likely to be “markers” for significantly different financial performance for this subset of CAH-converting hospitals. To account for inflation, all financial data are deflated by the Hospital Input Price Index that is reported by CMS. This makes year 2000 data comparable with data from earlier years.

### **Comparison Data**

Because hospitals choose to convert to CAH status rather than being assigned CAH status at random, it is not possible to construct an ideal comparison group. Although it may not

provide an unbiased picture of what converting hospitals would have experienced if the CAH program was not available, we use hospitals with under 50 beds that did not convert by the end of 2001 for our comparison group. We excluded hospitals that converted prior to 1999 and 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 419 comparison hospitals with under 50 beds that had not converted to Critical Access Hospital status by 2001 and had filed complete cost reports. 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. However, the problem of differing economies of scale is mitigated by the fact that our study focuses on changes in revenue and expenses over time. Since economies of scale at individual hospitals are relatively stable, a comparison of percent changes over time in revenue and expenses should not be significantly affected by the size of the hospital in 1998.

As an alternative, 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 85. Second, the non-converters could be significantly different if they are weighted toward hospitals that chose not to convert because they expected to be more profitable under prospective payment. A second alternative would be to use small non-converting hospitals with negative Medicare margins in 1996-1998 as the comparison group. However, this group is problematic for the same reasons as the first subset. They may have chosen not to convert because they expected to either grow or see improved Medicare margins. A third alternative is to use hospitals that converted in 2001 or 2002 as the comparison group.



The problem with this comparison group is that financial changes from 1999 to 2002 may be inducing changes in conversion decisions. For example, increases in Medicare costs and decreases in admissions from 1998 to 2000 may induce a hospital to change its mind from not wanting to convert in 1999 to wanting to convert in 2001 or 2002. Because there is no perfect comparison group, we chose the larger comparison group of 419 hospitals because of the benefit of having a larger sample size and minimizing the influence of outliers in the data.

## RESULTS

We present the financial effects of Critical Access Hospital conversion in Table 1 and Figure 1. Table 1 presents pre and post-conversion statistics for CAHs and for non-converting small rural hospitals and shows that total inflation-adjusted profit margins increased from **negative** 4 percent to **positive** 1 percent for CAHs. This indicates that a large portion of the additional Medicare revenue was used to fund what had been hospital losses. Figure 1 presents the sources and uses of increased revenue for CAHs. Converting hospitals experienced an average increase in inflation-adjusted revenue of \$518,571 following conversion. On average, approximately one half of this amount was used to cover losses or was retained as profits, about a quarter of the increase was used to raise salaries, and the remaining quarter was spent on increases in other expenses such as supplies and employee benefits.

Table 1 indicates that the Critical Access Hospital program substantially improved hospital profitability. We expect hospital performance to continue to improve as hospitals adjust their organizational structure to optimize their reimbursement given the incentives of cost-based reimbursement.

Table 1

## Impact of CAH Conversion on Operations and Key Financial Indicators

Variable	Became CAHs during Fiscal Year 1999 (n=80)				Non-Converting Rural Hospitals with Under 50 beds (n=419)			
	Mean for 1996-1998	Fiscal Year 2000 Data	Real Growth <sup>1</sup>	Growth Rate	Mean for 1996-1998	Fiscal Year 2000 Data	Real Growth <sup>1</sup>	Growth Rate
Hospital Discharges	353	322	-31	-9%	789	812	23	3%
<i>Revenue<sup>1</sup></i>								
Medicare outpatient <sup>2</sup>	\$443,235	\$585,001	\$141,766	32%	\$642,197	\$501,689	-\$140,508	-22%*
Medicare inpatient <sup>2</sup>	\$818,374	\$865,116	\$46,793	6%	\$1,745,078	\$1,729,996	-\$15,082	-1%
Medicare inpatient revenue per adjusted discharge <sup>3</sup>	\$3,900	\$5,148	\$1,247	32%*	\$4,037	\$3,803	-\$234	-6%*
Total facility revenue	\$4,982,945	\$5,501,516	\$518,571	10%	\$8,590,988	\$9,460,953	\$869,965	10%
<i>Expenditures<sup>1</sup></i>								
Number of employees	88	86	-2	-2%*	128	134	6	5%*
Annual salary per FTE	\$27,419	\$29,110	\$1,692	6%	\$28,714	\$29,725	\$1,010	4%
Capital expenditures	\$359,653	\$502,074	\$132,949	37%	\$669,154	\$875,411	\$206,256	31%
Interest expense	\$25,442	\$29,744	\$4,303	17%	\$62,990	\$70,209	\$7,219	11%
Depreciation expense	\$204,535	\$219,178	\$14,643	7%	\$378,080	\$441,942	\$63,862	17%
Medicare inpatient costs per adjusted discharge <sup>3</sup>	\$4,390	\$5,148	\$757	17%*	\$3,752	\$3,763	\$11	0%*
<i>Financial Structure<sup>1</sup></i>								
Debt to assets ratio	52%	58%	6%	12%	42%	49%	8%	19%
Donor and government support	\$175,133	\$143,729	-\$31,404	-18%	\$188,303	\$205,838	\$17,535	9%
<i>Profitability<sup>1</sup></i>								
Total profit	-\$125,227	\$135,599	\$260,826	NA <sup>4</sup>	\$231,176	\$170,715	-\$60,461	-26%
Profit margin	-4.1%	1.0%	+5.0%	NA <sup>4</sup>	1.8%	0.4%	-1.4%	-78%
<i>Service offerings</i>								
Swing beds	89%	94%	5%	6%	84%	86%	2%	2%
SNF beds	28%	26%	-2%	-7%	31%	30%	-1%	-3%
Home health	49%	36%	-13%	-27%*	60%	56%	-4%	-7%*

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

<sup>2</sup>Outpatient revenue does not include payments for laboratory services.

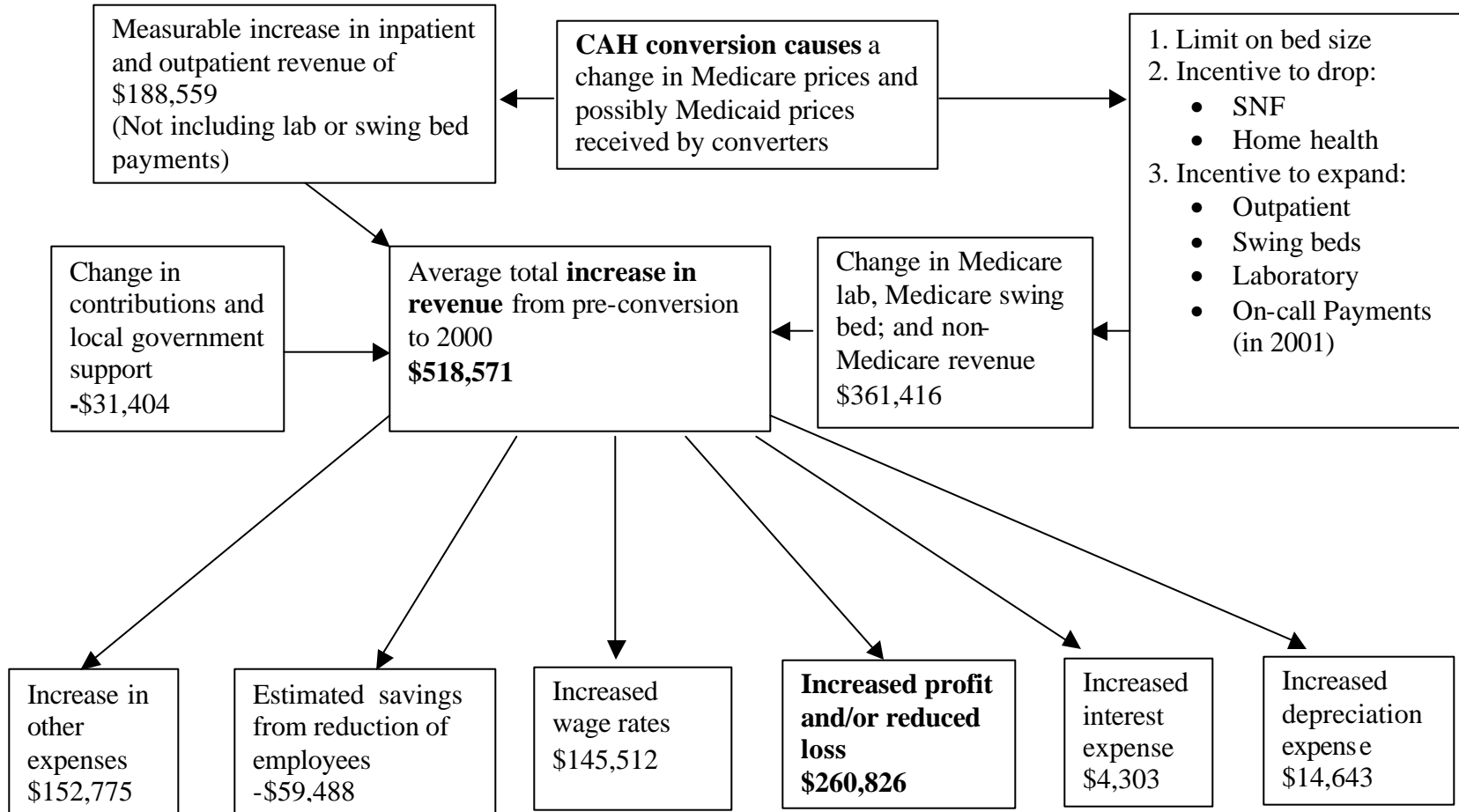
<sup>3</sup>Adjusted discharges are discharges divided by the hospital's mean case mix over the years 1996-1998. Post-conversion case mix data are not available.

<sup>4</sup>Percent changes in profit margins cannot be calculated when profits are negative in the base year.

\*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. Tests of absolute change would be misleading

Figure 1

Mean Sources and Uses of Increased Revenue Following 1999 CAH Conversions



Source: Medicare Cost Reports, 1996-2000.

## **Organizational Changes**

Critical Access Hospitals are limited to serving 15 acute care patients at one time. This limitation appeared to cause a minor reduction in discharges at CAHs. On average, discharges declined by nine percent at CAHs from pre-conversion to fiscal year 2000. In addition to a slight decline in discharges, some CAHs also followed the financial incentives to divest themselves of SNFs and home health operations. The 27 percent reduction in converters offering home health services is significantly different from the seven percent reduction for non-converters. While SNF services are declining, almost all converters are now offering swing bed services, which is consistent with the financial incentives discussed earlier. On average, converting hospitals reduced their number of full time equivalents by two employees; however, this **average** reduction is primarily due to a large drop in employees at one converting hospital in Arkansas that had 132 fewer full time equivalent employees in 2000 than it did prior to conversion. The hospital's financial officer attributed the reduction in employees to a significant cut back in home health services and a reduction in beds.

## **Financial Changes**

Despite the loss of some inpatient, SNF and home health capacity, overall revenue at CAHs increased by 10 percent on average as did revenue in the comparison group. The main difference between the two groups was that the comparison group experienced a significant increase in non-Medicare revenue while CAHs experienced a large increase in Medicare revenue. The growth rate in non-Medicare revenue at non-converters could be due to increases in private payer prices. In a survey of rural hospitals that took place in the fall of 2000, Stensland and Moscovice (2001) found that 50 percent of responding hospitals raised private payer prices as a response to cuts in Medicare payment rates that were enacted in the fall of

1997. A second possible explanation for why private payer revenue increased faster at non-converters is that those hospitals that had expectations of increasing admissions may have been less likely to convert to CAH status due to the limitation of having 15 acute beds.

CAHs experienced a large increase in Medicare inpatient and outpatient revenue. It should be noted that our Medicare cost report data lumps Medicare lab payments and swing bed revenue into “other revenue,” so that the total direct increase in Medicare revenue is larger than the \$188,559 average increase in Medicare inpatient and outpatient revenue.

As Medicare revenues increased, total expenditures increased. Inflation-adjusted costs per discharge grew rapidly at CAHs but was flat in non-converters. Wage growth at CAHs exceeded non-CAHs, but wages at CAHs continue to be lower than at larger hospitals. Total inflation-adjusted profit increased by an average of \$260,826 at CAHs, and profits declined at non-CAHs due to Medicare payment cuts. As profits rose and CAHs became more self sufficient, support for CAHs from local donations and local governments declined. This is expected since some government donations for city and county-owned facilities may have been made to cover losses at the facilities. Inflation –adjusted capital spending increased by 37 percent to an average of \$132,949 at converting hospitals. Capital expenditures increased by 31 percent at non-converters. The difference is not significant because there is a large variance in capital expenditures due to the “lumpy” nature of capital investments.

## **DISCUSSION**

The Balanced Budget Act of 1997 significantly reduced Medicare payments to rural hospitals. Given converting hospitals’ low pre-conversion profit margins, many converting hospitals would have faced a very difficult financial future if Critical Access Hospital conversion

had not been available. Cost-based Medicare payments allowed CAHs to substantially increase their Medicare revenue and improve their financial condition.

CAHs are using their increased Medicare revenue to cover losses that had previously been a financial drain on hospital reserves. In addition to covering losses, CAHs are increasing wages of hospital employees and making capital improvements. While federal taxpayers bear the cost of increased Medicare payments, local patients and CAH employees are beneficiaries of the improved financial condition of CAHs. Employees are receiving higher wages and current patients benefit from capital improvements at CAHs. Future patients will benefit from growing hospital financial reserves that can be used to address the future health care needs of the community.

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