

**UPDATED STUDY OF  
CRITICAL ACCESS HOSPITALS  
IN KANSAS**



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and Management Consultants



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## EXECUTIVE SUMMARY

From a slow beginning when legislation was passed in 1989 that created the EACH/ RPCH Program (the predecessor program of the CAH Program), CAHs have rapidly expanded to where more than 80 of the acute care hospitals in Kansas are now Critical Access Hospitals (CAHs). Accompanying this summary are the results of a study commissioned by the Kansas Rural Health Options Project (KRHOP). KRHOP is a partnership of the Office of Local and Rural Health at the Kansas Department of Health and Environment, the Kansas Hospital Association, the Kansas Board of Emergency Medical Services and the Kansas Medical Society. This study was supported by a federal grant to KRHOP from the Health Resources and Services Administration, Office of Rural Health Policy. The purpose of the study was to evaluate the changes in operations of selected CAHs from their last year as a PPS hospital to their most recent reporting year as a CAH. The study focused on three groups of hospitals selected based on their date of conversion to a CAH. Group 1 consists of twelve hospitals that converted to RPCH/CAH prior to September 30, 1997. All of the hospitals in this group originally converted to RPCHs under the EACH/ RPCH Program and were later converted to CAHs. Group 2 consists of ten hospitals that converted to CAHs between October 1, 1997 and September 30, 2003, and Group 3 consists of eleven hospitals that converted to CAHs on or after October 1, 2003.

While there are a few exceptions, the CAHs in Group 1 were generally smaller hospitals, Group 2 were generally larger hospitals than in Group 1 but smaller than hospitals in Group 3.

While there are exceptions in each group, the study reflects that financially the CAH Program has been very successful. The average operating margin for each group, while still negative, has improved significantly from the year prior to conversion to 2005 and the average age of plant of the three groups has remained relatively the same or improved. While operating margins have improved for all groups from the year prior to conversion to 2005, the actual average "Excess of Expenses over Revenues" increased for Group 1 from \$306,162 to \$370,116, an increase of 21 percent over a period of approximately nine years. This is a significant improvement, however, from a previous study that reflected that the Excess of Expenses over Revenues of a peer group of hospitals that had not converted to CAH increased from approximately \$400,000 to nearly \$800,000 over a six-year period from 1994 to 2000. The average age of plant has not been as responsive to improvement in the first years as a CAH as has the average operating margin. This is to be expected, as management and boards typically wait to see the effects of CAH prior to making significant capital improvements. For both Groups 1 and 2, the average age of plant decreased from the year after conversion to 2005. Most of the hospitals in Group 3 have not been a CAH long enough to see the effects of capital improvements resulting from improved operations and expectations of the role of community hospitals.

The restrictions on number of beds and average length of stay for a CAH appear to have an effect on adult and pediatric patient days for all three groups, with the greatest effects on Group 1 and 3. The CAHs in Group 1 were generally smaller hospitals that converted to RPCHs when the bed restriction was twelve beds including swing beds and the average length of stay limitation was 72 hours. Accordingly, patient days for this group declined 37 percent from the year prior to conversion to the year after conversion. As the restrictions were relaxed, adult and pediatric patient days rebounded to where, in 2005, the decline in patient days from the year prior to conversion was only 17 percent. The day decline as of 2005 for Groups 1 and 2 appears to be mostly related to changes in medical practices and lower populations in the service areas, as opposed to the restrictions in beds or average length of stay.

When the hospitals in Group 2 converted to CAHs, the bed and length of stay limitations had been relaxed sufficiently that only a select few were affected by the bed and average length of stay limitations. This resulted in a much lower (9 percent) reduction in adult and pediatric patient days from the year prior to conversion to the year after conversion. The reduction in patient days from the year before conversion to 2005 was 16 percent which compares favorably to the reduction for Group 1 for that time period. Group 3, while becoming CAHs under even more relaxed rules, reflected a 21 percent decrease from the year before conversion to the year after conversion as most of the hospitals in Group 3 are larger hospitals who were affected by the current 25-bed and 96-hour length of stay limitations.

The limitation on number of beds has had little effect on the number of swing-bed patient days which have remained relatively consistent for all groups from the year before conversion to 2005.

Outpatient services of CAHs have followed the general trend of hospitals with all groups reflecting significant increases in outpatient service revenues. Inpatient revenues of the three groups ranged from 6 percent more than outpatient revenues to 11 percent less than outpatient revenues in the last year as a PPS hospital. In 2005, average outpatient revenues of all three groups exceeded inpatient revenues by 30 percent to 68 percent.

One element that has not completely followed expectations generated in the development years of the Program is the contractual adjustment percentage. The expectation was that with cost reimbursement for CAHs, contractual adjustment percentage would decrease. The contractual adjustment percentage of all three groups decreased in the year after conversion to a CAH from the year prior to conversion and while there were a few exceptions, this was the case for 28 of the 33 hospitals in the study. From the year after conversion to 2005, there is a trend of increased contractual adjustment percentages, but the percentages for most CAHS are still lower than their percentage prior to conversion. There are numerous reasons for this trend which include a shift in patient services from more highly utilized inpatient services to lower Medicare utilized outpatient services and charge rates increasing faster than operating expenses.

Another expectation at the inception of the RPCH/CAH Program was that under cost reimbursement, operating expenses would increase dramatically. While this happened somewhat in the first two years for Group 1, it did not continue through 2005, nor did this happen at all for Groups 2 and 3. Group 1 had an annual compound rate of increase of approximately 12 percent for the first two years as RPCHs for both salaries and other expenses, but from the year after conversion to 2005, the compound rate of increase was approximately 7 percent for both salaries and other expenses. Group 2 realized annual compound rates of increase in salaries and other expenses of approximately 7 percent from the year prior to conversion through 2005, and Group 3 realized annual compound rates of increase in salaries and other expenses of less than 4 percent from the year before conversion through 2005.



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## INTRODUCTION

At the request of the Kansas Hospital Education and Research Foundation and the Kansas Department of Health and Environment - Office of Local and Rural Health, we have conducted a study of the operations of 33 selected Critical Access Hospitals (CAHs) in Kansas.

The objective of our study was to evaluate the changes in operations of the selected CAHs from their last year as a PPS hospital to their most recent reporting year.

The CAHs selected for the study were grouped into three groups by the date of conversion to a CAH:

- Group 1 consists of twelve hospitals that converted to RPCH/CAH prior to September 30, 1997. All of the hospitals in this group originally converted to RPCHs under the EACH/RPCH Program and were later converted to CAHs.
- Group 2 consists of ten hospitals that converted to CAHs between October 1, 1997 and September 30, 2003.
- Group 3 consists of eleven hospitals that converted to CAHs on or after October 1, 2003.

While there are a few exceptions, the CAHs in Group 1 were generally smaller hospitals, Group 2 were generally larger hospitals than in Group 1 but smaller than hospitals in Group 3.

## SCOPE OF STUDY

For each CAH in the study, we compiled financial and statistical data for three years. The years for which data of each of the CAHs was compiled were the CAHs last full cost reporting year prior to conversion to a CAH, their first full reporting year after conversion to a CAH and their most recent reporting year for which audited financial statements and Medicare cost reports were available. The actual year of conversion was not selected unless the hospital converted to a CAH on the first day of their reporting year, as their audited financial statement from which most of the information was extracted included operations as both a PPS hospital and a CAH.

The years immediately before and after conversion were selected to best gauge the impact of conversion. The most recent year was selected to determine how the CAHs are operating now as compared to when they converted to a CAH. For several of the CAHs in group three, the first full year after they converted to a CAH is the same year as 2005 due to their conversion date.

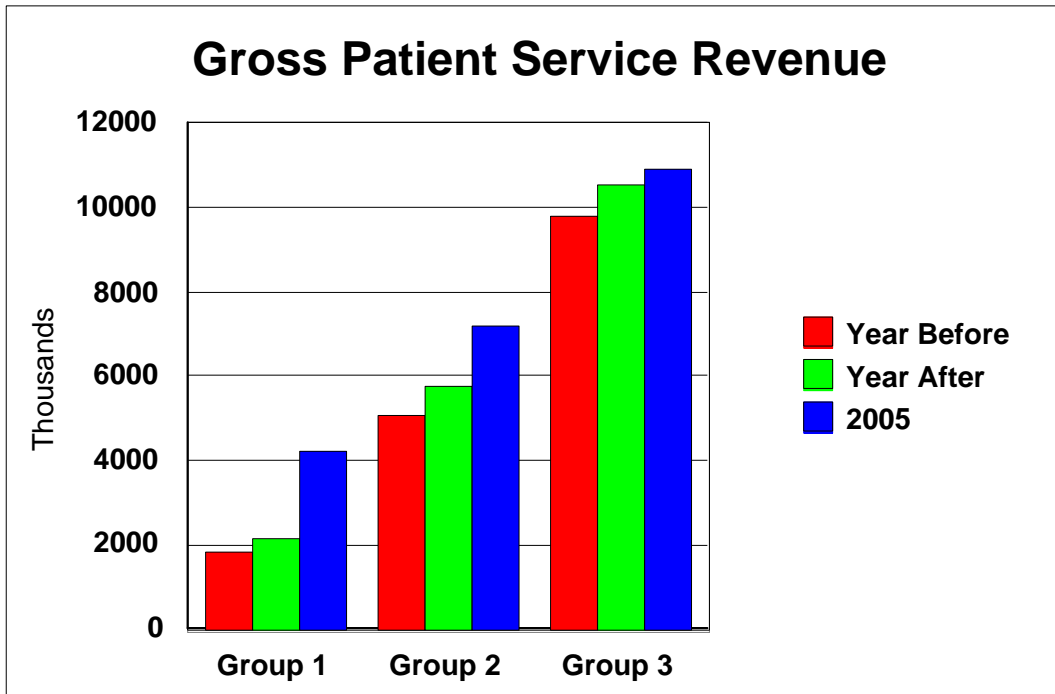
In comparing the change from year to year in the various financial and statistical elements, it is important to understand that for all groups, the time span between the year before conversion and the year after conversion is one to two years depending on the date of their accounting year and the date that they converted to a CAH. The time span between the year after conversion to 2005 varies considerably by group. For Group 1, the time span is 6 to 11 years depending on their date of conversion. For Group 2, the time span is 1 to 4 years and for Group 3, 0 to 1 year. Accordingly, inflation accounts for part of the variance by group between the year after conversion and 2005.

For this study, we concentrated on group averages as opposed to individual hospital data within the group. However, where one or two CAHs influenced the averages considerably, we reflected the results including and excluding the outlier CAHs.

In accordance with generally accepted accounting principles, not-for-profit hospitals report interest expense and allowance for bad debts as operating expenses. Governmental hospitals report interest expense as nonoperating expense and allowance for bad debts as a reduction in patient service revenue in arriving at net patient service revenue. For consistency purposes, we treated the allowance for bad debts as a reduction of revenues for all CAHs and interest expense as a nonoperating expense for all CAHs. Likewise, in practice, some governmental CAHs report governmental appropriations as other operating revenues while others report them as nonoperating revenue. Again for consistency purposes, we treated all governmental appropriations and subsidies as nonoperating revenue.

## FINDINGS

The following graphs report our findings for each of the elements in our study.



	Group 1	Group 2	Group 3
Year Before	1,836,154	5,079,333	9,779,970
Year After	2,133,138	5,765,687	10,551,830
2005	4,217,456	7,210,936	10,931,446

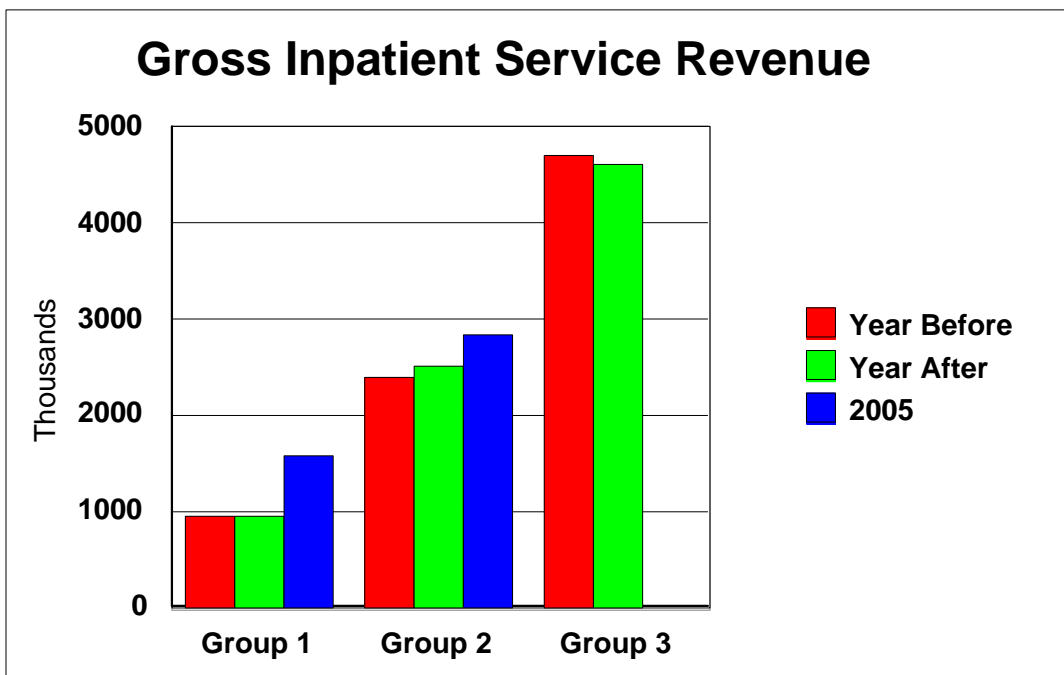
Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Gross Patient Service Revenue for all groups for the year after conversion increased from the year prior to conversion and increased further by 2005. The 2005 amounts are influenced in part by inflation especially in Groups 1 and 2. The increases are also heavily influenced by increases in outpatient services. As compared to the year before conversion, nine of the twelve CAHs in Group 1 reflected an increase in their gross patient service revenue, nine out of ten CAHs in Group 2 reflected an increase and seven out of eleven CAHs in Group 3 reflected an increase.

## Gross Inpatient Service Revenue



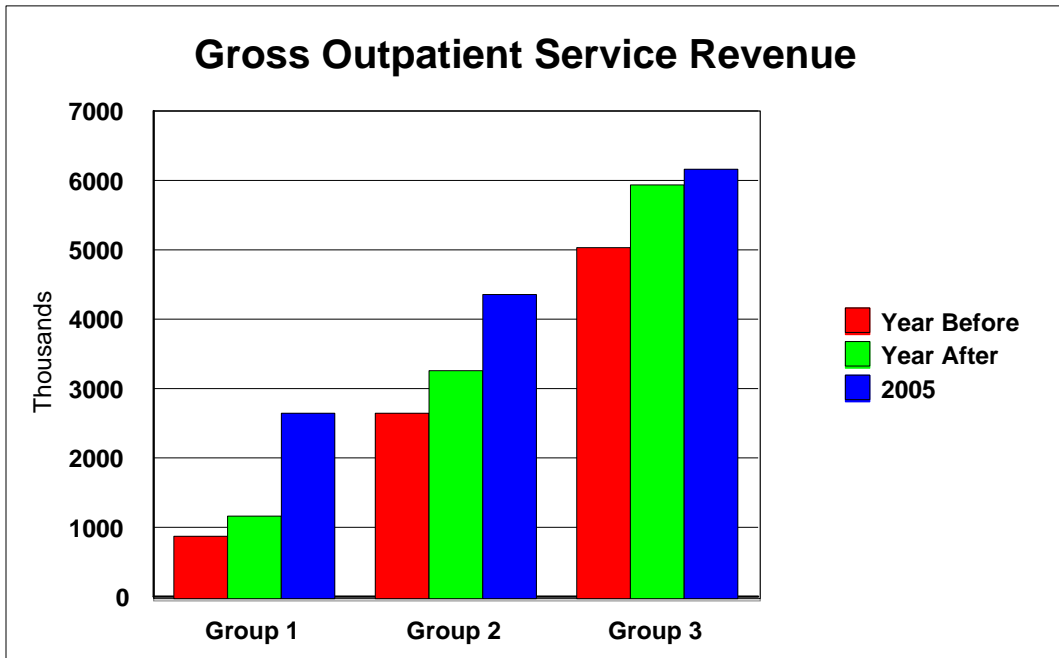
	Group 1	Group 2	Group 3
Year Before	945,231	2,403,520	4,715,762
Year After	941,541	2,504,502	4,610,363
2005	1,571,713	2,838,807	4,747,705

Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Seven of the twelve hospitals in Group 1 reflected a decrease in gross inpatient service revenues from the year before conversion to the year after conversion. This compares to five of the ten hospitals in Group 2 who showed a similar decrease and six of the eleven hospitals in Group 3 that reflected a decrease. From the year after to 2005, all CAHs in Group 1 reflected an increase as did six of the ten CAHs in Group 2. Of the eleven CAHs in Group 3, 2005 and the year after are the same year for four CAHs. Of the remaining seven, four reflected increases and three reflected decreases.



	Group 1	Group 2	Group 3
Year Before	890,923	2,675,812	5,064,208
Year After	1,191,598	3,261,185	5,941,466
2005	2,645,743	4,372,129	6,183,740

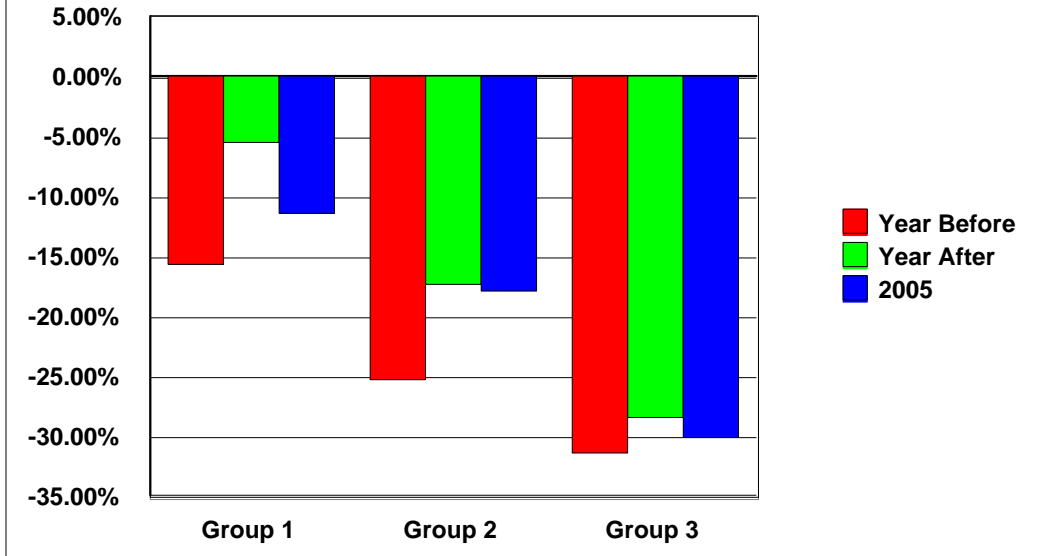
Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Eleven of the twelve hospitals in Group 1 reflected increases in gross outpatient service revenue from the year before conversion to the year after conversion. In Group 2, nine of the ten hospitals reflected an increase in this time period and in Group 3, ten of the eleven hospitals reflected an increase. From the year after to 2005, all CAHs in Groups 1 and 2 reflected increases. In Group 3 of the seven CAHs for which 2005 and the year after are not the same year, five CAHs reflected increases and two reflected decreases.

## Contractual Allowances Percentage



	Group 1	Group 2	Group 3
Year Before	-15.47%	-25.12%	-31.13%
Year After	-5.30%	-17.21%	-28.25%
2005	-11.29%	-17.64%	-29.98%

Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

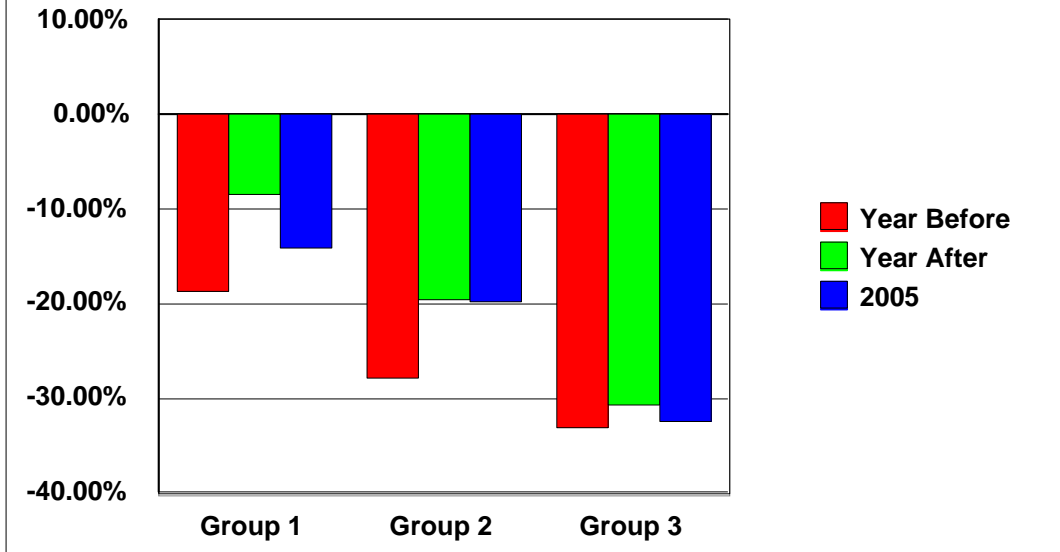
Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

All groups reflected a decrease in contractual adjustments in the year after conversion to a CAH as compared to the year before conversion to a CAH. Of the 33 total CAHs studied, all but five reflected decreases in contractual adjustments the year after conversion to a CAH as compared to the year before conversion.

In 2005, all groups reflected increases in contractual adjustments as compared to the year after conversion. The most notable increase was in Group 1, where eleven of the twelve CAHs reflected increased contractual adjustments in 2005. This appears to be a result of numerous factors including gross patient service revenues increasing faster than allowable expenses, changes in services offered with decreases in higher Medicare utilized services and increases in lower Medicare utilized services, the change in the methodology for handling outpatient co-insurance in the cost report, and offset to some degree by the methodology for reimbursing swing-bed routine services at the same rate as acute routine services. In 2005, of the seven CAHs in Group 3 for which the year after conversion was not the same year as 2005, four CAHs reduced their contractual percentage adjustment and three increased their contractual adjustment percentage.

## Contractual Allowances & Bad Debts Percentage



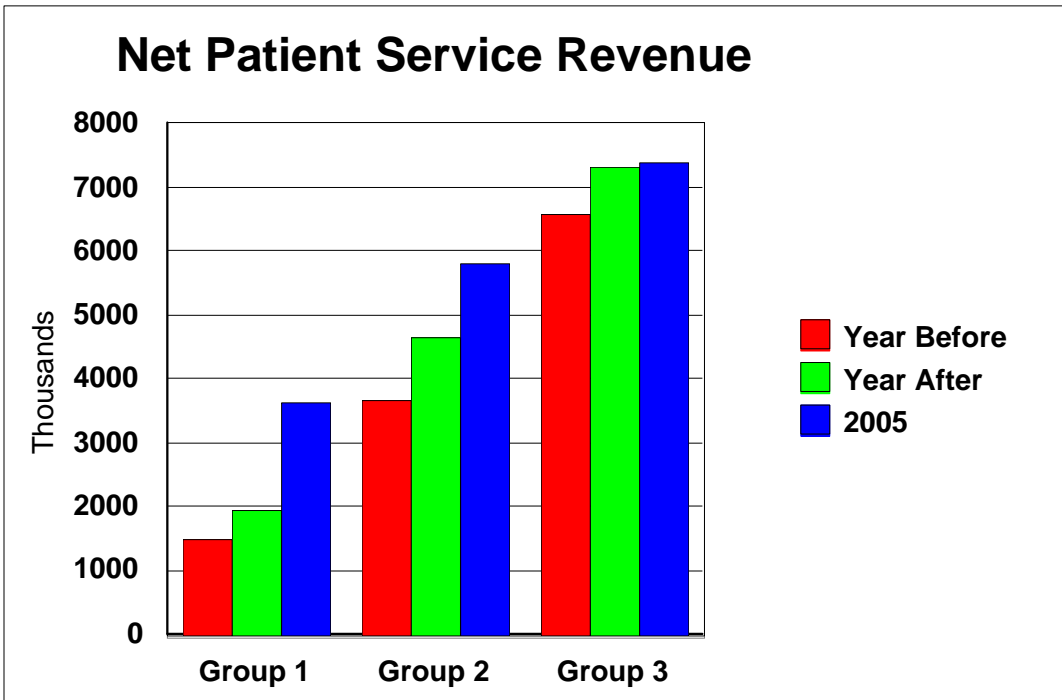
	Group 1	Group 2	Group 3
Year Before	-18.39%	-27.62%	-32.91%
Year After	-8.24%	-19.30%	-30.57%
2005	-13.89%	-19.69%	-32.35%

Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

The changes in contractual allowances and bad debt percentage for all groups in all years remained approximately the same as the change in contractual adjustments only, with bad debts ranging from 2 percent to 3 percent in all groups for all years.

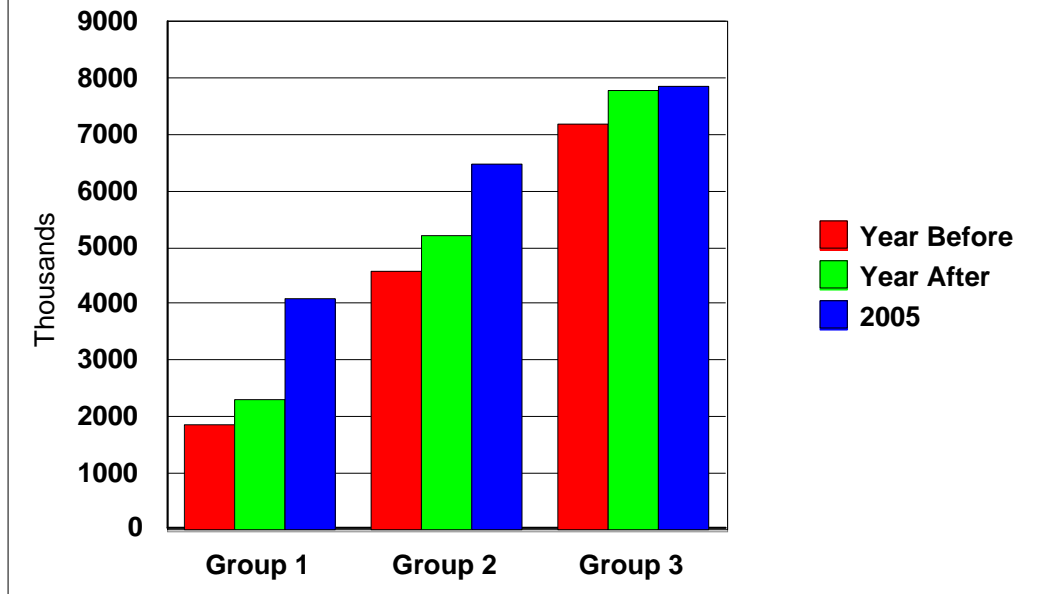


	Group 1	Group 2	Group 3
Year Before	1,498,470	3,676,478	6,561,456
Year After	1,957,267	4,652,757	7,326,578
2005	3,631,752	5,790,930	7,395,175

- Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997
- Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003
- Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Net patient revenues for purposes of this study consist of gross patient service revenues less contractual adjustments, discount, charity care, and bad debts. The comments on those charts explain the changes in net patient service revenue.

## Total Operating Expenses (Excluding Bad Debts)



	Group 1	Group 2	Group 3
Year Before	1,859,392	4,571,119	7,184,714
Year After	2,294,755	5,211,407	7,771,328
2005	4,088,451	6,481,412	7,861,487

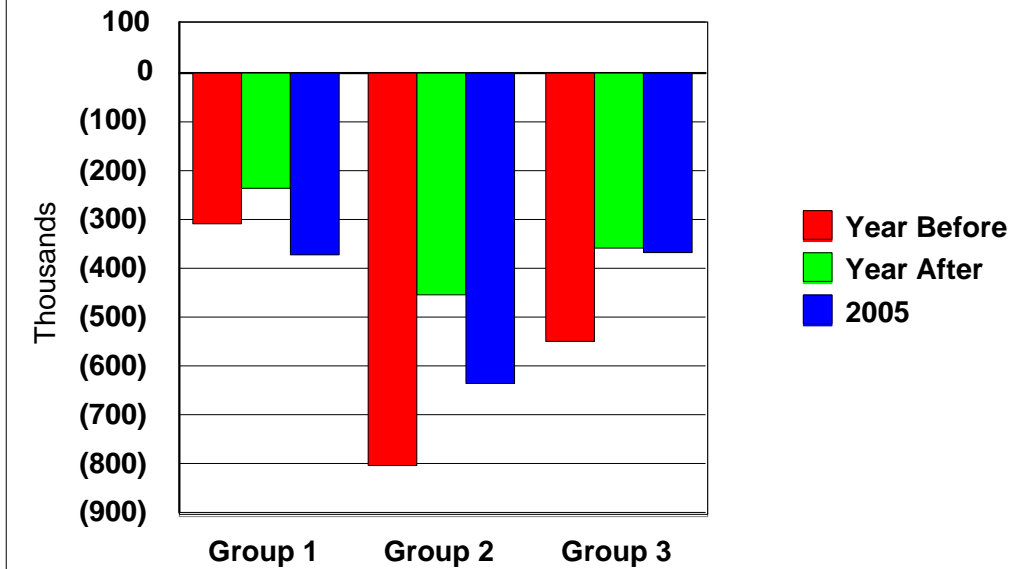
Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

The increases in operating expenses from the year before conversion to a CAH to 2005, increase slightly less than the increase in gross revenues for all groups. For Group 1, operating expenses as a percent of gross revenues increased from 101 percent the year before conversion to a CAH to 107 percent the year after conversion to a CAH and then decreased to 97 percent in 2005. For Group 2, the percentage decreased from 90 percent in the year before conversion to 81 percent the year after conversion and increased back to 90 percent in 2005. Group 3 percentages were consistent for all years in the range of 72 percent to 74 percent of gross revenues.

## Excess of Revenues over Expenses ( Before Gov't Appropriations, Grants & Contributions)



	Group 1	Group 2	Group 3
Year Before	(306,162)	(797,458)	(543,437)
Year After	(230,673)	(451,334)	(353,649)
2005	(370,116)	(632,132)	(362,683)

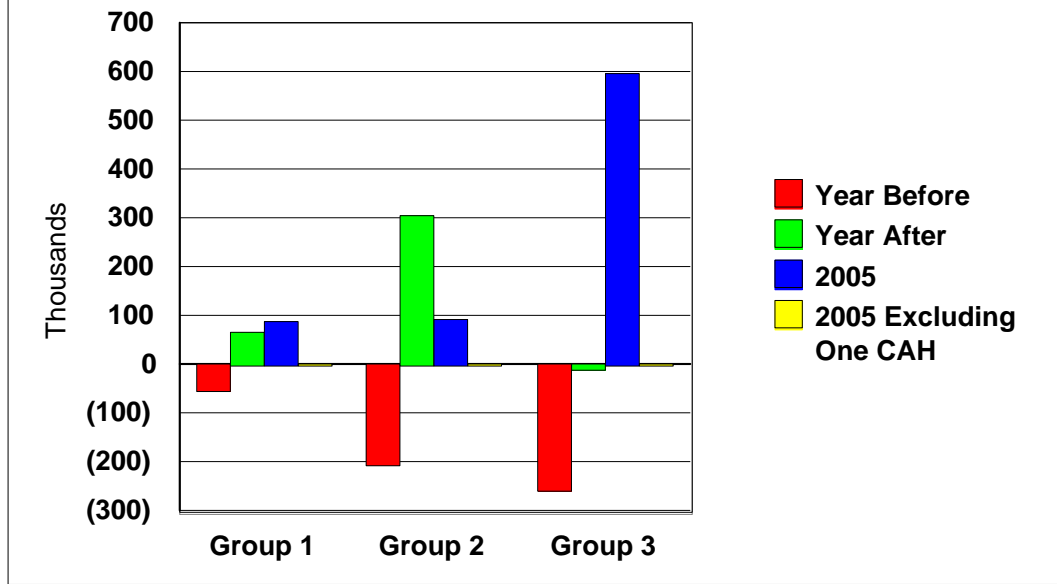
Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

The overall financial operating success of a CAH can be best measured by its excess of revenues over expenses (expenses over revenues) before government appropriations, grants and contributions. All groups reflected an improvement in that operating indicator in the year after conversion to a CAH as compared to the year before conversion to a CAH. However, all groups reflected a less favorable operating indicator in 2005 as compared to the year after conversion to a CAH. The most notable declines in the operating indicator for that period were in Groups 1 and 2. In Group 1, only three of the twelve CAHs reflected an improvement in 2005, and in Group 2, only three of the ten CAHs reflected an improvement.

## Excess of Revenues over Expenses (Net Income)



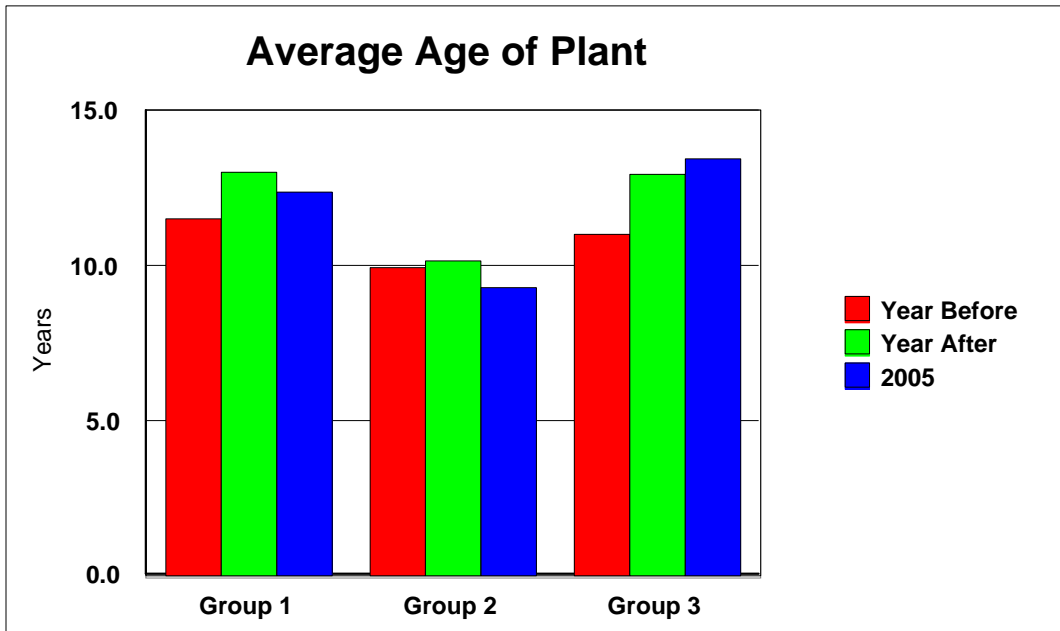
	Group 1	Group 2	Group 3
Year Before	(49,934)	(200,826)	(252,866)
Year After	67,504	304,617	(5,879)
2005	88,804	92,171	596,401
2005 Excluding One CAH			2,743

Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Excess of Revenues over Expenses reflects the results of operations and nonoperating revenues and expenses including contributions and government appropriations and interest expense. In 2005, one CAH received a significant government appropriation for capital improvements, which significantly impacted the group average. A separate 2005 bar reflects the group average excluding that CAH.



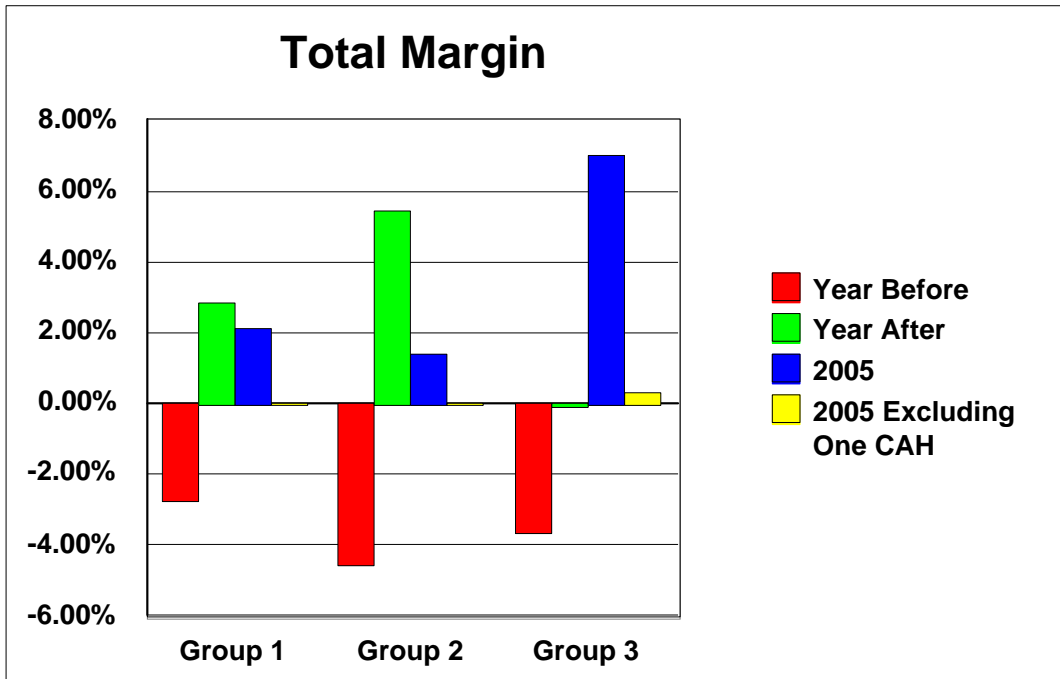
	Group 1	Group 2	Group 3
Year Before	11.6	9.9	11.0
Year After	13.0	10.1	12.9
2005	12.4	9.3	13.4

Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

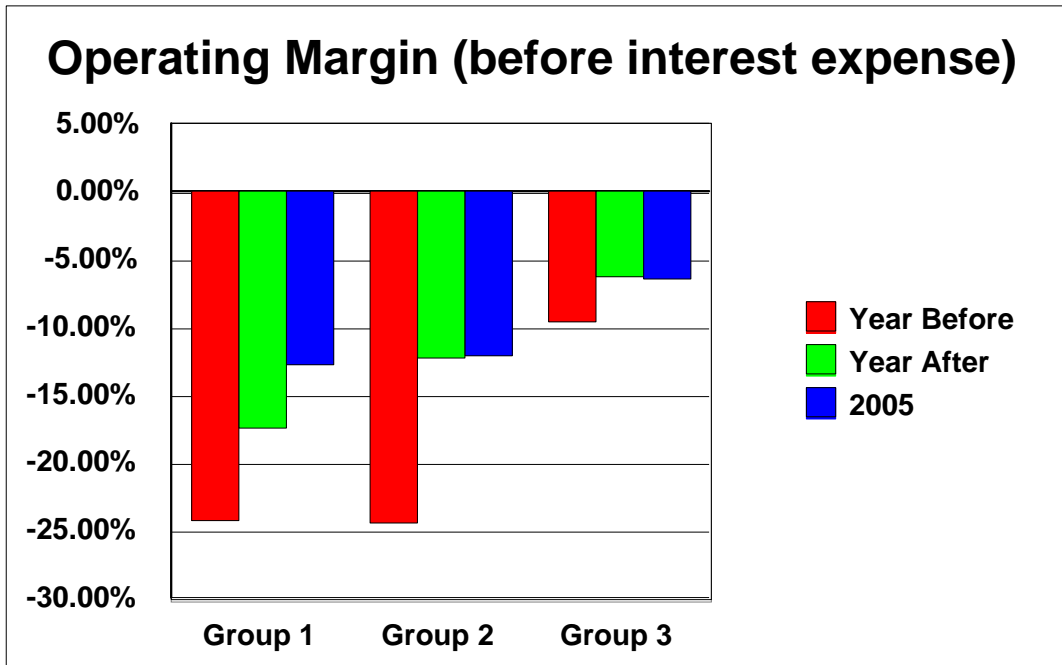
One of the significant benefits of the CAH Program is that it provides for cost reimbursement of depreciation and capital related interest. This has enabled some CAHs to make significant improvements to their facility and equipment. Both Groups 1 and 2 reflect a lower Average Age of Plant in 2005 as compared to the year after conversion. The CAHs in Group 3 have not been CAHs long enough to enter into any significant construction programs.



	Group 1	Group 2	Group 3
Year Before	-2.72%	-4.52%	-3.60%
Year After	2.83%	5.46%	-0.07%
2005	2.11%	1.38%	6.99%
2005 Excluding One CAH			0.33%

- Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997
- Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003
- Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Total margin is the percentage of excess of revenues over expenses to total revenues, net of allowances. The greatest improvement from the year before conversion to a CAH to the year after conversion to a CAH was in Group 2. Approximately 66 percent of the improvement was due to operations and approximately 34 percent of the improvement was due to net nonoperating income. Likewise, 62 percent of the decline in 2005 was due to operations and 38 percent due to net nonoperating income. As noted in the discussion of Excess of Revenues over Expenses, one CAH in Group 3 received a significant appropriation for capital improvements in 2005 which accounted for substantially all of the 2005 increase in Group 3. A separate 2005 bar reflects the group average excluding that CAH.



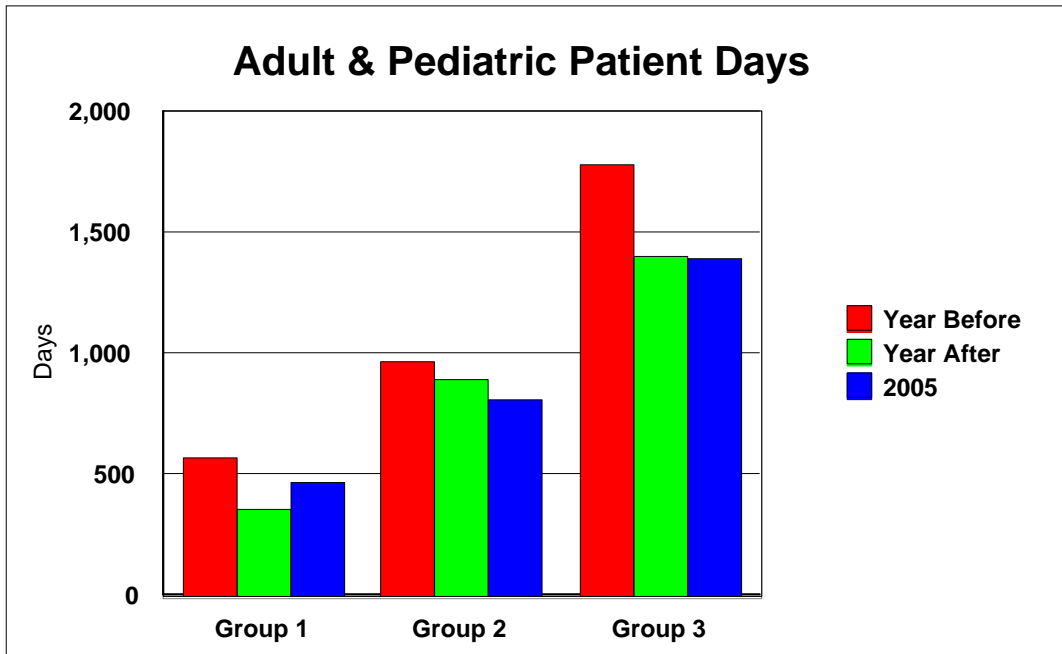
	Group 1	Group 2	Group 3
Year Before	-24.09%	-24.33%	-9.50%
Year After	-17.24%	-12.01%	-6.07%
2005	-12.58%	-11.92%	-6.31%

Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Operating margin is the percentage of net income from operation to net operating income. This percentage, which excludes consideration of nonoperating revenues and expenses, reflects an improvement for all groups for the year after conversion as compared to the year before conversion to a CAH. The operating margin for Group 1 also improved from the year after conversion to a CAH to 2005. The operating margin for Groups 2 and 3 remained relatively constant from the year after conversion to 2005.



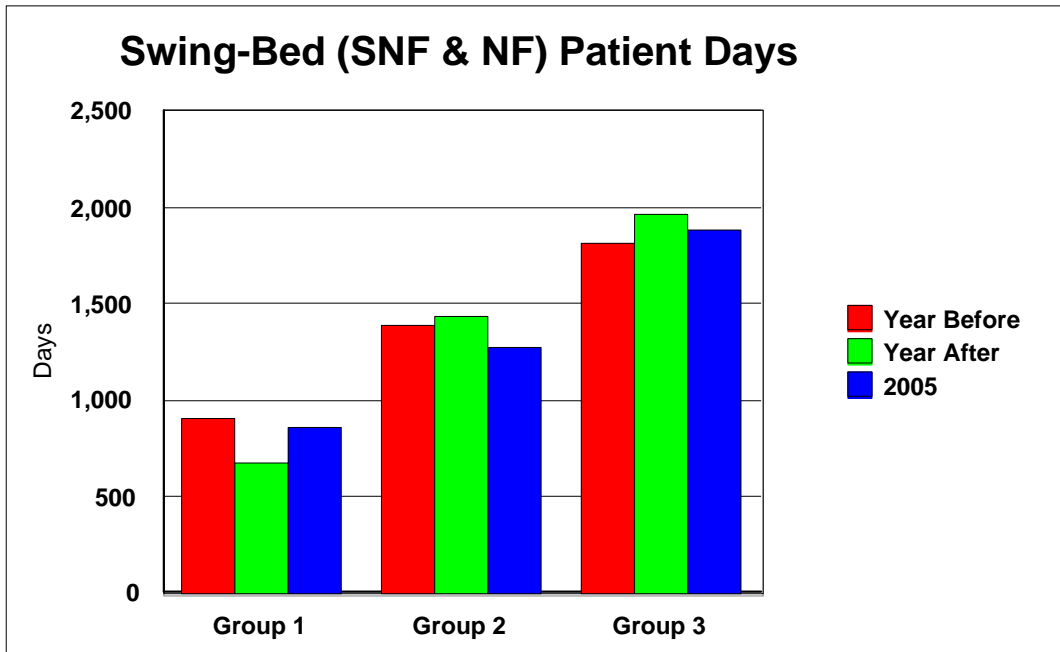
	Group 1	Group 2	Group 3
Year Before	569	972	1,787
Year After	357	889	1,407
2005	471	815	1,397

Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Adult and pediatric days as a CAH decreased from the year before conversion to a CAH to the year after conversion for all groups. In the year after conversion to a CAH, patient days decreased for nine of the twelve CAHs in Group 1. This appears to be attributable to the 72-hour length of stay then in effect and the general trend of shorter stays than due to the bed size limitation. In 2005, ten of the twelve CAHs in Group 1 increased their patient days as compared to the year after conversion. In 2005, only four of the twelve CAHs in Group 1 had more patient days than in their year before conversion to a CAH. Group 2 reflected a reduction in patient days the year after conversion to CAH and a further reduction in 2005. The reduction in the year after conversion to CAH was less severe than for Group 1 as they were not subject to as restrictive length of stay as was Group 1. All eleven CAHs in Group 3 reflected a reduction in patient days in the year after conversion to CAH and in 2005 as compared to the year before conversion to CAH. This reduction appears to be primarily for reasons other than the bed size limitation.



	Group 1	Group 2	Group 3
Year Before	907	1,384	1,820
Year After	675	1,431	1,967
2005	861	1,269	1,881

Group 1 - Hospitals that converted to RPCH/CAH prior to September 30, 1997

Group 2 - Hospitals that converted to CAH between October 1, 1997 and September 30, 2003

Group 3 - Hospitals that converted to CAH on or after October 1, 2003

Swing-bed days remained relatively constant for all groups. The biggest change was in Group 1 for the year after Conversion to a CAH and appears to have been a result of the bed size limitation in the earlier years of the CAH program. One of the twelve CAHs in Group 1 accounted for more than the total decline in swing-bed days in the year after conversion to CAH.