Department of Health and Human Services

OFFICE OF INSPECTOR GENERAL

HOSPITAL CLOSURE: 1998

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Inspector General

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OFFICE OF INSPECTOR GENERAL

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PURPOSE

To describe the extent, characteristics, reasons for, and impact of hospital closure in 1998.

BACKGROUND

The closure of hospitals in past years has generated public and congressional concern. We released a report in May 1989 describing the nationwide phenomenon of hospital closure in 1987. Subsequently, we issued annual reports for hospital closures from 1988 through 1997.

The findings from all the OIG studies of hospital closures are similar. The hospitals that closed were small and had low occupancy rates. When the hospitals closed, few patients were affected. Most patients could get medical care nearby.

FINDINGS

Our inspection of hospital closures in 1998 produced findings similar to those previously reported for 1987-1997.

- Forty-three general, short-term, acute care hospitals closed in 1998 -- 0.9 percent of all hospitals.

- Five more hospitals closed in 1998 than closed in 1997, however, the additional closings were offset by the fourteen hospitals that opened or reopened in 1998, eleven more than in 1997.

- Fifteen of the closed hospitals were rural and 28 were urban. A higher percentage of urban hospitals (1.1%) closed in 1998 than did rural hospitals (0.7%).

- Closed hospitals in both rural and urban areas were smaller on average than the national averages.

  Rural hospitals that closed had an average of 48 beds as compared to an average of 73 beds for all rural hospitals nationally.

  Urban hospitals that closed had an average of 125 beds as compared to an average of 223 beds for all urban hospitals nationally.

- Occupancy rates for closed rural and urban hospitals were lower on average than the national averages.

Rural hospitals that closed had an average occupancy rate of 28 percent as compared to an average of 33 percent for all rural hospitals nationally. The average daily census in the year prior to closure was about 14 patients.

Urban hospitals that closed had an average occupancy rate of 34 percent as compared to an average of 49 percent for all urban hospitals nationally. The average daily census in the year prior to closure was about 42 patients.

- Medicare utilization in closed hospitals was lower than the national average for rural and urban hospitals.

  In rural areas, the average Medicare utilization among hospitals that closed was 55 percent compared to an average of 59 percent for all rural hospitals nationally. About eight Medicare patients were in the hospital on an average day in the year prior to closure.

  In urban areas, the average Medicare utilization among hospitals that closed was 39 percent compared to an average of 46 percent for all urban hospitals nationally. About 16 Medicare patients were in the hospital on an average day in the year prior to closure.

- Medicaid utilization in closed hospitals was higher than the national average for rural and urban hospitals.

  In rural areas, the average Medicaid utilization among hospitals that closed was 12 percent as compared to an average of 11 percent for all hospitals nationally. About two Medicaid patients were in the hospital on an average day in the year prior to closure.

  In urban areas, the average Medicaid utilization among hospitals that closed was 22 percent as compared to an average of 14 percent for all urban hospitals nationally. About nine Medicaid patients were in the hospital on an average day in the year prior to closure.

- Many factors and events caused hospitals to close. The most often reported reasons for closures, in order, were low census, financial problems, outdated facilities, Medicare and Medicaid reimbursement reductions, and increased competition. Many of these reasons for closure were interrelated.

- Although residents in a few communities had to travel greater distances for hospital care, most had emergency and inpatient medical care available within 10 miles of a closed hospital.

- At the time of our inspection, 20 of the 43 closed hospital facilities (47 percent) were being used for health-related services. Also, plans were being made to use 6 of the remaining 23 closed hospitals for health-related services.

INTRODUCTION

PURPOSE

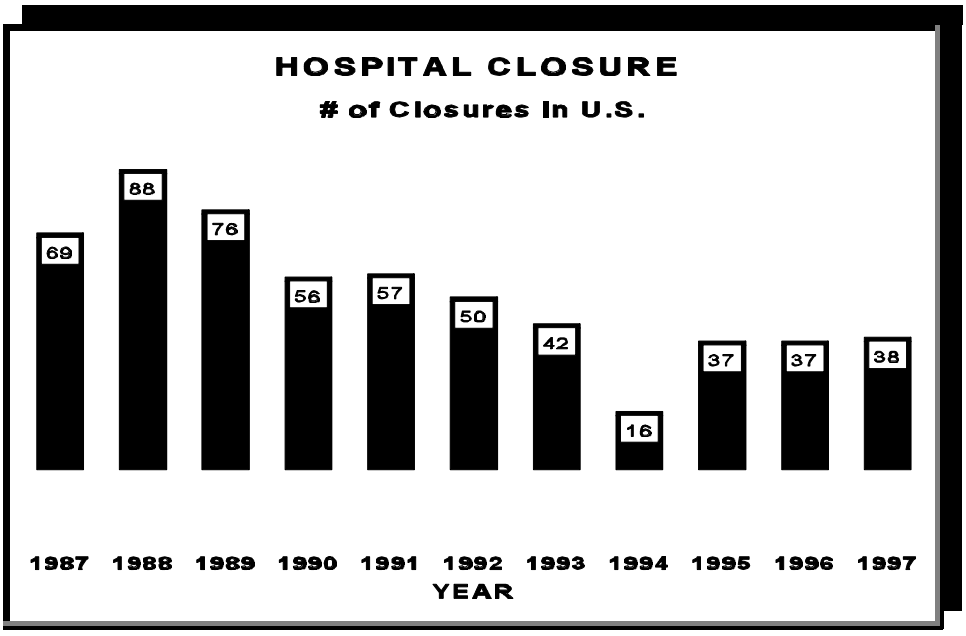
To describe the extent, characteristics, reasons for, and impact of hospital closure in 1998.

BACKGROUND

In the late 1980s, closure of general, acute care hospitals generated public and congressional concern. Numerous questions were raised about the impact of hospital closure in the United States, as well as implications for public policy. A number of studies predicted that more hospitals would close in coming years.

In response to these concerns, the Office of Inspector General released a report in May 1989 describing the phenomenon of hospital closure during 1987 in the United States. We found that the hospitals that closed were small and their closing did not severely affect access to care. Many users of our 1987 hospital closure study encouraged us to continue year-by-year analyses of the phenomenon to detect differences in the rate of hospital closure, and in the characteristics and circumstances of hospitals that close.

Similar inspections on hospital closures in 1988 through 1994 showed a downward trend in the number of closures. Hospital closures in 1995, 1996, and 1997 more than doubled those of 1994, but were still less than in any other year since we began this series of reports.



The findings from the 1987 through 1997 inspections were similar. The hospitals that closed were small and had low occupancy rates. When the hospitals closed, few patients were affected. Most could get medical care nearby.

METHODOLOGY

We examined hospitals that closed in calendar year 1998. For purposes of this study, we use the following definitions.

> **Hospital:** A facility that provides general, short-term, acute medical and surgical inpatient care.
>
> **Closed Hospital:** A facility that stopped providing general, short-term, acute inpatient care in 1998. If a hospital merged with or was sold to another hospital but the physical plant continued to provide inpatient acute care, it was not considered a closure. If a hospital both closed and reopened in 1998 in the same physical plant, it was not considered a closure.

To determine the extent, reasons for, and impact of hospital closures, we obtained information from State licensing and certification agencies, State health planning agencies, State hospital associations, Health Care Financing Administration (HCFA) data bases, officials associated with closed and nearby hospitals, and local public officials.

We obtained information on the characteristics of all hospitals, including those that closed in 1998 from the Hospital Cost Report Information System (HCRIS) maintained by HCFA.

Appendix A describes our methodology in further detail.

We conducted our inspection between August 1999 and May 2000. We conducted this inspection in accordance with the *Quality Standards for Inspections* issued by the President's Council on Integrity and Efficiency.

FINDINGS

Our analysis shows that:

- Forty-three general, short-term, acute care hospitals closed in 1998 -- 0.9 percent of all hospitals.
- Five more hospitals closed in 1998 than closed in 1997, however, the additional closings were offset by the fourteen hospitals that opened or reopened in 1998, eleven more than in 1997.
- Most hospitals that closed were small and had low occupancy rates.
- The characteristics, reasons for, and impact of 1998 closures were similar to the 1997 closures.
- Although residents of a few communities had to travel greater distances for hospital care, most had emergency and inpatient medical care available within 10 miles of a closed hospital.

Extent and characteristics of closed hospitals

How many closed

In 1998, there were 4,785 general, short-term, acute care hospitals in the United States entered on HCFA's HCRIS data base as participating in the Medicare program. Forty-three hospitals closed in 1998 -- 0.9 percent of all hospitals nationally.

Number of hospitals in the U.S.	4,785	
Number of hospitals that closed in 1998	43	(0.9) %

While 43 hospitals closed in 1998, 12 new hospitals opened and 2 previously closed hospitals reopened. In comparison, 38 hospitals closed in 1997, 2 new hospitals opened and 1 previously closed hospital reopened. The net effect was a decrease in 1998 hospital closures (29 hospitals) over the 1997 closures (35 hospitals).

The effect on bed supply

Closure of the 43 general, acute care hospitals reduced 1998 inpatient bed supply by 4,221 beds, or 0.6 percent.

Number of inpatient beds in the U.S.	746,544	
Inpatient beds in hospitals that closed in 1998	4,221	(0.6)%

The 14 hospital openings and reopenings, however, added 1,413 beds and 193 beds respectively. Therefore, the net reduction to the 1998 inpatient bed supply was 2,615 beds. In comparison, the net reduction to the 1997 inpatient bed supply was 3,641 beds. Hence, the inpatient bed supply decreased less in 1998 than in 1997.

Where they were

The closed hospitals were located in 18 States. California had the greatest number of closures (10), followed by Texas (4), Minnesota (3), Ohio (3), Tennessee (3), and Virginia (3). The remaining 12 States had 1 or 2 closures each. Appendix B lists the number of hospital closures by State. Appendix C lists the closures by location.

A higher percentage of urban hospitals (1.1%) closed in 1998 than did rural hospitals (0.7%).

	URBAN	**RURAL**
Hospitals in the U.S.:	2,657	2,128
Closed in 1998	28 (1.1)%	15 (0.7)%

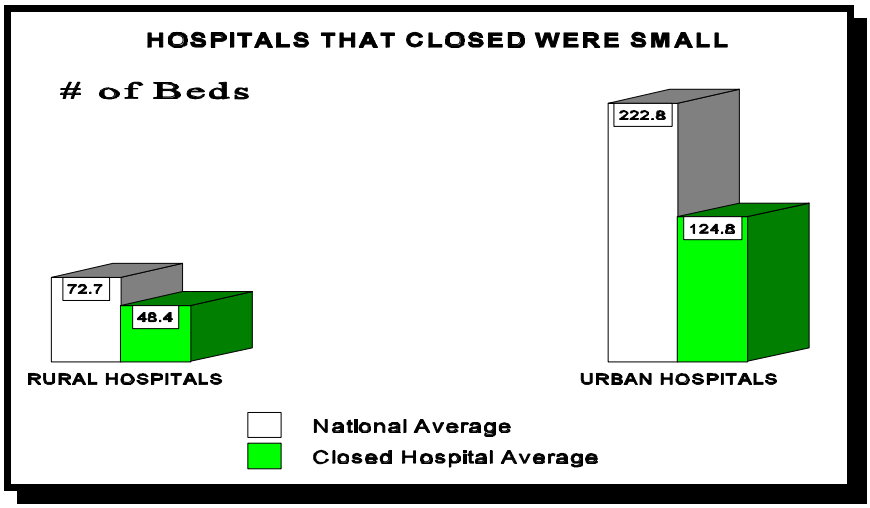
What the closed hospitals were like

Size: Both rural and urban hospitals that closed in 1998 were smaller, on average, than the national average size. The average number of beds for hospitals nationwide is 156. About 84 percent of the hospitals that closed had fewer beds than the national average. Furthermore, over half (58 percent) of the hospitals that closed had fewer than 100 beds. In contrast, 16 percent of the closed hospitals, all of which were urban hospitals, had more beds than the national average.

SIZE OF CLOSED HOSPITALS

Number of Beds	Number of Closed Hospitals			
	Rural	Urban	Total	Percent
0 - 30	7	3	10	23%
31 - 50	1	6	7	16%
51 - 100	5	3	8	19%
101 - 150	2	8	10	23%
151 - 200	0	3	3	7%
201 - 300	0	3	3	7%
301 >	0	2	2	5%
Totals	15	28	43	100%

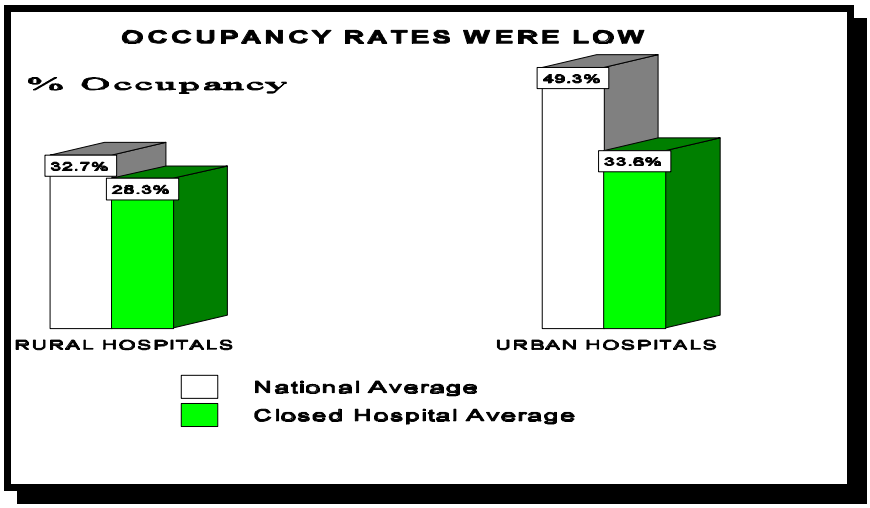
Rural hospitals that closed had an average of 48.4 beds as compared to an average of 72.7 beds for all rural hospitals nationally. Urban hospitals that closed had an average of 124.8 beds as compared to an average of 222.8 beds for all urban hospitals nationally.



Occupancy: Occupancy rates for closed rural and urban hospitals were lower on average than the national averages.[1]

Rural hospitals that closed had an average occupancy rate of 28.3 percent as compared to an average of 32.7 percent for all rural hospitals nationally. The average daily census in the year prior to closure was about 14 patients versus the national average of 24 patients.

Urban hospitals that closed had an average occupancy rate of 33.6 percent as compared to an average of 49.3 percent for all urban hospitals nationally. The average daily census in the year prior to closure was about 42 patients versus the national average of 110 patients.

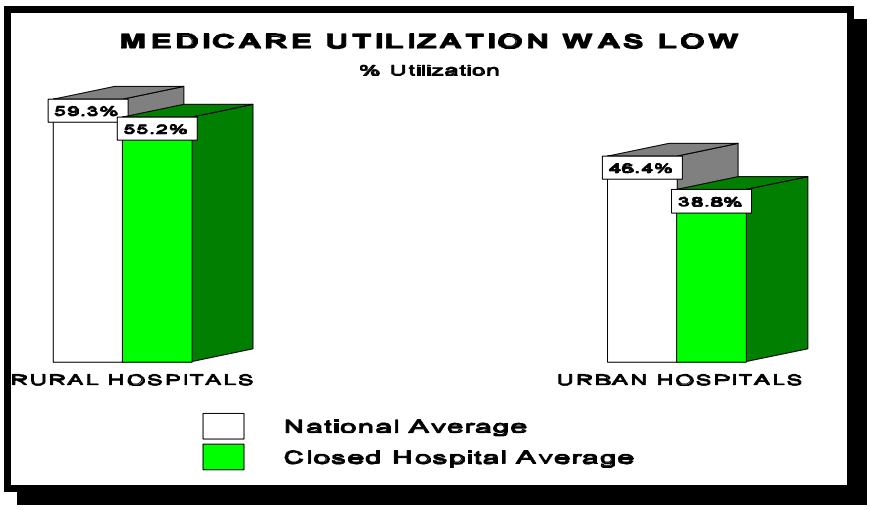


[1] Hospital occupancy rate is defined as the actual number of patient days divided by the total bed days available. National average occupancy rate is defined as the sum of all hospitals' occupancy rates, divided by the number of hospitals.

Medicare Utilization: The average Medicare utilization among rural and urban hospitals that closed was lower than the national average.[2]

In rural areas, the average Medicare utilization among hospitals that closed was 55.2 percent compared to an average of 59.3 percent for all rural hospitals nationally. About eight Medicare patients were in the hospital on an average day in the year prior to closure.

In urban areas, the average Medicare utilization among hospitals that closed was 38.8 percent compared to an average of 46.4 percent for all urban hospitals nationally. About 16 Medicare patients were in the hospital on an average day in the year prior to closure.



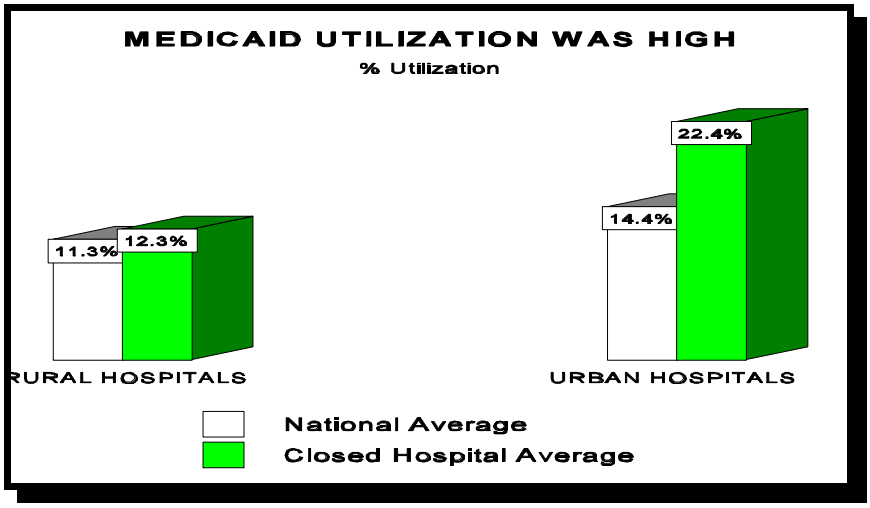
Medicaid Utilization: The average Medicaid utilization among rural and urban hospitals that closed was higher than the national average.[3]

In rural areas, the average Medicaid utilization among hospitals that closed was 12.3 percent as compared to an average of 11.3 percent for all hospitals nationally. About two Medicaid patients were in the hospital on an average day in the year prior to closure.

In urban areas, the average Medicaid utilization among hospitals that closed was 22.4 percent as compared to an average of 14.4 percent for all urban hospitals nationally. About nine Medicaid patients were in the hospital on an average day in the year prior to closure.

[2] Average Medicare utilization in closed hospitals is defined as the percent of Medicare patient days compared to the total patient days for each hospital, summed and divided by the number of hospitals. National average Medicare utilization is the percent of Medicare utilization of each hospital, summed and divided by the total number of hospitals.

[3] Medicaid utilization is calculated in the same way as Medicare utilization.



Reasons for hospital closure

The health care professionals we interviewed reported many reasons for hospital closure. The most often reported reasons for closures, in order, were low occupancy, financial problems, outdated facilities, Medicare and Medicaid reimbursement reductions, and increased competition. These reasons for closure were interrelated.

Officials in eight of the 43 hospitals that closed included Medicare and Medicaid reimbursement reductions as a reason for closure. However, only one claimed it to be the sole reason. In this instance, the hospital's occupancy was significantly lower than the national average and two larger hospitals were located within four miles. Therefore, competition contributed as a factor to closure.

The other seven hospitals claimed low census, competition, and mergers were contributing reasons for closure. For example, a hospital that closed in Texas was one of three local hospitals bought out by a corporation. The corporation closed one of the three hospitals in 1997 and another in 1998 in order to maximize the occupancy and efficiency of the remaining hospital.

Eleven hospitals reported outdated facilities as reason for closure. The 11 hospitals closed and opened eight new facilities. For example, one hospital in California suffered earthquake damage in 1989. Hospital management determined that it would be more cost effective to build a new facility rather than renovate the existing facility. The new hospital is located 1.5 miles from the old hospital. In Minnesota, three local hospitals closed and were replaced by one new regional hospital.

Impact of hospital closure

In communities where hospitals closed in 1998, we determined the

- number of patients affected by closure of hospitals,
- availability of inpatient care and emergency medical services, and
- current use of closed hospital facilities.

How many patients were affected

For rural hospitals that closed in 1998, the average daily census in the year prior to closure was about 14 patients. The urban hospitals that closed had an average daily census of about 42 patients.

**WHEN HOSPITALS CLOSED,
HOW MANY PATIENTS WERE AFFECTED?**

	Rural Hospitals	Urban Hospitals
Average Number of Beds	48.4	124.8
Average Occupancy Rate	x 28.3%	x 33.6%
Average Number of Patients	13.7	41.9

We analyzed Medicare utilization data to determine the number of elderly patients affected by hospital closure in 1998. In rural hospitals that closed, about eight Medicare patients were in the hospital on an average day in the year prior to closure. In the urban hospitals that closed, about 16 Medicare patients were in the hospital on an average day.

**WHEN HOSPITALS CLOSED,
HOW MANY MEDICARE PATIENTS WERE AFFECTED?**

	Rural Hospitals	Urban Hospitals
Average Patient Census	13.7	41.9
Average Medicare Utilization Rate	x 55.2%	x38.8%
Average Number Medicare Patients	7.6	16.3

What inpatient care and emergency services are available

Inpatient Care: In most communities where a hospital closed in 1998, inpatient hospital care was available nearby.[4]

NEAREST INPATIENT CARE TO CLOSED HOSPITALS				
	NUMBER OF CLOSED HOSPITALS			
DISTANCE	RURAL		URBAN	
Within 3 Miles	3	20.0%	11	39.3%
4-10 Miles	5	33.3%	12	42.9%
11-20 Miles	2	13.3%	2	7.1%
21-30 Miles	3	20.0%	3	10.7%
More than 30 Miles	2	13.3%	0	0.0%
Totals	15	100.0%	28	100.0%

Rural Areas: Residents in 10 of the 15 rural communities (67 percent) where a hospital closed could get inpatient hospital care within 20 miles of the closed hospital. Residents of Mountain City, Tennessee, had to travel 40 miles to obtain inpatient hospital care in Tennessee. In addition, residents of Hot Springs, South Dakota had to travel 60 miles to obtain inpatient hospital care. The Hot Springs community was considering converting their closed hospital into a Critical Access Hospital.[5] Critical Access Hospitals provide up to four days of limited inpatient services.

Urban Areas: In 23 of the 28 urban communities (82%) where a hospital closed in 1998, residents could get inpatient hospital care within 10 miles of the closed hospital. Residents in all 28 urban communities where a hospital closed could get inpatient care within 30 miles of the closed hospital.

Emergency Services: When a hospital closed, the community lost not only inpatient beds, but also 24-hour emergency services.[6]

[4] We assessed availability of inpatient medical care in miles from a closed hospital to the nearest inpatient facility.

[5] The 1997 Balanced Budget Act changed Medical Assistance Facilities (MAF) to Critical Access Hospitals (CAH) as part of the Rural Hospital Flexibility Program.

[6] We assessed availability of emergency medical care in miles from a closed hospital to the nearest emergency facility.

Rural Areas: In 11 of the 15 rural communities (73 percent) where a hospital closed in 1998, emergency care facilities were available within 20 miles of the closed hospital. Of the remaining four rural communities where a hospital closed, three had emergency care within 24 miles. The residents of Hot Springs, South Dakota had to travel 60 miles to obtain 24-hour emergency care.

Urban Areas: Emergency care facilities were available within 10 miles of the closed hospital in 25 of the 28 urban communities where a hospital closed in 1998. Residents of Rush City, Minnesota, Paterson, California, and Wetumka, Oklahoma had to travel 18, 25, and 30 miles respectively for 24-hour emergency care.

NEAREST EMERGENCY SERVICES TO CLOSED HOSPITALS

	NUMBER OF CLOSED HOSPITALS			
DISTANCE	Rural		Urban	
Within 3 Miles	4	26.7%	12	42.9%
4-10 Miles	5	33.3%	13	46.4%
11-20 Miles	2	13.3%	1	3.6%
21-30 Miles	3	20.0%	2	7.1%
More than 30 Miles	1	6.7%	0	0.0%
Totals	15	100.0%	28	100.0%

What the building is used for now

At the time of our inspection, 20 of the 43 closed hospital facilities (47 percent) were being used for health-related services. For example:

- Legend Buttes Health Services in Crawford, Nebraska along with seven other closed hospitals became health clinics.

- South Pittsburg Municipal Hospital in South Pittsburg, Tennessee became an assisted living facility.

- Chisago Health Services in Chisago City, Minnesota and Lifecare Medical Arts Hospital in Dallas, Texas are now long-term care facilities.

Of the 23 closed hospital facilities that were not being used for health-related services, plans were being made to use 6 for health-related services. In addition, two facilities had been demolished.

APPENDIX A

METHODOLOGY

Extent of Hospital Closure

To determine how many hospitals closed in 1998, we contacted State licensing and certification agencies, State hospital associations, and State health planning agencies. We also compiled Health Care Financing Administration (HCFA) data on terminated hospitals in 1998. When a closed hospital met the study definition or when questions arose, we surveyed officials associated with the closed hospitals, officials associated with hospitals nearest to the closed hospital, and local public officials.

To quantify the number of hospitals in the United States, we used the Hospital Cost Report Information System (HCRIS) maintained by HCFA. We included only general, short-term, acute care hospitals under Medicare's Prospective Payment System (PPS) in the universe. There were 4,785 hospitals listed on HCRIS as short-term, acute care, general hospitals for 1998.

Characteristics of Hospital Closure

To analyze characteristics of closed hospitals, we used HCRIS data. We used the latest pre-closure cost reports. For example, if a hospital closed in May 1998 and its accounting year was on a January-December cycle, we used the hospital's January 1, 1997 to December 31, 1997 report.

Reasons for and Impact of Hospital Closure

We limited our "impact" analysis to the distance from a closed hospital to the nearest still-operating hospitals and to emergency services. In addition to the HCRIS, we obtained data for our analysis from interviews with the following sources.

- Former hospital administrators, board members, and/or staff of closed hospitals
- Hospital administrators and/or staff at the nearest hospitals
- Local fire, health, and government officials
- State health planning agencies
- State certification and licensing agencies
- State hospital associations

APPENDIX B

1998 HOSPITAL CLOSURES - RANKED BY STATE			
State	Total Closures	Rural Closures	Urban Closures
California	10	1	9
Texas	4	1	3
Minnesota	3	0	3
Ohio	3	1	2
Tennessee	3	1	2
Virginia	3	1	2
Connecticut	2	0	2
Florida	2	1	1
Nebraska	2	2	0
Oklahoma	2	1	1
Wisconsin	2	1	1
Louisiana	1	1	0
Michigan	1	1	0
Missouri	1	1	0
New Mexico	1	1	0
New York	1	0	1
Oregon	1	0	1
South Dakota	1	1	0
18 States	43	15	28

APPENDIX C

1998 HOSPITAL CLOSURES BY NAME AND LOCATION

Hospital Name	City	State	Rural/ Urban
Bloss Memorial Hospital	Atwater	CA	Rural
Del Puerto Hospital	Patterson	CA	Urban
Friendly Hills Regional Medical Center	La Habra	CA	Urban
Long Beach Doctors Hospital	Long Beach	CA	Urban
North Hollywood Medical Center	North Hollywood	CA	Urban
Pacifica Hospital	Huntington Beach	CA	Urban
Riverside General Hospital - University	Riverside	CA	Urban
South Bay Medical Center	Redondo Beach	CA	Urban
Watsonville Community Hospital	Watsonville	CA	Urban
Woodruff Community Hospital	Long Beach	CA	Urban
St. Joseph Medical Center	Stamford	CT	Urban
Veterans Memorial Medical Center	Meriden	CT	Urban
Everglades Regional Medical Center	Pahokee	FL	Rural
Florida Medical Center South	Plantation	FL	Urban
Welsh General Hospital	Welsh	LA	Rural
Morenci Area Hospital	Morenci	MI	Rural
Chisago Health Services	Chisago City	MN	Urban
District Memorial Hospital	Forest Lake	MN	Urban
Rush City Hospital	Rush City	MN	Urban
Capital Region Medical Center S.W.	Jefferson City	MO	Rural
Community Memorial Hospital	Humboldt	NE	Rural
Legend Buttes Health Services	Crawford	NE	Rural
Plains Regional Medical Center - Portales	Portales	NM	Rural
Union Hospital of the Bronx	Bronx	NY	Urban
People's Hospital	Mansfield	OH	Rural
Piqua Memorial Hospital	Piqua	OH	Urban
Stouder memorial Hospital	Troy	OH	Urban
Seminole Municipal Hospital	Seminole	OK	Rural
Wetumka General Hospital	Wetumka	OK	Urban
Cottage Grove Health Care Community	Cottage Grove	OR	Urban
Southern Hills Hospital	Hot Springs	SD	Rural
Johnson County Hospital	Mountain City	TN	Rural
South Pittsburg Municipal Hospital	South Pittsburg	TN	Urban
St. Joseph's Hospital	Memphis	TN	Urban
Lakes Regional Medical Center	Jasper	TX	Rural
Columbia Doctors Hospital - Airline	Houston	TX	Urban
Lifecare Medical Arts Center	Dallas	TX	Urban
Palo Duro Hospital	Canyon	TX	Urban
Wise Appalachian Regional Hospital	Wise	VA	Rural
Norfolk Community Hospital	Norfolk	VA	Urban
Richmond Memorial Hospital	Richmond	VA	Urban
Northwoods Hospital	Phelps	WI	Rural
Sinai Semaritan Medical Center - West Campus	Milwaukee	WI	Urban