# Financial Position of Hospitals in the Early Medicare Period

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THE PERIOD since July 1966, when Federal health insurance for the aged first became effective, has been a period of unusual changes for the Nation's hospitals. At the same time, Medicaid (medical assistance under title XIX of the Social Security Act) and other Government programs have expanded. During this period, charges for hospital services, which have been rising rapidly for many years, rose at an even greater-than-average rate. The expenses of hospital operation also rose at a faster rate than in other recent periods. Utilization and occupancy rates of hospitals increased moderately.

The combined effect of these developments on the financial position of hospitals may be measured by examining the revenues and expenses of hospitals before and after Medicare. Such a comparison, based on data for community (non-Federal short-term) hospitals from the American Hospital Association, indicates that in the first year after the start of Medicare—July 1966–June 1967—revenues of hospitals increased more rapidly than their expenses and net revenues rose substantially. The small and medium-sized hospitals, which have the largest proportion of aged patients, showed the greatest improvement in their financial position. In the last half of 1967, net revenue fell to pre-Medicare levels.

## SOURCE OF HOSPITAL REVENUES

With the introduction of the Medicare program and the further implementation of Medicaid, a significantly larger portion of hospital revenues consists of reimbursement based on cost, rather than payment of charges. Under the two programs, hospitals receive reimbursement on behalf of patients for some services that previously were rendered free or were billed but not paid. Payments for patients not under Medicare or Medicaid are most often based on charges, with the payment financed from the Blue Cross plans, from indemnity insurance or "out of pocket." (Some Blue Cross plans pay on the basis of charges and others reimburse costs.)

## HOSPITAL PRICES

Table 1 shows the rise in the daily service charges of hospitals and selected ancillary services, as indicated by the Bureau of Labor Statistics consumer price index. The Bureau of Labor Statistics collects and publishes data on daily service charges and two selected ancillary items, but no attempt is made to measure the overall price of hospital care. Hospitals usually bill separately for the routine services (daily service charge) and for ancillary services such as drugs, diagnostic tests, and operating rooms.

The BLS data indicate that in the 18-month period from June 1966 to December 1967 hospitals increased their daily service charges by 28.7 percent, operating-room charges by 18.7 percent, and X-ray (diagnostic series, upper G.I.) by 9.5 percent. Before Medicare, the charge for routine services probably had been set below their actual cost and the charge for many ancillary services above their cost. The available BLS data suggest the possibility of some rearrangement in the pricing structure. Such repricing of daily service charges and other services—to relate prices to actual cost more closely—may be due in part to the influence of Medicare under which additional recordkeeping and cost-finding accounting is required. The prices for the three services in the BLS index increased at a greater rate than in other recent periods, however, suggesting that a substantial overall increase in the price of hospital services has occurred since July 1966.

## HOSPITAL EXPENSES

Since the beginning of Medicare, hospital expenses per patient day have increased at a more rapid rate than before the introduction of the pro-

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TABLE 1.—Consumer price index for selected hospital services, 1960–68

| Period | Daily service charge (1957–59=100) | Operating room (Dec. 1963=100) | X-ray [1] (Dec. 1963=100) |
|---|---|---|---|
| December: | | | |
| 1960 | 115.4 | | |
| 1961 | 125.4 | | |
| 1962 | 132.3 | | |
| 1963 | 140.9 | 100.0 | 100.0 |
| 1964 | 147.4 | 102.8 | 101.1 |
| 1965 | 157.1 | 108.9 | 102.6 |
| 1966: | | | |
| March | 160.8 | 111.2 | 103.2 |
| June | 164.2 | 112.6 | 104.5 |
| September | 172.6 | 115.4 | 107.6 |
| December | 183.0 | 119.0 | 110.0 |
| 1967: | | | |
| March | 194.2 | 124.3 | 111.0 |
| June | 200.1 | 128.6 | 111.9 |
| September | 204.1 | 131.8 | 113.5 |
| December | 211.4 | 133.7 | 114.4 |
| 1968: | | | |
| March | 219.9 | 138.6 | 115.6 |
| June | 224.6 | 142.7 | 116.7 |

[1] Diagnostic series, upper G.I.

Source: *Consumer Price Index*, Bureau of Labor Statistics.

gram. Data on hospital expenses reported by the American Hospital Association are shown in table 2. In the year ended September 1967, expense per patient day increased by 12.3 percent, compared with an average rise of 6.9 percent in the corresponding years 1960–66.[1]

Among the factors that affect hospital expenses are the change in the demand for hospital services and resultant changes in hospital utilization and occupancy rates. Some information on utilization and occupancy since July 1966 is presented below. In most hospitals, an increase in occupancy rates helps to stabilize patient-day expenses, at least in the short run, because the hospitals' fixed expenses are allocated to a larger number of patients. In some hospitals, however, increases in utilization may cause patient-day expenses to rise, especially over the longer run, because expansion of the hospital makes it necessary to pay higher wages, additional overtime pay, and higher prices for supplies and equipment. Higher costs may result from other factors such as the effect of minimum wage legislation, pressure from hospital employees for wage increases, and the expense of broadening the scope of hospital services.

[1] The expense per patient day is calculated by dividing total operating expense, including the expense for outpatient services, by the total number of inpatient days. In recent years, outpatient expenses have been increasing at a greater rate than inpatient expenses; as a result, patient-day expenses have risen at a greater rate than would otherwise have occurred. The implementation of Medicare, which provides specified outpatient services, may have contributed to the increase in hospital outpatient expenses.

TABLE 2.—Hospital expense per patient day, non-Federal short-term hospitals, 1960–67

| Period | Amount |
|---|---|
| AHA Annual Survey: | |
| Year ended September: | |
| 1960 | $32.23 |
| 1961 | 34.98 |
| 1962 | 36.83 |
| 1963 | 38.91 |
| 1964 | 41.58 |
| 1965 | 44.48 |
| 1966 | 48.15 |
| 1967 | 54.08 |
| AHA Panel Survey: | |
| December: | |
| 1964 | $46.80 |
| 1965 | 49.87 |
| 1966: | |
| March | 46.67 |
| June | 52.64 |
| September | 52.58 |
| December | 56.69 |
| 1967: | |
| March | 54.05 |
| June | 59.86 |
| September | 60.91 |
| December | 65.48 |

Source: AHA Panal Survey, "Hospital Indicators," *Hospital*, American Hospital Association.

## HOSPITAL UTILIZATION

Since many factors affect the use of hospitals, changes in hospital utilization since the implementation of Medicare cannot be attributed solely to that program. The available data on hospital utilization, described below, indicates that overall hospital utilization increased at an above-average but moderate rate after the start of Medicare (table 3). The increase in utilization would have been greater except for a relatively low incidence of respiratory illnesses and a declining birth rate during this period.

The Health Interview Survey, conducted by the National Center for Health Statistics, shows that the total number of patient days in short-term hospitals increased by 11.8 million in the year ending June 30, 1967, and the days for persons aged 65 and over rose by 8.8 million. These figures represent a 6-percent rise in total patient days and 22 percent in patient days for the aged. Thus, most of the increase in hospital use after Medicare began was attributable to increased use by the aged. The Panel Survey of the American Hospital Association indicates a similar increase in total patient days (5.3 percent).

While the Health Interview Survey provides a satisfactory indication of year-to-year changes in hospital use, it tends to understate the actual number of patient days, especially in the case of the aged. For example, that survey excludes the patient days of persons who have died before the

TABLE 3.—Total number of patient days and number for persons aged 65 and over, non-Federal short-term hospitals, 1960–67

| Year | Total number (in millions) | Aged | | Annual percent increase | |
|---|---|---|---|---|---|
| | | Number (in millions) | Percent of total | Total | Aged |
| | AHA Annual Survey | | | | |
| Year ended September: | | | | | |
| 1960 | 174.3 | | | | |
| 1961 | 178.7 | | | 2.5 | |
| 1962 | 185.7 | | | 3.9 | |
| 1963 | 193.6 | | | 4.2 | |
| 1964 | 200.8 | | | 3.7 | |
| 1965 | 205.6 | | | 2.4 | |
| 1966 | 214.6 | | | 4.4 | |
| 1967 | 223.4 | | | 4.1 | |
| | AHA Panel Survey | | | | |
| Year ended June: | | | | | |
| 1965 | 202.1 | | | | |
| 1966 | 203.7 | | | .8 | |
| 1967 | 214.5 | [1] 61.0 | [1] 30.9 | 5.3 | |
| | Health Interview Survey | | | | |
| Year ended June: | | | | | |
| 1963 | 192.0 | 40.4 | 21.0 | | |
| 1964 | 192.7 | 39.0 | 20.0 | .3 | −3.5 |
| 1965 | 204.4 | 41.8 | 20.5 | 6.1 | 7.2 |
| 1966 | 195.7 | 39.6 | 20.2 | −4.3 | −5.4 |
| 1967 | 207.4 | 48.4 | 23.3 | 6.0 | 22.3 |

[1] Represents data for the 11-month period August 1966–June 1967.

Source: Guide Issues and "Hospital Indicators," *Hospitals*, American Hospital Association; and Health Interview Survey, National Center for Health Statistics, Public Health Service.

scheduled interview and is subject to the errors of recall and reporting commonly found in household interview surveys. The AHA Panel Survey provides more precise data on the comparative number of total patient days and the number of patient days for the aged. The panel data indicate that the aged accounted for 32 percent of total hospital days in the calendar year 1967. The proportion of the total patient load represented by the aged was substantially greater in the small and medium-sized hospitals. It ranged from a high of 41 percent in hospitals with 6–24 beds to a low of 26 percent in the group with 500 or more beds (table 4).

Table 5 illustrates the effect of the increased utilization on the occupancy rate of short-term hospitals. Overall, the occupancy rate increased by a small but measurable degree after the introduction of Medicare. The occupancy rate of 76.0 percent in the last half of 1966 represented an increase of about 1 percentage point over the average for the corresponding periods of 1964–

TABLE 4.—Patient day ratios for persons aged 65 and over, [1] non-Federal short-term hospitals, by hospital size, 1967

| Number of beds | Annual rate [2] | Semiannual rate [3] ending— | |
|---|---|---|---|
| | | June | December |
| All hospitals | 32.0 | 31.6 | 32.4 |
| 6–24 beds | 41.2 | 43.8 | 38.6 |
| 25–49 beds | 41.4 | 40.2 | 42.6 |
| 50–99 beds | 37.5 | 37.1 | 38.0 |
| 100–199 beds | 34.9 | 34.6 | 35.4 |
| 200–299 beds | 30.2 | 30.0 | 30.5 |
| 300–399 beds | 29.9 | 29.1 | 30.8 |
| 400–499 beds | 29.5 | 30.5 | 28.8 |
| 500 or more beds | 26.1 | 25.1 | 27.0 |

[1] Patient days of persons aged 65 and over as percent of total patient days.
[2] Average of the 12 monthly rates.
[3] Average of the 6 monthly rates.

Source: AHA Panel Survey, "Hospital Indicators," *Hospitals*, American Hospital Association.

TABLE 5.—Hospital occupancy rates,[1] non-Federal short-term hospitals, by hospital size, 1964–67

| Number of beds and year | Annual rate [2] | Semiannual rate [3] ending— | |
|---|---|---|---|
| | | June | December |
| All hospitals: | | | |
| 1964 | 77.2 | 79.5 | 74.9 |
| 1965 | 77.0 | 79.3 | 74.6 |
| 1966 | 77.1 | 78.2 | 76.0 |
| 1967 | 78.1 | 80.1 | 76.1 |
| 6–24 beds: | | | |
| 1964 | 58.2 | 60.2 | 56.1 |
| 1965 | 55.3 | 56.9 | 53.7 |
| 1966 | 56.7 | 55.0 | 58.4 |
| 1967 | 61.8 | 64.0 | 59.7 |
| 25–49 beds: | | | |
| 1964 | 61.6 | 63.7 | 59.6 |
| 1965 | 62.2 | 64.4 | 60.0 |
| 1966 | 63.5 | 64.1 | 63.0 |
| 1967 | 65.8 | 67.4 | 64.1 |
| 50–99 beds: | | | |
| 1964 | 70.1 | 72.8 | 67.5 |
| 1965 | 69.8 | 73.0 | 66.5 |
| 1966 | 70.2 | 71.2 | 69.3 |
| 1967 | 72.8 | 75.1 | 70.6 |
| 100–199 beds: | | | |
| 1964 | 77.3 | 80.2 | 74.4 |
| 1965 | 76.8 | 79.2 | 74.5 |
| 1966 | 77.2 | 79.0 | 75.5 |
| 1967 | 78.0 | 80.5 | 75.4 |
| 200–299 beds: | | | |
| 1964 | 81.1 | 83.4 | 78.8 |
| 1965 | 81.0 | 83.3 | 78.7 |
| 1966 | 80.7 | 82.0 | 79.4 |
| 1967 | 80.6 | 82.9 | 78.3 |
| 300–399 beds: | | | |
| 1964 | 82.5 | 84.0 | 80.9 |
| 1965 | 80.6 | 82.9 | 78.2 |
| 1966 | 80.2 | 81.5 | 78.9 |
| 1967 | 80.6 | 82.2 | 79.0 |
| 400–499 beds: | | | |
| 1964 | 82.3 | 84.0 | 80.6 |
| 1965 | 82.8 | 84.8 | 80.9 |
| 1966 | 82.7 | 83.8 | 81.5 |
| 1967 | 83.7 | 85.9 | 81.4 |
| 500 or more beds: | | | |
| 1964 | 81.8 | 83.8 | 79.8 |
| 1965 | 81.3 | 83.0 | 79.6 |
| 1966 | 81.0 | 82.0 | 80.0 |
| 1967 | 81.1 | 82.3 | 79.8 |

[1] Percent of beds occupied.
[2] Average of the 12 monthly rates.
[3] Average of the 6 monthly rates.

Source: AHA Panel Survey, "Hospital Indicators," *Hospitals*, American Hospital Association.

65. The rate for the full year 1967 (78.1 percent) was also 1 percentage point greater than the 1964–65 average. The largest hospitals showed little or no increase in occupancy, but the small and medium-sized hospitals experienced significant increases, often 1–3 percentage points—a reflection perhaps of their relatively larger load of aged patients.

The increase in occupancy resulting from the rise in hospital use by the aged helped to offset the decline in maternity admissions, especially in the small and medium-sized hospitals, where maternity services are often an important part of the hospitals' activities.

## FINANCIAL POSITION OF HOSPITALS

As indicated previously, the combined effect of the introduction of Medicare and of other recent developments affecting hospitals may be measured by analyzing the changes in the revenues and expenses of hospitals in the periods preceding and following the introduction of Medicare. Two series of data on the revenue and expenses of community hospitals, issued by the American Hospital Association, are presented below. From the AHA Annual Survey, which is based on reports from all hospitals registered with the Association, data are available on the financial experience of voluntary and proprietary community hospitals (table 6). The AHA Panel Survey, based on a representative sample of 600 hospitals, includes financial data for voluntary, proprietary, and State and local government hospitals (table 7).[2] Mainly because of the exclusion of State and local government hospitals, the Annual Survey data show relatively greater "net revenue ratios" than those shown by the data from the Panel Survey. The net revenue ratio is the ratio of net revenue (revenue minus expenses) to total revenue.

In the Annual Survey, hospitals are requested to report for the year ending in September, but many provide data for their own fiscal year, often the year ending in June. The tabulation at the top of the next page shows the annual average revenue for the survey years 1960–65 and the revenue for the survey years 1966 (which includes 3 months under Medicare), and 1967 (which is entirely within the Medicare period).

TABLE 6.—Revenue, expense, and net revenue ratio, non-Federal short-term voluntary and proprietary hospitals, 1960–67

| Year ended September | Total (in millions) | | | Per patient day | | | Net revenue ratio[1] |
|---|---|---|---|---|---|---|---|
| | Revenue | Expense | Net revenue | Revenue | Expense | Net revenue | |
| 1960 | $4,548.8 | $4,414.2 | $134.6 | $34.10 | $33.09 | $1.01 | 3.0 |
| Voluntary | 4,255.3 | 4,139.4 | 115.9 | 34.16 | 33.23 | .93 | 2.7 |
| Proprietary | 293.5 | 274.8 | 18.7 | 33.18 | 31.07 | 2.11 | 6.4 |
| 1961 | 4,998.0 | 4,888.1 | 109.9 | 36.66 | 35.85 | .81 | 2.2 |
| Voluntary | 4,674.9 | 4,584.2 | 90.8 | 36.75 | 36.04 | .71 | 1.9 |
| Proprietary | 323.0 | 303.9 | 19.1 | 35.39 | 33.29 | 2.10 | 5.9 |
| 1962 | 5,358.0 | 5,344.8 | 13.2 | 37.66 | 37.56 | .10 | .2 |
| Voluntary | 4,995.9 | 4,998.8 | −2.9 | 37.74 | 37.77 | −.03 | −.1 |
| Proprietary | 362.1 | 346.0 | 16.1 | 36.42 | 34.80 | 1.62 | 4.4 |
| 1963 | 6,059.7 | 5,907.2 | 152.6 | 40.76 | 39.73 | 1.03 | 2.5 |
| Voluntary | 5,622.4 | 5,490.6 | 131.8 | 40.83 | 39.87 | .96 | 2.3 |
| Proprietary | 437.3 | 416.6 | 20.8 | 39.88 | 37.98 | 1.90 | 4.8 |
| 1964 | 6,669.7 | 6,532.5 | 137.2 | 43.40 | 42.51 | .89 | 2.1 |
| Voluntary | 6,154.3 | 6,039.1 | 115.2 | 43.28 | 42.47 | .81 | 1.9 |
| Proprietary | 515.4 | 493.4 | 22.0 | 44.93 | 43.01 | 1.92 | 4.3 |
| 1965 | 7,422.1 | 7,153.3 | 268.8 | 46.98 | 45.28 | 1.70 | 3.6 |
| Voluntary | 6,870.2 | 6,643.1 | 227.1 | 46.96 | 45.40 | 1.55 | 3.3 |
| Proprietary | 551.9 | 510.2 | 41.7 | 47.31 | 43.73 | 3.58 | 7.6 |
| 1966 | 8,275.6 | 7,988.6 | 287.0 | 50.29 | 48.55 | 1.74 | 3.5 |
| Voluntary | 7,674.0 | 7,435.4 | 238.6 | 50.51 | 48.94 | 1.57 | 3.1 |
| Proprietary | 601.6 | 553.2 | 48.4 | 50.67 | 46.60 | 4.07 | 8.0 |
| 1967 | 9,858.5 | 9,459.5 | 398.9 | 57.07 | 54.76 | 2.31 | 4.0 |
| Voluntary | 9,145.7 | 8,806.4 | 339.2 | 57.11 | 54.99 | 2.12 | 3.4 |
| Proprietary | 712.8 | 653.1 | 59.7 | 56.59 | 51.85 | 4.74 | 8.7 |

[1] Net revenue as percent of total revenue.

Source: AHA Annual Survey, Guide Issues, *Hospitals*, American Hospital Association.

TABLE 7.—Net revenue ratios,[1] non-Federal short-term hospitals, by hospital size, 1965–67

| Period | Total | Number of beds | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | 6–49 | 50–99 | 100–199 | 200–299 | 300–399 | 400–499 | 500 or more |
| Year ended June 30: | | | | | | | | |
| 1965 | 2.5 | 9.6 | 3.5 | 4.0 | 4.1 | 0.4 | 1.2 | −4.7 |
| 1966 | 2.7 | 10.3 | 2.6 | 4.7 | 3.4 | 2.6 | .2 | −1.4 |
| 1967 | 3.8 | 8.9 | 6.9 | 7.4 | 5.3 | 3.7 | 1.4 | −2.7 |
| 6 months ended June: | | | | | | | | |
| 1965 | 4.0 | 10.9 | 6.9 | 6.1 | 5.7 | 4.1 | 2.2 | −3.6 |
| 1966 | 4.4 | 10.7 | 5.2 | 6.3 | 4.6 | 4.4 | 2.3 | .9 |
| 1967 | 4.5 | 11.1 | 8.6 | 9.8 | 4.6 | 4.5 | 1.8 | −3.6 |
| 6 months ended December: | | | | | | | | |
| 1964 | .9 | 8.4 | −.2 | 1.6 | 2.4 | 3.8 | .2 | −5.9 |
| 1965 | .8 | 9.9 | −.5 | 3.0 | 2.2 | .6 | −2.0 | −3.9 |
| 1966 | 3.1 | 6.2 | 4.9 | 4.7 | 6.1 | 2.8 | 1.0 | −1.8 |
| 1967 | .7 | 7.9 | 1.2 | 2.9 | 4.2 | .5 | −2.8 | −4.4 |

[1] Net revenue as percent of total revenue.

Source: AHA Panel Survey, "Hospital Indicators," *Hospitals*, American Hospital Association.

[2] Monthly financial and utilization data from the Panel Survey are reported in "Hospital Indicators" in the mid-month issue of *Hospitals*. Unpublished data on revenues of community hospitals were obtained from the American Hospital Association for this study. Because of the difficulty in collecting revenue data, especially from State and local government hospitals, these data from the Panel Survey are less reliable than the expense and other data from this source.

| Year ended September | Total revenue (in billions) | Net revenue | | Net revenue ratio |
|---|---|---|---|---|
| | | Total (in millions) | Per patient day | |
| 1960–65 average | $5.8 | $136 | $.92 | 2.3 |
| 1966 | 8.3 | 287 | 1.74 | 3.5 |
| 1967 | 9.9 | 399 | 2.31 | 4.0 |

In 1967, net revenues of the voluntary and proprietary hospitals amounted to $399 million, or 4.0 percent of the total revenue of $9.9 billion received by these hospitals. This proportion was almost double the annual average of 2.3 percent for the period 1960–65. The net revenue ratio ranged from 0.2 percent to 3.0 percent each year from 1960 to 1964. In 1965 the ratio was 3.6 percent.

For voluntary hospitals alone, the net revenue ratio for 1967 was 3.7 percent; for the pre-Medicare period it was 2.0 percent. This increase represented a greater relative improvement in net revenue than that obtained by the proprietary hospitals. The proprietary group, however, has consistently shown much higher net revenue ratios than the voluntary hospitals both before and after the beginning of Medicare; their annual average ratio was 5.6 percent for the period 1960–65 and 8.4 percent for 1967.

The net revenue ratios indicate the percentage of total revenue remaining after payment of expenses. The net revenue dollar figures reflect, in addition, the growth in the volume of hospital operations. Total revenues for voluntary and proprietary hospitals rose from an annual average of $5.8 billion in the period 1960–65 to $9.9 billion in 1967. This rise resulted, in part, from the increased number of patient days and the growth in the amount of revenue received for each patient day. The total net revenue of $399 million for 1967 was three times the 1960–65 annual average of $136 million, reflecting both the improved net revenue ratio and the growth in the revenue base.

The AHA Panel Survey provides monthly data, beginning in 1964, on the expenses and revenue of voluntary, proprietary, and State and local government hospitals. These data are also distributed by size of hospital in table 7. In the tabulation that follows the monthly data have been combined to show the net revenue for all hospitals in the survey for recent annual and semiannual periods. The 12 months July 1966–June 1967 and the 6 months July–December 1966 represent the periods immediately following the implementation of Medicare.

| Year | Net revenue ratio | | |
|---|---|---|---|
| | Full year | July–December | January–June |
| July 1964–June 1965 | 2.5 | 0.9 | 4.0 |
| July 1965–June 1966 | 2.7 | .8 | 4.4 |
| July 1966–June 1967 | 3.8 | 3.1 | 4.5 |
| July 1967–June 1968 | ---- | .7 | ---- |

In the fiscal year 1967, the first full year of Medicare, the average net revenue ratio increased substantially. The semiannual data indicate considerable seasonal variation in net revenue ratios, with the ratios for all years considerably lower in the July–December period than for January–June, a reflection, in part, of the lower occupancy rate generally prevailing in the second half of the year. The greatest improvement in the net revenue ratios occurred in the last half of 1966, immediately after implementation of Medicare, though the first half of 1967 also showed minor improvement from the corresponding period of the earlier years. In the last half of 1967, the average net revenue ratio fell to a level slightly under the average for the pre-Medicare fiscal years 1965 and 1966. Additional experience is needed before it can be determined whether this drop is significant.

## HOSPITAL SIZE

In general, the net revenue ratios for the hospitals, when grouped by size, followed the average trend described above. For example, all but one of the seven groups included in the Panel Survey showed improvement in net revenue ratios for the first full year after the introduction of Medicare, compared with the average of the 2 previous years. Similarly, on a semiannual basis, all but one or two groups followed the average trend in each of the three semiannual periods shown. The smallest hospital group (6–49 beds) showed the greatest deviation from the average. Relatively fewer of these smallest hospitals are participating in the Medicare and Medicaid programs because they often lack the facilities or staff to meet the requirements of the programs.

Except for the very small hospitals with fewer

than 50 beds, the improvement in net revenue ratios has been greatest for the small and medium-sized hospitals, which, even after the fall in net revenue in the last half of 1967, generally continued in better financial condition than in the pre-Medicare period. As noted earlier, these small and medium-sized hospitals have a higher proportion of aged patients and have enjoyed relatively greater increases in occupancy rates since Medicare began than have larger hospitals.

The largest hospital group, with 500 or more beds, operated at a deficit before Medicare and have continued to do so, although the deficit apparently has been reduced somewhat. Included in this group are many city and county hospitals and voluntary hospitals with large-scale teaching and research programs.

## CONCLUSIONS

Among the major developments affecting hospitals in the period since June 1966 were the following: Implementation of Medicare, expansion of Medicaid and other Government programs, an above-average rise in hospital charges, substantial increases in hospital expenses, and moderate increases in hospital utilization and occupancy rates. In Medicare's first year, the financial position of hospitals improved considerably, possibly as the result of the following factors:

(a) Increases in occupancy rates;

(b) reimbursement to hospitals for the cost of services to some aged patients, previously provided free or at reduced charges;

(c) reduction of losses from uncollectibles from aged patients;

(d) payment to voluntary and government hospitals under Medicare of an allowance amounting to 2 percent of allowable costs (with certain exceptions) in lieu of specific recognition of other costs in providing and improving services;

(e) receipt of additional revenue from higher charges.

The amount of net revenue of the hospitals declined in the second half of 1967. Among the possible reasons for this decline are the following:

1. Hospitals may have increased wages (either voluntarily or through pressure from the employees) or purchased additional equipment and supplies in the period.
2. The revenue may have been used for further expansion of the scope of services provided to patients.
3. Revision of accounting procedures might have resulted in channeling revenue to other accounts.

An additional interesting question concerns the reasons for the substantial increases in hospital charges. Several possibilities deserve consideration:

1. Hospital management may have miscalculated the effect of Medicare and believed higher charges to non-Medicare patients would be needed because it expected less than adequate reimbursement under Medicare.
2. Hospital management may have decided that the early Medicare period, which was a period of unusual change in hospital finances and accounting, was a convenient time to adjust their charge schedules.
3. Some of the large hospitals have not eliminated deficits even with these increases.

Though available data does not permit separate analysis of the effect on hospitals of the various developments since Medicare has been in operation, one finding seems clear: in the period following the start of Medicare the financial situation of most hospitals improved.