

Appendix 2. Caveats, Data Limitations, and Technical Notes

APPENDIX 2: CAVEATS, DATA LIMITATIONS AND TECHNICAL NOTES

Caveats and Data Limitations

Users of this report should consider the following caveats and limitations when analyzing the data:

1. The categories used in the surveys may be interpreted differently by individual hospitals.
2. Each table shows only data reported by each individual hospital. Values were not estimated for missing data. For some statistics, facilities with missing data were dropped from the calculations. Caution is urged in evaluating a group average if a large number of hospitals did not report the necessary data.
3. All data presented in this report are retrospective and based on self-reported information. To complete the FY 2004 Hospital Fiscal Survey, hospitals extracted data from their audited financial statements and reported the data in a form that may have been different from their original financial statements. Nonetheless, most hospitals made every effort to extract the requested data from their audited financial statements, although some provided only totals because they were unable to disaggregate the data.
4. Since financial and reimbursement data are based on audited financial statements, they will not necessarily be consistent with the expected payment source data contained in WHA Information Center's patient discharge data.
5. Caution is urged when interpreting a hospital's specific fiscal figures and when comparing one hospital to another. Many different factors can affect these numbers and lead to inaccurate comparison if they are not considered. For example, reporting periods vary among facilities. Regional pricing differentials and variations in the types of services offered (a hospital's case mix) can also affect fiscal figures. Hospital accounting systems, as well as internal information systems, vary in their levels of sophistication, which affect the quality of the fiscal data.
6. Care should also be taken in interpreting an individual facility's fiscal statistics that vary significantly from the values for similar facilities. Sometimes the values reported include adjustments from a previous year, such as large Medicare adjustments or large settlements from disputed Medical Assistance claims.
7. Occupancy rates for each individual hospital table can exceed 100 percent. The rates are based on the number of beds set up and staffed as of the last day of the fiscal year, excluding holidays and weekends, and this bed count may vary during the course of the year. Furthermore, inpatient service areas may have an overflow of patients during peak periods, requiring the shifting of these patients to temporarily designated beds. As a result, the average census in an inpatient service area may exceed the theoretical capacity implied by a hospital's fiscal year-end bed count.
8. Many hospitals showed a reduction in FTEs from FY 2003 in the "Ancillary Nursing Personnel" category. This is most likely the result of new staffing categories in the FY 2004 Annual Survey of Hospitals.

Technical Notes

If the calculation of ratios is not mathematically possible or relevant, N/A has been entered in the tables. N/A is also used to designate missing data. Zeros have been used to record service counts and percents that are actually zero. Averages for surgical operations and outpatient visits are rounded to the nearest whole number. Monetary values are rounded to the nearest dollar. Ratios are rounded to the nearest hundredth. Percentages and other values are rounded to the nearest tenth. In some cases, rounding causes slight discrepancies between a "total" value and the sum of its individual components.

Asterisks below indicate that the results shown in the tables have been multiplied by 100 to arrive at a percent figure.

Notes on Utilization Statistics

The following specific utilization measures describe the statistics found in the GMS individual hospital tables. The utilization measures for specialty hospitals differ slightly.

Occupancy Rate (%) *

Total inpatient days / (Beds set up and staffed x Number of days in fiscal year)

This measure indicates the proportion of the actual inpatient days used in each service to the total number of days that could have been used.

Average Census (Patients)

Total inpatient days / Number of days in the fiscal year

This measure indicates the average number of inpatients in the facility per day.

Average Length of Stay (Days)

Total inpatient days / Total discharges

This measure indicates the average number of inpatient days per discharge.

Surgical Operations

These are the actual numbers submitted by hospitals on the 2004 Annual Survey of Hospitals.

Inpatient Surgeries as Percent of All Surgical Operations *

Number of inpatient surgical operations / Total surgical operations

This measure indicates the proportion of inpatient surgeries to the total surgeries performed in the facility.

Outpatient Visits

These are the actual numbers submitted by hospitals on the 2004 Annual Survey of Hospitals.

Full-Time Equivalents (FTEs) by category

Number of full-time persons + (Total number of part-time hours / Average workweek of a facility's full-time employees)

This measure indicates staffing levels, counting full-time persons and the number of part-time hours divided by the average workweek, for individual categories of hospital personnel. For GMS hospitals, these categories include administrators, licensed nurses (registered nurses, licensed practical nurses, and nurse practitioners—not including physician assistants), ancillary nursing personnel, and all other hospital personnel. For psychiatric hospitals, AODA hospitals, and the state-operated mental health institutes, these categories include administrators, licensed nurses, psychologists, social workers, and all other hospital personnel. For rehabilitation hospitals, these categories include administrators, licensed nurses, ancillary nursing personnel, physical therapists, occupational therapists, and all other hospital personnel.

Full-Time Equivalents (FTEs) per 100 Adjusted Patient Census

Full-time equivalents from the previous section / Adjusted census formula

This measure indicates professional personnel per 100 adjusted patient census. It creates a staff-to-patient ratio for particular personnel classifications.

Notes on Fiscal Statistics

The following specific financial measures describe the statistics found in the individual hospital tables.

Gross Revenue as a Percent of Total Gross Patient Revenue *

Gross patient revenue by payer category / Total gross patient revenue

This set of measures lists the sources of total gross patient revenue by the following payer categories:

- Medicare (Medicare and Medicare HMO);

- Medical Assistance (Medical Assistance and Medical Assistance HMO, includes BadgerCare);
- Commercial (group and individual accident and health insurance, self funded plans, workers' compensation, HMOs, and all other alternative health care payments systems); and
- All other sources.

Deductions as a Percent of Total Gross Patient Revenue *

Deductions from patient revenue by payer category / Total gross patient revenue.

These six measures show the proportion of gross patient revenue not received by hospitals from the following payer categories:

- Medicare (Medicare and Medicare HMO);
- Medical Assistance (Medical Assistance and Medical Assistance HMO, including BadgerCare);
- Commercial (group and individual accident and health insurance, self funded plans, workers' compensation, HMOs, and all other alternative health care payments systems); and
- All other sources.

Other Revenue and Net Gains or Losses *

This set of measures lists other revenue as a percent of total revenue and net gains/losses as a percent of net income.

Other Revenue as Percent of Total Revenue

Other revenue / Total revenue

This measure indicates the proportion of total revenue that comes from other revenue, which consists of tax appropriations, revenue from services that are not patient care services, and sales and activities made available to persons other than patients that are normally part of the day-to-day operation of a hospital. Examples include, but are not limited to, cafeteria sales, donated supplies, parking fees, rentals received, tuition from educational programs, research grants, and income related to borrowed funds.

Net Gains/Losses as Percent of Net Income

(Nonoperating gains – nonoperating losses) / Net income

This measure indicates the proportion of total net income that comes from net nonoperating gains, which consists of unrestricted gifts, donated services, contributions from donors and unrestricted income from endowment funds minus state and federal corporate taxes as well as other gains/losses not directly related to patient care. A high percentage of net gains means that the hospital generates much of its net income from

incidental transactions. A negative figure means that the hospital's taxes and other losses exceed its nonoperating gains.

Expenses as Percent of Total Expenses

Expenses by category / Total expenses

The four measures below examine individual components of hospital expenses as a proportion of total hospital expenses for the following categories:

- Salaries and fringe benefits (payroll and employee benefits);
- Supplies and services (professional fees, contracted nursing services, medical malpractice insurance premiums, and all other operating expenses);
- Capital component (depreciation, interest expense, amortization of financing expenses, rents and leases, and capital component of insurance premiums) – High capital percentages may reflect recent renovation or construction projects, or a greater investment in new technology or equipment. Low percentages may reflect either an older physical plant or a tendency not to use debt financing for major projects; and
- Bad debt expense – A high percentage may indicate a problem in collections or reflect the socioeconomic status of patients served by the hospital.

Fiscal Statistics

Each ratio represents the relationship between two or more data items and provides a useful measure for assessing a hospital's financial health.

*Operating Margin **

(Total revenue – total expenses) / Total revenue

This ratio defines the proportion of total revenue that remains after the subtraction of total expenses. High operating margins tend to reflect greater cost-efficiency. The Hospital Financial Management Association (HFMA) recommends an operating margin of at least four percent to sustain existing operations.

*Total Hospital Net Income Percentage**

Net income / (Total revenue + nonoperating gains – nonoperating losses)

Indicates how much the hospital generated (kept) from all sources. A negative number means the hospital operated at a loss.

*Return on Equity **

Net Income / Unrestricted fund balances

The primary test of profitability. Indicates profit per dollar invested in the hospital by financial supporters (donors) and by the hospital itself through retained profit. Measures the rate at which equity grew during the fiscal year.

Current Ratio

Current assets / Current liabilities

One of the most widely used measures of liquidity. The higher the ratio value, the better the facility's ability to meet its current liabilities. A stable current ratio of 1.5 to 2.0 is the hospital industry norm and is viewed as appropriate by credit rating agencies.

Days in Net Patient Accounts Receivable

Net patient receivables / (Net patient revenue / 365)

This measure indicates the collection period for outstanding patient account. A high value implies that a hospital is having difficulty in bill collection and may have to resort to debt financing to meet short-term obligations.

Average Payment Period

Current liabilities / [(Total expenses – depreciation expense) / 365]

Provides a measure of the average time that elapses before current liabilities are paid. A high measure implies that a hospital may have problem meeting its current obligations.

*Equity Financing **

Unrestricted fund balance / Total assets

Relates fund balances (equity) to total assets. A high ratio means that the hospital tends to use profit and gifts to pay for assets and accumulates little debt. A low ratio means that the hospital tends to rely on debt.

Long-term Debt to Equity Ratio

Long-term debt / Unrestricted fund balance

This ratio measures the relative importance of long-term debt in the hospital's permanent capital structure (long-term debt and fund balances), i.e., the extent to which a hospital relies upon debt rather than equity to finance new capital projects. Hospitals with high ratios have relied more heavily on debt than equity and may have difficulty in obtaining future debt financing for major projects.

Times Interest Earned

(Net income + interest expense) / Interest expense

Measures the extent to which earnings could fall and still not impair the hospital's ability to repay its interest obligations.

Total Asset Turnover

Total revenue / Total assets

Measures the relationship between revenue (a rough measure of output) and assets (a rough measure of input). A high value for this relationship implies that the facility's total investment is being used efficiently and that a large number of services are being provided to the community from a limited resource base.

Average Age of Plant (years)

Accumulated depreciation / Depreciation expense

This ratio provides a measure of the average age in years of a hospital's fixed assets. The calculation assumes straight-line depreciation. Hospitals with relatively high average ages of plant may soon require major capital expenditures and/or debt financing to replace older fixed assets such as buildings or machinery. This can affect future profitability.

*Increase (decrease) in Total Net Patient Revenue **

(Total net patient revenue this year – total net patient revenue last year) / Total net patient revenue last year

This ratio measures the percent of increase or decrease in total net patient revenue from the previous fiscal year.

*Outpatient Gross Revenue as a Percent of Total Gross Patient Revenue **

Outpatient gross revenue / Gross patient revenue

This ratio measures the proportion of total gross patient revenue that comes from outpatient services. A high percentage indicates that the hospital relies to a greater extent on outpatient revenue.

Patient Statistics

These measures examine average inpatient and outpatient revenues received.

Inpatient Net Revenue per Discharge

Total inpatient net revenue / Total discharges

Inpatient net revenue per discharge represents the average revenue actually received per hospital inpatient stay. Inpatient net revenue is comprised of inpatient charges minus an estimate of the inpatient component of total deductions. This figure includes swing-bed discharges.

Inpatient Net Revenue per Day

Total inpatient net revenue / Total inpatient days

Inpatient net revenue per patient day represents the average revenue actually received for each day of care provided. Inpatient net revenue is comprised of inpatient charges minus an estimate of the inpatient component of total deductions. This figure includes swing-bed days.

Outpatient Net Revenue per Visit

Total outpatient net revenue / Total outpatient visits

Outpatient net revenue per visit represents the average revenue actually received for each visit of care provided. Outpatient net revenue is comprised of outpatient charges minus an estimate of the outpatient component of total deductions.