

Table 1

Strengths and Weaknesses of Existing Hospital and Health System Financial Data

Data source	Medicare cost reports	IRS Form 990	Audited financial statements (AFSS)	Credit rating agency data	Data from third-party financial platforms
Description	The federal government requires every hospital participating in Medicare to submit an annual cost report, which includes extensive information about expenses (such as by various departments within the hospital), along with other financial information (such as total revenues). The government uses these data to help set Medicare reimbursement and funding levels and to monitor hospital finances.	The federal government requires tax-exempt, nonprofit hospitals and health systems to submit an annual IRS Form 990, which includes financial information, such as revenues and expenses as well as data on community benefits spending and CEO compensation. The government uses these data to ensure compliance with regulations of tax-exempt organizations and to promote transparency.	Many health systems publish annual audited financial statements, which include both data and detailed notes about the system's finances. Publicly-traded for-profit systems are legally required to do so, as are systems that issue public debt, to help the public understand investment risks. Systems also use these statements themselves to inform their boards. Many health systems also release unaudited quarterly financial statements.	Credit rating agencies collect and standardize data from audited financial statements as part of their process for developing credit ratings, which indicate the likelihood that entities will be able to repay their long-term debt. Credit rating agencies may sell these data to the public.	Some hospitals enter financial data into platforms offered by third parties, which they use to track their operations and compare their performance to peers. Third parties may sell data from clients to the public. These data may be available on a more timely basis than other sources (e.g., monthly data available in the following month).
Key strengths	Measurement of common financial indicators. Includes extensive information about costs. Comprehensiveness. Available for the large majority of hospitals.	Measurement of common financial indicators. Includes extensive information about costs. Comprehensiveness. Available for the large majority of hospitals.	Measurement of common financial indicators. Usually provides enough information to calculate standardized versions of common financial metrics, such as profit margins, days cash on hand, and debt burden. Auditing. Independently audited for accuracy.	Measurement of common financial indicators. Includes standardized versions of common, financial metrics, such as profit margins, days cash on hand, and debt burden. Auditing. Independently audited for accuracy. Accessibility. Standardized and accessible version of financial ratios derived from AFS data.	Measurement of common financial indicators. May include extensive information about hospital expenses. Timeliness. May be very timely.
Key limitations	Measurement of common financial indicators. Limited ability to accurately calculate key measures and compare them across hospitals due to missing data or lack of standardization, such as total and operating margins and days cash on hand. Comprehensiveness. Does not include system-level data when hospitals are part of a broader health system. Auditing. Less thorough than for AFSSs.	Measurement of common financial indicators. Limited ability to accurately calculate key measures and compare them across hospitals due to missing data or lack of standardization, such as total and operating margins and days cash on hand. Comprehensiveness. Does not include system-level data when hospitals are part of a broader health system. Auditing. Less thorough than for AFSSs.	Comprehensiveness. Not available for all hospitals and health systems. Often does not include hospital-level information for hospitals that are a part of a larger system. Accessibility. Can be difficult to find. Standardization requires laborious manual review by individuals with accounting expertise.	Comprehensiveness. Not available for all hospitals and health systems. Does not include hospital-level information for hospitals that are a part of a larger system. Unlikely to be representative. Accessibility. Not publicly available. May be available for purchase.	Comprehensiveness. Only available for some hospitals; unlikely to be representative. Measurement of common financial indicators. May be issues with standardization of common financial measures. Auditing. Monthly data likely less accurate than annual data. Accessibility. Likely limited ability to identify specific entities. Not publicly available. May be available for purchase.

Data source	Medicare cost reports	IRS Form 990	Audited financial statements (AFSs)	Credit rating agency data	Data from third-party financial platforms
Comprehensiveness	Includes all hospitals participating in Medicare (which encompasses the large majority of hospitals). Does not include information about health systems more broadly, such as financial reserves held by the system, when hospitals are part of a larger system.	Includes information from nonprofit hospitals and health systems, but not government and for-profit entities. Information about hospitals cannot typically be broken out from systems. Some systems cannot be identified separately from related entities, e.g., certain universities.	Includes many, but not all, hospitals and health systems. Information about hospitals often cannot be broken out from systems. Some systems cannot be identified separately from related entities, e.g., certain universities.	Includes all hospitals and health systems requesting a credit rating from a given agency, a large but nonrepresentative sample. Information about hospitals cannot be broken out from systems. Some systems cannot be identified separately from related entities, e.g., certain universities.	Includes a sample of hospitals that is likely not representative. May include system data as well.
Measurement of common financial indicators	Missing or unstandardized information limit the ability to accurately calculate and compare key metrics across hospitals: Total margins. Hospitals vary in how they report unrealized gains and losses on their financial investments, which can have a large effect on reported profits. Data on nonrecurring income, such as the sale of assets or joint ventures, would provide a deeper understanding of profitability but these sources of income are not fully separated out from broader revenue categories. Operating margins. Related issues to those for total margins. Also, does not distinguish operating from nonoperating revenues, requiring approximations of operating margins based on available information. Days cash on hand. Cannot be calculated for all hospitals because, for example, financial reserves maintained at the health system level would not be collected by cost reports.	Researchers have not frequently used these data to evaluate financial performance. Form 990s are missing data elements required to accurately calculate some measures (including days cash on hand, as the data do not separate out restricted and unrestricted assets), though sufficient information is collected to calculate total and operating margins. May need to combine multiple entities to identify a single system and calculate financial measures, such as days cash on hand. For instance, a system might separately report its foundation (which could hold a large share of its financial reserves) from its hospital operations.	AFSs are considered to be the gold standard of financial data and can be used to obtain common financial metrics, such as total and operating margins, days cash on hand, and debt burden. AFSs are required to comply with generally accepted accounting principles. Systems still have some discretion in their reporting practices, but reported amounts can usually be standardized based on details in the AFS notes. However, doing so requires accounting expertise and a laborious process of reading through statements and notes, one hospital or health system at a time.	Data available for common financial metrics, such as profit margins, days cash on hand, and debt burden. Standardized measures based on AFSs and supplemental research.	Unclear how comprehensive the data are, and how they vary across vendors, but they may include common financial metrics, such as operating margins and days cash on hand. There may be issues with standardization for some key measures. Monthly data are more volatile and may be less accurate than annual data, as they incorporate estimates that are corrected over time.
Auditing	Sometimes audited by Medicare contractors (though unclear how often). Audits are less thorough than for Audited Financial Statements (AFSs).	Sometimes audited by the IRS (though unclear how often). Audits are less thorough than for AFSs.	Audited by outside accounting firms. Creditors can sue health systems if statements are inaccurate.	Primarily pulled from AFS data.	Not audited.
Accessibility	Publicly available from CMS through aggregated, machine-readable files.	Publicly available from CMS through aggregated, machine-readable files.	Publicly available from many systems as separate PDF files. Although PDFs are often publicly available, they can be hard to find. Standardization requires manual review of each AFS by individuals with accounting expertise.	Machine-readable files. May be available for purchase.	Machine-readable files. May be available for purchase. Likely include data that are aggregated at some level rather than allowing specific hospitals or systems to be identified.