Ratio Analysis in Healthcare

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Agenda

Why do ratios matter?

Key Ratios for Healthcare Entities

- Operating margin
- Total margin
- Days cash on hand
- Debt-to-capitalization
- Debt service coverage
- Days in AR
- Average age of plant

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Why do ratios matter?

Used by ratings agencies

- S&P
- Moody's
- Fitch

Ratings – 2 dimensions

- Rating (similar to a letter grade)
- Outlook (positive, stable, or negative)

Impact of ratings

- Cost of debt

May also be part of debt covenant compliance

S&P Global
Ratings

RatingsDirect®

U.S. Not-For-Profit Acute Health Care Outstanding Ratings And Outlooks As Of June 30, 2016

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Introduction of sample entity - Ascension

- Rated AA+/Stable by S&P based on 2015 results (June 30, 2016 report)
- Financial statements publicly available via “EMMA” – Electronic Municipal Market Access
- Ascension describes themselves as a “Missouri nonprofit corporation… a Catholic national health system consisting primarily of nonprofit corporations that own and operate local healthcare facilities, or Ministry Markets, located in 24 states and the District of Columbia.”

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Ratio #1: Operating margin

Definition:

(Operating Income/Total Operating Revenue) x 100

Why it matters:

Indicator of profitability of core operations

Non-cash measure that considers all activity for the period, whether or not paid for yet.

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Ratio #1: Operating margin

Ascension Calculation ($ in millions):

Operating income:	753
Operating revenues:	21,898
Operating margin	3.4%
S&P Median for Hospital Systems in 2015:	3.6%

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Ratio #2: Total margin

Definition:

(Net Income/Total Revenue) x 100

Also referred to as “profit margin” or “excess margin”

Why it matters:

Indicator of profitability of total operations, including consideration of ancillary activities such as investment returns or acquisition of new subsidiaries

Non-cash measure that considers all activity for the period, whether or not paid for yet.

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Ratio #2: Total margin

Ascension Calculation ($ in millions):

Operating income:	461
Operating revenues:	21,898
Operating margin	2.1%
S&P Median for Hospital Systems in 2015:	5.3%

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Ratio #3: Days cash on hand

Definition:

Cash/((operating expense – depreciation expense)/365)

Tip: Be mindful of "order of operations"

Tip: "Cash" includes unrestricted cash, unrestricted investments, and unrestricted board-designated funds.

Why it matters:

Indicator of ability of entity to continue to meet obligations as they become due.

Indicates financial stability.

Typical for a non-profit entity, such as a hospital, to carry much higher days cash than a similar for-profit, shareholder-owned entity.

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Ratio #3: Days cash on hand

Ascension Calculation ($ in millions):

Cash and cash equivalents:	696
Short-term investments	123
Long-term investments	15,069
Total cash	15,888
Operating expenses	20,901
Less depreciation	1,033
Net operating expenses	19,868
Cash needs per day (/365)	54.4
Days cash on hand	292.1
S&P Median for Hospital Systems in 2015:	205.5

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Ratio #4: Debt-to-capitalization

Definition:

(Long-term debt/(long-term debt + unrestricted net assets)) x 100

Tip: Be sure to include current portion of long-term debt

Why it matters:

Indicator of levarage

Leverage (a higher ratio of debt) is considered unfavorable as it indicates more cash generated from future operations is already committed to making debt repayments.

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Ratio #4: Debt-to-capitalization

Ascension Calculation ($ in millions):	
Long-term debt	5,428
Current portion of long-term debt	96
Long-term Debt subject to remarketing	1,666
Total long-term debt	7,190
Unrestricted net assets	17,928
Long-term debt + Unrestricted Net Assets	25,118
Debt-to-cap ratio	28.6

S&P Median for Hospital Systems in 2015: 33.7

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Ratio #5: Debt service coverage

Definition:

((Net income + depreciation expense + interest expense) / (Current portion of long-term debt + interest expense)) x 100

Why it matters:

Indicator of ability to pay debt payments (principle and interest) as they come due

Often use an alternate calculation, “maximum debt service coverage” which considers the upcoming year with the highest debt payments due rather than the current debt payments due

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Ratio #5: Debt service coverage

Ascension Calculation ($ in millions):

Net income:	461
Depreciation expense:	1,033
Interest expense:	195
Income available for debt service	1,689
Current portion of debt	96
Interest expense	195
Debt service	291
Debt service coverage ratio	5.8
S&P Median for Hospital Systems in 2015:	5.0

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Ratio #6: Day in Accounts Receivable

Definition:

Net accounts receivable/(Net patient service revenue/365)

Why it matters:

Indicates ability to convert revenue to cash

A longer collection period (higher days in AR) is considered unfavorable as it indicates expenses have been incurred but cash used to pay those expenses has not yet been collected.

Longer days in AR may also indicate operational inefficiencies related to revenue cycle

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Ratio #6: Days in Accounts Receivable

Ascension Calculation ($ in millions):

Net accounts receivable	2,747
Net patient service revenue	20,159
Patient service revenue/day (/365)	55.2
Days in AR	49.8

S&P Median for Hospital Systems in 2015:	48.0

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Ratio #7: Average age of plant

Definition:

Accumulated depreciation/depreciation expense

Why it matters:

Indicates how recently facilities have been built/upgraded

A lower total age of plant is generally considered favorable as it indicates less cash may need to be expended to maintain current level of operations

Needs to be carefully balanced with debt-to-cap ratios

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Ratio #7: Average age of plant

Ascension Calculation ($ in millions):

Accumulated depreciation	8,982
Depreciation expense	1,033
Average age of plant	8.7

S&P Median for Hospital Systems in 2015: 10.5

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