Reducing Labor and Supply Chain Costs Proven Through Proven Metrics and Operational Techniques

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Speaker Profile –
Steven Berger, FACHE, FHFMA, CPA

Steven Berger is President of Healthcare Insights, LLC, which specializes in the teaching and consulting of healthcare financial management issues. In addition, Healthcare Insights has developed INSIGHTS, a management accountability and decision support software solution for the healthcare industry. Prior to his role at Healthcare Insights, Mr. Berger was Vice President, Finance for seven years at 250- bed Highland Park Hospital in suburban Chicago, Illinois. Before Highland Park Hospital and since 1978, he has been a hospital or health system finance officer in New York, New Jersey and Missouri.

Mr. Berger has 37 years of healthcare financial management experience. He holds a Bachelors of Science degree in History and a Master of Science in Accounting from the State University of New York at Binghamton. He is a CPA, a Fellow of the Healthcare Financial Management Association (FHFMA) where he has served as President of the First Illinois Chapter. Mr. Berger also served a three-year term on the HFMA’s National Board of Examiners and was recently the Regional Executive of Region 7 of the HFMA. He is also a Fellow of the American College of Healthcare Executives (FACHE).

In addition, over the past several years he has presented many healthcare finance related seminars throughout the United States and Canada including several two-day classes such as Fundamentals of Healthcare Financial Management, Turning Data into Useful Information and Hospital Financial Management for the Non-Financial Manager. He has also co-written articles on healthcare information systems that were published in Healthcare Financial Management magazine, including an August 2004 Award – winning article on the Ten Ways to Improve Cost Management in Hospital, an April 2002 management column and a February 2000 commentary in Modern Healthcare on the lack of training in the healthcare industry His most HFM article was published in August 2012, titled, Back to the Basics: 5 Ways to Pick Low-Hanging Fruit.

Agenda

• How to improve bottom lines in the current era of healthcare reform
• Providing 10 specific improvement solutions all hospitals can use right now!
  1. Re-design Human Resource (Labor) Deployment and Management
  2. Collaborate To Reduce Supply Chain Management Costs

Objectives

• Discussing the need for operational improvement and detailed expense reduction right now
• Understanding why operational redesign requires collaboration, alignment and detailed information to design and execute the correct expense reductions
The median hospital has a 2.7% operating margin (per Fitch). Looking at reimbursement cuts and ACA penalties, a 2.7% positive margin may become a 11.7% deficit.

Value-Based Purchasing Roadmap

CMS quality-based payment initiatives will put as much as 13% of payment at risk.

<table>
<thead>
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<td>REPORTING HOSPITAL QUALITY DATA FOR ANNUAL PAYMENT UPDATE</td>
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</tr>
<tr>
<td>VALUE-BASED PURCHASING</td>
<td>2%</td>
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<td></td>
<td></td>
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<td>READMISSIONS</td>
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</tr>
<tr>
<td>HOSPITAL-ACQUIRED CONDITIONS</td>
<td>1%</td>
<td></td>
<td></td>
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<tr>
<td>MEANINGFUL USE</td>
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<td>5%</td>
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</tr>
</tbody>
</table>
How to Improve Bottom Lines in This Era of Healthcare Reform

1. Re-design Human Resource (Labor) Deployment and Management

Why Does Labor Provide An Excellent Source of Reducing Operating Costs and Improving Bottom Lines?

- Labor is the largest operating expense for the organization
- Significant variation (e.g. 20%) in how organizations manage their HR costs (e.g. Labor Ratio)
- Approach to deployment often based upon tradition (e.g. shift work, or outmoded job descriptions etc.)
The Labor Ratio: The Most Important Operational Metric

- Labor Ratio
  
  \[
  \frac{\text{total labor costs}}{\text{total revenue}}
  \]

- Best practice = 40%
- Median = 50.7%
- Poor = 60%

- Why is this metric so important?
  - Every % savings goes straight to your bottom line!

### Insights Memorial Hospital

<table>
<thead>
<tr>
<th>Operating Revenue</th>
<th>JANUARY</th>
<th>FEBRUARY</th>
<th>MARCH</th>
<th>APRIL</th>
<th>MAY</th>
<th>JUNE</th>
<th>JULY</th>
<th>AUGUST</th>
<th>SEPTEMBER</th>
<th>OCTOBER</th>
<th>NOVEMBER</th>
<th>DECEMBER</th>
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<tr>
<td>Federal and State Revenue</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
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<td>$1,234,567</td>
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<td>$1,234,567</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
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<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
<td>$1,234,567</td>
</tr>
</tbody>
</table>

| Operating Income | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 |
| Income from Operations | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 |

| Total Operating Revenue | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 |
| Total Operating Income | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 | $1,234,567 |
Insights Memorial Hospital
Labor Compensation Ratio

Insights Memorial Hospital
Compensation Ratio  YTD 8 months  Aug-12

Salaries and Wages  10,404,462
Benefits  3,397,807
Contract Labor  709,065

Total Staffing Expenses  14,511,334
Total Revenues  26,794,586

Compensation Ratio  54.2%

HCA 2nd Quarter 2012 Report

Quarterly Income Statements - 3 Months Ending
6/30/2012  6/30/2010  6/30/09  6/30/08  6/30/2007  6/30/06  6/30/05  6/30/04  6/30/03  6/30/02

Revenues
Net Revenues  5,487  5,353  6,070  6,300  6,779  6,880  7,483  7,706  8,083  9,153
Other  -  -  -  -  -  -  -  -  -  -
Total Revenue  5,487  5,353  6,070  6,300  6,779  6,880  7,483  7,706  8,083  9,153

Expenses
Salaries  2,178  2,334  2,963  2,864  2,843  2,944  3,876  3,320  3,707
Supplies, Fees, Other  870  967  1,042  1,086  1,169  1,211  1,253  1,205  1,422
Operating Expenses  874  820  908  923  1,046  1,075  1,083  1,077  1,085  1,072
Provisions for Bad Debt  377  651  546  673  755  813  866  768  753  1,041
Depreciation  278  315  384  381  381  315  306  301  359  419
Interest  133  156  105  196  337  494  500  530  520  448
Unusual Income Expense  -  -  -  -  -  -  -  -  -  -
Sale of Facilities  (1)  (29)  (5)  (5)  (1)  11  -  -  -  -
Total Expenses  5,232  5,223  6,452  6,939  6,480  6,745  7,242  7,506  8,384  9,184

INCOME REPORT MEMBERS
Operating Margin  8.0%  10.1%  19.7%  8.2%  3.7%  3.4%  7.9%  8.6%  5.8%  8.4%
Sal & Bens as a % of Rev  19.8%  24.0%  24.0%  24.0%  24.0%  24.0%  24.0%  24.0%  24.0%  24.0%
Net Receipts as a % of Rev  19.8%  24.0%  24.0%  24.0%  24.0%  24.0%  24.0%  24.0%  24.0%  24.0%
Net Receipts as a % of Rev where bad debts is a deduction from revenue  44.3%  43.1%  43.1%  43.1%  43.1%  43.1%  43.1%  43.1%  43.1%  43.1%

Source: www.hcahealthcare.com website
Why is There So Much National Variation?

1. Many organizations utilize traditional metrics (FTE/APD) that measure days (not costs) and exclude significant labor costs (e.g. agency hours and purchase services)
2. Some organizations deploy labor based upon shift work and not productivity demand per defined hour (not volume-variable)
3. Healthcare professionals spend increasing time performing non-productive work (e.g. administrative tasks, data entry, stocking) with decreased productivity and increased risk

Solution #1
Create Reliable HR/Labor Metrics:

- Create a measure of productivity that accounts for all significant costs (e.g. severity adjusted days, weighted units of service, RVUs etc.)
- Determine a productivity target for all departments and within job codes (as hours per units of service)
- Create a series of targets to determine how well you are doing (based upon historical data and benchmarking at the 10th, 25th, 50th, 75th, and 90th percentile)
- Create a staffing plan based upon anticipated units of service (volume-variable)
Solution #2

Calculate Productivity Targets

Create productivity targets

**Hours / Units of Services**

Budgeted hours = 1,528
Budgeted (weighted) units of service = 40,000

\[
\frac{1,528}{40,000} = 0.0382
\]

Productivity Target

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Solution #3

Use Labor Management Monitoring Tools

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Source: INSIGHTS® Budgeting, Monitoring and Reporting System www.hcillc.com
Labor Drill Down to Hours and Dollars by Earnings Code and Job Title

Source: INSIGHTS® Budgeting, Monitoring and Reporting System www.hcillc.com

Labor Drill Down to Hours and Dollars At the Employee Level (Pay Period)

Source: INSIGHTS® Budgeting, Monitoring and Reporting System www.hcillc.com
Solution #4
Deploy Labor Based Upon Specific Productivity Demands

- Look at productivity demands based upon hours and not shifts (e.g. ED, OR)
- Create a staffing plan that enables cross coverage of units to accommodate actual demand
- Refine staffing plan over time based upon normal variation
## Sample Staffing Plan

### Sample Staff Plan - Radiology Department

<table>
<thead>
<tr>
<th>Range of Activity - Units of Service</th>
<th>Supervisor (Full Time)</th>
<th>Techs (Full Time)</th>
<th>Aides (Full Time)</th>
<th>Mgmt (Full Time)</th>
<th>Secretarial (Full Time)</th>
</tr>
</thead>
<tbody>
<tr>
<td>00000-10,000</td>
<td>1.0</td>
<td>3.0</td>
<td>1.4</td>
<td>2.0</td>
<td>0.5</td>
</tr>
<tr>
<td>10,001-11,000</td>
<td>2.0</td>
<td>4.0</td>
<td>1.4</td>
<td>3.0</td>
<td>0.5</td>
</tr>
<tr>
<td>11,001-12,000</td>
<td>2.0</td>
<td>4.0</td>
<td>1.4</td>
<td>3.0</td>
<td>0.5</td>
</tr>
<tr>
<td>20,001-21,000</td>
<td>3.0</td>
<td>5.0</td>
<td>2.4</td>
<td>5.0</td>
<td>1.0</td>
</tr>
<tr>
<td>21,001-22,000</td>
<td>3.0</td>
<td>6.0</td>
<td>2.4</td>
<td>5.0</td>
<td>1.0</td>
</tr>
<tr>
<td>22,001-23,000</td>
<td>3.0</td>
<td>6.0</td>
<td>2.4</td>
<td>5.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

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## How to Improve Bottom Lines in This Era of Healthcare Reform

2. Collaborate To Reduce Supply Chain Management Costs
Solution #5  
**Calculate Your Supply Chain Ratio**

- There is wide-spread variation in supply chain costs  
- Supply Chain Ratio  
  \[
  \frac{\text{total supply chain costs}}{\text{total revenue}}
  \]

- Best practice = 12%  
- Median = 18%  
- Poor = 25%  
- Why is this metric so important?  
  - Every % savings goes straight to your bottom line!

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### Ridgeland Heights Medical Center  
**Statement of Operations**

<table>
<thead>
<tr>
<th></th>
<th>2021</th>
<th>2022</th>
<th>Decrease/Change</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>REVENUE</strong></td>
<td></td>
<td></td>
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<tr>
<td>Operating Revenue</td>
<td>75,000</td>
<td>70,000</td>
<td>-5.13%</td>
</tr>
<tr>
<td>(\text{GHCV and} \text{KABG} )</td>
<td>75,000</td>
<td>49,000</td>
<td>-32.8%</td>
</tr>
<tr>
<td>Total Revenue</td>
<td>75,000</td>
<td>70,000</td>
<td>-7.33%</td>
</tr>
<tr>
<td><strong>EXPENDITURES</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cost of Goods Sold</td>
<td>46,000</td>
<td>48,000</td>
<td>4.35%</td>
</tr>
<tr>
<td>Other Operating Expense</td>
<td>10,000</td>
<td>20,000</td>
<td>100.0%</td>
</tr>
<tr>
<td>Total Expenditures</td>
<td>51,000</td>
<td>68,000</td>
<td>33.33%</td>
</tr>
<tr>
<td>Net Income</td>
<td>21,000</td>
<td>4,000</td>
<td>-80.95%</td>
</tr>
</tbody>
</table>

**Non-Salary Expense Ratio**  
12/31/12  
- Supplies: 15,500  
- Purchased Services: 5,400  
- Professional and Management Fees: 3,600  
- Non-Salary Expense: 2,600  
- Total Non-Salary Expenses: 20,100  
- Total Revenues: 27,700  
- Non-Salary Expense Ratio: 28.04%

- Total Expenses: 47,000  
- Non-Salary Expense: 24,000  
- Total Operating Income: 23,000  
- Net Income: 8,000  

For the 12 months ending 12/31/12
What Are Basic Components of The Supply Chain?

- Establish objectives
- Establish performance standards and measures
- Determine Group Purchasing Organization (GPO) participation
- Determine Capitalization Policies
- Determine warehousing needs and utilization

Where Can Waste be Addressed and Savings Achieved?

1. Purchase supplies
   ➡️ Optimize Inventory and Contract Management
2. Vendor ships (GPO or manufacturer)
   ➡️ Warehousing or Just in Time (JIT)
3. Hospital receives (inventory, distribution, and stocking management)
   ➡️ Simplify processes, audit results, value analysis interdisciplinary committee
Solution #6
Optimize Inventory and Contract Management

- Establish metrics both departmental and hospital-wide to track supply chain costs (e.g. supply cost per adjusted admission or per adjusted patient day)
- Perform a business plan for utilization of a Group Purchasing Organization (GPO) or to vertically integrate by minimizing vendors and optimizing volumes
- Consider a cost accounting system to track large volume or high cost items

Solution #7
Actionable Cost Analysis Outcomes / Cost-Based Pricing for Diagnostic Procedures

Actionable Cost Analysis Outcomes – DRG 89 – Simple Pneumonia – Severity 1

Solution #8
Warehousing or Just-In-Time (JIT)?

- Significant savings achieved when moving to higher inventory turnover (total revenue/inventory) efficiency ratios
- Suppliers and distributors offer more timely and frequent delivery as inducement
- May require automated processing (e-commerce) and an electronic inventory monitoring system (bar code/RFID)
Simplify Processes

- Much waste in every system (30-35%)
- Lack of awareness of true costs of supplies
- Wide variation in variable supply costs with little cost effectiveness analysis or accountability
- Extensive shelf life for infrequently utilized inventory
- Redundant and non-value added steps and procedures

**Lack of product standardization and frequent errors**

Solution #9

**Use Supply Chain Management Tools – Expense Analysis**

<table>
<thead>
<tr>
<th>ARIS Operating Room - Monthly</th>
<th>Jan 07 Act</th>
<th>Jan 08 Bud</th>
<th>Jan 09 Flu</th>
<th>Jan 09 Act</th>
<th>Var Jan 09 F &amp; Var %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Supplies</td>
<td>1,542,745</td>
<td>1,511,400</td>
<td>1,524,784</td>
<td>1,542,502</td>
<td>-31,981, -2.10%</td>
</tr>
<tr>
<td>Medical Supplies</td>
<td>1,527,929</td>
<td>1,520,278</td>
<td>1,516,964</td>
<td>1,533,290</td>
<td>-14,500, -0.95%</td>
</tr>
<tr>
<td>700010 – MEDICAL SUPPLIES-BILLABLE</td>
<td>679,259</td>
<td>658,918</td>
<td>657,686</td>
<td>664,360</td>
<td>-16,674, -2.53%</td>
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<tr>
<td>700015 – PCA DRUGS and LEADS</td>
<td>378</td>
<td>1,752</td>
<td>10,359</td>
<td>72</td>
<td>14,241, 998.88%</td>
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<tr>
<td>700020 – SURGICAL INSTRUMENTS</td>
<td>24,007</td>
<td>31,347</td>
<td>29,144</td>
<td>29,810</td>
<td>-6,646, -21.88%</td>
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<tr>
<td>703050 – MEDICAL SUPPLIES-HONOR BILLABLE</td>
<td>29,144</td>
<td>30,023</td>
<td>30,261</td>
<td>28,220</td>
<td>-6,941, -10.06%</td>
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<tr>
<td>700050 – SURG and MECHANICAL WOUND CIAOS</td>
<td>76,337</td>
<td>73,030</td>
<td>83,344</td>
<td>96,347</td>
<td>13,017, 2.27%</td>
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<tr>
<td>701000 – MEDICAL SUPPLIES HONOR BILLABLE</td>
<td>717,558</td>
<td>710,374</td>
<td>699,274</td>
<td>719,550</td>
<td>-20,276, -2.88%</td>
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<td>702000 – DENTAL SUPPLIES</td>
<td>303</td>
<td>757</td>
<td>4,305</td>
<td>4,300</td>
<td>0,000, 0.00%</td>
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<td>703000 – MED-SURG SUPPLY REBATES</td>
<td>404</td>
<td>396</td>
<td>0</td>
<td>0</td>
<td>0,000, 0.00%</td>
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<tr>
<td>705000 – LABORATORY – API-705</td>
<td>2,971</td>
<td>2,612</td>
<td>2,977</td>
<td>3,531</td>
<td>606, 19.04%</td>
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<tr>
<td>706000 – MEDICAL GASES</td>
<td>1,532</td>
<td>2,050</td>
<td>1,966</td>
<td>1,225</td>
<td>551, 26.56%</td>
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<tr>
<td>707000 – BLOOD PROCESSING</td>
<td>8,009</td>
<td>7,166</td>
<td>12,248</td>
<td>12,603</td>
<td>3,558, 19.81%</td>
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<tr>
<td>708000 – DRUGS-BILLABLE</td>
<td>99</td>
<td>126</td>
<td>105</td>
<td>105</td>
<td>0,000, 0.00%</td>
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<tr>
<td>709000 – IV SOLUTIONS</td>
<td>0</td>
<td>0</td>
<td>-17</td>
<td>0</td>
<td>-17, 999.99%</td>
</tr>
<tr>
<td>715000 – DRUGS-ARNA TRANSFERS</td>
<td>10,156</td>
<td>11,120</td>
<td>12,055</td>
<td>12,527</td>
<td>3,927, 3.17%</td>
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<tr>
<td>Utilities</td>
<td>68</td>
<td>62</td>
<td>44</td>
<td>45</td>
<td>1,000, 11.11%</td>
</tr>
<tr>
<td>General and Administrative</td>
<td>59,056</td>
<td>52,678</td>
<td>57,000</td>
<td>53,677</td>
<td>-6,413, -11.11%</td>
</tr>
<tr>
<td>Communication/Media/Marketing</td>
<td>69,978</td>
<td>63,470</td>
<td>67,000</td>
<td>63,470</td>
<td>-6,413, -11.11%</td>
</tr>
</tbody>
</table>

*Source: INSIGHTS® Budgeting, Monitoring and Reporting System  www.hcillc.com*
Supply Chain Management Tools – Accounts Payable Details

Solution #10
Automated Email Alerts for Out-of-Compliance Conditions
Thank You for Your Attendance!

• Steven Berger, CPA, FHFMA, FACHE
• President
• Healthcare Insights
• sberger@hcillc.com,
• 847-772-9200