Utilizing a CEO Dashboard to Improve Operational Efficiencies and Patient Care

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Sonoma Valley Hospital

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patientsDB

Question:

“Can you show me the ROI of our cost center?”

Solution:

Cash inflows minus the costs of care, every visit:

• Staff time + earnings
• Supplies + overhead
• P&L statement, every visit
• Rolling budget, every day
• Easy, automated, no manual data entry
Allocation

Entire GL

Collections
- Insurance payments
- Receipts

Non-operating Revenues
- MCR patients
- MCD patients
- Payroll
- Rent
- Other GL accounts

Non-operating Expenses

Tie-out to financial statement

Weighting

Staff
- Workload assignments - census, procedures
- Schedules - site
- Payroll - money

Procedures
- Procedure time

Implants
- Price look-up

Drugs

Ancillaries
- Item charges or custom weightings

Overhead
- Variable Charges billed
- Square footage
- Patient Days
- Use of Laundry

MCR Cost Report
OSHPD “cost finding”

Operational Accounting

All resources
All staff hours + earnings
All supplies
All overhead
All revenues

In proportion to actual use

Automated

P&L by visit
Rolling Budget

CEO Dashboard

Updated Budget

Service Structure

General Ledger

Charges

Reimbursements

Schedules

Compensation

EMR / ADT

Orders

Supplies

Procedures

Case Margins
by patient
by MD
by diagnosis
by payer

Labor Efficiency
visits / hour worked
visits / $ earned
per minute of OR time
by person
by role

Supply Efficiency
$ / procedure
$ implants
$ pharmacy items

Budget Analysis
Downstream Revenue
Contribution Margin
Variance Analysis

<table>
<thead>
<tr>
<th>Name</th>
<th>Value</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Doe</td>
<td>123</td>
<td>456</td>
</tr>
<tr>
<td>Jane Smith</td>
<td>789</td>
<td>012</td>
</tr>
<tr>
<td>Mary Johnson</td>
<td>345</td>
<td>678</td>
</tr>
</tbody>
</table>
### Table 1: Financial Data

<table>
<thead>
<tr>
<th>Provider</th>
<th>Revenue</th>
<th>Cost</th>
<th>Profit</th>
<th>Turnover</th>
<th>Margins</th>
</tr>
</thead>
<tbody>
<tr>
<td>John Doe</td>
<td>123,456</td>
<td>56,789</td>
<td>66,667</td>
<td>1.2</td>
<td>3.4%</td>
</tr>
<tr>
<td>Jane Smith</td>
<td>234,567</td>
<td>78,901</td>
<td>155,666</td>
<td>1.5</td>
<td>2.1%</td>
</tr>
<tr>
<td>Mary Brown</td>
<td>345,678</td>
<td>90,123</td>
<td>255,555</td>
<td>2.0</td>
<td>3.2%</td>
</tr>
</tbody>
</table>

### Diagram 1: Cash Flow Analysis

- "Just exactly how bad is our cash flow problem?"
Profile: Sonoma Valley Hospital

- Surrounded by 7 hospitals within 25 miles
- Major competition: Kaiser, Sutter, St Joseph
- Small community, somewhat isolated
- Independent district hospital

Payer Mix

- Nearly 3/4 government

Payer Mix (cont.)
Questions:

1. **Direct margins** by service unit?

2. **Profitability** on Medicare?

Goal:

No negative direct margins on any Service Unit.

**Restructuring after a major hit**

CEO calls to tell you to restructure your services in response to a 3% cut in reimbursement.

Which services do you keep in your budget?
Gross charges? Slow, laborious
Various systems

Broad categories
for staff & supplies

No drill-down
No answers
No margins

The CEO Dashboard

Operational Accounting by Service Unit

1. ER
2. Outpatient Surgery
3. Skilled Nursing Facility
4. Home Health
5. Inpatient
6. Outpatient Rehab
7. Outpatient Diagnostics
8. Occupational Health
9. Special Procedures
10. OB
## G2O Dashboard

### Technical Parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Date</td>
<td>2023/05/12</td>
</tr>
<tr>
<td>Time</td>
<td>10:00</td>
</tr>
<tr>
<td>Site</td>
<td>Site1</td>
</tr>
<tr>
<td>Location</td>
<td>City1</td>
</tr>
<tr>
<td>Temperature</td>
<td>25°C</td>
</tr>
<tr>
<td>Humidity</td>
<td>60%</td>
</tr>
<tr>
<td>Wind Speed</td>
<td>5 m/s</td>
</tr>
<tr>
<td>Wind Direction</td>
<td>East</td>
</tr>
</tbody>
</table>

### Financial Information

<table>
<thead>
<tr>
<th>Category</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenue</td>
<td>$1,234,567</td>
</tr>
<tr>
<td>Expenses</td>
<td>$678,901</td>
</tr>
<tr>
<td>Profit</td>
<td>$555,656</td>
</tr>
<tr>
<td>Tax</td>
<td>$44,444</td>
</tr>
</tbody>
</table>

### Operational Data

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy Consumption</td>
<td>567 kWh</td>
</tr>
<tr>
<td>Water Consumption</td>
<td>123 Ml</td>
</tr>
<tr>
<td>Maintenance Costs</td>
<td>$98,765</td>
</tr>
</tbody>
</table>

### Production Overview

<table>
<thead>
<tr>
<th>Product Line</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Line A</td>
<td>123 units</td>
</tr>
<tr>
<td>Line B</td>
<td>456 units</td>
</tr>
<tr>
<td>Line C</td>
<td>789 units</td>
</tr>
</tbody>
</table>

### Inventory Management

<table>
<thead>
<tr>
<th>Product</th>
<th>Quantity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Item A</td>
<td>324 units</td>
</tr>
<tr>
<td>Item B</td>
<td>567 units</td>
</tr>
<tr>
<td>Item C</td>
<td>890 units</td>
</tr>
</tbody>
</table>

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### Graphical Representation

#### Graph 1: Performance Over Time

- **Graph 2: Efficiency Analysis**

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### Operational Metrics

<table>
<thead>
<tr>
<th>Metric</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>OEE</td>
<td>89.4%</td>
</tr>
<tr>
<td>Cycle Time</td>
<td>23.4 min</td>
</tr>
<tr>
<td>Scrap Rate</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

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### Conclusion

The G2O dashboard provides a comprehensive overview of the operational, financial, and production metrics for the company. The data highlights areas of strength and opportunities for improvement. The integration of real-time data enables proactive management and decision-making.
Ties out to financial statement and GL.

Inpatient Admission-format Dashboard.
NEW SVH SERVICE STRUCTURE: POSITIONED FOR CHANGE

Financial Health

Growth Service Units

Healthy Community

Reduced Service Units
P&L on every patient

Recent & Ongoing Accomplishments:

- Budgeting - Create and re-structure service lines
- Focus - Business development on higher-margin services
- Loss leaders - Downstream revenue across department & site
- Best practices - Sharing information with MDs & staff
- Staff engagement - P&L in terms of the patients we treat
- Payer leverage - Case margins -> Improved reimbursements
- Strategic planning - Determine financial and growth goals

Pain Management

- Narrow procedure margins
- Tracked true margins per procedure
- Negotiated higher payment
- Expanding service
- Marginal growth: >500,000 by FY 18

Volume: +68%
New Service Lines: Making the Right Decisions

A Look at a Potential Service Line

Previous decisions based on...

- Lack of coverage in community
- Market leakage through referrals
- Potential volumes
- Physician recruitment
- Payer mix

Making the Right Decisions with New Services:

Now we have the right information: In One Click

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Payer</th>
<th>Procedures</th>
<th>Reimbursement</th>
<th>Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mastectomy</td>
<td>Medicare</td>
<td>100</td>
<td>$700,000</td>
<td>$385,000</td>
</tr>
<tr>
<td>Mastectomy</td>
<td>Commercial</td>
<td>50</td>
<td>$600,000</td>
<td>$330,000</td>
</tr>
<tr>
<td>Hysterectomy</td>
<td>Medicare</td>
<td>100</td>
<td>$500,000</td>
<td>$225,000</td>
</tr>
<tr>
<td>Hysterectomy</td>
<td>Commercial</td>
<td>50</td>
<td>$750,000</td>
<td>$340,000</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>300</td>
<td>$2,550,000</td>
<td>$1,280,000</td>
</tr>
</tbody>
</table>

Loss Leader Service Units: Keep or Close?

<table>
<thead>
<tr>
<th>Occ Health</th>
<th>Direct Margin</th>
<th>Downstream Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>ER</td>
<td>$18,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Surgery</td>
<td>$21,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>SNF</td>
<td>$13,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Inpatient</td>
<td>$117,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Rehab</td>
<td>$6,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Outpatient Diagnostics</td>
<td>-$9,000</td>
<td>$12,000</td>
</tr>
<tr>
<td>Special Procedures</td>
<td>$9,000</td>
<td>$12,000</td>
</tr>
</tbody>
</table>
Pharmacy
Lab
Radiology

**MD Ancillary Testing**
- Feedback on Best Practices
- Cost per case by year
- Improved service margin

**SNF Service Margin**

**Bariatric Surgery**
Negative margin by one payer
Tracked true margins per procedure
Negotiated higher payment
50 cases 2013 vs 2017
Service line margin >$700,000
Growth >25% YOY
Total service line margin FY 17 $1.6M

**Profitability by payer & procedure**

**Focus on Profitable Service Lines: Strategic Initiatives**
FY 15 identified high-volume, high-margin services & focused on increasing volumes
**Focus on Profitable Service Lines: Results**

FY17 net margin growth of $4.8M

<table>
<thead>
<tr>
<th>Next steps</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Collaboration</td>
</tr>
<tr>
<td>• Data sharing</td>
</tr>
<tr>
<td>• Comparison</td>
</tr>
<tr>
<td>• Benchmarking</td>
</tr>
<tr>
<td>• Negotiating strategies</td>
</tr>
<tr>
<td>• Best practices</td>
</tr>
</tbody>
</table>

**Net Revenue**

![Chart showing Net Revenue](chart.png)

- **Cost Accounting**
Our vision is that small hospitals can work together...
Thank You

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