Objectives

- Background of Johns Hopkins Medicine
- Overview of Financial Analysis Unit
- Rationale for Business Planning Process
- Process Overview
- Business Planning Team
- Financial Elements
- Operational Analysis
- Conclusions
Mr. Johns Hopkins
May 19, 1795 - December 24, 1873

- Quaker, of English descent
- Wealthy merchant and banker
- Major investor in B&O Railroad
- Lifelong bachelor, no direct descendants
- Johns was mother’s last name
- In 1873 left $7 million to fund university and hospital, largest bequest in U.S. history
$7 Billion Integrated Healthcare System

The Johns Hopkins
Health System

The Johns Hopkins
University

Johns Hopkins
Medicine

School of
Medicine

School of
Public Health

School of
Nursing

Applied Physics
Lab

Other
Schools

Dome Corp

Johns Hopkins
Hospital

Bayview
Medical Center

Howard
County
General Hospital

Community
Physicians

Suburban
Hospital

JH Health
Care

JH Home
Care Group

JH International

All Children’s
Hospital

Sibley
Memorial Hospital
Sponsored Project Sources
Johns Hopkins School of Medicine – Awards

Expenditures per Fiscal Year

<table>
<thead>
<tr>
<th>Year</th>
<th>Educational Inst</th>
<th>State/Local/other Govt</th>
<th>Fnd/Non Profit</th>
<th>Commercial</th>
<th>Federal</th>
<th>NIH Total</th>
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<tbody>
<tr>
<td>2010</td>
<td>1.2</td>
<td>12.7</td>
<td>88</td>
<td>37.3</td>
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<td>510</td>
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<td>2011</td>
<td>2.7</td>
<td>11.7</td>
<td>86</td>
<td>39.2</td>
<td>590.4</td>
<td>554</td>
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<tr>
<td>2012</td>
<td>2.9</td>
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<td>84</td>
<td>43.5</td>
<td>567.8</td>
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<td>2013</td>
<td>2.6</td>
<td>10.8</td>
<td>80.3</td>
<td>43.4</td>
<td>578.5</td>
<td>520</td>
</tr>
<tr>
<td>2014</td>
<td>3</td>
<td>3.7</td>
<td>87.7</td>
<td>49.9</td>
<td>540.1</td>
<td>481</td>
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</table>
Business Planning: Financial Analysis Overview
Financial Analysis Overview

• Internal Consulting Unit
• Diversity of Skill Set and Experience
  – Accounting, Actuarial, Economics, Marketing, IT, Administrative
• Internal Customers – All of JHM
  – JHHS: JHH, Bayview, HCGH, Sibley, Suburban, ACH, JHHC, JHI, JHHCG, JHCP
  – SOM, CPA
• External Customers/Organizations
  – Venture Capitalists, Banks, Audit Firms, Investors, Developers
FAU - Principles

- Customer Focused
  - Travel to Clients, Someone Always in the Office
- Unbiased – Third Party Contribution
- Financial Orientation & Strategic Insight
  - Focus on Elements Relevant to Sr. Leadership
  - Detailed Financial Projections
Business Planning: Rationale
KNOWING THE ENEMY

BEFORE YOU CAN DEFEAT THE COMPETITION, FIRST YOU MUST DEFEAT YOUR OWN COMPANY.

THIS IS THE PROJECT PLAN...

WE’LL IGNORE OUR LEGAL DEPARTMENT...

BYPASS THE ACCOUNTING DEPARTMENT...

INSTIGATE A FIGHT BETWEEN MARKETING AND OPERATIONS...

AND PRAY NOBODY NOTICES OUR PROJECT.
Business Planning – Basic Questions

1. Why are we doing this?
2. Services covered, and why are they required?
3. Does our organization have the expertise in providing these services?
4. Sources of capital funding?
5. Project structure (e.g., joint venture [partner due diligence], corporate structure, etc.)
6. Are there regulatory or other restraints?
7. What are the risks and benefits?
8. Mission or margin? Not necessarily separate…
Business Planning:
The Team & Key Elements
“Plans fail for lack of counsel, but with many advisers they succeed” (1)

-Proverbs 15:22

(1) Excerpted from Compton's Interactive Bible NIV. Copyright (c) 1994, 1995, 1996 SoftKey Multimedia Inc.
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Business Planning - The Team

- Product or Service Champion
- Operations
- Legal
- Planning & Marketing
- Finance
Business Planning - Elements of a Business Plan

• **Product/Service Champions**
  – Identifies & Conceptualizes Vision
  – Senior Level Clinician or Administrator
  – Voice of the Initiative

• **Operations**
  – Administrators from Respective Division
  – Identification of Resources
  – Phased Implementation
Business Planning - Elements of a Business Plan

- **Legal**
  - Commercial and Business Issues
  - Contract Structure & Due Diligence
- **Planning & Marketing**
  - Market Research & Market Forces
  - Market Demand & Competitive Environment
- **Finance**
  - Create Projections, Develop Assumptions
  - Model Scenarios
Business Planning - Elements of a Business Plan

• **Marketing**
  – **Internal** – securing buy-in of senior management and service chiefs.
    • Internal assessment – requires an honest evaluation of existing staff, technology, operations, and available funding.
  – **External** – competition in the market place, including impact of regulatory issues if applicable.
    • A demand analysis – critical to prove that our services are necessary, that potential volume exists
Business Planning:
Financial Elements

The “Tool Box”
Business Planning - Elements of a Business Plan

• Financial Analysis
  – Reimbursement issues
  – Forecasting & modeling
  • Trend analysis [past three years]
  • Break even analysis [fixed/variable costing]
  • Utilization/volumes
  • Revenues & expenses
  • Sensitivity analysis
Business Planning - Elements of a Business Plan

• Financial Analysis (continued)
  – Budget development
    • Operating budget [five years]
    • Capital budget [five years]
  – Pro forma financial statements [Five Year Projections]
    • Statement of Activity
    • Balance sheet
    • Statement of cash flows
Business Planning - Elements of a Business Plan

• Financial Analysis (continued)
  – Business Enterprise Value
    • Income approach valuation based on the discounted cash flows adjusted to Net Present Value based on a developed and appropriate discount rate. *Value of project in current dollars*

• Implementation
  – Identification of key personnel and respective tasks.

• Follow Up
  – Process must be subject to ongoing control; tracking of results vs. plan, and respective changes where necessary.
Business Planning - Elements of a Business Plan

• “This is not the end, it is not even the beginning of the end. But it is, perhaps, the end of the beginning”. - Winston Churchill
JHM Business Plan Guide

I. Introduction

II. The Business Plan Outline

III. The Business Plan Narrative
   A. Executive Summary
   B. Background
   C. External Assessment
   D. Internal Assessment
   E. Marketing Assessment
   F. Implementation Plan
   G. Financial Projections and Analysis
   H. Goals, Objectives and Strategies
   I. Conclusion

IV. Appendices
   Appendix A: Business Review Group Members
   Appendix B: Request for Marketing Support
   Appendix C: Sample Business Plan Exhibits
   Appendix D: Data Sources
### A. Projected Operating Statement

<table>
<thead>
<tr>
<th>Year</th>
<th>Net Revenues</th>
<th>Expenses</th>
<th>Net Profit</th>
<th>5-year Average</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$346,875</td>
<td>383,140</td>
<td>$(36,265)</td>
<td>$275,748</td>
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<tr>
<td>Year 2</td>
<td>$707,625</td>
<td>505,671</td>
<td>201,954</td>
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<tr>
<td>Year 3</td>
<td>$1,082,666</td>
<td>681,522</td>
<td>401,144</td>
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<td>Year 4</td>
<td>$1,104,320</td>
<td>699,931</td>
<td>404,388</td>
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<td>Year 5</td>
<td>$1,126,406</td>
<td>718,887</td>
<td>407,519</td>
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</table>

### B. Projected Cash Flow

<table>
<thead>
<tr>
<th>Year</th>
<th>From (To) Operations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Year 1</td>
<td>$(58,234)</td>
</tr>
<tr>
<td>Year 2</td>
<td>$170,884</td>
</tr>
<tr>
<td>Year 3</td>
<td>$371,701</td>
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<tr>
<td>Year 4</td>
<td>$459,461</td>
</tr>
<tr>
<td>Year 5</td>
<td>$462,497</td>
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</table>

### C. Return On Investment

- **5-year Average Return**: 138,538
- **Total Investment**: 1,180,573
- **Return on Investment**: 11.7%
- **Years Payback**: 8.5
<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examinations</td>
<td>2,500</td>
<td>5,000</td>
<td>7,500</td>
<td>7,500</td>
<td>7,500</td>
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<td>75</td>
<td>77</td>
<td>78</td>
<td>80</td>
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<td>585,225</td>
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<td>3,000</td>
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<tr>
<td>Charge</td>
<td>150</td>
<td>153</td>
<td>156</td>
<td>159</td>
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<td>150,000</td>
<td>306,000</td>
<td>468,180</td>
<td>477,544</td>
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<td>500</td>
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<td>255</td>
<td>260</td>
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<td>255,000</td>
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<td>$462,500</td>
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<td>$1,443,555</td>
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2.0% Assumed annual increase on rates
## JHH PEDIATRICS BUILDING
### STAFFING
#### EXHIBIT III

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<thead>
<tr>
<th>Position</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<td>M.D. Supervision</td>
<td>0.10</td>
<td>0.10</td>
<td>0.20</td>
<td>0.20</td>
<td>0.20</td>
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<tr>
<td>FTE</td>
<td></td>
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<tr>
<td>Salary</td>
<td>120,000</td>
<td>123,600</td>
<td>127,308</td>
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<td>4.00</td>
<td>4.00</td>
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<tr>
<td>FTE</td>
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<tr>
<td>Salary</td>
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<td>41,200</td>
<td>42,436</td>
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<tr>
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<td>159,135</td>
<td>163,909</td>
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<td>Department Manager</td>
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<td>1.00</td>
<td>1.00</td>
<td>1.00</td>
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<tr>
<td>FTE</td>
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<tr>
<td>Salary</td>
<td>50,000</td>
<td>51,500</td>
<td>53,045</td>
<td>54,636</td>
<td>56,275</td>
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<tr>
<td>Total Payroll</td>
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<td>51,500</td>
<td>53,045</td>
<td>54,636</td>
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<td>2.00</td>
<td>2.00</td>
<td>2.00</td>
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<tr>
<td>FTE</td>
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<tr>
<td>Salary</td>
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<td>20,600</td>
<td>21,218</td>
<td>21,855</td>
<td>22,510</td>
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<td>20,600</td>
<td>42,436</td>
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<td><strong>Grand Total Payroll</strong></td>
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<td>$323,935</td>
<td>$449,822</td>
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3.0% Assumed inflation rate on salaries
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<thead>
<tr>
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<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Examinations</td>
<td>2,500</td>
<td>5,000</td>
<td>7,500</td>
<td>7,500</td>
<td>7,500</td>
</tr>
<tr>
<td>Supply Cost</td>
<td>2.50</td>
<td>2.56</td>
<td>2.63</td>
<td>2.69</td>
<td>2.76</td>
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<td>Total Expense</td>
<td>6,250</td>
<td>12,813</td>
<td>19,699</td>
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<td>3,000</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td>Supply Cost</td>
<td>5.00</td>
<td>5.13</td>
<td>5.25</td>
<td>5.38</td>
<td>5.52</td>
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<tr>
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<td>10,250</td>
<td>15,759</td>
<td>16,153</td>
<td>16,557</td>
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<td>500</td>
<td>1,000</td>
<td>1,500</td>
<td>1,500</td>
<td>1,500</td>
</tr>
<tr>
<td>Supply Cost</td>
<td>7.50</td>
<td>7.69</td>
<td>7.88</td>
<td>8.08</td>
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<td>Total Expense</td>
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<td>7,688</td>
<td>11,820</td>
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<td>$30,750</td>
<td>$47,278</td>
<td>$48,460</td>
<td>$49,672</td>
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2.5% Assumed inflation rate on supplies
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<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Building</strong></td>
<td>1,000,000</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Useful Life</td>
<td>20 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td><strong>Equipment</strong></td>
<td>25,000</td>
<td>-</td>
<td>25,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Useful Life</td>
<td>5 years</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Depreciation</td>
<td>5,000</td>
<td>5,000</td>
<td>10,000</td>
<td>10,000</td>
<td>10,000</td>
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<tr>
<td><strong>Total Capital Expenditures</strong></td>
<td>1,025,000</td>
<td>-</td>
<td>25,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Total Annual Depreciation</strong></td>
<td>55,000</td>
<td>55,000</td>
<td>60,000</td>
<td>60,000</td>
<td>60,000</td>
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## JHH PEDIATRICS BUILDING
### OPERATING STATEMENT (aka Income Statement)

**EXHIBIT VI**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Charges</th>
<th>Deductions @ 25%</th>
<th>Net Revenue</th>
<th>Expenses:</th>
<th>Total Expenses</th>
<th>Net Profit</th>
<th>5-year Average</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$462,500</td>
<td>$115,625</td>
<td>$346,875</td>
<td>Salaries</td>
<td>$237,000</td>
<td>(36,265)</td>
<td>275,748</td>
</tr>
<tr>
<td>Year 1</td>
<td>$943,500</td>
<td>235,875</td>
<td>707,625</td>
<td>Benefits @ 22%</td>
<td>52,140</td>
<td>201,954</td>
<td></td>
</tr>
<tr>
<td>Year 2</td>
<td>$1,443,555</td>
<td>360,889</td>
<td>1,082,666</td>
<td>Supplies</td>
<td>15,000</td>
<td>401,144</td>
<td></td>
</tr>
<tr>
<td>Year 3</td>
<td>$1,472,426</td>
<td>368,107</td>
<td>1,104,320</td>
<td>Utilities</td>
<td>24,000</td>
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<tr>
<td>Year 4</td>
<td>$1,501,875</td>
<td>375,469</td>
<td>1,126,406</td>
<td>Depreciation</td>
<td>55,000</td>
<td>407,519</td>
<td></td>
</tr>
<tr>
<td>Year 5</td>
<td></td>
<td></td>
<td></td>
<td>Total Expenses</td>
<td>383,140</td>
<td></td>
<td></td>
</tr>
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3.0% Assumed inflation rate on utilities
### JHH PEDIATRICS BUILDING

#### BALANCE SHEET

**EXHIBIT VII**

<table>
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<tr>
<th></th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
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<tr>
<td><strong>ASSETS</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash</td>
<td>$141,106</td>
<td>$82,872</td>
<td>$253,756</td>
<td>$625,458</td>
<td>$1,084,919</td>
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<td>Accounts Receivable</td>
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<td>$176,906</td>
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<td>$276,080</td>
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<td>Total Current Assets</td>
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<td>$430,663</td>
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<td>$1,360,999</td>
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<td>Buildings</td>
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<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
<td>$1,000,000</td>
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<td>Machinery</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$25,000</td>
<td>$50,000</td>
<td>$50,000</td>
<td>$50,000</td>
</tr>
<tr>
<td>Accum. Depreciation</td>
<td>-</td>
<td>$(55,000)</td>
<td>$(110,000)</td>
<td>$(170,000)</td>
<td>$(230,000)</td>
<td>$(290,000)</td>
</tr>
<tr>
<td>Net Fixed Assets</td>
<td>$1,025,000</td>
<td>$970,000</td>
<td>$915,000</td>
<td>$880,000</td>
<td>$820,000</td>
<td>$760,000</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$1,166,106</td>
<td>$1,139,591</td>
<td>$1,345,663</td>
<td>$1,776,124</td>
<td>$2,180,999</td>
<td>$2,589,017</td>
</tr>
<tr>
<td><strong>LIABILITIES</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Accounts Payable</td>
<td>-</td>
<td>$9,750</td>
<td>$13,868</td>
<td>$18,185</td>
<td>$18,671</td>
<td>$19,171</td>
</tr>
<tr>
<td>Long-term Debt</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>TOTAL LIABILITIES</strong></td>
<td>-</td>
<td>$9,750</td>
<td>$13,868</td>
<td>$18,185</td>
<td>$18,671</td>
<td>$19,171</td>
</tr>
<tr>
<td><strong>EQUITY</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Investments</td>
<td>$1,166,106</td>
<td>$1,166,106</td>
<td>$1,166,106</td>
<td>$1,191,106</td>
<td>$1,191,106</td>
<td>$1,191,106</td>
</tr>
<tr>
<td>Current Earnings</td>
<td>-</td>
<td>$(36,265)</td>
<td>$201,954</td>
<td>$401,144</td>
<td>$404,388</td>
<td>$407,519</td>
</tr>
<tr>
<td>Net Assets</td>
<td></td>
<td>-</td>
<td>$(36,265)</td>
<td>$165,689</td>
<td>$566,833</td>
<td>$971,222</td>
</tr>
<tr>
<td><strong>TOTAL EQUITY</strong></td>
<td>$1,166,106</td>
<td>$1,129,841</td>
<td>$1,331,795</td>
<td>$1,757,939</td>
<td>$2,162,327</td>
<td>$2,569,846</td>
</tr>
<tr>
<td><strong>TOTAL LIABILITIES AND EQUITY</strong></td>
<td>$1,166,106</td>
<td>$1,139,591</td>
<td>$1,345,663</td>
<td>$1,776,124</td>
<td>$2,180,999</td>
<td>$2,589,017</td>
</tr>
<tr>
<td>Initial</td>
<td>Year 1</td>
<td>Year 2</td>
<td>Year 3</td>
<td>Year 4</td>
<td>Year 5</td>
<td></td>
</tr>
<tr>
<td>---------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td>--------</td>
<td></td>
</tr>
<tr>
<td>Net Profit or (Loss)</td>
<td>0</td>
<td>$36,265</td>
<td>$201,954</td>
<td>$401,144</td>
<td>$404,388</td>
<td>$407,519</td>
</tr>
<tr>
<td>Change in Current Assets</td>
<td>0</td>
<td>$86,719</td>
<td>$90,188</td>
<td>$93,760</td>
<td>$5,413</td>
<td>$5,522</td>
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<tr>
<td>Change in Current Liabilities</td>
<td>0</td>
<td>$9,750</td>
<td>$4,118</td>
<td>$4,317</td>
<td>$486</td>
<td>$500</td>
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<tr>
<td>Plus Depreciation</td>
<td>0</td>
<td>55,000</td>
<td>55,000</td>
<td>60,000</td>
<td>60,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Cash From Operations</td>
<td>0</td>
<td>($58,234)</td>
<td>$170,884</td>
<td>$371,701</td>
<td>$459,461</td>
<td>$462,497</td>
</tr>
<tr>
<td>Less Capital Expenses</td>
<td>(1,025,000)</td>
<td>-</td>
<td>-</td>
<td>(25,000)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Plus Investments</td>
<td>1,166,106</td>
<td>-</td>
<td>-</td>
<td>25,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Annual Net Cash Flow</td>
<td><strong>141,106</strong></td>
<td><strong>(58,234)</strong></td>
<td><strong>170,884</strong></td>
<td><strong>371,701</strong></td>
<td><strong>459,461</strong></td>
<td><strong>462,497</strong></td>
</tr>
</tbody>
</table>

**Cumulative Cash Balance**

<table>
<thead>
<tr>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>141,106</strong></td>
<td><strong>82,872</strong></td>
<td><strong>253,756</strong></td>
<td><strong>625,458</strong></td>
<td><strong>1,084,919</strong></td>
<td><strong>1,547,416</strong></td>
</tr>
</tbody>
</table>
### JHH PEDIATRICS BUILDING
#### MONTHLY CASH FLOW: YEAR 1
#### EXHIBIT IX

<table>
<thead>
<tr>
<th>Month 1</th>
<th>Month 2</th>
<th>Month 3</th>
<th>Month 4</th>
<th>Month 5</th>
<th>Month 12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collections</td>
<td>$ -</td>
<td>$ -</td>
<td>$ 14,453</td>
<td>$ 14,453</td>
<td>$ 14,453</td>
</tr>
<tr>
<td>Salaries</td>
<td>(19,750)</td>
<td>(19,750)</td>
<td>(19,750)</td>
<td>(19,750)</td>
<td>(19,750)</td>
</tr>
<tr>
<td>Supplies</td>
<td>(1,250)</td>
<td>(1,250)</td>
<td>(1,250)</td>
<td>(1,250)</td>
<td>(1,250)</td>
</tr>
<tr>
<td>Utilities</td>
<td>(2,000)</td>
<td>(2,000)</td>
<td>(2,000)</td>
<td>(2,000)</td>
<td>(2,000)</td>
</tr>
<tr>
<td>Cash Flow from Operations</td>
<td>$(27,345)</td>
<td>$(27,345)</td>
<td>$(12,892)</td>
<td>$(12,892)</td>
<td>$(12,892)</td>
</tr>
</tbody>
</table>

Accumulative Cash Flow: $(27,345) $ (54,690) $ (67,582) $ (80,474) $ (93,366) $ (96,890)

---

Maximum Cash Shortfall: $117,588

20% Contingency: 23,518

Working Capital Required: $141,106
**20% Discount Factor for Present Value Calculations**

### A. Return on Investment

<table>
<thead>
<tr>
<th>Year</th>
<th>Cash From Operations</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>58,234</td>
<td>$</td>
<td>$170,884</td>
<td>$371,701</td>
<td>$459,461</td>
<td>$462,497</td>
<td></td>
</tr>
<tr>
<td>Present Value Factors</td>
<td>1.0000</td>
<td>0.8333</td>
<td>0.6944</td>
<td>0.5787</td>
<td>0.4823</td>
<td>0.4019</td>
<td></td>
</tr>
</tbody>
</table>

Present Value of Cash Flow = (48,528) 118,670 215,105 221,577 185,867 5-year Average Return = 138,538

Investment = $1,166,106 $ - $ - $ 25,000 $ - $ - $ Present Value of Investment = 1,166,106 $ - $ - $ 14,468 $ - $ - $ Total Investment = 1,166,106 $ - $ - $ 14,468 $ - $ - $ Return on Investment = 11.7% Years Payback = 8.5

### B. Business Evaluation

<table>
<thead>
<tr>
<th>Terminal Year</th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash Flow</td>
<td>$141,106</td>
<td>(58,234)</td>
<td>$170,884</td>
<td>$371,701</td>
<td>$459,461</td>
<td>$462,497</td>
</tr>
<tr>
<td>Present Value Factors</td>
<td>1.0000</td>
<td>0.8333</td>
<td>0.6944</td>
<td>0.5787</td>
<td>0.4823</td>
<td>0.4019</td>
</tr>
<tr>
<td>Present Value of Cash Flows</td>
<td>141,106</td>
<td>(48,528)</td>
<td>118,670</td>
<td>215,105</td>
<td>221,577</td>
<td>185,867</td>
</tr>
</tbody>
</table>

Total of PV Cash Flows = 1,608,242

*Value of project in current dollars*
### JHH PEDIATRICS BUILDING
**SENSITIVITY ANALYSIS**
**EXHIBIT XI**

#### Effect of 10% reduction in volume

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Charges</th>
<th>Deductions @ 25%</th>
<th>Net Revenue</th>
<th>Expenses:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>416,250</td>
<td>104,063</td>
<td>312,188</td>
<td>Salaries</td>
</tr>
<tr>
<td>Year 1</td>
<td>849,150</td>
<td>212,288</td>
<td>636,863</td>
<td>237,000</td>
</tr>
<tr>
<td>Year 2</td>
<td>1,299,200</td>
<td>324,800</td>
<td>974,400</td>
<td>323,935</td>
</tr>
<tr>
<td>Year 3</td>
<td>1,325,183</td>
<td>331,296</td>
<td>993,888</td>
<td>449,822</td>
</tr>
<tr>
<td>Year 4</td>
<td>1,351,687</td>
<td>337,922</td>
<td>1,013,765</td>
<td>463,316</td>
</tr>
</tbody>
</table>

#### 5-year Average

- **Net Profit**: 192,213
- **Original 5-year Average**: 275,748
- **Reduction in Average Profit**: 30.3%
Business Planning - Elements of a Business Plan

- “There is nothing more exhilarating than to be shot at without result”. -Winston Churchill
MY ANALYSIS SHOWS THAT YOUR PET PROJECT ISN’T FEASIBLE.

TRY WORKING THE NUMBERS.

THAT WOULDN’T CHANGE THE UNDERLYING REALITY.

WHAT IF WE MASSAGED THE NUMBERS?

MASSAGING THE NUMBERS MEANS THE SAME THING AS WORKING THE NUMBERS.

YOU CAN’T MAKE THE IMPOSSIBLE POSSIBLE BY HALLUCINATING NEW NUMBERS.

THAT DEPENDS ON WHAT THE PHRASE “FIDDLE WITH THE NUMBERS” MEANS.

DO YOU HAVE ANY OTHER IDEAS?
Thank you.
The Office of Faculty Development
Economics of Clinical Operations
Expense Management

November 4th, 2015
Reducing Cost is Good (?)

- Currently in Maryland, Hospital revenues are constrained (year 2) – and soon physician practices will also be constrained (value vs volume), **so cost management is paramount to financial success**

- New programs may need to be funded through cost savings

- To the extent we can reduce costs, we can improve the bottom line

- Current JHM efforts
  - Supply chain
  - Clinical Communities/best practices
  - Rationalization of care delivery model
What we will need

• We will need to be nimble and quick to adapt to change
• We will need to be involved in influencing changes to the system
• We will need to be willing to live with a level of uncertainty
• We need to modify how we measure ourselves
  – Business planning
  – Performance
• Specific methodologies yet to be defined
  – Market Share
  – Shared Savings
  – Capital
  – New Technology/Innovation
• Need to remain true to our mission
The Value Proposition

• New Maryland waiver is a call to action

• **Value** is the new **gold** standard
  – Quality
  – Appropriate hospital care
  – Cost efficiency
  – Population health focus
Value Equation

\[ \text{Value} = \frac{\text{Quality}}{\text{Cost}} \]
Value Equation

\[
\text{Value} = \frac{\text{Quality}}{\text{Cost}}
\]

- **Quality**
  - Clinical Indicators
  - Patient Satisfaction
  - Functional Status
  - Daily Living (return to work; back to driving)

- **Cost**
  - Fixed Cost + Variable Per Unit of Service $\times$ Volume
  - Unit Cost = Fixed Cost/Volume + Variable Cost Per Unit
Optimal Model

Cost Per Unit vs Volume

- Fixed Cost
- Variable Cost

★ = Price Point
Managed Care 101

- Payors and Providers
- Participation
- Managed Care Contract: a legal document that sets forth the business arrangement and payment rates between a payor and a provider
- Physician contracting at Johns Hopkins is done by physician group:
  - JHU Faculty Physicians
  - JHCP
  - Signature OB/GYN
  - Cardiovascular Specialists of Central MD
- Elements of “managed care”
  - Care coordination (PCP/UM)
  - Restricted choice of doctor/”Networks”
  - Greater attention to quality and cost
Managed Care 101

- Benefit Design
  - Payor network
  - Covered Services

- Payor Policies and Procedures

- Payment Rates: commercial payors we negotiate rates
  - “Meeting of the minds”, We can ask but we can’t always get what we want.

- Maryland as compared to other states, payor has less flexibility to move money between the hospital and the physician because HSCRC precludes negotiating for hospital rates.
Elements to a Payor Negotiation

- **Strategy**
  - How important is this payor to JHM or to a specific program within JHM? Do we have any other contracts with payor?
  - How many members does this payor have in our region? Is there a special reason for wanting to be par with this payor?
  - Ex: Health Smart PPO
  - Ex: Geisinger Health Plan
  - Ex: Highmark

- **One voice contracting**
- **Payment Rates**
- **Contract Language:** “Legalese” and Business terms
Examples of Managed Care Payors

Commercial Payors
- CareFirst Blue Cross Blue Shield
- Aetna
- United Healthcare
- Cigna
- EHP

Medicaid MCOs
- Priority Partners
- Amerigroup

Medicare Advantage
- Johns Hopkins Advantage MD
- Bravo
How Does this All Apply to Seeing Patients at Hopkins?

- Patient makes appointment
- Insurance verified; Preauthorization obtained if needed.
- Single Case Agreement if JHU is nonpar
- Doctor sees patient
- Charges entered, services coded; Billing office sends claim to payor
- Payor verifies patient is a member, claim for a Covered Service, preauth was done if needed, P & Ps were followed, what is the contracted rate for that physician
Regulated vs Unregulated

Regulated = Hospital service subject to regulation in Maryland by the Health Services Cost Review Commission (HSCRC). Hospitals cannot discount rates beyond a few state approved discounts.

Unregulated = Hospital or nonhospital service not subject to HSCRC regulation

GBR = Global budget for each hospital as part of Maryland’s new Medicare waiver. Maryland must hold total hospital expenses to 3.58% annual increase

Increased volume MD resident patients = no additional money for hospital
Increased cost of services = no additional money for hospital

So, hospitals are looking at changing the model of care to move appropriate services out of regulates space
Pulmonary Testing Lab Case

• Integrate the Pulmonary Testing Lab across three locations: Bayview, JHH and Green Spring

• All three locations will have the same equipment and reporting capability

• Plan is to cross train and flex staff across all three location, consolidate management
Comparison of JHH, Bayview and Greenspring PFT Lab- Managed Care

JHH and Bayview
- Patient is billed a professional fee from JHU for the physician service
- Patient is billed a facility fee from JHH or BMC for the hospital portion of the service
- JHU pays the physician expenses; JHH or BMC pay the facility expenses

Green Spring
- Patient is billed a global fee from JHU to cover both the professional fee and the facility fee
- JHU pays both the physician expenses and the facility expenses
Infusion Case

- Due to growing drug costs, should we move some outpatient infusion services from regulated hospital space to unregulated space?
- GBR does not allow additional revenue to the hospital for increased drug costs.
- Would we do better financially to move to unregulated space?
  - Are there unregulated rates negotiated with payors?
  - Are those rates high enough to cover our costs?
  - Will we need to duplicate infrastructure which may negate operating cost savings?
  - What is the impact on patient cost, either copays or deductibles?

- Can our patients’ medical needs be adequately met in unregulated space?
  - Is specialized nursing care needed and available
  - How do we handle other services that are provided to patients when they come for infusion?
  - Can these drugs be given safely in a freestanding or home environment for these patients?
Issues to Consider: Infusion

- Payor contracts
  - Are there JH payor contracts to cover unregulated services at the selected location or will those contracts need to be negotiated?

- Unregulated drugs are paid at a percentage of ASP or AWP
  - Depending on the specific drug and that drug’s cost, unregulated drug revenue is at least 25% less than regulated drug revenue and could be up to 90% less.
  - Unregulated revenue for infusion administration and supplies is about 60% less than regulated revenue due to fee schedules and payor bundling and Correct Coding policies which pay fewer individual charges than in regulated environments.

- Can we deliver the service in an unregulated environment at a low enough cost to break even?

- Will we be able to backfill the hospital space, thus retaining GBR revenue in the business plan?
Bundled Rate Agreements

• What is it?
  – One packaged rate negotiated with a specific payor to cover a specific set of medical services for a specified period of time
  – JHHC takes financial risk for bundled services
  – Clinical groups need to work together to coordinate care
  – Some gainsharing available
  – HSCRC must approve each bundled rate arrangement annually

• Where does Hopkins have bundled rates today?
  – Transplant
  – Hip and Knee Replacement
  – Cardiac Surgery

• Why do payors like bundled rates?
  – Cost certainty
  – Assurance that care meets quality metrics

• Could we create a bundled rate for either case study?
Managed Care Intranet Website

- [Link](http://intranet.insidehopkinsmedicine.org/managed_care)
Economics of Clinical Operations

Joseph G. Bezek, CPA
Senior Director of Finance, Clinical Practice Association

Jonathan Orens, MD
Director, Division of Pulmonary and Critical Care Medicine

David M. Yousem, MD, MBA
Associate Dean of Professional Development

Johns Hopkins Medical Institution
Economics of Clinical Operations (ECO): Goals

- Facilitate the success of clinically excellent academic physician
- Educate faculty on business principles
- Maximize margin
- Improve our ability to adjust to the changes in market/reimbursement
Why Are We Here?

- JHM assuming greater risk
  - Adjust practices accordingly
- Clinical revenue → faculty salary goals
- Maryland Waiver requires expense management
- Reduce reliance on business admin
- Leaders lead by example
Rationale

- Help physicians prepared to run/understand their practice
  - Medical knowledge
  - Core competencies
  - Business acumen

- Knowledge of basic business principles will lead to more successful patient care and profitable practices
Take Home Messages

- Even academic physicians will benefit from any/additional education in the business of medicine/
- Resources though scarce are available and more are forthcoming
- Basics are critical to be able to “talk the talk”
- Long term consequences substantial
1. **DAY ONE:**
   1. Introduction to Johns Hopkins INC.
   2. Accounting Comes Alive
   3. Revenue Stream
   4. RBRVU system, CPT, ICD-9
   5. Expenses
   6. Executive Summary
Introductions
(One Minute Per Person Only)

- State name, department, division and years at Johns Hopkins
- Share one item from your “place-holder” you’d like people to know about you
ACCOUNTING Comes Alive
Definition of Accounting

The science of tracking money in a company

Generally Accepted Accounting Principles (GAAP)

Standards, conventions, and rules that accountants follow in recording and summarizing and in the preparation of financial statements
FINANCIAL STATEMENTS

The balance sheet

The income statement

The statement of cash flow
THE BALANCE SHEET

- A snapshot of a company’s financial condition
- The only statement which applies a single point in time
- At least once a year
- Quarterly, semiannually or monthly
Why is the balance sheet important?

PROVIDES CLUES FOR A COMPANY’S FUTURE PERFORMANCE!!

- Can the firm meet its financial obligations?
- How much money has already been invested in this company?
- Is the company overly indebted?
- What kind of assets has the company purchased with its financing?
THE BALANCE SHEET

- Fundamental report of a company’s possessions, debts and capital invested
- To make an informed investment decision:
  review a company’s balance sheet!!
## A SAMPLE OF BALANCE SHEET

**ASSETS**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Cash and cash equivalents</td>
<td>$125,000</td>
</tr>
<tr>
<td>Accounts receivable</td>
<td>$150,000</td>
</tr>
<tr>
<td>Inventory</td>
<td>$50,000</td>
</tr>
<tr>
<td><strong>Total Current Assets</strong></td>
<td>$325,000</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Fixed Assets</strong></td>
<td></td>
</tr>
<tr>
<td>Equipment</td>
<td>$200,000</td>
</tr>
<tr>
<td>Furniture, fixtures, and improvements</td>
<td>$150,000</td>
</tr>
<tr>
<td>Allowance for depreciation and amortization</td>
<td>$(20,000)</td>
</tr>
<tr>
<td><strong>Total Fixed Assets</strong></td>
<td>330,000</td>
</tr>
</tbody>
</table>

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Assets</strong></td>
<td>$655,000</td>
</tr>
</tbody>
</table>
### A SAMPLE OF BALANCE SHEET

#### LIABILITIES AND OWNERS’ EQUITY

### LIABILITIES

**Current Liabilities**

- Notes payable to bank: $310,000
- Accounts payable: $50,000
- Accrued compensation and benefits: $75,000
- Income taxes payable: $20,000
- Deferred income taxes: $10,000

**Total Liabilities**: $5000

### OWNERS’ EQUITY

- Common Stock: $470,000
- Additional paid-in capital: $100,000
- Retained earnings: $60,000

**Total Owners’ equity**: $25,000

**Total Liabilities and Owners’ Equity**: $185,000

**Total Equity**: $655,000
INCOME STATEMENTS

- A record of a company’s earnings or losses for a given period
- Not a specific date like the balance sheet
- Shows all of the money a company earned (revenues)
- All of the money a company spent (expenses)
- Basic measuring stick of profitability
INCOME STATEMENTS

Usefulness:

- Did company make or lose money during the period being reported??
- How can you determine the past performance of the enterprise?
- How can you predict future performance?
- Is there a way to assess the capability of generating future cash flows?
INCOME STATEMENTS

- The net of the income less the expenses is referred to as the bottom line, or profit of the entity

- Sometimes referred as:
  - EBITDA (earnings before interest, taxes, depreciation, and amortization)
  - EBT (earnings before taxes)
Example of an income statement

Radiologist R W
Consolidated Income Statement
1/1/XXXX – Year-to-Date

<table>
<thead>
<tr>
<th>Total</th>
<th>Consolidated</th>
</tr>
</thead>
<tbody>
<tr>
<td>NET REVENUES</td>
<td></td>
</tr>
<tr>
<td>Fee for Service</td>
<td>$91,800,000</td>
</tr>
<tr>
<td>Other</td>
<td>800,000</td>
</tr>
<tr>
<td>Total Net Revenues</td>
<td>92,600,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXPENSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Provisions for Uncollectible Accounts</td>
<td>0</td>
</tr>
<tr>
<td>Physician Salaries</td>
<td>17,500,000</td>
</tr>
<tr>
<td>Physician Benefits</td>
<td>5,300,000</td>
</tr>
<tr>
<td>Contract Labor &amp; Professional Radiology</td>
<td>6,400,000</td>
</tr>
<tr>
<td>Total Physician Costs</td>
<td>29,200,000</td>
</tr>
<tr>
<td>Employee Salaries and Benefits</td>
<td>18,500,000</td>
</tr>
<tr>
<td>Office, Linen &amp; Computer Supplies, Forms</td>
<td>400,000</td>
</tr>
<tr>
<td>Licenses &amp; Permits, Subscriptions</td>
<td>294,000</td>
</tr>
<tr>
<td>Medical Supplies, Film &amp; Contrast</td>
<td>4,475,000</td>
</tr>
<tr>
<td>Rent &amp; Facility Expenses (Excluding Telephone)</td>
<td>570,000</td>
</tr>
<tr>
<td>Equipment Rental</td>
<td>380,000</td>
</tr>
<tr>
<td>Service Contracts</td>
<td>6,200,000</td>
</tr>
<tr>
<td>Total Operating Expenses</td>
<td>67,519,000</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NON-OPERATING REVENUES &amp; EXPENSES</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Interest Income</td>
<td>15,000</td>
</tr>
<tr>
<td>Total Non-Operating Revenues &amp; Expenses</td>
<td>15,000</td>
</tr>
</tbody>
</table>

EBITDA | 25,096,000

AMORTIZATION, DEPRECIATION & INTEREST

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Amortization</td>
<td>1,630,000</td>
</tr>
<tr>
<td>Depreciation</td>
<td>9,700,000</td>
</tr>
<tr>
<td>Interest</td>
<td>5,600,000</td>
</tr>
<tr>
<td>Total Amortization, Depreciation &amp; Interest</td>
<td>16,930,000</td>
</tr>
</tbody>
</table>

EST | 8,166,000

INCOME TAXES | 2,950,000

NET INCOME | 5,216,000
CASH FLOW STATEMENT

- Can you determine the short-term viability of a company?
- Is a company able to pay bills???
- How changes in balance sheet and income accounts affect cash and cash equivalents?
CASH FLOW STATEMENT

- Retail shops that make 40% of their revenue between Thanksgiving and Christmas
- Slow months April and May: Trouble making payroll!!

Examining cash flows in a cyclical business can prevent potential disasters!!!
CASH FLOW STATEMENT

- As an analytical tool:
  - Cash flow from operations
  - Cash flow from investing
  - Cash flow from financing
- Reflects a company’s liquidity or solvency
# EMERSON CORPORATION

## Statement of Cash Flows (Indirect Approach)

**For the Year Ending December 31, 20X5**

### Cash flows from operating activities:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net income</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Add (deduct) noncash effects on operating income</td>
<td></td>
</tr>
<tr>
<td>Depreciation expense</td>
<td>$ 120,000</td>
</tr>
<tr>
<td>Gain on sale of land</td>
<td>(150,000)</td>
</tr>
<tr>
<td>Increase in accounts receivable</td>
<td>(250,000)</td>
</tr>
<tr>
<td>Decrease in inventory</td>
<td>40,000</td>
</tr>
<tr>
<td>Increase in accounts payable</td>
<td>70,000</td>
</tr>
<tr>
<td>Decrease in wages payable</td>
<td>(30,000)</td>
</tr>
<tr>
<td></td>
<td>(200,000)</td>
</tr>
<tr>
<td><strong>Net cash provided by operating activities</strong></td>
<td><strong>$ 800,000</strong></td>
</tr>
</tbody>
</table>

### Cash flows from investing activities:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sale of land</td>
<td>$ 750,000</td>
</tr>
<tr>
<td>Purchase of equipment</td>
<td>(150,000)</td>
</tr>
<tr>
<td><strong>Net cash provided by investing activities</strong></td>
<td><strong>600,000</strong></td>
</tr>
</tbody>
</table>

### Cash flows from financing activities:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proceeds from issuing stock</td>
<td>$ 80,000</td>
</tr>
<tr>
<td>Dividends on common</td>
<td>(50,000)</td>
</tr>
<tr>
<td>Repayment of long-term loans</td>
<td>(900,000)</td>
</tr>
<tr>
<td><strong>Net cash provided by financing activities</strong></td>
<td><strong>(870,000)</strong></td>
</tr>
</tbody>
</table>

### Net increase in cash

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net increase in cash</strong></td>
<td><strong>$530,000</strong></td>
</tr>
</tbody>
</table>

### Cash balance at January 1, 20X5

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash balance at January 1, 20X5</strong></td>
<td><strong>170,000</strong></td>
</tr>
</tbody>
</table>

### Cash balance at December 31, 20X5

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Cash balance at December 31, 20X5</strong></td>
<td><strong>$ 700,000</strong></td>
</tr>
</tbody>
</table>

### Noncash investing/financing activities:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Issued preferred stock for building</td>
<td>$ 300,000</td>
</tr>
</tbody>
</table>

### Supplemental information:

<table>
<thead>
<tr>
<th>Description</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash paid for interest</td>
<td>$ 100,000</td>
</tr>
<tr>
<td>Cash paid for income taxes</td>
<td>300,000</td>
</tr>
</tbody>
</table>
CASH FLOW STATEMENT

- Summarizes the inflows and outflows during the period specified
- Shows
  - financial transactions created cash
  - financial transactions used cash
  - from the beginning cash balance on the balance sheet to the ending cash balance
SUMMARY

- Accounting: many terms/ Financial statements/ Ratios
- Accounting knowledge helps you!
- You can’t afford to rely completely on a trusted advisor to interpret the data and make all the crucial financial decisions for you
Revenue Stream:
Payment models and
Accounts Receivables
Payment Schemes

- Fee for Service (FFS)
- Capitation
- Kaiser Permanente
- Bundled Payment
Fee for Service

- “Eat what you kill”
  - Bad analogy in medicine

- Paid based on services provided
  - Unlimited capacity
  - Volume based
  - Non-discounted
  - Rewards “utilization”
Capitation

- Single per capita prospective payment for ALL services over a fixed period of time, regardless of number of episodes of care during that period
  - Global: whole networks of hospitals and physicians band together to receive single fixed monthly payments for enrolled health plan members. Payment is made on a per member per month plan = PMPM = HMO
## Relationship of Bundled Payment (BP) and Diagnosis Related Group (DRG)

<table>
<thead>
<tr>
<th>DRG</th>
<th>BP</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Episode of Care</strong></td>
<td><strong>Episode of Care</strong></td>
</tr>
<tr>
<td><strong>Inpatient Hospital (Tech)</strong></td>
<td><strong>Tech and Pro</strong></td>
</tr>
<tr>
<td>(Medicare Part A)</td>
<td>(Medicare A&amp;B)</td>
</tr>
<tr>
<td><strong>Hospitalization</strong></td>
<td><strong>Pre- and post-</strong></td>
</tr>
<tr>
<td>care</td>
<td><strong>Readmission</strong></td>
</tr>
<tr>
<td><strong>Readmission paid</strong></td>
<td><strong>included (time)</strong></td>
</tr>
</tbody>
</table>
Controversies Regarding BP

- How to divide one central payment
- How to divide retained profit
- How to assess comorbidities and difficulty of case
- How to handle outpatient procedures
- What if readmission is to a different facility
- ED visits??
Concept is “shared risk” and “shared reward” by MDs and hospitals

Driven by value not volume

Prevents hospitals from discharging patients expeditiously to benefit from DRGs

• Since post-care pay was separate FFS

* Director, Operations Support, TJU Hospitals
Maryland’s All-Payer Hospital System Modernization Initiative

- Model grants Maryland broad discretion in regulating Medicare hospital revenue within a rigorous per capita expenditure limit under the existing statutory authority of the HSCRC.

- Global Budget Revenue methodology encourages hospitals to focus on population-based health management by prospectively establishing a fixed annual revenue cap for each GBR hospital.
GBR Based System

- Under GBR and TPR contracts, each hospital’s total annual revenue is known at the beginning of each fiscal year. Annual revenue is determined from a historical base period that is adjusted to account for inflation, infrastructure requirements, population driven volume increases, performance in quality-based or efficiency-based programs, changes in payer mix and changes in levels of uncompensated care. Annual revenue may also be modified for changes in services levels, market share shifts, or shifts of services to unregulated settings.
Regulated Space

“The HSCRC’s rate regulatory authority applies to inpatient services (as defined by Medicare) and outpatient and emergency services at a hospital (on the campus).”

- JHOC is regulated so rates are regulated
- JHI sites are not
Accounts Receivable

- Medical services are completed on a credit basis with the agreement that the patient’s insurer, or the patient, will pay for the scan in the future.
- Accounts Receivable are accounts that are waiting to be collected upon.

*Largest asset of your practice!*
Time value of money

- $1 tomorrow is worth less than $1 today
  - Money you have in hand can be used to make investments which will make more money
  - The excess money you make by investing today’s money is called the time value of money

- Future Value = Original Amount x \[(1+\text{interest rate per period})^{\text{number of periods}}\]

- Cash locked in AR can NOT be used to invest in growing the business
Days in AR

- AR balance/average daily billings

Example:
- Monthly gross charges = $3,000,000
- Average Daily Charges = monthly charges/30 = $100,000/day
- Total Accounts Receivable = $6,000,000
- Days in AR = $6,000,000/$100,000 = 60 days

Lower number indicates faster collection
Denials

- System Denials
  - Incomplete/improper claim

- Payer Denials
  - Issues identified by the payer beyond the control of the practice

- Frequent review of denials and a systematic plan to deal with them is crucial
Self Pay Patients

- Correlates strongly with the amount of bad debt
- Moral dilemma
- “5 Letter Plan”: establish seriousness, urgency, state further action, and provide payment options
- Collection call
- Then what?
  - Service to patient suspended
  - Account turned over to collection agency
  - Legal recourse
Collection Agencies

Never send for collection

- AR entailing litigation
- Worker’s compensations cases
- AR involving questioned quality of care

Always send for collection

- Small balances (but not too small)
- Uncontested old accounts
- Skip accounts
- Patient fraud/abuse of services
Conclusions

- AR largest asset of radiology practice
- Effective AR management crucial to practice prosperity
- Continually review AR metrics and the revenue cycle for ways to improve AR
Resource Based
Relative Value System
RBRVU-Why so important?

- The system by which our productivity is often judged (since 1992)
- The units for which we get paid (dollars per RVU collected)
- The means by which our work is “valued”
- In the end, RVU = $$$$
Example of Benchmarking

- GIM: 3814 wRVUs / yr
- General pediatrics: 4003 wRVUs / yr
- Orthopedic surgery: 6401 wRVUs / yr
- Cardiovascular surgery: 7895 wRVUs / yr

- Private practice benchmarks vs academic practice benchmarks (AAMC)
RVUs and CPT codes

- Current Procedural Terminology

- For every (reimbursable) procedure there is a CPT code (more or less)

- For every CPT code there is a technical and professional RVU assignment

- Each year there is a conversion factor for RVU to dollars
Physician Work Component

- Time spent before, during, after procedure
- Intensity of effort
- Degree of complexity/training/invasiveness required
- Operating and supply costs
- Determined by physician input into the system
The International Statistical Classification of Diseases and Related Health Problems (most commonly known by the abbreviation ICD) provides codes to classify diseases and a wide variety of signs, symptoms, abnormal findings, complaints, social circumstances and external causes of injury or disease.
Importance of ICD code

- International Classifications of Diseases (10th revision) Clinical Modification = ICD-10-CM

- ICD codes must be appropriate for the CPT code or no reimbursement

- Cannot legally restrict ICD codes to CPT codes to insure payment

- Change annually with CPT code book

- A physician responsibility
Change from ICD-9 to ICD-10

- 5 alphanumeric characters to 7
- 68,000 existing codes in ICD-10 versus 13,000 in ICD-9.
- Increased specificity of the reporting, therefore more information
- Modern terminology
- Some codes combine diagnoses and symptoms.
- Indicates laterality
Components of a Physician Bill

- Global =
- Technical (TC modifier) +
- Professional fees (26 modifier)
- Valued usually by RVUs
- Translated by CMS into Dollars
- Procedure defined by CPT code
CMS Claim (hospital-based)

- Part A = technical revenue
- Part B = professional component
- Therefore patients see two bills
- 20% copay for Medicare is patient piece of two bills

- At OPC patient may be billed “globally” and get one bill since owners and readers may be same
How Much Do I Get Paid?

- GPCI * RVU * CF * % profee * X % work component
- CF for 2006 set by Congress = $37.8975
- For CXR (0.66 global RVUs) in Baltimore = 1.012 GPCI * 0.66 RVU * $37.8975 * 30% * 55% = $4.18
- (but get Practice and Malpractice components also)
Summary

- AMA has powerful influence in assignment of RVUs to CPT codes and therefore payment
- CPT coding and ICD coding are critical to getting paid and are MD responsibility
- RVUs assess productivity but are flawed by historical grading
- RVUs = $$$
Expense Reduction
## Academic Expenses

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries</td>
<td>5.8M</td>
<td>38.1%</td>
</tr>
<tr>
<td>Fringe benefits</td>
<td>2.9M</td>
<td>18.8%</td>
</tr>
<tr>
<td>Support staff</td>
<td>2.2M</td>
<td>14.6%</td>
</tr>
<tr>
<td>Student/post-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Doc salaries</td>
<td>1.3M</td>
<td>8.8%</td>
</tr>
<tr>
<td>Bonuses</td>
<td>0.8M</td>
<td>5.3%</td>
</tr>
<tr>
<td>Supplies</td>
<td>0.35M</td>
<td>2.0%</td>
</tr>
<tr>
<td>Purchased serv</td>
<td>1.00M</td>
<td>6.6%</td>
</tr>
<tr>
<td>Other</td>
<td>0.30M</td>
<td>2.0%</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>15.3M</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>


Why Important?

- Capitated/ACO/NHS contracts: fixed reimbursement
- Depending on fixed versus variable expenses increasing volume may hinder or help you
- When is enough growth, enough?
Types of Expenses

- **Fixed (overhead)**
  - Static costs that are unrelated to volume
    - Rent
    - Leases
    - Machine maintenance
    - Insurance
    - Salaries

- **Variable/incremental**
  - Costs that increase with each service/product that is provided
    - Disposable EEG leads per patient
    - OB ultrasound jelly
Types of Expenses

- **Variable/incremental**
  - **Linear**
    - Correspond directly with volume; e.g. plaster per fracture, needle per venipuncture
  - **Non-linear**
    - As volume increases may need to add a shift of technologists = “step function”
    - As volume increases you get a graduated discount on baby diapers
    - Service contracts that vary with usage
Rent, CDs per echocardiogram, technologists for EP lab
Other Types of Expenses

- Operating costs versus capital equipment expense
  - Ongoing expenses to provide service versus “point in time” purchase
  - Operating expenses includes admin costs
  - Capital equipment expense (CAPEX) may be converted to operating expense with leases or “per click” deals
    - CAPEX = equity
Accounts Payable

- A “Current Liability” w/i 12 months
- Expenses to suppliers/vendors due
- Notes payable = money owed to creditors
- Accrued expense = payments owed in the future but not yet billed
  - Wages at end of month/payments for taxes
  - Includes SS tax, Medicare, pensions
Personnel Costs: #1 Expense But Hard to Reduce

- Physicians versus allied health professionals
  - NP
  - PA
  - CRNA
  - Trainees
Personnel: Non-Physicians

- Can I do with one less transcriptionist, front desk person, marketing leader, technologist, IT specialist, billing and collections personnel, benefits administrator, transporter, quality assurance officer, nurse?

- Transcriptionist, front desk person, marketing leader, technologist, IT specialist, billing and collections personnel, benefits administrator, transporter, quality assurance officer, nurse
Managing Expenses

- Rule #1: Hang on to your money as long as possible so it accrues interest, works for you
  - Monthly wages
    - But do not irritate your greatest assets
  - End of year distributions, defined benefits, pensions / IRAs
  - Pay vendors as late as possible
    - Consider electronic payments
Managing Expenses

- Rule #2: Employ economies of scope, economies of scale to reduce per unity cost with vendors: *(What’s that?)*
  - Dominate market to obtain discounting
  - Offer wide variety of services
  - Use templates for contracts
  - Better rates by lenders for financing
  - Consolidate service contracts with single vendor despite multiple corps
Economies of Scale

- Bigger is better
- The more you do, the lower your costs per unit (vendor oriented)
  - Lower interest rates
  - Lower contrast costs
  - Lower equipment costs
  - Buy in bulk without fear of expiration
  - Lower supply costs
  - Lower legal/managerial costs
  - Market domination (JHH contracts)
Economies of Scope

- Improved expenses/ rates of revenue by offering more services
- One stop shop benefit
- Allows “loss leaders”
- Less negotiation cost for payors, more convenient for consumers
- More attractive due to transportation/parking costs
Managing Expenses

- **Rule #3: Manage inventory**
  - Just in time delivery
    - Leads to less “carrying costs” for storage, maintenance, insurance
    - But “ordering costs” may increase
      - Electronic ordering key
  - Goes to rule #1 to keep money in your own pocket as long as possible
  - Inventory is potentially expirable
    - Consider donating expired inventory as tax deduction for animal research
    - “Insurance” against expiration
Managing Expenses

- Rule #4: Minimize malpractice costs
  - Consolidation of physician groups
  - Quality assurance programs to reduce physician errors
  - Stability of faculty reduces expenses of pre- and post-employment coverage
  - Risk management deductions
  - First year start deductions
Take home messages

- Salaries and benefits are biggest expenses, hard to combat
- Keep your money as long as possible in your own pocket—be edgey
- IT/ electronic transactions help reduce expenses
- Beware the step functions of expenses
- Net present value/future value calculations
Hopkins Financial Statements
Principles

- Year to date versus period
  - Balance sheet versus income statement
- Budget versus last year
- Revenue versus Expense
- Clinical versus research / hospital
  versus CPA
JHM Finances – Revenue Stream

Johns Hopkins Medicine - HOSPITALS FY2014 Revenue

Sources of Revenue:
- JHH
- JHBMC
- HCGH
- SHI
- SMH
- ACH

Revenue Streams:
- JHH: 1,995,127,000
- JHBMC: 541,708,000
- HCGH: 238,789,000
- SHI: 264,643,000
- SMH: 274,612,000
- ACH: 424,864,000
<table>
<thead>
<tr>
<th></th>
<th>June YTD FY14</th>
<th>June YTD FY15</th>
<th>VARIANCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>IDX Procedures</td>
<td>9,957</td>
<td>10,904</td>
<td>947</td>
</tr>
<tr>
<td>IDX Work RVUs</td>
<td>34,941.07</td>
<td>33,236.13</td>
<td>(1,704.94)</td>
</tr>
<tr>
<td>IDX RVU/Procedure</td>
<td>3.51</td>
<td>3.05</td>
<td>(0.46)</td>
</tr>
<tr>
<td>GSS Procedures</td>
<td>66.00</td>
<td>19.00</td>
<td>(47.00)</td>
</tr>
<tr>
<td>GSS Work RVUs</td>
<td>75.58</td>
<td>62.00</td>
<td>(13.58)</td>
</tr>
<tr>
<td>GSS RVUS/Procedure</td>
<td>1.15</td>
<td>3.26</td>
<td>2.12</td>
</tr>
<tr>
<td>WM Procedures</td>
<td>87.00</td>
<td>38.00</td>
<td>(49.00)</td>
</tr>
<tr>
<td>WM Work RVUs</td>
<td>72.74</td>
<td>51.00</td>
<td>(21.74)</td>
</tr>
<tr>
<td>WM RVUS/Procedure</td>
<td>0.84</td>
<td>1.34</td>
<td>0.51</td>
</tr>
<tr>
<td><strong>Controllable Revenue</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Collections IDX</td>
<td>$1,975,901</td>
<td>$2,080,928</td>
<td>$105,027</td>
</tr>
<tr>
<td>Collections - Non IDX</td>
<td>1,306</td>
<td>50,000</td>
<td>48,694</td>
</tr>
<tr>
<td>ARS Income</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other Affiliate Income</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Green Spring Income</td>
<td>6,189</td>
<td>4,825</td>
<td>(1,364)</td>
</tr>
<tr>
<td>White Marsh Income</td>
<td>9,565</td>
<td>3,994</td>
<td>(5,571)</td>
</tr>
<tr>
<td>Grants &amp; Other Income</td>
<td>188,438</td>
<td>249,435</td>
<td>60,997</td>
</tr>
<tr>
<td>Departmental Contributions</td>
<td>578,157</td>
<td>153,792</td>
<td>(424,365)</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td>$2,759,556</td>
<td>$2,542,974</td>
<td>$(216,582)</td>
</tr>
</tbody>
</table>

**Divisional**
<table>
<thead>
<tr>
<th></th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total Controllable Revenue</strong></td>
<td>$2,759,556</td>
<td>$2,542,974</td>
<td>$(216,582)</td>
</tr>
<tr>
<td><strong>Overhead Expenses</strong></td>
<td>$692,022</td>
<td>$745,825</td>
<td>$53,802</td>
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<tr>
<td>Clinical Fellow Salaries</td>
<td>$69,102</td>
<td>$70,066</td>
<td>964</td>
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<tr>
<td>Support Staff Salaries</td>
<td>141,756</td>
<td>163,888</td>
<td>22,132</td>
</tr>
<tr>
<td>Other Expenses (inc. malpractice)</td>
<td>199,114</td>
<td>175,183</td>
<td>(23,931)</td>
</tr>
<tr>
<td><strong>Total Controllable Expenses</strong></td>
<td>$409,972</td>
<td>$409,137</td>
<td>$(835)</td>
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<tr>
<td><strong>Total Overhead and Direct Expenses</strong></td>
<td>$1,101,994</td>
<td>$1,154,962</td>
<td>$52,967.3</td>
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<tr>
<td><strong>Compensation and Surplus Pool</strong></td>
<td>$1,657,562</td>
<td>$1,388,012</td>
<td>$(269,549)</td>
</tr>
<tr>
<td>Faculty Salaries</td>
<td>$1,622,744</td>
<td>$999,455</td>
<td>$(623,289)</td>
</tr>
<tr>
<td><strong>Net Divisional Profit (Loss)</strong></td>
<td>$34,818</td>
<td>$388,557</td>
<td>353,740</td>
</tr>
<tr>
<td>Internal Order Number</td>
<td>80006259</td>
<td></td>
<td></td>
</tr>
<tr>
<td>-----------------------</td>
<td>-----------</td>
<td></td>
<td></td>
</tr>
<tr>
<td>D. Yousem</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| IDX Procedures       | 5,309     |
| IDX Work RVUs        | 7,324     |
| IDX RVU/Procedure    | 1.38      |
| GSS Procedures       | 304       |
| GSS Work RVUs        | 374       |
| GSS RVUS/Procedure   | 1.23      |
| WM Procedures        | 324       |
| WMS Work RVUs        | 421.00    |
| WM RVUS/Procedure    | 1.30      |

**Controllable Revenue**

| Collections IDX     | $ 550,162 |
| Collections - Non IDX| 1,383     |
| Green Spring Income  | 29,190    |
| White Marsh Income   | 32,351    |
| Other Affiliate Income|          |
| Grants & Other Income| 39,454    |
| Departmental Contributions | 76,539   |
| **Total Controllable Revenue** | **$ 729,079** |

**Overhead Expenses**

| Clinical Fellow Salaries | 22,716 |
| Support Staff Salaries   | 13,438 |
| Other Expenses (inc. malpractice) | 30,493 |
| **Total Controllable Expenses** | **$ 66,647** |

**Total Overhead and Direct Expenses**

| **$ 259,688** |

**Compensation and Surplus Pool**

| Faculty Salaries | $469,391 |

**Net Divisional Profit (Loss)**

| **$130,468** |
PCAR (Physician Clinical Activity Report)

<table>
<thead>
<tr>
<th>Specialty &amp; Campus</th>
<th>CLINICAL FTE YTD</th>
<th>ACTIVITY YTD</th>
<th>Average Median</th>
<th>Average Median Variance</th>
<th>Total WRVU as % of Avg Median</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Depart Clinical FTE</td>
<td>Employ FTE Adjust</td>
<td>Total Depart CFTE</td>
<td>Actual Clinical wRVU</td>
<td>Depart Clinical wRVU</td>
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<tr>
<td>INR Asso Prof--</td>
<td>EB</td>
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<tr>
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<td>0.80</td>
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<td>0.80</td>
<td>0.80</td>
<td>8,638</td>
<td>-</td>
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</table>

“Average Median” determined by AAMC versus Specialty Specific benchmarks
Subspecialty specific in some departments
Conclusions

- Individual, group, sector profitability requires good collection of data
- The vagaries of high RVU and low RVU specialties requires thinking as a whole
- Good to have benchmarks
- Make sure your financial goals are aligned with Mission and Vision
Ticket To Leave: Day One

- State one “Ah-Hah” moment of something that now makes sense to you
- State one change that you will make upon leaving the course, Day One
Contracting and Negotiating Entities
Introduction

Contracting and negotiating entities involve a number of different insurance Payors

Some physician payments are “assigned” (e.g., Medicare and Medicaid Fee-For-Service)

Some physician payments are “negotiated” (e.g., with HMOs and PPOs)

Therefore, the same type of service (e.g., physician services for a hip replacement) can be paid at different amounts depending on a patient’s healthcare insurance coverage
Hospital payments are based on unique state of Maryland regulations that include a revenue cap with all Payors paying the same amount of money for a similar service (e.g., hip replacement).

• Note: Sibley & All Children’s Hospitals are outside of Maryland and are not part of the Maryland system.

Regulated and Un-Regulated space affect both physician and hospital payments. New payment models are being introduced, ACOs and Bundled Payments.
Clinical care from JHM Providers to Patients is paid via a variety of insurance Payors

**Governmental**
- Medicare
- Medicaid

**Insurance companies**
- HMOs
- PPOs
- Commercial

**Other**
- Self Pay
- International patients
Payments made to JHM are based on predetermined amounts:

**Governmental**
- Medicare – “Assigns” payments by CPT
- Medicare Advantage - “Negotiated” payments by CPT
- Medicaid FEE FOR SERVICE – “Assigns” payments by CPT via the state of Maryland Medicaid program
- Medicaid MANAGED CARE – “Negotiated” payments by CPT between JHM and Medicaid insurance companies

**Insurance companies**
- HMOs – “Negotiated” payments between JHM and HMO companies by CPT
- PPOs – “Negotiated” payments between JHM and PPO companies
- Commercial by CPT
Other

• Self Pay – Insured (Deductibles & Co-Insurance “Negotiated” by insurance plan) and Uninsured (no “Negotiation”)

• International patients – “Negotiated” via JH International
Payer Mix - % of Business by Major Categories / Payors

Johns Hopkins University - School of Medicine
Clinical Practice Association - Consolidated
Payer Mix %
For the Twelve Months Ending: June 2015

FY 15 YTD

- Medicare 26.8%
- PPO 22.5%
- HMO 16.8%
- Medicaid 13.7%
- Blue Shield 10.0%
- Self Pay 5.4%
- Other* 4.8%

* Other contains: Commercial, Int’l Svcs, USFHP, Case Mgmt, and Co. Acct.
Non-Governmental –
HMO, PPO, Commercial, Self-Pay & Other (including International)

HMOs and PPOs (as a % of total business)

CareFirst (Maryland Blue Cross & Blue Shield plan) HMO & PPO products and other Blue Shield Out-of-State plans – 18%

United Healthcare HMO & PPO products - 7%

Aetna HMO & PPO products – 4%

Cigna HMO & PPO products – 3%
Non-Governmental – HMO, PPO, Commercial, Self-Pay & Other (including International)

**Self Pay, Commercial & Other (as a % of total business)**

Self Pay – 5%
Comprised of patients without insurance, and deductible and co-pay portions of patients with insurance

Commercial - 1%
“Old” indemnity plans, 80 / 20

Other: International – 2%

JHM Important: Significant margin for clinical departments, at 95%, Exempt from JH Hospitals state of Maryland “Revenue Cap”
“Traditional” forms of HMOs and PPOs: What's the Difference?

Health maintenance organizations (HMOs) and preferred provider organizations (PPOs) are types of managed care health systems that employ a network of providers to treat the medical needs of their members.

Today, most people are covered by one type of managed care system or another, either individually or as part of a group plan through their employer.

If you are given the opportunity to choose between HMO and PPO coverage, the following items should be considered in determining which one best suits an individual's needs.

Note: There has been a movement from pure “traditional” HMO and PPO models that is resulting in hybrid models that combine characteristics of both HMOs and PPOs in one insurance plan (e.g., CareFirst).
How are health maintenance organizations and preferred provider organizations alike?

Both HMOs and PPOs maintain a network of doctors, hospitals, medical labs, and independent physicians' groups to provide and finance health care for members.

Both attempt to reduce costs by applying specialized management techniques to limit what they regard as unnecessary or inappropriate medical procedures.

Both also share the goal of reducing health-care costs by focusing on preventive care and general health promotion.

But there are several major differences, including:
HMO vs PPO

Selecting a physician

HMO: When you join an HMO, you choose a primary care physician (PCP), who is your first contact for all medical care needs. Your PCP becomes the physician who directs what care is given, how much care is given, and by whom the care is given. HMO members must choose a PCP from among the HMO network physicians. So if your longtime family doctor is not part of the HMO network, you'll have to choose a new family doctor.

PPO: PPO members do not have to choose a PCP and can refer themselves to any specialist in the PPO network. You can even go to a physician outside the network, but you'll pay a greater portion of the bill. So, although you're covered for services both inside and outside the network, there is financial incentive to receive care from the plan's preferred providers.
What if you need a specialist?

**HMO:** Your PCP provides your general medical care and must be consulted before you seek care from another network physician or specialist. This screening process helps to reduce costs for both the HMO and its members.

**PPO:** You are free to see any network specialist at any time. But if you go outside the network, your co-payment will run 30 to 40 percent of the physician's charges. And if you fail to get permission from your PPO to see a non-network specialist, you could end up paying the entire bill.
HMO vs PPO

Getting health care outside your network:

**HMO**: HMO members typically receive all treatment from their HMO network physicians. However, your HMO will pay for care provided by a non-HMO physician in an emergency. You should notify your PCP as soon as possible to coordinate the care. Nonemergency out-of-network care generally isn't covered. But your HMO will pay for treatment when it is medically necessary and when the plan's providers are normally unable to offer that treatment.

**PPO**: PPO members are not required to seek care from PPO physicians, but there are strong financial incentives to do so. For example, the PPO may reimburse 90 percent of the cost for care received within its network, but only 70 percent of the costs for non-network care. Most PPOs give full coverage for emergency treatment regardless of where it is performed and who provides it.
HMO vs PPO

Co-payments are handled differently

**HMO:** Instead of deductibles, HMOs often charge a minimal amount, known as a co-payment, for each treatment or doctor's visit. HMO members often pay a nominal co-payment of $5, $10, or $20 for office visits, tests, and prescriptions.

**PPO:** Your co-payments amount to 10 percent of charges for care inside the network and 30 to 40 percent for non-network treatment. You are reimbursed for the remaining 90 percent of network care and 60 or 70 percent for non-network care. Keep in mind that co-payment percentages will vary among PPOs. To avoid paying large co-payments out of their own pockets, most PPO members choose to receive all of their health care within the PPO network.
HMO vs PPO

Annual payment caps

**HMO**: No limit on the amount of health-care costs in a given year. These costs are usually minimal co-payments (typically at most $20 per office visit or treatment), so your out-of-pocket expenses will probably be quite limited. But keep in mind that while some HMOs will cover specialized treatment from non-network physicians when the HMO itself doesn't provide such treatment, others will not. You could end up paying for this treatment.

**PPO**: Health-care costs paid out of pocket (deductibles and co-payments) are limited to an annual maximum. Typically, out-of-pocket costs for network care are capped at $1,200 for individuals and $2,000 for families. If you are treated outside the network, you'll of course pay more. The maximum annual cap for non-network treatment is approximately twice the amount of network care.
Accountable Care Organizations (ACOs)

- ACOs were formally created with the passage of the Affordable Care Act in 2010.
- As of 2015, 424 Medicare ACOs exist, covering 7.8 million (or 20%) of Medicare beneficiaries.
- To date, more than $417 million in savings have been generated by Medicare ACOs.

Notably, reducing medical expenditures for unnecessary procedures or services may reduce revenue received for a particular patient, but the goal is that improved overall efficiency will help to ensure that the right patients within a population are receiving high-quality and appropriate care, while minimizing any reductions in provider revenue.
New Developments: “The Future is Now” - ACOs & Bundled Payments

Accountable Care Organizations (ACOs) - Continued

• There are different types of ACOs.
• They can be lead by physicians, hospitals, insurers, or some combination thereof.
• Medicare ACOs have the most information available, a large number of private insurers have created commercial ACOs.

There are 2 major models of Medicare ACOs:
• The Medicare Shared Savings Program (MSSP). The majority of ACOs are in the MSSP.
• The Pioneer ACO Model. Designed for providers experienced in care coordination to facilitate a rapid transition to population-based payment.
Global Budget Revenue (GBR) Agreements

Each hospital has their own GBR that ties into the overall 3.58% growth rate.

Revenue / volume in excess of the GBR agreement is not necessarily good.

JHH, JHBMC and Suburban Important: Hospitals have GBR growth rate exceptions for Out-Of-State and International patients, more volume in these areas is good.
Hospital HSCRC Payments – The Global Budget Revenue (GBR)

Regulated versus Un-Regulated Space

Regulated (or Facility) space is typically under the control of a hospital including paying all the costs related to that space.

Un-Regulated (or Non-Facility) space is typically under the control of the University / School of Medicine including paying all the costs related to that space.
Hospitals can bill for patient care services rendered in both Regulated and Un-Regulated space

Physicians can bill for patient care services rendered in Un-Regulated space (at a higher rate) and also in Regulated space (at a lower rate)

Examples (HOSPITAL VS PHYSICIAN OFFICE SPACE – WHO PAYS COSTS):

- Johns Hopkins Hospital is Regulated space
- Johns Hopkins @ Green Spring Station (University space) is Un-Regulated
Conclusion

• Contracting and negotiating entities involve a number of different Payors.
• Some physician payments are mandated (e.g., Medicare and Medicaid FFS).
• Some physician payments are negotiated (e.g., with HMOs and PPOs).
• Therefore, there are many different payment levels for the same type of service (e.g., physician services for a hip replacement).
Conclusion (Cont’d)

Hospital payments are based on unique state of Maryland regulations that include a revenue cap with all Payors paying the same amount of money for a similar service (e.g., hip replacement)

Regulated and Un-Regulated space affect both physician and hospital payments

New payment models are being introduced, ACOs and Bundled Payments
Business Planning

Reason, Definitions, and Elements
Financial Analysis Overview

• **Internal Consulting Unit**
• **Diversity of Skill Set and Experience**
  – Accounting, Actuarial, Economics, Marketing, IT, Administrative
• **Internal Customers – All of JHM**
  – JHHS: JHH, Bayview, HCGH, Sibley, Suburban, ACH, JHHC, JHI, JHHCG, JHCP
  – SOM, CPA
• **External Customers/Organizations**
  – Venture Capitalists, Banks, Audit Firms, Investors, Developers
FAU - Principles

• Customer Focused
  – Travel to Clients, Someone Always in the Office

• Unbiased – Third Party Contribution

• Financial Orientation & Strategic Insight
  – Focus on Elements Relevant to Sr. Leadership
  – Detailed Financial Projections
Business Planning – Basic Questions

1. Why are we doing this?
2. Services covered, and why are they required?
3. Does our organization have the expertise in providing these services?
4. Sources of capital funding?
5. Project structure (e.g., joint venture [partner due diligence], corporate structure, etc.)
6. Are there regulatory or other restraints?
7. What are the risks and benefits?
8. Mission or margin? Not necessarily separate…
Business Planning – Elements of a Business Plan

• Financial Analysis
  – Reimbursement issues
  – Forecasting & modeling
    • Trend analysis [past three years]
    • Break even analysis [fixed/variable costing]
    • Utilization/volumes
    • Revenues & expenses
    • Sensitivity analysis
Business Planning – Elements of a Business Plan

- Financial Analysis (continued)
  - Budget development
    - Operating budget [five years]
    - Capital budget [five years]
  - Pro forma financial statements [Five Year Projections]
    - Statement of Activity
    - Balance sheet
    - Statement of cash flows
Business Planning – Elements of a Business Plan

- Financial Analysis (continued)
  - **Business Enterprise Value**
    - Income approach valuation based on the discounted cash flows adjusted to Net Present Value based on a developed and appropriate discount rate. *Value of project in current $$*

- **Implementation**
  - Identification of key personnel and respective tasks

- **Follow Up**
  - Process must be subject to ongoing control; tracking of results vs. plan, and respective changes where necessary.
### A. Projected Operating Statement

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net Revenues</td>
<td>$346,875</td>
<td>$707,625</td>
<td>$1,082,666</td>
<td>$1,104,320</td>
<td>$1,126,406</td>
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<tr>
<td>Expenses</td>
<td>383,140</td>
<td>505,671</td>
<td>681,522</td>
<td>699,931</td>
<td>718,887</td>
</tr>
<tr>
<td>Net Profit</td>
<td>$(36,265)</td>
<td>$201,954</td>
<td>$401,144</td>
<td>$404,388</td>
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</table>

5-year Average $275,748

### B. Projected Cash Flow

<table>
<thead>
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<th>Year</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>From (To) Operations</td>
<td>$(58,234)</td>
<td>$170,884</td>
<td>$371,701</td>
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<td>$462,497</td>
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### C. Return On Investment

- 5-year Average Return 138,538
- Total Investment 1,180,573
- Return on Investment 11.7%
- Years Payback 8.5
### JHH PEDIATRICS BUILDING
### OPERATING STATEMENT (aka Income Statement)
#### EXHIBIT VI

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Charges</th>
<th>Deductions @ 25%</th>
<th>Net Revenue</th>
<th>Expenses:</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>$462,500</td>
<td>115,625</td>
<td>346,875</td>
<td>383,140</td>
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<tr>
<td>Year 2</td>
<td>$943,500</td>
<td>235,875</td>
<td>707,625</td>
<td>505,671</td>
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<tr>
<td>Year 3</td>
<td>$1,443,555</td>
<td>360,889</td>
<td>1,082,666</td>
<td>681,522</td>
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<td>Year 4</td>
<td>$1,472,426</td>
<td>368,107</td>
<td>1,104,320</td>
<td>699,931</td>
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<tr>
<td>Year 5</td>
<td>$1,501,875</td>
<td>375,469</td>
<td>1,126,406</td>
<td>718,887</td>
</tr>
<tr>
<td></td>
<td>$462,500</td>
<td>115,625</td>
<td>346,875</td>
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<td>$1,472,426</td>
<td>368,107</td>
<td>1,104,320</td>
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</tr>
<tr>
<td></td>
<td>$1,501,875</td>
<td>375,469</td>
<td>1,126,406</td>
<td>718,887</td>
</tr>
</tbody>
</table>

**Expenses:**
- **Salaries:**
  - Year 1: $237,000
  - Year 2: $323,935
  - Year 3: $449,822
  - Year 4: $463,316
  - Year 5: $477,216
- **Benefits @ 22%:**
  - Year 1: $52,140
  - Year 2: $71,266
  - Year 3: $98,961
  - Year 4: $101,930
  - Year 5: $104,987
- **Supplies:**
  - Year 1: $15,000
  - Year 2: $30,750
  - Year 3: $47,278
  - Year 4: $48,460
  - Year 5: $49,672
- **Utilities:**
  - Year 1: $24,000
  - Year 2: $24,720
  - Year 3: $25,462
  - Year 4: $26,225
  - Year 5: $27,012
- **Depreciation:**
  - Year 1: $55,000
  - Year 2: $55,000
  - Year 3: $60,000
  - Year 4: $60,000
  - Year 5: $60,000

**Total Expenses:**
- Year 1: $383,140
- Year 2: $505,671
- Year 3: $681,522
- Year 4: $699,931
- Year 5: $718,887

**Net Profit:**
- Year 1: $(36,265)
- Year 2: $201,954
- Year 3: $401,144
- Year 4: $404,388
- Year 5: $407,519

**5-year Average:** $275,748

3.0% Assumed inflation rate on utilities
## JHH PEDIATRICS BUILDING
### BALANCE SHEET
#### EXHIBIT VII

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<tr>
<th></th>
<th>Initial</th>
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<th>Year 2</th>
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<tbody>
<tr>
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<tr>
<td>Cash</td>
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</tr>
<tr>
<td>Accounts Receivable</td>
<td>-</td>
<td>86,719</td>
<td>176,906</td>
<td>270,667</td>
<td>276,080</td>
<td>281,601</td>
</tr>
<tr>
<td>Total Current Assets</td>
<td>141,106</td>
<td>169,591</td>
<td>430,663</td>
<td>896,124</td>
<td>1,360,999</td>
<td>1,829,017</td>
</tr>
<tr>
<td>Buildings</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
<td>1,000,000</td>
</tr>
<tr>
<td>Machinery</td>
<td>25,000</td>
<td>25,000</td>
<td>25,000</td>
<td>50,000</td>
<td>50,000</td>
<td>50,000</td>
</tr>
<tr>
<td>Accum. Depreciation</td>
<td>-</td>
<td>(55,000)</td>
<td>(110,000)</td>
<td>(170,000)</td>
<td>(230,000)</td>
<td>(290,000)</td>
</tr>
<tr>
<td>Net Fixed Assets</td>
<td>1,025,000</td>
<td>970,000</td>
<td>915,000</td>
<td>880,000</td>
<td>820,000</td>
<td>760,000</td>
</tr>
<tr>
<td><strong>TOTAL ASSETS</strong></td>
<td>$ 1,166,106</td>
<td>$ 1,139,591</td>
<td>$ 1,345,663</td>
<td>$ 1,776,124</td>
<td>$ 2,180,999</td>
<td>$ 2,589,017</td>
</tr>
</tbody>
</table>

| **LIABILITIES**      |         |               |               |               |               |               |
| Accounts Payable     | -       | -             | 9,750         | 13,868        | 18,185        | 18,671        | 19,171        |
| Long-term Debt       | -       | -             | -             | -             | -             | -             | -             |
| **TOTAL LIABILITIES**| -       | -             | 9,750         | 13,868        | 18,185        | 18,671        | 19,171        |

| **EQUITY**           |         |               |               |               |               |               |
| Investments          | 1,166,106 | 1,166,106     | 1,166,106     | 1,191,106     | 1,191,106     | 1,191,106     |
| Current Earnings     | -       | (36,265)      | 201,954       | 401,144       | 404,388       | 407,519       |
| Net Assets           | -       | -             | (36,265)      | 165,689       | 566,833       | 971,222       |
| **TOTAL EQUITY**     | 1,166,106 | 1,129,841     | 1,331,795     | 1,757,939     | 2,162,327     | 2,569,846     |
| **TOTAL LIABILITIES AND EQUITY** | $ 1,166,106 | $ 1,139,591 | $ 1,345,663 | $ 1,776,124 | $ 2,180,999 | $ 2,589,017 |
## JHH PEDIATRICS BUILDING
### CASH FLOW
#### EXHIBIT VIII

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Net Profit or (Loss)</strong></td>
<td>0</td>
<td>$ (36,265)</td>
<td>$ 201,954</td>
<td>$ 401,144</td>
<td>$ 404,388</td>
<td>$ 407,519</td>
</tr>
<tr>
<td><strong>Change in Current Assets</strong></td>
<td>0</td>
<td>$ (86,719)</td>
<td>$ (90,188)</td>
<td>$ (93,760)</td>
<td>$ (5,413)</td>
<td>$ (5,522)</td>
</tr>
<tr>
<td><strong>Change in Current Liabilities</strong></td>
<td>0</td>
<td>$ 9,750</td>
<td>$ 4,118</td>
<td>$ 4,317</td>
<td>$ 486</td>
<td>$ 500</td>
</tr>
<tr>
<td><strong>Plus Depreciation</strong></td>
<td>0</td>
<td>55,000</td>
<td>55,000</td>
<td>60,000</td>
<td>60,000</td>
<td>60,000</td>
</tr>
<tr>
<td><strong>Cash From Operations</strong></td>
<td>0</td>
<td>$ (58,234)</td>
<td>$ 170,884</td>
<td>$ 371,701</td>
<td>$ 459,461</td>
<td>$ 462,497</td>
</tr>
<tr>
<td><strong>Less Capital Expenses</strong></td>
<td>(1,025,000)</td>
<td>-</td>
<td>-</td>
<td>(25,000)</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Plus Investments</strong></td>
<td>1,166,106</td>
<td>-</td>
<td>-</td>
<td>25,000</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td><strong>Annual Net Cash Flow</strong></td>
<td><strong>141,106</strong></td>
<td><strong>(58,234)</strong></td>
<td><strong>170,884</strong></td>
<td><strong>371,701</strong></td>
<td><strong>459,461</strong></td>
<td><strong>462,497</strong></td>
</tr>
</tbody>
</table>

**Cumulative Cash Balance**

<table>
<thead>
<tr>
<th></th>
<th>Initial</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>141,106</td>
<td>82,872</td>
<td>253,756</td>
<td>625,458</td>
<td>1,084,919</td>
<td>1,547,416</td>
<td></td>
</tr>
</tbody>
</table>
### JHH PEDIATRICS BUILDING

#### SENSITIVITY ANALYSIS

**EXHIBIT XI**

**Effect of 10% reduction in volume**

<table>
<thead>
<tr>
<th>Year</th>
<th>Year 1</th>
<th>Year 2</th>
<th>Year 3</th>
<th>Year 4</th>
<th>Year 5</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Charges</td>
<td>416,250</td>
<td>849,150</td>
<td>1,299,200</td>
<td>1,325,183</td>
<td>1,351,687</td>
</tr>
<tr>
<td>Deductions @ 25%</td>
<td>104,063</td>
<td>212,288</td>
<td>324,800</td>
<td>331,296</td>
<td>337,922</td>
</tr>
<tr>
<td>Net Revenue</td>
<td>312,188</td>
<td>636,863</td>
<td>974,400</td>
<td>993,888</td>
<td>1,013,765</td>
</tr>
<tr>
<td>Expenses:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Salaries</td>
<td>237,000</td>
<td>323,935</td>
<td>449,822</td>
<td>463,316</td>
<td>477,216</td>
</tr>
<tr>
<td>Benefits @ 22%</td>
<td>52,140</td>
<td>71,266</td>
<td>98,961</td>
<td>101,930</td>
<td>104,987</td>
</tr>
<tr>
<td>Supplies</td>
<td>13,500</td>
<td>27,675</td>
<td>42,550</td>
<td>43,614</td>
<td>44,704</td>
</tr>
<tr>
<td>Utilities</td>
<td>24,000</td>
<td>24,720</td>
<td>25,462</td>
<td>26,225</td>
<td>27,012</td>
</tr>
<tr>
<td>Depreciation</td>
<td>55,000</td>
<td>55,000</td>
<td>60,000</td>
<td>60,000</td>
<td>60,000</td>
</tr>
<tr>
<td>Total Expenses</td>
<td>381,640</td>
<td>502,596</td>
<td>676,794</td>
<td>695,085</td>
<td>713,920</td>
</tr>
<tr>
<td>Net Profit</td>
<td>(69,453)</td>
<td>134,267</td>
<td>297,605</td>
<td>298,802</td>
<td>299,846</td>
</tr>
</tbody>
</table>

**5-year Average**

- **192,213**
- **Original 5-year Average**
  - **275,748**

**Reduction in Average Profit**

- **30.3%**
Ticket To Leave: Day Two

- State one “Ah-Hah” moment of something that now makes sense to you
- State one change that you will make upon leaving the course, Day Two
- State one suggestion for improving the course for the next cohort