University of Iowa Health Care

Presentation to

The Board of Regents, State of Iowa

February 5, 2020
Agenda

Today’s Presentation

Opening Remarks

Operating and Financial Performance

Inpatient Rehabilitation Facility

Faculty Presentation: Mechanisms and Treatment of Muscle Atrophy
Opening Remarks

Brooks Jackson, MD, MBA
Vice President for Medical Affairs
& Tyrone D. Artz Dean, Carver College of Medicine
Operating and Financial Performance

Suresh Gunasekaran, MBA
Associate Vice President, UI Health Care and CEO, UI Hospitals & Clinics

Bradley Haws, MBA
Associate Vice President for Finance & Chief Financial Officer, UI Health Care
University of Iowa Hospitals & Clinics:
The Hospital for the State of Iowa
We are the Hospital for the State of Iowa
Not just Johnson County

1. We operate a 850 bed hospital in Iowa City, Johnson County, Iowa.

2. In CY2019, UIHC had over 30,000 inpatient admissions and almost 1,000,000 outpatient visits.

3. Johnson County patients comprise the *minority* of all patients served by UIHC (20% of admissions and 30% of visits).

4. The majority of patients at UIHC are:
   a. From outside Johnson County
   b. Transferred from other Iowa hospitals (1/3 of inpatients nightly)
   c. Highly sick and complex patients
Not Just Johnson County
UI Hospitals & Clinics Beds by service to Iowa Metro Areas

- Southeast Iowa “Tower” 234 Beds
- Quad Cities “Tower” 135 Beds
- Johnson County “Tower” 145 Beds
- Cedar Rapids “Tower” 63 Beds
- Des Moines “Tower” 76 Beds
- North Iowa “Tower” 84 Beds
- Northwest Iowa “Tower” 14 Beds
- Southwest Iowa “Tower” 14 Beds
## Inpatient Volume and Acuity

<table>
<thead>
<tr>
<th>Primary Service Area</th>
<th>CY2019 Average Case Mix Index</th>
<th>CY2019 Sum of Discharges</th>
<th>% of Adult Discharges</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quad Cities Area</td>
<td>2.32</td>
<td>3,092</td>
<td>9.8%</td>
</tr>
<tr>
<td>Dubuque Area</td>
<td>2.33</td>
<td>1,925</td>
<td>6.1%</td>
</tr>
<tr>
<td>Grinnell Area</td>
<td>2.17</td>
<td>1,514</td>
<td>4.8%</td>
</tr>
<tr>
<td>Waterloo Area</td>
<td>2.36</td>
<td>2,690</td>
<td>8.6%</td>
</tr>
<tr>
<td>South East Iowa</td>
<td>2.04</td>
<td>3,709</td>
<td>11.8%</td>
</tr>
<tr>
<td>North East Iowa</td>
<td>2.28</td>
<td>71</td>
<td>0.2%</td>
</tr>
<tr>
<td>North Central Iowa</td>
<td>2.40</td>
<td>346</td>
<td>1.1%</td>
</tr>
<tr>
<td>Des Moines Area</td>
<td>2.57</td>
<td>1,272</td>
<td>4.1%</td>
</tr>
<tr>
<td>Western Iowa</td>
<td>2.40</td>
<td>1,060</td>
<td>3.4%</td>
</tr>
<tr>
<td>Out of State</td>
<td>2.31</td>
<td>3,101</td>
<td>9.9%</td>
</tr>
<tr>
<td><strong>Grand Total</strong></td>
<td><strong>2.26</strong></td>
<td><strong>31,409</strong></td>
<td><strong>100.0%</strong></td>
</tr>
</tbody>
</table>
Clinic Visits CY2019 Patient Origin

Johnson County is 30%
Emergency Department CY2019 Patient Origin

Johnson County is 45%
Surgical CY2019 Patient Origin

Johnson County is 16%
Inpatient CY2019 Patient Origin

Johnson County is 17.5%
Why does Iowa depend on UIHC?

Iowans have ever more complex healthcare needs and UIHC is uniquely suited to meet those needs.
High Demand for Services Creates Operational Stress

2019 brought unprecedented demand to University of Iowa Hospitals & Clinics

1. Patients requiring admission experience longer stays in the emergency department waiting for beds to open up.

2. Emergency Department wait times are growing.

3. Calls for new patient appointments are increasing.

4. There is greater demand for outpatient surgical services.

5. Behavioral health services through our emergency department and clinic system continues to have significant demand.

6. Iowa hospitals who want to transfer patients to UIHC continue to have a high demand for beds.

We hear the concerns of our community and healthcare partners that patients are waiting too long to access services at UIHC.

We know that we can do better and we are committed to improving.
Clinic Volumes Increasing

Total clinic visit volume has increased 27% over five years. Largest visit growth in Community Clinics, Orthopedics, Obstetrics & Gynecology, Pediatrics, and Internal Medicine.
Patients Requiring Admission Face Longer Stays in the ED

Total ED volume is relatively stable but patient length of stay is increasing due to delays in our ability to admit patients when hospital is full.
Patients in ED Awaiting Beds Sharply Increased

Average Midnight Census Adults 18+
Emergency Department

Growth of 48% from CY2014-CY2019 in average midnight census for patients in the Emergency Department.
Surgical Volumes Increasing

Nearly 16% growth in surgical volumes over the past 5 years.
Inpatient Volumes Increasing

Inpatient Census, Staffed Beds and Occupancy

<table>
<thead>
<tr>
<th>Year</th>
<th>Midnight Census</th>
<th>Staffed Beds</th>
<th>Occupancy Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015</td>
<td>509</td>
<td></td>
<td>95.6%</td>
</tr>
<tr>
<td>2016</td>
<td>531</td>
<td>533</td>
<td>95.4%</td>
</tr>
<tr>
<td>2017</td>
<td>546</td>
<td>556</td>
<td>94.6%</td>
</tr>
<tr>
<td>2018</td>
<td>564</td>
<td>580</td>
<td>96.2%</td>
</tr>
<tr>
<td>2019</td>
<td>580</td>
<td>601</td>
<td>96.5%</td>
</tr>
</tbody>
</table>

Number of Beds

Occupancy Rate
Game plan to Improve Operations

There is no single silver bullet

1. Use operating margin to fund capital to expand bed capacity.
2. Increase clinical staffing in areas that are experiencing higher volumes.
3. Continue to invest in staff compensation and training.
4. Continue to identify opportunities to shift low acuity patients to a more appropriate care facility in a timely manner.
5. Continue to innovate and offer community options for addressing acute health care issues (such as our UI QuickCare clinics, Urgent Care facilities, and expanded Family Medicine locations).
6. Work with physicians and staff to run a more efficient hospital that gets patients safely home or to other care facilities in a timely manner.
7. Make our transfer process more efficient and responsive and improve communication with providers who refer patients to us.
8. Improve partnerships with post-acute providers to ensure more timely discharge of our patients to care closer to home.
9. Improve partnerships with community providers to manage patients locally, when clinically appropriate, instead of transferring to UIHC.
Financial Performance
Volume and Financial Highlights – FY20
Through November 2019

Operating Margin
- Fiscal Year actual 6.2%, budget of 3.3%

Volume Change
- Year-over-year: Inpatient Discharges -4.0%, Acute Patient Days 0.4% Surgeries 2.0%, Clinic Visits 6.2%

Acuity
- November Case Mix Index continues to be high. 2.21 overall

Length of Stay Index
- Adult at .97
- Pediatrics at 1.04

Revenues
- 3.5% above budget year-to-date
  - Inpatient under budget 3.0%
  - Outpatient above budget 9.4%

Payer Mix
- Medicare Stable
- FY19: 37.5%, FY20: 37.6%

Accounts Receivable
- Days in Net AR – 47.0 days

Salary Expenses
- 3.1% below budget year-to-date

Non Salary Expenses
- 3.9% above budget year-to-date
- Supply and drug costs above budget
## Comparative Financial Results
Fiscal Year to Date November 2019, Dollars in Thousands

<table>
<thead>
<tr>
<th>NET REVENUES</th>
<th>Actual</th>
<th>Budget</th>
<th>Prior Year</th>
<th>Variance to Budget</th>
<th>Variance to Prior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patient Revenue</td>
<td>$799,507</td>
<td>$771,932</td>
<td>$722,779</td>
<td>$27,575</td>
<td>3.6%</td>
</tr>
<tr>
<td>Other Operating Revenue</td>
<td>21,723</td>
<td>21,190</td>
<td>21,671</td>
<td>533</td>
<td>2.5%</td>
</tr>
<tr>
<td><strong>Total Revenue</strong></td>
<td><strong>$821,230</strong></td>
<td><strong>$793,122</strong></td>
<td><strong>$744,450</strong></td>
<td><strong>$28,108</strong></td>
<td><strong>3.5%</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>EXPENSES</th>
<th>Actual</th>
<th>Budget</th>
<th>Prior Year</th>
<th>Variance to Budget</th>
<th>Variance to Prior Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Salaries and Wages</td>
<td>$344,104</td>
<td>$354,939</td>
<td>$325,789</td>
<td>($10,835)</td>
<td>-3.1%</td>
</tr>
<tr>
<td>General Expenses</td>
<td>383,775</td>
<td>369,509</td>
<td>335,522</td>
<td>14,266</td>
<td>3.9%</td>
</tr>
<tr>
<td>Operating Expense before Capital</td>
<td>$727,879</td>
<td>$724,448</td>
<td>$661,311</td>
<td>$3,431</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>Cash Flow Operating Margin</strong></td>
<td><strong>$93,351</strong></td>
<td><strong>$68,674</strong></td>
<td><strong>$83,139</strong></td>
<td><strong>$24,677</strong></td>
<td>35.9%</td>
</tr>
<tr>
<td>Capital- Depreciation and Amortization</td>
<td>42,714</td>
<td>42,486</td>
<td>42,146</td>
<td>228</td>
<td>0.5%</td>
</tr>
<tr>
<td><strong>Total Operating Expense</strong></td>
<td><strong>$770,593</strong></td>
<td><strong>$766,934</strong></td>
<td><strong>$703,457</strong></td>
<td><strong>$3,659</strong></td>
<td>0.5%</td>
</tr>
</tbody>
</table>

| Operating Income | $50,637 | $26,188 | $40,993 | $24,449 | 93.4% | $9,644 | 23.5% |
| Operating Margin % | 6.2% | 3.3% | 5.5 | 2.9% | 0.7% |
| Gain (Loss) on Investments | 11,989 | 9,174 | (5,873) | 2,815 | 30.7% | 17,862 | 304.1% |
| Other Non-Operating | (5,414) | (5,995) | (4,879) | 581 | 9.7% | (535) | -11.0% |
| **Net Income** | **$57,212** | **$29,367** | **$30,241** | **$27,845** | 94.8% | **$26,971** | **89.2%** |
| Net Margin % | 6.9% | 3.7% | 4.1% | 3.2% | 2.8% |

*Gain/(Loss) on Investments based on information available at close. Final investment return for this period is reflected in Fiscal Year to Date returns in the subsequent reporting cycle.*
## Key Metrics

### Financial Performance

<table>
<thead>
<tr>
<th></th>
<th>FY20 YTD Through November</th>
<th>Moody’s Median</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Financial Operations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operating Margin</td>
<td>6.2%</td>
<td>3.5%</td>
</tr>
<tr>
<td><strong>Financial – Liquidity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Days Cash on Hand</td>
<td>206</td>
<td>265</td>
</tr>
<tr>
<td><strong>Financial – Leverage</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Debt to Capitalization</td>
<td>18.0%</td>
<td>26.0%</td>
</tr>
</tbody>
</table>
Inpatient Rehabilitation Facility

Suresh Gunasekaran, MBA
Associate Vice President, UI Health Care and CEO, UI Hospitals & Clinics

Bradley Haws, MBA
Associate Vice President for Finance & Chief Financial Officer, UI Health Care
Collaborating with Encompass Health provides additional opportunities to improve clinical outcomes and operational performance.

Quality Focus: Example Benefits to Acute Care Hospitals

- Improve patient flow-through, assisting with acute care length of stay
- Positive impact on readmission rates and episodic spend
- Quality outcomes and efficiencies through use of proprietary systems and clinical tools designed specifically for rehabilitation care, home care and post-acute solutions (as discussed in the following slides)
- Greater outreach to serve patients requiring an inpatient rehabilitation level of care
- Ensures that patients receive care in the right place, at the right time, and for the right cost to achieve the right outcome
Benefits/Impact

Inpatient rehabilitation facility benefits and overall impact

Collaborating with Encompass Health provides additional opportunities to improve clinical outcomes and operational performance.

Capacity Focus:

FY2019 Inpatient Rehabilitation Facility Adult Discharges within Encompass Condition Categories

<table>
<thead>
<tr>
<th>Condition Category</th>
<th>Discharges</th>
<th>Average Length of Stay</th>
<th>Medicare Severity-Diagnosis Related Group Estimated Length of Stay</th>
<th>Length of Stay Index</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brain Injury</td>
<td>155</td>
<td>12.94</td>
<td>7.39</td>
<td>1.75</td>
</tr>
<tr>
<td>Burns</td>
<td>16</td>
<td>14.56</td>
<td>9.40</td>
<td>1.55</td>
</tr>
<tr>
<td>Cardiac Surgery</td>
<td>9</td>
<td>23.11</td>
<td>11.83</td>
<td>1.95</td>
</tr>
<tr>
<td>Multiple Trauma</td>
<td>157</td>
<td>13.65</td>
<td>6.41</td>
<td>2.13</td>
</tr>
<tr>
<td>Neurological Disorder</td>
<td>25</td>
<td>12.68</td>
<td>3.58</td>
<td>3.54</td>
</tr>
<tr>
<td>Oncology – Neuro/Eye</td>
<td>29</td>
<td>10.00</td>
<td>5.95</td>
<td>1.68</td>
</tr>
<tr>
<td>Respiratory Disorders</td>
<td>16</td>
<td>18.25</td>
<td>8.01</td>
<td>2.28</td>
</tr>
<tr>
<td>Spinal Cord</td>
<td>112</td>
<td>9.29</td>
<td>4.86</td>
<td>1.91</td>
</tr>
<tr>
<td>Stroke</td>
<td>204</td>
<td>6.47</td>
<td>3.53</td>
<td>1.83</td>
</tr>
<tr>
<td>Vascular</td>
<td>17</td>
<td>9.65</td>
<td>3.99</td>
<td>2.42</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>740</strong></td>
<td><strong>10.83</strong></td>
<td><strong>5.58</strong></td>
<td><strong>1.94</strong></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Category</th>
<th>Low</th>
<th>Year 1</th>
<th>Aggressive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Encompass Bed Need</td>
<td>740</td>
<td>740</td>
<td>740</td>
</tr>
<tr>
<td>Encompass Bed Availability</td>
<td>607</td>
<td>607</td>
<td>607</td>
</tr>
<tr>
<td>UIHC Discharges to Encompass</td>
<td>607</td>
<td>607</td>
<td>607</td>
</tr>
<tr>
<td>UIHC Opportunity Days</td>
<td>3,183</td>
<td>3,183</td>
<td>3,183</td>
</tr>
<tr>
<td>Efficiency of Opportunity Days</td>
<td>25%</td>
<td>50%</td>
<td>100%</td>
</tr>
<tr>
<td>Days to Backfill</td>
<td>796</td>
<td>1,591</td>
<td>3,183</td>
</tr>
<tr>
<td>Incremental Beds</td>
<td>2</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>UIHC Adult Average Length of Stay</td>
<td>6.41</td>
<td>6.41</td>
<td>6.41</td>
</tr>
<tr>
<td>UIHC Incremental Admissions</td>
<td>124</td>
<td>248</td>
<td>497</td>
</tr>
</tbody>
</table>
Partnership with Encompass Health to standup a state-of-the-art, 40 bed inpatient rehabilitation hospital by June 2020

Partnership Details:
- 50/50 UIHS/Encompass ownership model with Encompass management and financial control
- Encompass to build the facility and provide support staff, IT infrastructure, day-to-day management, etc. The inpatient rehabilitation facility will be supported by UIHC faculty by a closed medical staff model
- UIHC to provide limited ancillary services to the inpatient rehabilitation facility

Financial Summary
- Capital cost = $27m
- Positive Margin in Year 2
- Positive Net Present Value
Encompass Health Overview

Portfolio of partnerships

25+ years of partnership and collaboration experience with acute care hospitals across the nation

Joint venture partnerships began in 1991
45% of hospitals have a joint venture partner

Joint ventures are an important part of Encompass Health’s strategy and the company is actively establishing new partnerships across the country

Joint venture hospital partners own equity ranges from 2.5 to 50%

Inpatient Rehabilitation
06/30/2019

131 Inpatient Rehab Facilities (46) are joint ventures
32 States and Puerto Rico
~30,800 Employees
22% Of licensed beds
30% Of Medicare patients served

Key Statistics
Trailing 4 Quarters

182,016 Inpatient Discharges
~$3.4 Billion in revenue
Inpatient Rehabilitation Facility Location

Location and rendering of the inpatient rehabilitation facility

Southwest corner of Oakdale Boulevard and Coral Court
Coralville, Iowa

Rendering of Exterior of Proposed Hospital
Mechanisms and Treatment of Skeletal Muscle Atrophy

Christopher M. Adams, MD, PhD
Fraternal Order of Eagles Diabetes Research Chair
Professor of Internal Medicine–Endocrinology and Metabolism
Professor of Molecular Biology and Biophysics
The Problem
Mechanisms and Treatment of Skeletal Muscle Atrophy

Aging, Malnutrition, Muscle Disuse, Critical Illness, Chronic Illness

\[ \downarrow \]

Muscle Atrophy

Loss of Strength, Mobility & Independent Living
Delayed Recovery from Illness & Injury
Impaired Metabolism
Falls, Fractures & Increased Mortality
Muscle Atrophy is a Major Unsolved Health Problem
Mechanisms and Treatment of Skeletal Muscle Atrophy
We Discovered Compounds that Inhibit Muscle Atrophy

Mechanisms and Treatment of Skeletal Muscle Atrophy

Ursolic Acid

Tomatidine

Decreased Muscle Atrophy & Weakness
By Increasing Muscle, Ursolic Acid & Tomatididine Decrease Fat
Mechanisms and Treatment of Skeletal Muscle Atrophy

Increased Muscle Mass

Decreased Fat, Obesity & Type 2 Diabetes
Ursolic Acid & Tomatidine Are Natural Dietary Compounds
Mechanisms and Treatment of Skeletal Muscle Atrophy
We Formed a Company to Translate our Research
Mechanisms and Treatment of Skeletal Muscle Atrophy

- Emerging biotechnology company and the vehicle by which we translate our research
- Founded in 2012, licensed early-stage intellectual property from University of Iowa in 2014
- Performs compound discovery and development, then partners with large global companies to generate products
- Funded by private investment, NIH Small Business Innovation Research Program awards and revenue from commercial partnerships
Four Areas of Translation
Mechanisms and Treatment of Skeletal Muscle Atrophy

Human Nutrition

Companion Animal Nutrition

Pharmaceuticals

Production Animal Nutrition
Mechanistic Research Enables Therapeutic Discoveries
Mechanisms and Treatment of Skeletal Muscle Atrophy
We Discovered a Central Mechanism of Muscle Atrophy
Mechanisms and Treatment of Skeletal Muscle Atrophy

Aging, Malnutrition, Muscle Disuse, Chronic Illness, Critical Illness

**Gadd45a Gene**

Exon 1 2 3

**Gadd45a mRNA**

**Gadd45a Protein**

Skeletal Muscle Atrophy & Weakness
Genetic Inhibition of ATF4 Prevents Muscle Atrophy

Mechanisms and Treatment of Skeletal Muscle Atrophy

- Normal Control Mice
- Mice Lacking ATF4 in Skeletal Muscle

Muscle Mass

Muscle Strength

Muscle Quality

Exercise Capacity

* * *
Thank You