Delivering Consistent and Lower Cost Care in the Long Term Care Industry

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Executive Summary

The Challenge:
- Pressure to lower labor costs while improving quality of care

Common Myth:
- There is a trade-off between cost and quality of care

Reality:
- Staffing to acuity leveraging engineered labor models will drive reduced labor costs while also improving the quality and consistency of care to the resident

The Approach:
- Defining standard routines, task and acuity demand drivers and engineering labor standards at the task level provides the necessary level of detail to truly understand staffing needs based on level of care needs of the resident while also creating a foundation for continuous improvement to deliver consistent high quality care
The long term care industry is evolving by expanding their resident population:

- Facilities are accepting “sicker” residents with more complex levels of care
- Facilities are introducing new offerings, including therapy services, to capture the post-acute, short stay patient

Reductions to reimbursement rates and ever changing regulatory requirements are forcing companies to find new and innovative ways to increase top line growth while controlling or reducing expenses

As these changes are implemented, labor costs are soaring as facilities struggle to staff appropriately to meet the needs of their residents

Traditional linear staffing models no longer work. Staffing models must consider discrete care requirements in order to plan and deploy labor effectively.
Staffing to Acuity

- Staffing to acuity provides the solution to the ever changing needs of resident care
- While this concept is not new, grounding the development of acuity-driven staffing models in core industrial engineering principles including work standardization and engineering labor standards ensures true alignment of care demands with labor supply
- The result of this effort is ensuring

  the **Right Resources** are in the **Right Place** at the **Right Time**

  Process Optimization + Resource Scheduling (Match capacity to process requirements)

  =

  doing the **Right Things** the **Right Way**

  Process Excellence (Focus on value-added activities)

Focusing on the ‘5 Rights’ delivers simultaneous improvements in Service, Cost and Quality of Care
Traditional labor management practices have traditionally been “sanitized” when applied in the Healthcare Industry limiting the full potential of task-driven labor standards.

WMP’s methodology leverages key engineering tools including time study, work sampling and predetermined motion time systems to drive detailed data collection to ensure:

This approach also provides a true view of labor expense by task which defines, quantifies and prioritizes opportunities to build and support your continuous improvement plan.
Step 1 – Formalize Routines

Create and/or formalize nursing and certified nursing assistant routines by role, unit and shift

**Tools**
- Job shadowing

**Validation Points**
- Multiple facility studies (if applicable)
- Subject-Matter-Expert reviews
Step 2 – Quantify Labor Allocation

Define labor allocation by task for each job, shift and unit to fully understand key labor drivers and candidates for acuity driver considerations

**Tools**
- Work sampling

**Validation Points**
- Multiple studies by characteristic
- Multiple facility studies (if applicable)

### Chart: Resident Care – LTC – First Shift

<table>
<thead>
<tr>
<th>Activity</th>
<th>Min/Shift</th>
<th>Hr/Shift</th>
<th>%/Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADL</td>
<td>156</td>
<td>2.6</td>
<td>34.7%</td>
</tr>
<tr>
<td>Resident Comm</td>
<td>44</td>
<td>0.7</td>
<td>9.8%</td>
</tr>
<tr>
<td>Activities</td>
<td>31</td>
<td>0.5</td>
<td>6.8%</td>
</tr>
<tr>
<td>Transfers</td>
<td>10</td>
<td>0.2</td>
<td>2.2%</td>
</tr>
<tr>
<td>Other Res. Care</td>
<td>34</td>
<td>0.6</td>
<td>7.4%</td>
</tr>
</tbody>
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### Chart: Admin

<table>
<thead>
<tr>
<th>Activity</th>
<th>Min/Shift</th>
<th>Hr/Shift</th>
<th>%/Shift</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care Tracker</td>
<td>34</td>
<td>0.6</td>
<td>7.5%</td>
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<tr>
<td>Charting</td>
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<td>0.3</td>
<td>3.4%</td>
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<tr>
<td>Staff Comm</td>
<td>10</td>
<td>0.2</td>
<td>2.2%</td>
</tr>
<tr>
<td>Shift Start-Up</td>
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<td>0.1</td>
<td>0.9%</td>
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<tr>
<td>Other Admin</td>
<td>18</td>
<td>0.3</td>
<td>4.1%</td>
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Step 3 – Develop Labor Standards

Study the clinical care and operations and build task level engineered labor standards by acuity drivers

**Tools**
- Time Study
- Work Sampling
- PMTS
- Expert Knowledge

**Validation Points**
- Multiple facility studies (if applicable)
- Statistical confidence
- Subject-Matter-Expert reviews
Step 4 – Build & Validate the Labor Model

Compile labor standards into a flexible modeling platform to drive labor from staffing, through schedule and ultimately to deployment.

**Tools**
- Data analysis
- Microsoft Excel
- Scheduling Technology Solution

**Validation Points**
- Budget to Model Analysis
- Actual to Model Analysis
- Validation Studies
- Subject-Matter-Expert Reviews

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![Care Duration (min) by Acuity](image_url)
Step 4 – Build & Validate the Labor Model (cont.)

Pilot validation of the model leveraging offline tools such as Excel ensure data and process requirements are finalized before committing a large capital investment on technology.

- Providing an easy to use interface to unit attributes automatically populates staffing requirements.

### Hours Per Resident

<table>
<thead>
<tr>
<th>Census</th>
<th>Unit</th>
<th>AM</th>
<th>PM</th>
<th>NT</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>ACU</td>
<td>0.38</td>
<td>0.38</td>
<td>0.32</td>
<td>1.08</td>
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<tr>
<td>65</td>
<td>LTC</td>
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<td>0.28</td>
<td>0.25</td>
<td>0.95</td>
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<tr>
<td>26</td>
<td>STC</td>
<td>0.52</td>
<td>0.38</td>
<td>0.38</td>
<td>1.28</td>
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</table>

### Certified Nursing Assistant

<table>
<thead>
<tr>
<th>Census</th>
<th>Unit</th>
<th>AM</th>
<th>PM</th>
<th>NT</th>
<th>TOTAL</th>
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</thead>
<tbody>
<tr>
<td></td>
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<td>0.86</td>
<td>0.81</td>
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<td>0.94</td>
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<td>2.09</td>
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### Total PPD | State Min | PPD Difference
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<tbody>
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<td>0.75</td>
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<tr>
<td>2.73</td>
<td>2.80</td>
<td>-0.07</td>
</tr>
<tr>
<td>3.66</td>
<td>2.80</td>
<td>0.86</td>
</tr>
</tbody>
</table>

### Employees Required - Rounded to Minimum Shift

<table>
<thead>
<tr>
<th>Census</th>
<th>Unit</th>
<th>Charge Nurse (LPN)</th>
<th>Certified Nursing Assistant</th>
<th>Total Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>37</td>
<td>ACU</td>
<td>1.75</td>
<td>4.25</td>
<td>17.14</td>
</tr>
<tr>
<td>65</td>
<td>LTC</td>
<td>2.25</td>
<td>5.50</td>
<td>23.00</td>
</tr>
<tr>
<td>26</td>
<td>STC</td>
<td>2.00</td>
<td>3.25</td>
<td>12.36</td>
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</table>
Step 5 – Develop Lean Roadmap

Leverage the developed labor model to quantify labor spend by task and prioritize largest opportunities for lean engineering

Tools

- Data Analysis

Validation Points

- None Required – Previously Validated

Annual labor model maintenance provides a low cost refresh of Lean opportunities while ensuring prioritization is grounded in truly engineered data
Acuity Model Benefits

- Bottom-up, demand-driven baseline tool to define true labor requirements at the facility level

- Supports labor balancing by allowing for scheduling at any level (site, unit, floor, etc.)

- Dynamic design supports current operations while also:
  - Allows for “What-If” modeling
  - Flexible to support changes in the operating model without complete re-design

- Diagnostic output of labor demand by task/category to understand priorities for lean initiatives and potential people/process/technology investments

- All aspects of labor planning are driven from a common data set: budget > staffing model > schedule > deployment

- Provides insight into the true cost of care by resident based on acuity
Recap

- The long term care industry is evolving to offer new services to new classifications of residents and patients

- The traditional means of scheduling patient care resources is not agile enough to appropriately align capacity with demand
  - Labor costs, including overtime are soaring

- Staffing based on acuity driven models provides the flexibility needed to support the ever-changing environment within the long term care facility

- Detailed labor standards are the key to not only addressing staffing and scheduling concerns but also set the table for continuous improvement
Questions?

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