The Challenge of Delivering Patient Care in a Financial Environment

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Chief Nursing Officer
University Hospital and Richard M. Ross Heart Hospital
Goal

Provide an overall understanding of how nursing effects a hospital’s day-to-day operations and financial performance

http://www.youtube.com/watch?v=1SmgLtg1Izw
Objectives

1. Overall perspective of the financial impact that nursing has on hospitals
   a) Salaries and benefits
   b) Education and professional development
   c) Recruitment and retention
2. Challenges with managing staffing
   a) Budgets
   b) Overtime
   c) Float Pool concepts
   d) Acuity / Productivity
3. Balancing cost effectiveness and customer service
   a) Roles
   b) Nurse sensitive indicators
The Ohio State University Health System

- The OSU Health System
  - University Hospital
  - University Hospital East
  - Richard M. Ross Heart Hospital
  - Ohio State’s Harding Hospital
  - Arthur G. James Cancer Hospital
  - OSU Rehabilitation Services at Dodd Hall
  - Primary Care Network

- 55,316 patient admissions
- 4,515 births
- 979,951 outpatient visits
- 114,137 Emergency Department visits
- 15,562 inpatient surgeries
- 17,949 outpatient surgeries

November 2009
Healthcare Today

Why is financial knowledge important?

• External standards (quality, external agencies, benchmarks)
• Government strategies
• Eroding payments
• Increasing expenses
• New technologies
• Patient mix shifting (Inpatient to Outpatient)
• Capacity
• Our day to day decisions effect the Hospital’s financial strength
Current Challenges Facing Healthcare Leaders

Dual Mandate

- Safeguard Financial Health
  - Managing Productivity
  - Build the best Nursing organizational structure

- Improve Quality
  - Improving frontline critical thinking
  - Safeguard against Nursing never events
Juggling Multiple Priorities

Overtime Dollars

- ONA contract rules
- Acuity
- Census
- Ability to recruit
- Incremental OT
- Increase in staff Call off (H1N1)
- Unplanned increase in vacancy
Breakdown of Operating Expenses

- Salaries & Benefits 40%
- Supplies & Drugs 20%
- Shared Services 11%
- Services 10%
- Resident Salaries & Benefits 4%
- Depreciation & Interest 4%
- Bad Dept 4%
- Inter–Hospital Services 4%
- University Overhead 2%
OSUMC Salary Expense

Fiscal Year 2009; includes The James

Nursing Division 50% All Other 50%
Unions Impact on Managing Expense

- Scheduling requirements
- Overtime & Over percent
- Low census
- Annual salary increases set via contract
- Benefits
Education & Professional Development

- Certification Program
- Education Days
- Clinical Ladder
- Education Reimbursement
Recruitment & Retention

- Internship Program
- Externship Program
- Residency Program

Decrease in Staff Turnover & Vacancy
Documenting the High Cost of Nurse Turnover

Pro Forma of Turnover Costs for a Single Nurse

<table>
<thead>
<tr>
<th>Study</th>
<th>Replacement Costs</th>
<th>Vacancy Costs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising</td>
<td>$3,378</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hiring</td>
<td>$2,679</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Orientation / Training</td>
<td>$6,333</td>
<td>Closed beds / patient deferral</td>
<td>$57,577</td>
</tr>
<tr>
<td>Newly Hired RN Productivity</td>
<td>$1,195-$7,169</td>
<td>Labor (temporary staff, overtime, productivity loss)</td>
<td>$8,125</td>
</tr>
<tr>
<td>Pre-turnover Productivity</td>
<td>$2,629</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Termination</td>
<td>$116</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Subtotal</td>
<td>$16,330-$22,304</td>
<td>Subtotal</td>
<td>$65,702</td>
</tr>
</tbody>
</table>

Range represents costs for new and experienced RNs, respectively

While the lion’s share of turnover expense is attributed to vacancy costs, hospitals may still pay over $20,000 per nurse even in areas without a labor shortage

1 This model is applicable for institutions not currently experiencing a shortage of nurses in the market area. Calculation uses $13,791 per new hire and assumes zero impact on bed availability and zero expense for temporary staff or overtime.
2 This model is applicable for institutions experiencing a moderate, sustained labor shortage. Calculation uses $15,352 per new hire and assumes historical vacancy levels and temporary labor costs.

Source: Nursing Executive Center analysis.
The Financial Challenge of Managing Staffing

Once the budget is finalized to meet the institution’s financial goals how do you operationalize the budget and provide outstanding patient care?
Staffing Challenges….

- Managing staff ill time, absenteeism, & FMLA
- Acuity fluctuations impact on staffing
- Census & ADT changes impact on staffing
- Allocating resources appropriately – RN competencies
- Float Pool utilization
- Core staffing – determining the correct staffing levels
- Development of a flexible staffing methodology to meet acuity and volume fluctuations – overtime reduction
More Challenges….

- Labor Contract
- Education
- Orientation Requirements
- Recruitment
- Retention of staff
- Aging workforce – baby boomers & a plan for the future
- Budgeting
What’s in my Finance Toolkit?

• Bi-weekly Productivity Reporting
• External Benchmarking
• Workforce Management System
• Float Pool
Overtime

Variables Resulting in Overtime
- FMLA coverage
- Intermittent
- Long Term
- Flu coverage
- Vacant positions
- School impact (August)
- Competency/hiring constraints - critical care
- Military leave
- Vacation coverage
- Contract challenges
- Patient volume changes

Overtime Reduction Strategies
- Continued development of Float Pool
- Daily staffing meetings with all nursing units
- Housewide Nursing Supervisors
- Back fill long term FMLA
- Review of FMLA practices
- Hire vacant positions
- Review of baseline staffing practices
- Hiring fair options
- Balanced schedules
Cost of Overtime Scales Quickly

<table>
<thead>
<tr>
<th>Year</th>
<th>2% OT hours</th>
<th>5% OT hours</th>
<th>8% OT hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 RN FTE</td>
<td>$638</td>
<td>$1,644</td>
<td>$2,717</td>
</tr>
<tr>
<td>100 RN FTEs</td>
<td>$63,758</td>
<td>$164,429</td>
<td>$271,666</td>
</tr>
<tr>
<td>250 RN FTEs</td>
<td>$159,395</td>
<td>$411,073</td>
<td>$679,165</td>
</tr>
<tr>
<td>400 RN FTEs</td>
<td>$255,033</td>
<td>$657,718</td>
<td>$1,086,664</td>
</tr>
<tr>
<td>550 RN FTEs</td>
<td>$350,671</td>
<td>$904,362</td>
<td>$1,494,163</td>
</tr>
<tr>
<td>700 RN FTEs</td>
<td>$446,308</td>
<td>$1,151,006</td>
<td>$1,901,663</td>
</tr>
</tbody>
</table>

1 Assume nurses paid national median wage per hour ($52.03) and 1.5 hourly rate ($45.05) for overtime hours, 40 hours per week, 52 weeks per year. Figures rounded to the nearest dollar.

Overtime Utilization

- Float Pool: 53.3 FTE's
- ClairVia Workforce Mgmt System Implemented
- Addl 13 FTE's hired
- Started Qtrly OT Reviews
- Float Pool 53.3 FTE's
- Announce Upcoming Daily Staffing Meetings

Graph showing hours from July 2008 to September 2009:
- University & Ross
- Patient Days
- Linear (University & Ross)
OSU Medical Center Successes

RN Overtime & Overpercent Hours
1st Quarter

Hours

July | August | September | Q1

FY 2009 | Q1 2010

10.4% decrease
Float Pool Concept

• Specialty Clusters
• Just in Time Assignments vs. Pre-assignment
• Determination of Supply/Demand
• Deployment Guidelines
Phased Approach

Phase 1 & 2
Build
• Assess needs and bring in resources (quantify ROI)

Phase 3
Operational Improvement
• Staffing Strategies
• Overtime Utilization
• ANS oversight of all staffing

Phase 4
Workforce Planning
• Assessing return on initial build and requesting additional staff to remove premium expense
Impact of ADT & Acuity on Staffing
How to Measure?

**Traditional Acuity System**
- Nurse centric
- Focus on what nurses plan to do for the patient
- Measures tasks, activities, and interventions
- Captures acuity for an interval of time
- Prone to acuity creep

**Patient Outcomes Approach**
- Patient centric
- Focus on actual patient progress toward desired outcomes
- Measures nursing care required to move patient to next level of wellness
- Captures acuity and events across a continuum of time
- Statistical validity & reliability
Nursing Outcomes Classification (NOC)

An organized system of patient outcomes sensitive to nursing intervention.

16 years of clinical testing and development.

*The University of Iowa, College of Nursing*
Budgeting

• Typically finance uses ADC as a unit of service for a nursing unit – midnight census is not reflective of census fluctuations

• A nursing unit hits their budgeted ADC only about 30% of the time

• How to account for flexing up – building overtime in the budget, build a float pool, etc.

• Difficult to forecast acuity levels

• Compromise between FTE budget and the institutions bottom line goal

• Provide outstanding patient care
# Census Variability

Budgeted ADC = 53.20

## Census by Day of the Week & Shift Partition

<table>
<thead>
<tr>
<th></th>
<th>0700 - 1100</th>
<th>1100 - 1500</th>
<th>1500 - 1900</th>
<th>1900 - 2300</th>
<th>2300 - 0700</th>
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<tbody>
<tr>
<td>Monday</td>
<td>46.09</td>
<td>48.44</td>
<td>49.59</td>
<td>43.26</td>
<td>43.88</td>
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<tr>
<td>Tuesday</td>
<td>49.53</td>
<td><strong>52.82</strong></td>
<td><strong>53.15</strong></td>
<td>47.79</td>
<td>48.71</td>
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<tr>
<td>Wednesday</td>
<td>54.80</td>
<td>57.69</td>
<td>56.71</td>
<td>50.20</td>
<td><strong>52.43</strong></td>
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<tr>
<td>Thursday</td>
<td>57.86</td>
<td>60.66</td>
<td>60.29</td>
<td><strong>54.20</strong></td>
<td>54.86</td>
</tr>
<tr>
<td>Friday</td>
<td>61.74</td>
<td>64.51</td>
<td>62.43</td>
<td>55.69</td>
<td>57.17</td>
</tr>
<tr>
<td>Saturday</td>
<td>63.31</td>
<td>65.89</td>
<td>63.29</td>
<td><strong>53.00</strong></td>
<td>51.57</td>
</tr>
<tr>
<td>Sunday</td>
<td>55.31</td>
<td>57.20</td>
<td>55.20</td>
<td>43.34</td>
<td>41.60</td>
</tr>
</tbody>
</table>

Mother & Baby 07/01/2009 – 02/28/2010
Workforce Management System

- Electronic schedule
- Enterprise-wide view of staffing
- Staffing decision points
- Monitor fluctuations in census
- Admission, discharge, & transfer impact on staffing
- Acuity
Four key imperatives to better manage productivity in the current environment

• **Defend principled productivity targets:** Most nurse executives possess strong opinions about appropriate targets for their organizations. However, to effectively defend such safe staffing targets, nursing leaders must speak fluently about different types of productivity metrics, as well as the advantages and disadvantages of various external benchmarks in establishing targets. Additionally—after years of heated debate—the most progressive nursing leaders are now finally incorporating measures of nursing workload not captured by census, such as ADT and acuity, to more accurately set staffing targets.

• **Guard against common drivers of variance:** Unit performance can often be undermined by factors not immediately associated with productivity. To that end, some institutions have achieved dramatic cost savings by finding safe and cost-effective alternatives to sitter utilization, better matching staff incentives to current market realities and leveraging employee-level tracking to reduce incremental overtime—an underappreciated but often sizable cost opportunity.

• **Match staffing to anticipated demand:** Establishing a more robust forecasting process by accounting for seasonal, day-of-week, and time-of-day variations remains a pivotal first step to better staffing. Beyond this, nurse executives should consider deploying non-traditional shifts tailored to predictable volume patterns, while being careful to mitigate the workload impact of additional hand-offs. Furthermore, integrating the patient placement and staffing functions is an ideal way to create staffing efficiencies.

• **Build a more flexible workforce:** Patient volume predictions will never be 100% accurate. We must, therefore, build some flexibility into our staffing model. In fact, a number of for- and not-for-profit organizations have begun to employ a more aggressive core staffing model in which flexible labor—such as float pools and per diems—occupy a much larger portion of the workforce, virtually eliminating the need to flex down.
Balancing Cost Effectiveness and Customer Service
Nursing Roles

Chief Nurse Executive/Chief Nursing Officer

• Responsible for overall fiscal health of nursing enterprise
• Creates policy to build care standards
• Strategic budget planning
• Manages capacity
• Volume projections
• Approves all RN positions and requests additional as needed
• Requests Nursing Capital
• Creates business plans to support patient care needs
• Negotiates ONA contract
• Nursing voice to CEO, CFO, COO, MD’s, etc.
Nursing Roles

Nursing Director

- Responsible for overall fiscal health of Service Line (CC, Med/Surg, LDR)
- Recommends, RN positions, requests additional as needed
- Create variance analysis reports
- Requests Nursing Capital
- Create business plans to support patient care needs
- Flexes staff between units to meet patient demand
- Service area voice to CNO
- Stays abreast of comparable staffing models and best practices
Nursing Roles

Nurse Managers

• Responsible for overall fiscal health of Unit
• Recommends, RN positions, requests additional as needed
• Create labor and supply variance analysis reports
• Managers OT, balances schedules
• Requests Nursing Capital
• Creates staffing plans to support patient needs
• Flexes staff between shifts/days
• Creates the unit culture of quality balanced with fiscal accountability
• Unit voice to Director
Nursing Roles

Charge Nurse

• Assists to create fiscal health of Unit
• Recommends changes in daily staffing to meet patient needs
• Communicates to Nurse Manager staffing concerns
• Has basis budget understanding
• Flexes staff between shifts/days
Advisory Board

The Business Case for Investment in Nursing
Marshalling Compelling Evidence of Nursing’s Financial Impact

- Care Quality
- Frontline Engagement
- Patient Throughput
- Nurse Overtime
- Customer Satisfaction

Contents

Briefing Overview
Cost of Treating a Single Hospital-Acquired Condition

### Select Cost Estimates for Nursing-Sensitive Events

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>Treatment Costs per Incident</th>
<th>Source</th>
</tr>
</thead>
</table>
## Cost of Treating a Single Hospital-Acquired Condition, continued

<table>
<thead>
<tr>
<th>Incident Type</th>
<th>Treatment Costs per Incident</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pulmonary Embolism</td>
<td>$19,385</td>
<td>Dalen, J., “Venous Thromboembolism,” Marcel Dekker: 2003</td>
</tr>
</tbody>
</table>

*All values adjusted to 2008 Dollars*

*Nursing leaders should closely examine all sources for what costs are included in estimates and ensure that figures are adjusted for inflation if the costs are dated.*
Staffing Investments Correlating with Reductions in Preventable Events

<table>
<thead>
<tr>
<th>Study Variable</th>
<th>Medical Care: Licensed Nurse Staffing and Adverse Events in Hospitals</th>
<th>Nursing Research: The Effects of Nurse Staffing on Adverse Events, Morbidity, Mortality, and Medical Care</th>
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</thead>
<tbody>
<tr>
<td>Outcome</td>
<td>• 2% reduction in pressure ulcers</td>
<td>• 9.5% reduction in pneumonia</td>
</tr>
<tr>
<td></td>
<td>• 3% reduction in falls</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• 1.5% decrease in lung collapse</td>
<td></td>
</tr>
</tbody>
</table>

Publication Year
2003

**Meta Analysis**
For a more comprehensive review of recent studies examining the relationship between RN staffing levels and hospital-acquired conditions, see Dall T, et al., “The Economic Value of Professional Nursing,” Medical Care, January 2009, 47(1):97

Source:
Unruh, L., “Licensed Nurse Staffing and Adverse Events in Hospitals,” Medical Care, January 2003, 41(1): 142,
Cho S., et al., “The Effects of Nurse Staffing on Adverse Events, Morbidity, Mortality, and Medical Costs,” Nursing Research, March/April 2003, 52(2):71; Nursing Executive Center analysis
In 2010

The Emphasis on Cost Continues

• The government is taking a more active role in demanding quality and managing costs

• The recession has pinched budgets, and both new and existing players are examining the value they bring to consumers.

• The potential for savings multiplies as the industry converges, squeezing out inefficiencies and duplication.

Source:
Pricewaterhouse Coopers’ Health Research Institute, “Top 10 health industry issues in 2010: squeezing the juice out of healthcare, December 2009, 2-18
Top 10 Health Industry Issues

Health leaders must look beyond their own organizations and figure out how they can benefit by reducing costs elsewhere in the value chain. As the industry addresses an increased emphasis on cost, the reductions could domino from one sector to another.

Source: Pricewaterhouse Coopers' Health Research Institute, “Top 10 health industry issues in 2010: squeezing the juice out of healthcare, December 2009, 2-18
Squeezing the Juice Out of Healthcare

- Last year, external forces put health organizations in a reactive mode, but 2010 and beyond will present an opportunity to step ahead of the changes. Success will hinge on squeezing the most value out of new and current relationships, impending health reform and regulatory changes, and consumer demands.

Source:
Pricewaterhouse Coopers' Health Research Institute, “Top 10 health industry issues in 2010: squeezing the juice out of healthcare, December 2009, 2-18
Questions?