Enabling Better Care at a Lower Cost per Patient Day

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Today’s landscape

The Situation

- Cost pressures and decline in reimbursements continue with healthcare reform
- Heightened focus on quality with changing business models
- Access to medical information has driven a more informed culture
- Hospitals spend 65 – 72% of operating budget on wages and salaries
- Value Delivered = <30% of nursing time
- Continued and intensified nursing shortage due to a growing patient population and fewer nurses: nursing skill challenge

How do we deliver MORE with LESS: again

Define the Outcome:
Patient Experience and Cost
**Our Organization**

- Large IDN in New Orleans, Louisiana
- Ochsner Medical Center: Magnet and listed in top 100 hospitals
- System currently 8 hospitals; 1250 beds
- Cost escalating, effort to enhance quality
- Lowest risk adjusted mortality in LA
- Incorporating Relationship Based Care

**Defining the “work” of nursing…**

- Task
- Activity
- Process
- Outcome

**Defining Outcomes:**

Patient Experience and Cost

**The Opportunity**

Significant opportunity exists to provide “better” care at decreased cost per patient day

- Outcomes: Create an outcomes focused care delivery model that drives improved quality, decreased costs, and a better patient experience
- Collaboration: Develop a patient-focused collaborative approach to integrate care delivery across the system
- Alignment: Realign resources to provide the most value
Our Goal: Enable better outcomes at a lower FTE cost per patient day within a care driven environment

Healthcare delivery issues are universal: only the zip code changes

Defining Outcomes: Patient Experience and Cost

OUR GOALS:

- Increase nursing time at bedside
- 10% cost reduction in direct patient care cost per patient day
- Embed nursing practice principles
- Improve nursing sensitive indicators
- Improve support services integration
- Improve patient satisfaction
What we had

**Strengths**
- Strong Sr. leadership support
- Willingness to take risk
- Energy
- Operations framework
- Ability to get outside help
- Opportunity to design the solution
- Strong positive work environment

**Opportunities**
- Leadership gaps at several levels
- Multiple hospitals with “unique” requirements
- Communication challenges
- Opportunity to align support services

Roadmap for Success

1. Start with a *clear goal/criteria* and associated *timeline*

2. Understand *how* we delivered care, *where* we spend our time and *gather ideas* about how we could improve *operationally, clinically and financially*

3. Understand the *interdependencies* with other care delivery personnel and streamline practices-work better together

4. A methodology to *test* our ideas against our goals in a *minimal risk* environment

*One chance to get it right.*
How did we approach this project?

Because of the complexity and the detail required, we decided to invest in computer simulation to determine our best option for

Why Simulation?

To obtain data driven results for various scenarios in a minimal risk environment and select “best fit” culturally, operationally and financially
Our Roadmap

Pre-Work phase: Goals/Objectives, Metrics for success, structure/committee, messaging

Phase 1: Data Collection and analysis

Phase 2: Current state feedback and model

Phase 3: Idea generation for solution testing

Phase 4: Model solutions options based on specific criteria and deliver results
The Benefits of Simulation

• Allows visualization of impact of future changes

• Allows us to foster evidence based decisions rather than relying on politics, emotion or past history

• Provides a “minimal risk” environment to ask “what if”

Simulation Methodology: discrete event

Operational feasibility based on future-state scenarios compared against current-state metrics measured by:

- Delays as defined by organization
- Defects as defined by objective

Simulation Data Tables for additional analysis

Inputs
- Layout (CAD)
- Specific Location Coordinates
- Volumes
- Arrival Patterns
- Length of Stay
- Care Plans
- Workflows and variations
- Staff Schedules
- Resource Assignment
- Complexities and interdependencies
- Cycle Times: frequency and distribution
- Required details

Model

Outputs

Engine

Database
Phase 1: Data Collection
Data is collected from three sources

1. Floor plan of the hospital
   AUTO-CAD

2. Primary data collection: observation using rigorous methodology and tools
   Observation of 14 roles at 4-6 hr intervals on all shifts + interviews
What roles did we evaluate?

**Unit Based Staff**
- RNs
- LPNs
- PCTs
- CNAs
- Clinical Coordinators
- Operational Coordinators
- Case Managers

**Unit based points of intersection for:**
- BioMed
- Pharmacy
- Transport
- Dietary
- Materials
- Linen
- EVS

Interviewed hospitalists, managers, directors and other key stakeholders relative to this project

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**Phase 1: Data Collection**

Data is collected from **three** sources

3. **Secondary data** collection: data extracted from hospital systems

Cleanse, analyze and synthesize data
Examples of Questions:

- How often do interruptions happen and what is the impact?
- Why are nurses doing so many transports on our unit?
- Would it really help to have supplies closed to our patients?
- What is the impact of admit and DC on unit by time of day?
- How many miles do our nurses walk in a shift? Does it matter?
- How do we link behaviors to outcomes?
- How much time are nurses spending in DIRECT care?
- What if we had a med nurse?
- How many times do our nurses walk in a shift?
- What if we had a med nurse?
- How do we define the value of nursing?

No Shortage of Ideas…

- Modeled 38 ideas/scenarios
- Selected 7 that fit our operational, financial and cultural criteria
- Narrowed to 3 and combined to define model
Activities and tasks that populate the model

- How many activities occur in a typical 40 bed med-surg unit in 30 days?
  - 600,000

- How many tasks occur in a typical 40 bed med-surg unit in 30 days?
  - 1,450,000
Our New Model of Care

Care Partner Model: RN / LPN Team

Nursing care teams (RN and LPN) coordinate to provide care to 7-8 patients in a geographic pod
- Right resource / right task maintains nursing scope of practice
- Patient centered care increases patient satisfaction
- RBC re-implementation
Our Journey

- Transition of personnel
- Recruiting and hiring
- Curricula development/training
- CAP incorporation
- Finalize “Go Live” plan
- 4 week monitored implementation
- Re-measure at 90 days
- Staff survey
- Post-implementation scorecard review

What about Support Services?
Level of impact based on interdependencies:

- BioMed
- Linen
- Dietary
- Materials
- EVS
- Pharmacy
- Transport
Support Services Integration

*Engagement at every level*

- **BioMed** - rounding and communication
- **Dietary** - ordering, deliver and water refill processes
- **EVS** - notification, communication and accountability redesign
- **Linen** - replenishment and location redesign
- **Materials** - floor stock and location redesign
- **Pharmacy** - delivery process redesign
- **Transport** - staffing to volume/demand

*Created Resource Manual*

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**GO LIVE!**

On the “bus” to the new care partner model of New Orleans style!
Our Results:

Current Measures:

- Post-pilot primary data collection repeat At 45-90-120 days Feedback survey
- Scorecard for financials
  - $ Direct care delivery : DCPPD
  - Ratio per POD (RN/LPN)
- Cost opportunities
  - Agency/prem pay use
  - Sitter use
- Falls
- Pressure ulcers
- Med Errors w injury
- Re-admission 30 days
- Pat Sat/HCAHPS
- Employee Engagement
- Voluntary turnover RN/LPN
Unit 1: West Bank - Community Hospital

First Unit to Meet Goal!

- Meeting financial metrics since April, 2011
- Pat Sat moving up-last period 88th percentile
- Patient call lights down 34%+
- Bedside shift transition at 96%
- Falls and PU improvement

Unit 2: IMTA - Academic Medical Center

- Meeting financial metrics since August, 2011
- Pat Sat moving up-last period 90th percentile
  * Dramatic sustained increase in TY notes
- Patient call lights down 30%+
- Bedside shift transition at 92%
- Falls and PU improvement
**Additional Units:**

Unit 3: meeting financial metrics since September

Unit 4: half way to goal (leadership change)

Unit 5: at 20% of goal (epilepsy mini-unit)

All units report increase in thank-you and written feedback

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**POST PILOT primary data collection repeat**

<table>
<thead>
<tr>
<th></th>
<th>IMTA</th>
<th>West Bank</th>
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<tbody>
<tr>
<td>Percent Direct Patient Care time</td>
<td>18% per care team, per shift</td>
<td>43% per care team, per shift</td>
</tr>
<tr>
<td>Time Direct Patient Care time</td>
<td>1.4 hours per care team, per shift</td>
<td>2.8 hours per care team, per shift</td>
</tr>
<tr>
<td>Total post-implementation Direct Patient Care time</td>
<td>9.2 hours per care team, per shift</td>
<td>9.5 hours per care team, per shift</td>
</tr>
<tr>
<td>Percent increase in Indirect Patient Care time</td>
<td>RN: 7% LPN: 8%</td>
<td>RN: 39% LPN: &gt;50%</td>
</tr>
<tr>
<td>Documentation</td>
<td>+7%</td>
<td>-2%</td>
</tr>
<tr>
<td>Travel</td>
<td>RN: 29% LPN: &lt;1%</td>
<td>RN: 38% LPN: 50%</td>
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*Nursing has changed behavior*
Nursing has changed behavior

What did we do with added time available?
Focused on Nursing care Principles

- Bedside Shift Report (video)
- Hourly Rounding
- 5 minutes at bedside-seated
- No public venting

Embedded Relationship Based Care

Pre-implementation Post-implementation
2009 2010 2010 2011
ADC = 35.2 ADC = 36.8 ADC = 32.7 ADC = 29.5

FTEs/ Average Cost/ FTEs/ Average Cost/ FTEs/ Average Cost/ FTEs/ Average Cost/
Shift Rate ADC Shift Rate ADC Shift Rate ADC Shift Rate ADC
RN 7.1 $ 33.59 4 $ 179.44 7.8 $ 33.99 7.8 $ 173.51 7.8 $ 33.78 4.6 $ 193.20 4.6 $ 128.29
LPN 0.6 $ 24.03 0.5 $ 24.03 0.5 $ 25.34 0.5 $ 25.34 0.5 $ 24.03 0.5 $ 25.34 0.5 $ 24.03
PCT/Stips 2.5 $ 12.46 2.7 $ 12.27 2.7 $ 12.27 2.7 $ 12.27 2.7 $ 12.27 3.4 $ 19.82 3.4 $ 19.82
Agency 0.2 $ 55.71 0.2 $ 54.89 0.2 $ 54.89 0.2 $ 54.89 0.2 $ 54.89 0.2 $ 54.89 0.2 $ 54.89
Total 10.3 $ 179.44 14.2 $ 173.51 14.3 $ 173.51 14.3 $ 173.51 14.3 $ 173.51 16 $ 128.29 16 $ 128.29
ADC per Nursing FTE = 4.59 4.43 3.37 3.68
ADC per care team = 6.73 7.83
### WB MS Cost Opportunities

<table>
<thead>
<tr>
<th>Initiative</th>
<th>Total</th>
<th>DPC</th>
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<tr>
<td>Improve efficiency</td>
<td>$</td>
<td>$</td>
</tr>
<tr>
<td>Appropriate skill mix</td>
<td>$(9.54)</td>
<td>$(9.54)</td>
</tr>
<tr>
<td>Eliminate excess premium pay</td>
<td>$(1.16)</td>
<td>$(1.16)</td>
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<tr>
<td>Reduce Unit Support to 2009</td>
<td>$</td>
<td>$(14.26)</td>
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<table>
<thead>
<tr>
<th>Revised cost per patient</th>
<th>$</th>
<th>$</th>
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<tr>
<td>$173.49</td>
<td>$273.83</td>
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<table>
<thead>
<tr>
<th>Baseline cost per patient (2009)</th>
<th>$</th>
<th>$</th>
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<tr>
<td>$201.40</td>
<td>$271.56</td>
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<tr>
<th>Pct. Reduction w/ Revised</th>
<th>-13.9%</th>
<th>0.8%</th>
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<tr>
<td>Sitter cost per patient - 2011</td>
<td>$0.38</td>
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<thead>
<tr>
<th>Agency cost per patient - 2011</th>
<th>$3.25</th>
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<tr>
<td>Agency cost per patient - 2010 Post</td>
<td>$10.33</td>
<td></td>
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<tr>
<td>Agency cost per patient - 2010 Pre</td>
<td>$7.66</td>
<td></td>
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<tr>
<td>Agency cost per patient - 2009</td>
<td>$6.61</td>
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### Patient Satisfaction

![Graph showing patient satisfaction trends from Q2-09 to Q3-11](chart.png)
Overall dynamics

Staff Comments:
“It is so much better with a licensed partner: my patients are safer if I am tied up for a while”

“I love this! As a new grad I am thrilled to have a mentor and partner”

“I love it now but letting go of the past was huge”

“My respect for my colleagues has grown—we were so independent before I didn’t appreciate others too much”

“I must be really sick or really special—I have two nurses”

Patient: Rodney
Voluntary Turnover

RN

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<tr>
<th></th>
<th>OMC</th>
<th>WB</th>
<th>Bap</th>
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<tr>
<td>2010</td>
<td>6.00%</td>
<td>5.13%</td>
<td>6.30%</td>
</tr>
<tr>
<td>1st Q 2011</td>
<td>5.90%</td>
<td>6.90%</td>
<td>9.60%</td>
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LPN

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<th></th>
<th>OMC</th>
<th>WB</th>
<th>Bap</th>
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<tbody>
<tr>
<td>2010</td>
<td>22.10%</td>
<td>9.10%</td>
<td>13.80%</td>
</tr>
<tr>
<td>1st Q 2011</td>
<td>28.52%</td>
<td>17.70%</td>
<td>9.20%</td>
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Steps to Stabilize and Sustain:

- Rigor with scorecard on financial and quality metrics with actions: weekly review
- Create/maintain tool for daily feedback and real time adjustments:
- Daily 3PM Huddles to manage volume and deploy staff - OMC
- Standardize OC and CC roles, accountabilities, and hours
- Rigor around Nursing Practice Principles
- Developed video for bedside shift transition
MOVING FORWARD!

• Continued rigor in score-carding current practices

• Protocol approved for model “spread”
  (formal research through IRB)
  
  ✓ Add remaining Med-Surg units in system hospitals (3)
  ✓ Evaluation of telemetry for modeling (3 units)

• Additional quality indicators
  (CLBSI, CAUTI, BSN, risk adjusted mortality and LOS)

What we Learned:

This is a **BIG DEAL and touches every aspect of the organization**

*The need to fundamentally understand the complexity of clinical practice and cultural change*

*Simulation allowed us to “see” the future and know what was possible*

There is always uncertainty in pioneering new ground and there are no examples of success to point to
What we Learned:

Living with the ambiguity is not easy; staff wanted clarity.

As clarity emerged, stakeholder adoption became easier.

Seasoned staff was more challenged with “the way we’ve always done it” and letting go.

The need to challenge the data at every level—the way we measure may not reflect the way we operate.

Our Advice to you....

Remember, the delivery of care relies on a complex and interdependent system—not only nursing.

Be strategic, transparent, flexible, clear in any communication, focused and fearless.

Clinical/cultural transformation is a process, not an event.
Always remember: The patient is the purpose…