# Workforce Prescriptions Evidence-Based, Outcomes Focused



# The Economics of labor in healthcare, 2010

Prepared 05/04/2011

Workforce Prescriptions

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# Purpose of the Report

With shrinking reimbursements, aging workforces and creeping acuity, reducing expenses is fast becoming a required leadership competency. With labor as the top expense item, it is important for the industry to have access to a broad range of data. As a result, each year since 2005, Workforce Prescriptions has compared data from thousands adult acute hospitals in order to better understand the sources of labor dependence and impacts of labor costs on overall financial performance. This study includes hospitals with between 25 to 2000 staffed beds and includes all profit and governance types. In 2010, 3579 hospitals were sampled.

This report contains comparative data based on an algorithm know as the *Pay IQ®*. The Pay IQ® is a very specific measure of labor efficiency that takes into account variances in volume, acuity and reimbursement rates in order to allow "like" comparisons of institutions.

#### **Data Sources**

Data for this report is gathered from 4 sources:

- CMS reports filed quarterly with the Federal Government by hospitals themselves
- Online surveys distributed to distinct cohorts of the hospital workforce
- Data requests provided by hospitals to Workforce Prescriptions
- Interviews with thousands of staff, managers and senior leaders of hospitals

Workforce Prescriptions uses a "three points of correlation" approach to data analysis, seeking for validation of data from a single source in at least two others before assuming validity. All trend data is analyzed in bundled cohorts of like institutions (IE; staffed bed size, type of facility, primary patient type, profit status, type of governance) to ensure comparison of like institutions.

Where no bundling exists (in overall national data comparatives), Workforce Prescriptions uses algorithmic calculations that assign equivalency values to labor efficiency.

### **Definitions**

**Pay IQ**® - The Pay IQ calculation is based on an algorithm that adjusts hospital profiles for differences in reimbursement rates, payor mix, volumes, patient acuity, local cost of living and local cost of labor in order to assign a valid comparative labor IQ (labor intelligence) score to every facility. This is done to eliminate comparing institutions with disparate operating circumstances in a manner that unfairly characterizes any one of them.

Annual Recapture – The annual recapture value is a calculation of "labor waste which can be sustainably recovered in a given 12 month period". It is calculated on the most recent data reported by each institution and may not always reflect changes undertaken since the last reporting period. It is based on the difference between the most efficient (top decile) institutions and all other institutions once Pay IQ™ adjustments have been imposed. Due to the mathematics of scale, large organizations (even when very efficient) can have higher recapture values than very small institutions that are not very efficient. Onsite audits coupled with the implementation of targeted changes have validated these calculations

**Labor Waste as a % of Net Operating Revenue** – Is the calculation of the "proportion of operating revenue consumed by unnecessary (and reducible) labor spending".

**Labor/Net Revenue** – Is the calculation of the "proportion of operating revenue consumed by the labor required to produce it". Labor, as used in the calculation, includes: All salaries, fringe benefits and contract labor.

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### **General Trends**

Bed Size had a high correlation to labor efficiency in 2010 (General adult acute only):

Facility Size (ADC)	N	Labor/Op Revenue	ALOS	Pay IQ	Annual Labor Waste	Waste/Staffed Bed
25-50	326	47.69%	3.9	103.8	\$1,757,559	\$47,707
51-100	325	47.04%	4.3	105.4	\$2,878,110	\$39,362
101-200	302	46.47%	4.6	107.3	\$4,833,348	\$34,011
201-300	114	46.72%	4.8	107.8	\$8,530,305	\$35,198
301-500	66	47.23%	5.1	108.0	\$12,545,134	\$34,144
501-1000	11	45.89%	5.6	113.7	\$33,633,520	\$50,259
Average	1144	47.04%	4.4	105.9	\$4,491,629	\$37,254

Revenue and labor "per staffed bed" declined for the first time in 5 years (-1.2%) and are having a measurable impact on financial results. Nationally, however, the three year trend on overall revenue was up (13.8%) but barely stayed ahead of overall increases in labor (13.6%) during the same period.

"Productivity Improvements" have hospital staff working harder than ever to meet volume and acuity needs and while not impacting retention (yet), have undermined the overall efforts to reduce the cost-per-hour of labor. Actual paid labor per discharge has risen over 3 years by 12.3% and overall labor costs as a portion of operating revenue have only improve by 0.4%. This is primarily due to the pattern of choices made by leaders when hospitals require FTE or hours of reduction as a means to improve productivity. Typically, lower wage employees/hours are cut leaving higher wage employees to complete necessary work (which drives up the cost-per-hour of labor).

	2006	2007	2008	2009	2010	Annual Change
Premium pay as a % of Net revenue	4.8%	5.6%	6.9%	6.4%	8.8%	37.5%
Premium pay as a % of Gross labor (with benefits)	11.8%	13.2%	13.7%	12.2%	15.0%	23.0%
Recap % of Net Rev	2.50%	2.79%	2.31%	3.00%	4.10%	36.7%
Labor/Net Rev	51.2%	51.1%	51.0%	49.3%	48.6%	-1.4%
Nursing Productivity (nursing hours/Adj Pat Day)	10.9	11.3	8.1	6.5	6.7	3.1%
Labor /staffed bed	\$745,608	\$758,408	\$783,190	\$761,741	\$813,463	6.8%
Revenue /staffed bed	\$1,484,780	\$1,525,546	\$1,568,260	\$1,548,788	\$1,676,863	8.3%

While the intrusion of greater government volumes in some institutions incentivizes more efficient care, it can come at the cost of "revenue per volume" erosion that often (but not always) changes the healthiness of the relationship between labor and revenue. There has been a general market decrease in the % of volume from government payors but the change in payor mix over three years is minor (-4.6%)

There is a point beyond which government payor intrusion (growth in its % of total volumes) no longer provides any enhancement in length of stay.

"Premium pay" as a component of labor reversed its single year decline and renewed its 4 year upward growth trend.

As organizations have become more efficient, they have become aware of ever greater opportunities. If 2008 standards were applied to 2010 results, many of the organizations who were the most efficient labor utilizers are now some of the biggest labor over-users. This is due to the phenomenon of comparative analytics: when everyone around you gets better faster than you do – you look "in decline" by comparison even when you have made great strides.

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## Data by facility size

Over time, we have recognized that facilities of disparate size experience unique challenges in labor. In small facilities, the % of fixed labor resources is less than in large facilities where 24 hour infrastructure requirements and deeper layers of management infrastructure create heavier relative burdens. As a result, we compare organizations of similar size in order to ensure the equity of operating conditions.

The pattern for 2010 no longer is typified by an inverted bell-curve of performance. Mid-size organizations no longer always fared better in their use of labor than did extremely large or extremely small facilities. Data indicates that the reasons for this disparity rest in 6 "facility specific" areas:

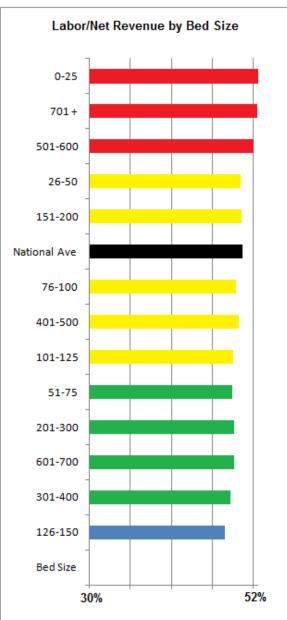
- 63% correlation: Efficiency of care processes & overall Length-of-stay
- 61% correlation: Existance, size and efficiency of employed/contracted hospitalists
- 58% correlation: Levels/amounts of "forced" non-productive labor tied to change and technology initiatives
- 54% correlation: Health of relationship between hospital and nonemployed physicians
- 48% correlation: Facility payor mix or changes in state reimbursement
- 43% correlation: Age and general health of the population served

Bed Size	N	Labor/Net	Pay IQ	2007	2008	2009	2010	Annual	Yr-over-yr
126-150	185	46.5%	107.2	2.9%	2.7%	2.80%	2.69%	\$ 5,272,714	-3.9%
301-400	142	47.2%	107.8	2.7%	2.8%	2.80%	2.70%	\$13,168,379	-3.8%
601-700	22	47.6%	110.2	3.0%	3.0%	2.80%	2.72%	\$29,072,961	-3.0%
201-300	344	47.6%	106.0	2.8%	2.7%	2.83%	2.76%	\$ 9,583,391	-2.6%
51-75	348	47.4%	104.6	2.9%	2.8%	2.91%	2.77%	\$ 2,652,323	-4.6%
101-125	225	47.6%	104.7	2.8%	2.8%	2.90%	2.79%	\$ 4,480,637	-4.0%
401-500	74	48.2%	106.9	2.8%	2.7%	2.85%	2.79%	\$19,348,851	-2.2%
76-100	294	47.9%	103.8	2.9%	2.8%	2.91%	2.82%	\$ 3,600,970	-3.1%
National Ave	3250	48.6%	102.8	2.8%	2.31%	2.99%	2.88%	\$ 5,192,347	-3.7%
151-200	275	48.6%	103.4	2.8%	2.8%	2.95%	2.88%	\$ 7,207,393	-2.2%
26-50	485	48.4%	102.3	3.0%	2.9%	3.03%	2.89%	\$ 1,832,712	-4.8%
501-600	33	50.0%	104.2	2.7%	2.7%	3.03%	2.93%	\$25,042,414	-3.3%
701 +	25	50.4%	107.3	2.7%	2.5%	3.08%	2.96%	\$46,196,375	-3.9%
0-25	798	51.0%	97.0	2.9%	2.9%	3.21%	3.13%	\$ 1,021,931	-2.7%

2010 was a challenging year for many organizations. Falling volumes early in the year allowed many hospitals to "right size" their workforces through productivity initiatives which did not always provide the anticipated labor savings.

Typically this would create a bounce-back effect when volumes subsequently rose, but for many organizations, the larger economic climate in America has kept staff looking, reduced vacancy rates and stabilized employee engagement. In 2010, many staff report being, "just happy to have a job"!

For many hospitals, 2010 was a year of expense reduction with a renewed commitment to gain efficiencies' in any area possible. This showed up in overall improvements in length-of-stay, labor costs and productivity.



#### There is 1 group that is doing better than ave:

Hospitals with between 125 & 150 staffed beds

#### There are 3 groups that are suffering:

Hospitals with under 25 staffed beds

Hospitals with between 500 & 600 staffed beds

Hospitals with over 700 staffed beds

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### Data by State

Performance by state pointed to clear regional market trends. Knowing that the Pay IQ calculation adjusts for differences in reimbursement rates (private, Medicare and Medicaid), acuity and cost of living/cost of labor, it is interesting to note that the gap in labor performance is widening as some states improve their performance while others have slipped:

### Year-over-year labor performance of states

Several States saw their Labor/Net revenue drop and *Pay IQ*™ rise. This occurs when enhancements to revenue outpace increases in labor costs or when declination in labor spending outpaces reductions in revenue

Only 9 states/territories suffered from derogatory changes in their labor position while 45 improved it.

Only 2 states experienced systemic aggressive improvements to their labor standing while 5 states experienced extraordinary declines (aggressive and extraordinary are defined as > 9% annual change)

### Summary findings of changes in labor costs in 2010

Knowing "what" is occurring is only half of the battle. Understanding "why" and more importantly "what to do about it" is the other half. All organizations audited (onsite audits included detailed payroll data analysis, staff & leader interviews and custom surveys) reported the following as reasons for escalation in labor costs:

Labor costs on a per hour of care basis have risen.

Current productivity measures are masking rising hourly costs (often productivity is measured as hours/FTE's per adjusted patient day instead of as cost-per-hour-per output).

Workforce flexibility is diminishing as workforce age rises and more staff seek full-time status as a means of securing benefits for un/under employed spouses. As a result, staff scheduling is becoming increasingly complex (too many full time staff to flex effectively). This undermines labor savings, raises benefit cost per worked hour of labor and undermines productivity efforts.

78% of audited hospitals have reduced FTE's to combat rising labor expense.

All audited facilities are struggling with unusual and sustained non-season oriented changes (declines) in volume.

	2006	2007	2008	2009	2010	09-10	06 - 10
State	Labor/Net	Labor/Net	Labor/Net	Labor/Net	Labor/Net	Trend	Trend
	Rev	Rev	Rev	Rev	Rev		
VI	45.5%	61.7%	66.9%	68.6%	60.6%	-11.6%	33.2%
GU	65.9%	69.6%	68.9%	64.1%	57.5%	-10.2%	-12.7%
ND	55.1%	54.2%	55.9%	54.9%	51.7%	-6.0%	-6.3%
WI	49.5%	49.8%	49.6%	48.8%	46.6%	-4.7%	-5.9%
MN	52.5%	51.4%	51.5%	51.6%	49.8%	-3.4%	-5.1%
CO	44.0%	44.3%	44.6%	44.0%	42.7%	-2.9%	-3.0%
FL	44.5%	45.2%	45.8%	45.7%	44.4%	-2.8%	-0.2%
KY	49.2%	47.8%	48.7%	48.1%	46.8%	-2.6%	-4.9%
DC	51.3%	51.0%	51.1%	51.8%	50.5%	-2.6%	-1.6%
AZ	46.1%	46.5%	45.9%	45.7%	44.6%	-2.4%	-3.3%
AL	46.8%	46.9%	47.2%	47.5%	46.4%	-2.3%	-0.7%
NM	44.4%	44.2%	44.2%	44.7%	43.7%	-2.2%	-1.6%
IA	53.0%	50.6%	50.5%	50.9%	49.7%	-2.2%	-6.0%
MA	57.9%	58.4%	58.4%	58.8%	57.6%	-2.1%	-0.6%
NE	48.6%	47.5%	47.4%	46.5%	45.6%	-1.9%	-6.2%
ID	47.1%	46.2%	45.5%	47.4%	46.5%	-1.8%	-1.3%
OH	48.0%	48.3%	48.1%	48.1%	47.2%	-1.8%	-1.6%
MT	52.2%	52.3%	52.2%	52.2%	51.3%	-1.8%	-1.7%
MO	49.0%	47.8%	47.8%	48.5%	47.7%	-1.7%	-2.7%
TN	45.1%	45.1%	45.9%	45.3%	44.6%	-1.6%	-1.2%
OR	55.3%	54.8%	54.7%	53.8%	53.0%	-1.4%	-4.1%
RI	59.0%	59.4%	59.2%	56.9%	56.1%	-1.4%	-4.8%
GA	48.7%	48.6%	48.1%	47.5%	47.0%	-1.2%	-3.6%
DE	51.2%	49.8%	50.9%	51.1%	50.5%	-1.2%	-1.4%
National Ave	49.8%	49.5%	49.4%	49.2%	48.6%	-1.1%	-2.5%
CA	51.3%	51.0%	51.3%	50.6%	50.1%	-1.1%	-2.3% -5.8%
OK	49.3%	48.1%				-1.1%	
100.0			47.8%	46.9%	46.4%		
WV	49.7%	50.4%	49.5%	51.1%	50.6%	-1.1%	1.8%
IL	49.7% 50.0%	50.4% 48.3%	49.5% 48.0%	51.1% 48.6%	50.6% 48.1%	-1.1% -1.1%	1.8% -3.8%
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IL NY VT HI NV SD TX KS NH UT MI LA	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.6% 48.7%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 48.5%	49.5% 48.0% 61.4% 56.0% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 45.0% 53.0% 49.7% 41.7% 51.4% 49.3%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 52.6% 49.4% 41.5% 51.2%	-1.1% -1.196 -0.9% -0.9% -0.8% -0.8% -0.7% -0.7% -0.6% -0.6% -0.5% -0.4%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.2% -2.9% -2.0% -2.7% 0.8%
IL NY VT HI NV SD TX KS NH UT MI LA NC	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 48.7% 50.4%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 48.5% 49.7%	49.5% 48.0% 61.4% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 50.6%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 53.0% 49.7% 41.7% 51.4% 49.3% 50.7%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 52.6% 49.4% 41.5% 51.2% 49.1% 50.5%	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.8% -0.7% -0.6% -0.6% -0.6% -0.5% -0.4%	1.8% -3.8% -0.2% -1.0% -7.5% -4.3% -3.9% -2.9% -2.9% -2.0% -2.7% 0.8% 0.1%
IL NY VT HI NV SD TX KS NH UT MI LA NC CT	49.7% 50.0% 61.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.6% 48.7% 50.4% 57.2%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 48.5% 49.7% 57.2%	49.5% 48.0% 61.4% 56.0% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 50.6% 57.2%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 49.7% 41.7% 51.4% 49.7% 50.7% 50.8%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 52.6% 49.4% 41.5% 51.2% 50.5% 50.5%	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.8% -0.7% -0.7% -0.6% -0.6% -0.5% -0.4% -0.4%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.2% -2.9% -2.0% -2.7% -0.1% -1.2%
IL NY VT HI NV SD TX KS NH UT MI LA NC CT SC	49.7% 50.0% 61.0% 56.6% 46.0% 52.4% 46.5% 51.5% 51.5% 42.3% 52.6% 43.7% 50.4%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 48.5% 49.7% 57.2% 45.3%	49.5% 48.0% 61.4% 56.0% 56.0% 42.9% 49.8% 45.5% 51.4% 49.2% 50.6% 52.4% 49.2% 50.6% 43.9%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 53.0% 49.7% 41.7% 51.4% 49.3% 50.7% 445.0%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 52.6% 51.2% 49.4% 41.5% 51.2% 49.1% 50.5% 56.5% 44.9%	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.7% -0.7% -0.6% -0.6% -0.5% -0.4% -0.4% -0.4% -0.4%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% 2.2% -2.9% -2.0% -2.7% 0.8% 0.1% -1.2% -2.7%
IL NY VT HI NV SD TX KS UT MI LA NC CT SC AR	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.6% 48.7% 50.4% 57.2% 46.1% 47.0%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 48.5% 49.7% 57.2% 45.3% 47.1%	49.5% 48.0% 61.4% 56.0% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 50.6% 57.2% 43.9% 47.6%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 53.0% 49.7% 51.4% 49.3% 50.7% 56.8% 45.0%	50.6% 48.1% 60.9% 56.0% 42.6% 50.1% 44.7% 52.6% 49.4% 41.5% 51.2% 49.1% 50.5% 56.5% 44.9% 47.5%	-1.1% -1.1% -1.0% -0.9% -0.8% -0.8% -0.7% -0.7% -0.6% -0.6% -0.5% -0.4% -0.4% -0.4% -0.2% -0.2%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% 2.2% -2.9% -2.9% -2.1% -1.1%
IL NY VT HI NV SD TX KS NH UT MI LA NC CT SC AR VA	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.3% 52.4% 44.5% 44.5% 44.5% 44.6%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 52.9% 53.9% 44.5% 49.7% 57.2% 45.5%	49.5% 48.0% 61.4% 56.0% 42.9% 49.8% 45.5% 45.5% 41.6% 52.4% 49.2% 50.6% 57.2% 43.9% 44.7.6% 45.7%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 43.7% 41.7% 51.4% 50.7% 56.8% 49.7% 44.75% 44.8%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 41.5% 51.2% 49.1% 50.5% 56.5% 44.9% 44.9% 44.8%	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.8% -0.7% -0.6% -0.6% -0.6% -0.4% -0.4% -0.2% -0.1%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.2% -2.9% -2.0% -2.7% -0.1% -1.2% -1.2% -1.2% -3.8%
IL NY VT HI NV SD TX KS NH UT MI LA NC CT SC AR VA PA	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.6% 43.7% 50.4% 57.2% 46.1% 47.0% 50.4% 50	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 48.5% 49.7% 57.2% 45.3% 47.1% 50.0%	49.5% 48.0% 61.4% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 50.6% 57.2% 43.9% 47.6% 47.6% 49.9%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 44.0% 45.0% 49.7% 51.4% 49.3% 50.7% 56.8% 45.0% 47.5%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 41.5% 51.2% 49.4% 41.5% 50.5% 56.5% 44.9% 47.5% 56.5% 44.9% 47.7%	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.7% -0.6% -0.6% -0.6% -0.4% -0.4% -0.2% -0.1% -0.1%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.9% -2.0% -2.7% 0.8% 0.1% -1.2% -2.7% 1.1% -3.8% -3.8% -2.4%
IL NY VT HI NV SD TX KS NH UT MI LA NC CT SC AR PA WA	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.6% 43.7% 46.1% 47.0% 46.1% 47.0% 46.1% 47.0% 46.9%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 44.5% 57.2% 45.3% 47.1% 45.3% 50.0% 50.0% 50.0% 50.0% 50.0%	49.5% 48.0% 61.4% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 50.6% 57.2% 43.9% 47.6% 49.9% 50.5%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 53.0% 49.7% 41.7% 51.4% 49.3% 45.0% 47.5% 44.5% 49.7% 44.5% 44.5% 44.5% 44.5% 44.5%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 52.6% 49.4% 41.5% 51.2% 49.15 50.5% 50.5% 44.9% 47.5% 44.9% 47.5% 44.9% 47.5%	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.8% -0.7% -0.6% -0.6% -0.5% -0.4% -0.4% -0.2% -0.1% -0.1%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.2% -2.9% -2.0% -2.7% 0.8% -1.2% -1.1% -1.2% -2.7% 1.1% -3.8% -2.4% -0.3%
IL NY VT HI NV SD TX KS NH UT MI LA NC CT SC AR VA PA WA ME	49.7% 50.0% 61.0% 56.6% 46.0% 52.4% 46.5% 51.5% 50.3% 42.3% 52.6% 48.7% 50.4% 46.1% 47.0% 46.6% 59.9%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 43.5% 49.7% 57.2% 45.3% 47.1% 45.5% 50.0%	49.5% 48.0% 61.4% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 50.6% 57.2% 43.9% 47.6% 45.7% 49.9% 50.0% 50	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 53.0% 41.7% 51.4% 49.3% 50.7% 44.75% 44.8% 49.4% 54.1%	50.6% 48.1% 60.9% 56.0% 42.6% 50.1% 44.7% 52.6% 52.6% 49.1% 50.5% 49.1% 50.5% 44.9% 47.5% 44.9% 47.5% 44.9% 49.5% 54.2%	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.8% -0.7% -0.6% -0.6% -0.5% -0.4% -0.4% -0.1% -0.1% -0.1% -0.1%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.2% -2.9% -2.0% -2.7% 0.8% 0.1% -1.2% -2.7% 1.19% -3.8% -2.4% -3.8% -2.4% -3.8% -2.5%
IL NY VT HI NV SD TX KS UT MI LA NC CT SC AR VA PA ME NJ	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 55.2% 44.6% 57.2% 46.1% 47.0% 46.6% 50.9% 49.6% 50.9% 52.9% 56.1%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 49.9% 42.0% 52.9% 48.5% 49.7% 57.2% 45.5% 50.0%	49.5% 48.0% 61.4% 56.0% 42.9% 42.9% 43.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 50.6% 57.2% 43.9% 43.9% 44.5% 52.4% 49.9% 50.6% 57.2% 43.9% 43.9% 44.5% 50.6% 50	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 49.7% 41.7% 51.4% 50.7% 56.8% 45.0% 49.7% 44.8% 49.7% 44.8% 49.7% 44.8% 49.7% 49.4% 50.1%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 52.6% 49.4% 41.55% 51.2% 49.1% 50.5% 56.55% 44.9% 49.7% 49.7% 49.5% 54.8%	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.8% -0.7% -0.6% -0.6% -0.6% -0.4% -0.4% -0.4% -0.1%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.2% -2.9% -2.0% -2.7% -1.2% -1.1% -3.8% -2.4% -0.3% -1.3%
IL NY VT HI NV SD TX KS NH UT MI LA NC CT SC AR VA PA WA ME NJ IN	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.6% 43.7% 50.4% 57.2% 46.1% 47.0% 46.6% 50.9% 49.6% 50.9% 49.6% 50.9% 50.6% 50.9%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 49.9% 42.0% 52.9% 49.7% 57.2% 45.3% 47.1% 45.5% 50.0% 50.0% 50.0% 50.0%	49.5% 48.0% 61.4% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 50.6% 57.2% 43.9% 47.6% 49.9% 50.5% 54.4% 49.9%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 445.0% 45.0% 49.7% 41.7% 51.4% 50.7% 56.8% 45.0% 47.5% 49.3% 49.7% 49.3% 49.7% 49.4% 50.5% 49.7% 40.7%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 41.5% 51.2% 49.1% 50.5% 56.5% 44.9% 47.5% 59.5% 56.5% 44.9% 47.5% 49.5% 59.5% 50.5%	-1.1% -1.1% -1.0% -1.09% -0.99% -0.89% -0.89% -0.7% -0.69% -0.69% -0.69% -0.49% -0.49% -0.49% -0.19% -0.19% -0.19% -0.19% -0.19% -0.19% -0.19% -0.49%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.0% -2.0% -2.0% -2.7% -1.2% -2.7% -1.1% -3.8% -2.4% -0.3% -2.4% -0.3% -3.9% -3.9% -3.9% -3.9%
IL NY VT HI NV SD TX KS NH UT MI LA CT SC AR VA PA WA ME IN MD	49.7% 50.0% 61.0% 56.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.6% 43.7% 57.2% 46.1% 47.0% 59.9% 49.6% 50.9% 50.9% 50.9% 50.9%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 44.3% 49.9% 42.0% 52.9% 48.5% 49.7% 57.2% 45.3% 47.7% 57.2% 50.0% 50.0% 50.0% 50.0% 50.0% 50.0% 50.0% 50.0% 50.0%	49.5% 48.0% 61.4% 56.0% 42.9% 49.3% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 57.2% 43.9% 47.6% 49.9% 50.5% 54.4% 49.9% 50.5% 54.4% 49.9% 50.5% 50.5% 50.5% 50.0% 50	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 44.9% 53.0% 49.7% 41.7% 51.4% 49.37% 49.37% 49.37% 49.4% 54.1% 55.1% 47.4% 50.9%	50.6% 48.1% 60.9% 56.0% 54.4% 42.6% 50.1% 44.7% 41.5% 51.2% 49.4% 41.5% 56.5% 56.5% 56.5% 44.9% 47.7% 49.5% 55.3% 47.7% 51.2%	-1.1% -1.1% -1.0% -1.09% -0.99% -0.89% -0.89% -0.89% -0.79% -0.69% -0.69% -0.55% -0.49% -0.49% -0.19% -0.19% -0.19% -0.19% -0.19% -0.19% -0.19% -0.49% -0.49% -0.69% -0.69%	1.8% -3.8% -0.2% -1.0% -1.0% -2.2% -7.5% -4.3% -3.9% -2.9% -2.0% -2.7% 0.1% -1.2% -2.7% 1.1% -3.8% -2.4% -0.3% -2.5% -1.3% -5.5% -5.5%
IL NY VT HI NV SD TX KS H UT MI LA NC CT SC AR VA AR WA ME NJ IN MD PR	49.7% 50.0% 61.0% 65.6% 55.7% 46.0% 52.4% 46.5% 51.5% 50.8% 42.3% 52.6% 43.7% 57.2% 46.1% 47.0% 46.6% 50.9% 50.9% 50.6% 50.9% 49.6% 50.9% 50.9% 50.1%	50.4% 48.3% 61.2% 56.1% 56.0% 43.3% 50.2% 46.3% 51.4% 49.9% 42.0% 52.9% 48.5% 49.7% 57.2% 45.5% 50.0% 50.0% 50.0% 50.0% 50.0% 50.0% 50.0% 50.0% 50.0% 43.3%	49.5% 48.0% 61.4% 56.0% 42.9% 49.8% 45.5% 51.4% 49.9% 41.6% 52.4% 49.2% 50.6% 57.2% 43.9% 47.6% 45.7% 49.9% 50.5% 54.4% 56.7% 49.9%	51.1% 48.6% 61.5% 56.5% 54.9% 42.9% 50.6% 45.0% 53.0% 41.7% 51.4% 49.3% 50.7% 44.7% 56.8% 45.0% 47.5% 44.8% 56.1% 49.7% 49.4% 56.1% 56.5% 49.7% 49.4% 56.5%	50.6% 48.1% 60.9% 56.0% 42.6% 50.1% 42.6% 50.19% 44.7% 52.6% 49.4% 41.5% 51.2% 49.1% 50.55% 44.9% 47.5% 44.8% 49.5% 55.3% 47.75% 44.9% 49.5% 55.3% 47.75% 44.9% 49.5% 55.3% 47.75% 44.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 49.5% 56.9% 56.9% 49.5% 56.9% 5	-1.1% -1.1% -1.0% -0.9% -0.9% -0.8% -0.8% -0.7% -0.6% -0.5% -0.4% -0.1% -0.0% -0.6% -0.6% -0.6% -0.6% -0.6%	1.8% -3.8% -0.2% -1.0% -2.2% -7.5% -4.3% -3.9% -2.9% -2.9% -2.0% -2.7% 0.8% 0.1% -1.2% -2.7% 1.19% -3.8% -3.9% -2.4% -3.3% -2.5% -1.3% -5.5% -1.5% -5.5% -1.5%
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ľ	N=273	
	40%	of depts report that "more than 80% of staff are FT"
	56%	of depts report that "more than 70% of staff are FT"
	35%	of depts report that "more than 80% of staff are senior level"
	52%	of depts report that more than 70% of staff are senior level
	19%	of depts report that they have the right mix of FT & PT to meet volumes

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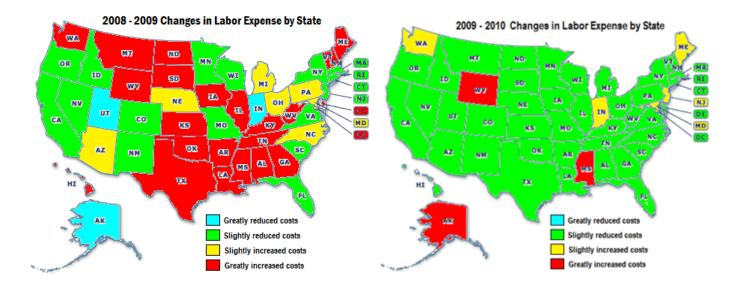


### **Data by State continued**

2010 saw a decline of labor costs (as a proportion of operating revenue) across much of the county. Yet when compared to the '08-'09 trend of improvement, it becomes more clear that the general economic conditions in the country have taken a toll on healthcare in three distinct ways:

- Reduced volumes for many institutions (delayed elective procedures and delayed chronic treatments)
- Erosion of payor-mix for many institutions (more patients were Medicare or Medicaid) as the younger/healthier populations delayed certain treatments while "waiting out" the country's economic downturn
- Reduced voluntary turnover (older/unhappy staff often with long tenure, put-off retirement/reductions in hours due to
  perceptions of a negative economic marketplace and reductions to retirement savings and safety net investments)

FINDING: These trends are unsustainable and when volumes rebound voluntary turn-over is likely to rise resulting in massive short staffing for the industry.



# **Big Winners & Losers**

#### **Big Winners:**

Virgin Islands & Guam who each drove their labor costs as a % of net revenue DOWN by over 9%!

#### Big Losers:

Alaska, Wyoming, Mississippi and Puerto Rico who each saw their labor costs (as a % of net revenue) INCREASE by over 4%

**Note of Interest:** Mississippi & Wyoming maintained their multi-year streak of losing ground in the battle to manage labor expense while Alaska proved unable to sustain the enormous gains made in previous years and changed from being one of the top performing states to one of the lowest performing state in a single year!

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### 2010 Root Causes of Labor Waste

In 2010, nursing, like most workforce components came under increasing pressure to improve productivity. Often rather than "do things differently" in order to improve productivity, many organizations attempted to "do things the same but with fewer resources".

Nursing does have productivity opportunities. In organizations with clean processes, 24X7 inpatient care departments are able to provide quality care with as little as 4.3 worked hours per CMI adjusted patient day (including management, unit secretaries, etc...). In organizations who struggled with efficient processes for care delivery, the labor utilization number can reach as high as 20.4 worked hours per adjusted patient day – a nearly 500% variance.

The disparity in these numbers forced us to begin surveying nursing workforces in both high and low performing organizations to determine the cause for the gap. The data made clear that nursing productivity is most greatly impacted by just a few key process differences. A survey of 1060 bedside nurses in 10 organizations (each in a different state) illustrates the barriers to perfect productivity – and a striking similarity of results:

- In less productive organizations, shopping/hunting for equipment consumes an average of 69.4 minutes per nurse per shift of productive labor vs. just 28.6 minutes in "very productive" organizations.
- In less productive organizations, completing redundant paperwork/documentation consumes an average of 67.8 minutes per nurse per shift of productive labor vs. just 34.1 minutes in "very productive" organizations.
- All together, these two challenges consume an average of 17.4% of ALL bedside nursing labor (some nurses work 12 hour shifts and others 8).

### **Notes of Interest**

### The most "hunted for" pieces of equipment in 2010:

#1 IV Therapy Infusion Pumps - 48.7% of respondents
#2 Pillows -32.4% of respondents
#3 IV Poles -30.7% of respondents
#4 Vital Signs Monitors -12.6% of respondents
#5 Wheelchairs -9.1% of respondents

# **Nursing Productivity**

N= 1060

Messiest Hand-offs:	
Between one department and another	64.3%
Most important change to make to improve hand-offs:	
Communication/respect/teamwork(hand-offs, shift change, staff, patients)	29.5%
Other people's jobs that nursing does regularly:	
Lighting for acquirement that isn't available lean isned	40.707

	Other people's jobs that nursing does regularly:
49.7%	Hunting for equipment that isn't available/serviced
22.8%	Cleaning or emptying trash
9.9%	Delivering/clearing food trays
26.0%	Transportation
7.7%	Stocking supplies

When patients most often experience delays:		
During the admission process	56.8%	
During the administration of care	14.1%	
During the last 24 hours of their stay	12.0%	

Do patients know how long they can expect to be in the hospital?	
Only Sometimes	48.7%
No	23.4%

Do patients know what is conning next?	09.570
Only Sometimes	58.9%
No	10.6%

Top dissatisfier's for nurses:	50.9%
Supply Issues - Not being able to find equipment/supplies	16.3%
Capacity Issues - Covering too large a caseload at times	20.7%
Physician Issues - Illegible writing from attending and staff	13.9%

Most "hunted" equipment	
Pillows	32.4%
IV Therapy Infusion Pumps	48.7%
IV Poles	30.7%
Wheelchairs	9.1%
Vital Signs Monitors	12.6%

Process Waste	
Time per shift hunting for equipment	31.17
Time per shift spent completing redundant paperwork	55.16
Time recaptured by addressing these two issues	70.71

#### Top Dissatisfier's for nurses in 2010:

#1 Covering too large a caseload -20.7% of respondents #2 Not being able to find equipment & supplies -16.3% of respondents #3 Illegible writing from attending or staff MD -13.9% of respondents

#### Care Efficiency issues in 2010:

- #1 14.1% of nurses reported that patients most often experienced delays DURING the administration of care
- #2 69.5% of nurses reported that patients either DON'T KNOW what's coming next or only "sometimes" know what is coming next

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## **2010 Root Causes of Labor Waste**

# Sources of Delays in Care/Discharge

One of the easiest ways to reduce labor dependence is by reducing daily census without reducing revenue. To do this, high performing organizations have developed processes to attack the "sources" of avoidable days and delays in care.

In order to discover the root cause of these differences in performance, we surveyed hundreds of Case Management nurses in dozens of organizations about the sources and costs of avoidable days.

	N=	
Source of Excess Days	142	!
Misc Issues: Backlog in case management prevented timely discharge planning	3.5%	6
Misc Issues: Not medically stable for discharge	6.6%	6
Misc Issues: Lack of insurance authorization for post-acute services/facilities	4.5%	6
Misc Issues: Necessary tests/procedures not completed	4.8%	6
	19.49	%

Cooperation issues: Patient need could be met at another facility but patient/family will not allow referral	4.1%
Cooperation issues: Patient/Family slow to select discharge care option	5.0%
Cooperation issues: Difficult to reach/find family at key decision points	4.2%
Cooperation issues: Patient/Family uncooperative/indecisive regarding procedures and tests	3.8%
Cooperation issues: Family unwilling/unable to take patient home on discharge date	4.0%
Cooperation issues: Physician Issues: Physician is slow to write orders, no plan documented	6.7%
	27.8%

Physician Issues: Physician has had inadequate communication with patient/family about patient's care	
Physician Issues: Physicians performing consults are slow to provide assessment/treatment	4.9%
Physician Issues: Day of discharge is unclear (surprise)	
	17.1%

TC/SNF Issues: Local market does not have enough LTC/SNF beds available	4.4%
TC/SNF Issues: Process of placement to LTC/SNF is difficult/cumbersome (financial/legal issues)	4.0%
TC/SNF Issues: Local market does not have enough specialty beds available in LTC/SNF facilities	4.7%
TC/SNF Issues: There are clinical financial issues for patient at LTC/SNF (cost of meds & equipment)	4.6%
TC/SNF Issues: Day of discharge is on weekend and facility will not accept	4.1%
TC/SNF Issues: Physician does not write orders early enough - facility unable to accept patient on primary date	4.3%
TC/SNF Issues: Patient/Family chooses unavailable/un-matching facilities	3.7%
	29.8%
TC/SNF Issues: Patient/Family chooses unavailable/un-matching facilities	

DME/HH Issues: Local market does not have enough DME/HH services	
DME/HH Issues: Unclear whether patient would need post acute care until very late in stay	
	5.8%

### **Notes of Interest**

Top sources of controllable delays in care or discharge that can be improved through collaboration with their physician partners:

- #1 "Physician is slow to write orders or no plan is documented"
- #2– "Physician has had inadequate communication with patient/family about patient's care

Top sources of controllable delays in care or discharge that are NOT physician related but ARE within the hospital's ability to influence:

- #1 Day of discharge is on the weekend
- #2 Patient/Family uncooperative/indecisive regarding procedures and tests

Top sources of controllable delays in care or discharge that are ENTIRELY within the hospital's ability to control:

- #1 The Day of discharge is unclear (surprise)
- #2 Necessary tests and procedures not completed

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### 2010 Root Causes of Labor Waste

The difficulty and complexity of roster development, shifting volumes, skill mix issues, productivity requirements, non-productive use, changes in acuity and call-outs all conspire to make managing a staff schedule abhorrent and time consuming.

The result is 18-22% labor waste for departments who fail to master this activity.

We surveyed 273 departments in order to more fully understand why scheduling is growing as a contributor to labor waste.

- 44.7% of departments report having holes in MOST or EVERY schedule in spite of their best efforts to balance and fill them.
- 56.7% of departments report not having the right mix of full and part-time staff to meet changes in volume/acuity. Detailed roster audits of these 273 departments showed that 91.3% of them actually had the wrong roster mix to accommodate volume swings. This is up by 20% from previous years.
- 35.9% of departments report that their policies actually incentivize staff to withhold labor in order to receive heightened premium pay.

## Challenges in Scheduling per 273 department managers

How often do schedules end up with holes inspite of balancing them ahead of time?	N=273
Every Schedule	19.4%
Most Schedules	25.3%
Some Schedules	22.0%
Few Schedules	26.7%
Never	6.6%
What % of your professionally licensed staff do you expect to retire in the next 5 years?	
0-10%	76.2%
10-20%	13.9%
20-30%	6.6%
30-40%	1.8%
40-50%	1.1%
More than 50%	0.4%
Do you think there are any staff in your area that have intentionally stayed PT or PRN but whom are actually	
working FT just so they can work more shifts at higher rates of pay?	
Yes	35.9%
No.	64.1%
NO	04.170
In addition to vacancies and unexpected volume changes, which of the following choices ALSO contribute to	
the use of overtime and other such premium pay in the organization?	
We don't pay enough so we use enhanced pay to support our lower salaries so that we don't lose our people	31.1%
We provide so much premium pay we incent staff to change their behavior in order to get more of it	37.0%
This is a challenging place to work. Our staff considers enhanced pay a form of "hazard" pay	39.6%
Which is the greatest contributor to blank spots (holes) in submitted schedules?	
We don't have enough people (high vacancy rates)	43.6%
Scheduling has become so complex (matching roster mix with staff preference with productivity and acuity and volume	
swings) that only a super computer could do it and get if perfect	56.4%
Do people ever work short?	
No	25.3%
Yes	74.7%
If you could give every staff member their own ideal schedule or ideal pay, are there some that would work	
MORE than they do right now?	E0.001
No V	59.0%
Yes	37.0%
Do you ever have to cancel staff?	
Do you ever nave to cancel starr?	39.9%
Yes	59.0%
les l	33.070
If we surveyed your staff, which would upset them more being called in on a day off or being canceled from	
a scheduled shift?	
Being canceled	54.2%
being canceled	JT.2 /0

#### **Notes of Interest**

Shift differentials have become disconnected from which shifts are actually the hardest to fill: (graph to right)

Friday evenings are now harder to fill than weekend days

Shift	Diff	N=273
Weekend Nights	3.27	
Weekend Evenings	3.80	
Friday Evenings	4.13	
Weekend Days	4.23	
Friday Nights	4.88	
Weekday Nights	5.23	
Weekday Evenings	5.27	
Weekdays	6.64	

Scheduling Difficulties are now the primary consumer of management time (averaging 23.8% of all hours)

- 56.4% of departments reported that holes in schedules were caused primarily by challenges in managing the variables of scheduling and not by vacancies
- 37.0% of departments reported that they could get more productive labor out of their existing staff if they could just give them the schedules or pay that they wanted

# Labor Utilization Audit Case Study Update: Reducing Labor Costs without reducing FTE's

# 2010 Update

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# Controlling Length of Stay without increasing rates of readmission An updated to the Labor Utilization Audit Case Study

Charlie K Dawson, MBA, CPC President Workforce Prescriptions

#### "Quality & Quantity have LESS to do with profitability than Efficiency does!"

One of the most brutal truths of healthcare is encompassed by the quote above that I ripped from my subconscious not too long ago when faced by a client asking the question, "Why do you focus so heavily on changing HOW we do our work?". My off-the-cuff response was that (now infamous) statement about quality, quantity and efficiency printed above.

The CEO in question paused and said, "Let me think about that . . . you can have great quality and be unprofitable, you can have huge volumes and still lose money and you can even have huge volumes with great quality and not make ends meet. So if I'm hearing you right, what you are saying is that once you are efficient, quality and quantity become enhancements to profitability, but have little to do with profitability on their own!"

I nodded in assent, but had truthfully never considered it in that way. Quality and Quantity enhanced profitability only if the organization is first efficient enough to take advantage of them . . . TRUE! The quality argument is analogous to buying the best car in the world, consequently not being able to afford the gas. The quantity side compares well to selling a product below cost – the more you sell, the more you lose. Who on earth would ever believe a winner arises out of those business models?

These are concepts I have spent years trying to articulate with varying degrees of success yet none of my attempts has been as concise or readily understood as that single CEO's contemplative statement that ties both concepts up into a nice bow.

#### Lines in the sand . . .

The biggest battles in healthcare nearly always come down to conflicts between efficiency and quality. How much efficiency is "just enough" and how much is "too much"? Who defines "quality" and how do we measure it? These conflicts occur nearly universally in contemplating changes to length of stay, even though the value proposition is on the side of efficiency. There are two clear teams and they each have their slogans:

- One team says, "With better than 95% of our reimbursements being case/DRG rate payments, it behooves us to become as efficient as
  possible in driving care since each hour of LOS reduction represents \$2.94M per 100 staffed beds in direct expense and labor savings".
- The other team counters with, "If we push care progression too far/too fast we risk reductions in clinical quality and potentially increase our rate of avoidable readmission".

As a result, in 2009 and year-to-date 2010 as a part of our ongoing efforts to increase labor efficiency, we have focused as a collective (consultants and St Peter's healthcare leaders) on a single major opportunity: Improving Care Efficiency in order to reduce length-of-stay and to gain the associated labor value such improvements represent. This meant we have had to work to accomplish 4 distinct outcomes without reducing clinical quality or negatively impacting rates of readmission:

- Developing a standard admission processes
- Standardizing "high volume" order sets
- Fostering 100% compliance to the development of working DRG's and target discharge dates for ALL patients
- Prioritizing care around target discharge dates

Late in 2009, in order to more ably communicate these goals, as a group, we developed a pictogram intending to illustrate "how" and "why" our care management and prioritization was less than ideal. We were pleasantly surprised by how exceptionally well that one picture functioned as a major touch-point to drive rapid progress in our pursuit of change.

So our new theme for 2010 became: "Focus on redistributing work intensity to the front end of each patient's stay" (See graphic below). Using this theme as our central focus proved to be the key to driving deep, meaningful changes that produced the balance of our desired results.

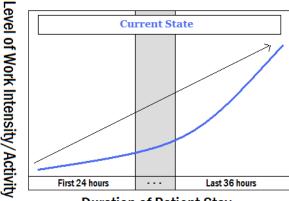
In Care Efficiency and its associated LOS, this picture allowed: physicians, nurses & case management to focus on a shared goal for change: namely – move the bulk of the work forward in the patient's stay. This "shared view" has been lacking in 2009 efforts resulting in each group "implementing in a vacuum" which has held back overall progress as each constituency jostled forward, then back again in response to each other.

It has allowed all three key groups to "suddenly" recognize "Why" assigning working DRG's & target discharge dates, enhancing concurrent review, prioritizing care/orders and developing standardized order sets are necessary and more importantly, it assists the organization to visualize "what the value" of these changes represents to patients, staff and the larger organization.

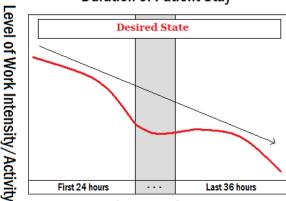
In scheduling, this picture allowed: department managers to recognize that discreet work volumes WILL BECOME more predictable (on a 2-12 hour basis) and allow for greater prioritization. In addition to the effect of the newly discovered touch-point, work continues on the development of a nursing-centric scheduling management tool that provides access to needed information in an accurate and timely manner. The initial system provided by WRX accomplished its designated task and has effectively elevated the desire by managers for a "better" system. Such a system has now been developed and is currently in the processes of being "coded" into stand-alone software. This tool is expected to be completed by October 2010.

In Staffing & Workforce flexibility, this picture allowed: nursing leaders to continue to more clearly understand "what" work is intended to produce (starting with the end in mind) and "why" individual tasks and work processes need to be developed to be as predictable and flexible as possible. This assists the organization to continue to pursue it's three main "portability/flexibility" initiatives in 2010:

- Growth of cluster specific internal staffing pools
- Implementation of forced vertical hiring cascades
- The rigid compliance to experience level hiring standards



# **Duration of Patient Stay**



**Duration of Patient Stay** 

# 2010 Care Efficiency and LOS Updates

As a majority of the original case study was didactic in nature, as a group, we determined that it was important to see the change we are creating through the eyes of some of its key participants. What follows are two (2) distinct narratives describing the changes to understanding and process we have achieved. These narratives were written in order to allow followers of the case study to "view" the level of leadership required, change endured, commitment illustrated and effort undertaken to replicate the enormous results produced.

A simple example: During the recent pilot of our new care delivery model, we were able to reduced LOS on the combined 4th floor units by 28.3% in just 2 weeks!

4 McAuley: 6.43 to 4.44days 4 Nolan Riddle: 5.33 to 4.0 days 4 Gabriel Love: 5.77 to 4.1 days

Other accomplishments were seen as well:

- > The number of avoidable readmissions was significantly reduced due to improved case escalation.
- > Denials were physician delay, not discharge planning related.
- Staff re-energized, improved job satisfaction.
- > 100% compliant with Medicare's Important Message
- Only 4 readmissions within 30 days
- Denials were not discharge planning related

#### The Case Management Department's Role in Driving Care Efficiency

Nora Boratto, LCSW-R, ACM Dir Case Management St Peters Health System

As Director of the Case Management Department, I have always been very passionate about implementing a multi-disciplinary rounds process throughout the hospital. Many years ago, while working at a nursing home, I had seen the benefits first-hand. The team met once a week to discuss each patient's plan of care and make any changes. Patients and families were active participants, driving the plan by stating their needs and preferences. The communication was excellent and the team got to know each patient as an individual.

In an acute care environment, I knew the challenges would include engaging team support and enthusiasm around meeting times, securing physician / hospitalists involvement, developing an efficient process and hard-wiring it.

In 2008, many barriers both internally and externally, began to increase hospital length of stay (LOS) The Case Management Department was struggling to stay afloat because of the added responsibilities that were placed upon us. New CMS quality initiatives, increased barriers to discharge, increased patient acuity, scrutiny from payers and budgetary constraints were gradually making it very difficult to "keep all the balls in the air." Staff satisfaction in the department was at an all-time low; overwhelmed in their role, not feeling effective or efficient, our most experienced staff started leaving and it became increasingly difficult to meet key department outcomes like reducing LOS, managing readmissions and ensuring patients are in the appropriate level of care. Each of these key metrics had a direct impact on ensuring quality patient care and the financial well being of the hospital.

In many hospitals, the perception is Case Management Departments are responsible for reducing LOS, but LOS is not just a Case Management Department problem. It belongs to the multi-disciplinary team and only together will it be fixed. The challenge was to get other departments to see and understand they are an integral part of the solution.

In 2008, the Case Managers and nursing units worked together to establish a regular rounding process on each of the units. There was a wide variation of how rounding should occur at the bedside, in the patient room or meeting room. Some units wanted to discuss every patient while others only wanted to discuss patients for discharge. Some units developed tools and others were worried about who was responsible for completing the tools. The time it took to complete rounds was frustrating to a lot of disciplines and participation was inconsistent. Additionally, we had no real physician support or leadership. All hospitals know one of the most important keys to successful outcomes is active physician participation. Some say timing is everything and in our case this was especially true. A new VP of Medical Affairs just started at the hospital and was very eager to become actively involved in developing a close collaborative relationship with Case Management, Nursing and the Hospitalist.

Leadership support was essential to implementing multi-disciplinary rounding throughout the hospital. To get the process started, Case Management leadership met several times with the Vice President of Operations, Vice President of Medical Affairs, Director of the Hospitalist Group and the Nursing Directors / Managers to discuss the process. The leadership team jointly defined the essential components the rounding process. These included: real time focus on the safety and effectiveness of care on each patient, identification of the working DRG / expected LOS for the patient, proactive identification of the Present On Admission indicators, examination of key quality indicators to prevent hospital acquired conditions, addressing potential barriers to care that impede discharge. For example; are patients being ambulated, families are aware of discharge time for transport and are physicians identifying intent to discharge to the team. The next step was to set expectations about the rounding process to the hospitalist group, nursing and case management. Other disciplines could participate if they wanted but it was decided that it was important to establish a good structure and process.

As the director of the Case Management Department, I was fortunate to have the ability to assign a very seasoned case manager with excellent team building skills to lead this initiative and be the primary point person for the hospitalist. This case manager was a wealth of knowledge to the physicians and collaboration among all three disciplines began to nicely occur. As rounds progressed, a hard wired process began to emerge. There was a time keeper, staff came prepared, and a quality rounding tool was used to remind ourselves of the key issues we needed to cover on each patient and only complex patients with d/c needs were discussed. As rounds progressed, other disciplines such as Pharmacy and Physical/Occupational Therapy, who were previously very strapped for time, became very curious and joined rounds on a regular basis.

As with any new or developing process, the "honey moon" phase of rounding was over. In acute care, there are multiple competing priorities and whichever one is deemed most important on any given day gets your focus. The Hospitalist and Case Management Department had staff shortages and the hospital was experiencing surges in admissions. Participation again began to wax and wane. Much to our amazement, LOS had decreased by a half day. This gave us all a flicker of hope and ignited the spark of enthusiasm we needed to keep the process going. How can we make this process better for everyone?

Ongoing discussions about the rounding process occurred. Some hospitalists were not receptive to unit based assignment as a means to provide greater continuity for the patient and units. Hospitalist preferred going from unit to unit with an assigned case manager. The Nursing and Case Management staff liked the unit based model, citing the close proximity of the Hospitalists as the biggest factor. Hospitalists would be able to meet with patients and families and plan for intended discharge. In 2009, both of the models were trialed. Hospitalists LOS decreased to 5.78 for the trial

period from 6.67. However, having each Hospitalist staffed with a Case Manager is cost prohibitive. The rounding process had come too far along to let this debate impact what had been achieved.

Simultaneous to the unit based verses hospital based debate, Case Management leadership met with the Vice President of Operations and a consultant to discuss the Case Management Department growing job dissatisfaction. The department met and completed an assessment of all the new regulations and barriers that currently impacted us, changes in staff roles and responsibilities and solutions for change. What the department staff identified was the functions of discharge planning and utilization management had become extremely time consuming, complex and staff roles have become highly specialized. The obvious solution was the roles needed to be separated out so we could focus on each area as each function impacted the hospitals bottom line.

Additionally, what we realized was everyone within the team is focused on completing their own individual pieces of patient care that no one is looking at the whole picture and in order to impact LOS we needed the case manager to focus on driving the plan of care with the whole rounding team. In order to do this the department needed more resources to implement the new structure

Asking for additional resources in the current economic climate would be difficult. However, with the unwavering support of our COO and consultant (WRX) we devised a plan. In order to demonstrate the relationship between the need for more resources and LOS, On March 1, 2010, the Case Management Department piloted the new roles on the 4<sup>th</sup> floor units for two weeks to demonstrate their impact. We separated the Utilization Management function from Discharge/Care Manager function to promote patient focused care. The new roles created are;

#### Care Manager

The Care Manager (CM) identifies patient's LOS, completes the initial Assessment, assigns a Discharge Planner (DCP). The CM ensures the Plan of care is progressing and leads the multi-disciplinary rounds.

#### **Discharge Planner**

The Discharge Planner (DCP) is responsible for implementing the discharge Plan, meeting with patients/families, and making appropriate referrals.

#### **Utilization RN**

The Utilization RN's (UMRN) completes clinical insurance reviews; makes sure appropriate documentation is in place to minimize denials and interacts with onsite payers. The UMRN obtains authorization from insurance providers, and makes certain patients are at the appropriate level of care and in the right status

#### **Case Management Assistants**

The case management assistant's roles are to assist the team in send patient referrals, nursing home returns, and documentation in Allscripts that key tasks like the CMS 48 hour notice is documented and faxing or copying.

#### **Pilot Structure**

The rounding structure was enhanced

- Strict interdisciplinary process: walking AM rounds with Nursing, Hospitalists, Care Managers and Ancillary staff.
- Hospitalist were united based on the 4th floor
- Clearly defined team member roles and expectations.
- LOS expectation communicated to the team, Milliman Care Guidelines listed on the chart, projected discharge date reviewed daily.
- Case Management staff to huddle at the end of shift to review the outcome of the day's goals.

#### **Pilot Process**

- Care Manager complete assessments, determine discharge plan, and identifies to the team the expected LOS for the patient. Refers cases to Discharge Planners to implement and expedite discharges
- Bedside RNs to actively participate in interdisciplinary rounds utilizing the Workstation On
  Wheels (Wows) at bedside. Collaborates with care manager to ensure testing and consults are moving along and ensuring quality
  measures are met as well as patients are being ambulate and foley or tubes are being removed as soon as possible
- Hospitalist are actively identifying intent to discharge and being proactive in completing required D/C summary or D/C forms a day prior to D/C.

#### **Pilot Outcomes:**

Reduced LOS on the combined 4th floor units to 4.2 days

4 McAuley: 6.43 to 4.44days 4 Nolan Riddle: 5.33 to 4.0 days 4 Gabriel Love: 5.77 to 4.1 days

- > The number of avoidable readmissions was significantly reduced due to improved case escalation.
- Denials were physician delay, not discharge planning related.
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### Important Learning from Pilot

- > The active participation of leadership working collaboratively with staff made them and there opinion feels valued. It also communicated to all interdisciplinary rounding is an expectation
- Leadership at all levels became involved and interdisciplinary effort became the norm. Silos were eliminated.
- > Focused responsibility promotes increased patient satisfaction and quality transition across the continuum of care.
- > All disciplines would benefit from a case escalation process.
- > Only adequate Hospitalist and Case Management staffing can achieve the positive outcomes of this model.

#### The Evolution of Care Efficiency from a Hospitalist's Perspective

Thea Dalfino, MD Dir Hospitalist Services St Peters Health System

Most of the hospitalists vividly remember the days of having at least 5 patients on our daily rounding list that had no active medical issues and were simply waiting for placement. They were our favorite patients because they were quick to round on and had very few medical problems that needed to be managed. Since the implementation of multidisciplinary rounds, those days are long gone, as are those patients.

When the idea of multidisciplinary rounds was presented to the hospitalist group in 2008 as a means to decrease the hospital's length of stay, we were skeptical but willing to give it a try. The hospitalist literature at the time was touting the benefits of a teamwork approach, but more as a way to improve the quality of patient care rather than a system designed to cut costs. However, we had our reservations about how much we, as physicians, could impact length of stay. The majority of the hospitalists believed we were already discharging patients in a timely manner but that we weren't getting enough case management support for patients waiting for rehab and nursing home placement.

The first trial of multidisciplinary rounds for the physicians occurred three days per week from October 2008 to April 2009. It consisted of each rounding hospitalist presenting their ~20 patients to a team of care providers for 15 minutes. This team included representatives from case management, social work, physical and occupational therapy, and pharmacy. The physicians would briefly present the major medical problems of the patient and the group would discuss a discharge plan (ie. where will the patient go when they leave, do they need homecare, are there any barriers to discharge). Based on simply meeting three days per week, the hospitalist length of stay dropped from 6.67 days to 6.16 in 4Q08 (with a rise in the expected LOS).

Although the program had some success with reducing length of stay, there was dissatisfaction with the process from some of the major parties involved. The hospitalists still believed they had not changed how they were practicing medicine, but felt the majority of the LOS reduction was due to the case managers now being held accountable for getting patients discharged in a timely fashion. The physicians also felt that taking 15 minutes in the middle of their busy day was an inconvenience. Sometimes one physician would show up late, and that would push everyone else behind. From a process standpoint, the physicians were concerned that the only discussions being held were about discharge and very little was presented about how to provide better quality of care while the patient was still in the hospital. The non-physician members of the team were frustrated by having to take an hour and a half out of their day to go through each physician's patients. Everyone knew there were opportunities for improvement.

One of the proposals from case management involved geographic rounding. The hospitalists were very reluctant to try this house-wide and insisted on trialing it on one floor first. The hospitalists' believed they would have the most success if each rounding team was paired up with a designated case manager, rather than being isolated on one floor. Hospitalists, in general, choose this field because they like the variety of medical problems encountered on a daily basis. Several physicians worried that they would be stuck treating only respiratory, cardiac, or cancer patients all day and wouldn't see the diverse patient population they had come to enjoy working with.

As a compromise, in May of 2009, we moved two hospitalist physicians to the fourth floor (one physician on 4 Macauley and another hospitalist to cover the rest of the fourth floor) and designated one hospitalist to care for patients throughout the hospital and pair up with one case manager. With the geographic rounding model, it was a challenge to assign patients on the fourth floor to only their designated teams, as the daily hospitalist census varied dramatically and the physicians in the group preferred all six rounding teams to have approximately the same number of patients. Another obstacle we encountered with geographic rounding was determining what to do with patients who transferred from a telemetry floor to the fourth floor. Would the hospitalist on the fourth floor or the hospitalist that had been following them on the telemetry floor now care for that patient? The physicians decided that continuity of care was most important, and the non-4th floor hospitalist would see the patient.

The new model for multidisciplinary rounds on the fourth floor involved the same members as the previous model, except the nursing team leader was present, rounds were expanded to 5 days per week and the patients were discussed in much greater detail. More attention was brought to foley catheters, central lines, ambulation status, and fall risk. With this new model, the length of stay continued to drop, with a LOS of 5.78 for 2009.

For the one team that had a hospitalist and case manager that covered the same patients throughout the hospital, the physicians were pleased with this arrangement. The hospitalist and case manager met every morning to discuss the plan for all the patients on that hospitalist's list. It allowed the hospitalist to see a variety of patients while still working closely with one case manager. The hospitalist always knew who to call for discharge issues, and knew who to tell patients to contact if they had questions about their discharge. Unfortunately, the case management department became understaffed, that case manager was no longer available to round with the hospitalist, and the trial was abandoned.

Initially after implementation of geographic rounding, the hospitalists assigned to the fourth floor had mixed reviews of the system. Some of the benefits for the hospitalist included receiving less pages, being more accessible to families and patients, being able to see patients more than once per day and update them on the results of studies and tests that came back throughout the day, having greater interaction with the nursing staff, and spending less time walking around the hospital. However, what some physicians saw as advantages, others saw as drawbacks. Although they were getting fewer pages, the physicians were constantly interrupted by nurses approaching them while they were trying to write notes or read charts. The doctors felt there was nowhere to go to get away from patients' families and nurses to be able to get their work done. Some hospitalists complained about the monotony of dealing with only cancer patients, or only pulmonary patients. Another issue was the fact that the non-fourth floor hospitalists

who had become accustomed to multidisciplinary rounds and frequent interactions with case management and PT/OT were now put back in the original system in which they had to track down a case manager if/when they needed one. They found the old system to be very inefficient. The one thing everyone could agree on was that there was a more teamwork focused approach on the fourth floor and having all members of the care team on board with the management plan steamlined patient care.

For much of 2009 the hospitalists had difficulty getting one hospitalist team assigned to the fourth floor wings as had been outlined. It wasn't until we had a meeting with the flow manager, Maria Romano, that things became somewhat easier. It was proposed that 4 NR become solely a hospitalist floor. With the flow manager prioritizing hospitalist patients to the 4th floor, the hospitalist census increased on 4NR to the point where we were able to assign one doctor to 4NR, one to 4 Macauley, and one to 4 Gabrilove. Multidisciplinary rounds continued on these floors until November 2009 when case management lost several members of their department and were no longer able to participate.

However, the hospitalists felt we'd made a lot of progress during that time and were interested in continuing the process on 4 Mcauley. Daily rounds were moved from a conference room to door-side rounds out in the hall to encourage the bedside nurses to attend. Patients were discussed in more detail, including their current ambulatory status, how well they're eating and drinking, any social issues, and barriers to discharge. By incorporating the bedside nurses, the physicians could give verbal orders for anything the nurse needed and the nurse could inform the physician of any critical lab values or changes in the patient's status overnight. Although this system brought together even more members of the care team, it was the only floor in the hospital that had the physicians working closely with case management and nursing on a daily basis.

In January of 2009, the hospitalist census rose dramatically, to over 150 patients. The average daily census for 2009 was 110 patients. There were days when individual physicians were responsible for upwards of 25 patients. This led to less documentation of co morbid conditions and severity of illness and an increase in the LOS.

Fortunately, around that time the case management department devised a strategy to change the roles of the case managers and increase their staffing on the fourth floor for a 2 week period in early March. In addition to the staffing changes, we all sought to optimize multidisciplinary rounds and assign everyone roles. The case manager was responsible for educating the physician and multidisciplinary team on the target LOS for various conditions and setting a goal date of discharge for every patient. The physician briefly discussed their medical management of each patient and assigned tasks to the case managers and nurses (ie. The case manager would be responsible for contacting the family for certain issues, the nurses would be asked to call a consultant and ask them to stop by earlier in the day to facilitate a discharge, etc). PT/OT was also present to discuss what type of rehab needs a patient may have. Spiritual care attended the rounds to have a better understanding of which patients he would best be able to help. The nursing team leaders were responsible for updating the physician on any changes overnight, notifying them of any medication/IVF renewals, discussing if the patients had central lines or foley catheters and for ensuring that the patient received the imaging, bloodwork, and/or consultations that the hospitalist had ordered for that day. It took approximately 30 minutes to review 20 patients. Outlining expected roles for individuals on the multidisciplinary team as well as setting an expected date of discharge helped every member of the team understand what the plan was for each patient's hospitalization and discharge.

Using this new approach on the three wings of the fourth floor for 2 weeks decreased the LOS dramatically. The hospitalists who participated in the 2 week trial were impressed with how well everyone worked together as a team and how streamlined the discharge process became when everyone had anticipated and planned for the discharge prior to that final day. 4Macauley and 4NR eventually abandoned the hallway rounds in favor of a conference room because the halls were too crowded with upwards of 10 members of the multidisciplinary team trying to communicate with each other. Some of the nurses were concerned about patient privacy by having rounds in the hall.

One of the disadvantages of doing rounds in the conference room is that none of the floors have found a successful way to incorporate the bedside nurses into these rounds. 4 Gabrilove is the only floor that continues to do hallway rounding and involves every bedside nurse. The hospitalists believe these nurses are critical to the teamwork-focused approach because they have the most contact with the patients on a daily basis. Also, by having a set time to communicate with the physicians about patients, it gives the physicians time to get their work done after multidisciplinary rounds without being interrupted by each individual nurse.

Once the case management department is fully staffed, our goal is to reinstate multidisciplinary rounds throughout the 4th floor and expand it to the 6th floor. However, there are still 2 hospitalist physicians every day who are not assigned to a specific unit. We are working with case management to determine the best way to coordinate a teamwork approach to the care of their patients.

After having done geographic rounding for approximately one year, most hospitalists enjoy being on one floor and getting to know the nursing staff better, and having more frequent interactions with the patients and case management staff. In addition, the hospitalist is in one location so they can speak with consultants when they come by to see the hospitalist's patients. Subjectively, patients seem pleased that the doctor is more readily available to answer questions when their family members arrive, or to give them test results as soon as they're back. Nurses seem to like having a doctor to run questions by about their patients that they normally wouldn't page the physician for. Overall, there is more communication occurring between all members of the team and that, in turn, is leading to improved patient care.