



OFFICE OF LEGISLATIVE  
BUDGET REVIEW

## NASSAU COUNTY LEGISLATURE

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### Inter-Departmental Memo

To: Hon. David Mejias, Chairman  
All Members of the Health & Social Services Committee

SA  
From: Steven Antonio, Acting Director  
Office of Legislative Budget Review

Date: November 12, 2009

Re: Nassau University Medical Center (NUMC) Nursing Shift Analysis

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Per your request the Office of Legislative Budget Review has done an analysis on the cost effectiveness of changing of the nurses' shift at NUMC from a 12 hour and 40 minute 3-day work week to an 8 hour 5-day work week. The administration converted the shift effective June 6, 2009. In order to analyze the change we compared total salaries and full-time equivalent (FTE) data from May 2009 through September 2009. This data was also compared to last year at the same time. We spoke to the hospital administration, including finance and nursing administration, and union representatives.

There are two ways in which the change from a three day to a five day work week creates savings.

The 12.67 hour shifts had a 40 minute overlap, so that when a nurse on one shift began, the nurse from the previous shift would still be working for 40 minutes, creating a period of time in which one shift is covered by two nurses. The union and nurses have stated that this time is utilized to brief the incoming nurse on the patients she or he will be in charge of during their shift. The eight hour shifts do not allow for this additional time. According to hospital administration the ending shift nurses are now briefing the incoming nurses for 15 to 20 minutes on their own time as a professional courtesy.

2. Two hours of savings are achieved by adding two hours of lunch per week (three lunch hours with a three-day work week versus five hours with a five-day work week) that is unpaid but considered “covered” time. Lunch times are not covered by overtime, per-diem or any other type of additional nursing. If a lunch is taken it is covered by others on the same shift, typically nursing aides, and medication is not given during this hour. However, it still counts as “covered” time.

These concepts are illustrated in Chart 1. In the three and five-day schedules there is no change in hours compensated. As discussed, the hospital picks up two lunch hours which are scheduled but not productive. In the three day schedule, it does not count the two hours per week that the nurses were paid that ran into the next nurse’s schedule or “overlap” hours as time covered. Therefore, the two hours associated with the additional lunches increase time covered though not productive time which will save money but may not be in the patients’ best interest. Likewise, the two additional hours covered due to the elimination of the overlap hours may save money but could also pose problems if the nurses leaving are not able to properly brief the nurses on the next shift as to the patients’ status.

Chart 1: NUMC Nursing Schedule Shift

3-Day Schedule	<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>			<u>Total</u>	
Total Hours Paid	11.67	11.67	11.67			<u>35.00</u>	
Lunch	1.00	1.00	1.00			<u>3.00</u>	
Total Hrs Scheduled	12.67	12.67	12.67			<u>38.00</u>	
Time Covered	12.00	12.00	12.00			<u>36.00</u>	
5-Day Schedule	<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>	<u>Day 4</u>	<u>Day 5</u>	<u>Variance</u>	
Total Hours Paid	7.00	7.00	7.00	7.00	7.00	<u>35.00</u>	0 Same Hours Paid
Lunch	1.00	1.00	1.00	1.00	1.00	<u>5.00</u>	
Total Hrs Scheduled	8.00	8.00	8.00	8.00	8.00	<u>40.00</u>	2 Increase in Scheduled Hours
Time Covered	8.00	8.00	8.00	8.00	8.00	<u>40.00</u>	4 Total Savings

After analyzing the financial statements and nursing salary expenses provided by the hospital administration, we could find no definite savings in the four months following the schedule change. Salaries have remained close to the salaries at the same time last year and for the months May through September 2009. Chart 2 does show some decrease in FTE since June 2009. There also appears to be a shift in 2009 toward the utilization of fewer full-time nurses and more part-time nurses. Historically there is a greater use of part-time nurses when the

number of full-time nurses drops. There is a decline in full-time nurses due to a higher level of attrition from May 2009 to September 2009 than what occurred in 2008 at this time. Also, the September 2009 ratio of part-time to full-time headcount is similar to the ratio in May 2008. Therefore, this data appears to be inconclusive. The administration agrees that it has not yet seen significant salary savings in the financial statements but they expect the next few months to reflect the benefits of the change more accurately. The administration anticipates annual savings in excess of \$5.0 million. They believe the reason for this delay is the nursing class of 34 that came on board in September (they are reflected in the chart). The new nurses require training so in September they are paid but do not contribute to the productive hours. It is anticipated that overtime will drop considerably when the new nurses are finished training in October.

There does appear to be a decline in the usage of agency nurses. In the months prior to the schedule change, NUMC was spending about \$200,000 to \$240,000 per month (23.6-26.0 FTEs) on this expense. Since June 2009 the expense has dropped to between \$119,000 to \$138,000 per month (13.8-15.9 FTE.). On an annual basis this savings could be about \$1.0 million (included in the administration's estimate as stated above). This expense is not reflected in the salaries or the FTE reported in the financial statement but will be seen in the other than personnel services (OTPS) expense.

Chart 2 also shows the productive nursing hours per patient day for May through September 2009. This would seem to indicate that the hospital has been able to maintain the nurse to patient ratio from the month prior to the new schedule implementation through September.

Chart 2: Comparison of FTE and Headcount Before and After the Shift Switch

2009					
	May	June*	July	August	September
Total RN FTE	442.2	432.7	422.4	432.7	426.9
Overtime FTE	33.5	28.6	34.9	43.4	35.6
Full-time RN Count	464	401	388	373	379
Part-time RN Count	58	65	64	67	87
Productive Hrs/Patient Day	3.85	3.88	3.81	3.58	3.89

\* Shift change was implemented June 7, 2009.

2008					
	May	June	July	August	September
Total RN FTE	458.7	457.0	452.2	459.2	460.5
Overtime FTE	30.3	31.0	26.2	35.6	37.6
Full-time RN Count	344	415	416	408	410
Part-time RN Count	83	64	68	64	58

The hospital is correct to think outside of the box for new ways to save money in a difficult industry. However, this desire clearly needs to be tempered with concern for patient care. This

schedule change may provide savings by reducing paid nursing hours. It may also allow for an increased use of part-time and per diem workers which will reduce fringe expenses if not salaries but this will only work as long as the workforce has the part-time and per diem nurses available. As the economy improves this supply may drop and the hospital will need to keep an eye on the usage of agency nurses which can prove to be very expensive. Also, it is not yet clear that a savings will be achieved and a number of things could impact the success of the change. These include increased usage of sick and vacation time from a work force finding the new schedule difficult to adjust to and a higher turnover rate. Since it is too early to determine anything with certainty, our office will continue to monitor the effects of this shift change and will provide you with a follow up next month.