Implementation of a Perinatal Staffing Model Which Accurately Forecasts Budget Planning in an Urban Academic Medical Center

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Project Description

Our current nurse staffing model does not capture all the care that is provided to patients on our unit.

- based in direct care hours needed/delivery
- not accurate for forecasting our RN staffing needs
- missing nursing care provided to 15% of patients whose stay does not result in a birth and not included in productivity statistics.

OBJECTIVE

Develop a staffing model that accurately captures all care provided to our complex patient population with comorbid conditions and antepartum care that does not fit the current productivity statistic.

BACKGROUND

Current model = 
# of deliveries/day \times \text{standard workload allotted.}

Missing nursing effort = 
15\% \text{medically complex patients receiving}
\text{high intensity of care}

METHODS

Convenient sample (N= 1095 admitted patients)
Time period: 3\textsuperscript{rd} quarter FY 15

Descriptive analysis:
- Total time in hours: L/D admission to discharge.
- C-section patients Operating Room times were included due to the 2:1 RN:Patient ratio

CONCLUSIONS

This model provides a way to accurately forecast RN staffing requirements based on patient care needs in our labor and delivery unit. Next steps involve application of this model for budget planning and development of tools for charge nurses to ensure appropriate staffing in real time.

RESULTS

Compared to our present model, the modified Wilson and Blegen model better captured the complexity and intensity of nursing care needs in our patient population.

Use of the modified Wilson and Blegen model demonstrated a negative budget variance of 6\% compared to the actual 8\% over budget variance.

Process- using a modified version of Wilson and Blegen (2010) Staffing Model

1. Hours of care for antepartum patients who did not have a delivery during this stay
2. Number of deliveries \times 
   Standardized workload allotted/delivery
3. Labor and delivery operating room time for patients undergoing cesarean birth