 The North Carolina Society for
Respiratory Care Presents:



The Rick Sells Honorary Lecture

 Rick Sells, RRT, MBA



- * President, NCSRC
- * Delegate, NCSRC
- * Lifetime Member Award, NCSRC
- * 1976-2011: Director, Wake Forest Baptist Health System
- * North Carolina Respiratory Care Licensing Board



NCSRC Rick Sells Lecture



The North Carolina Society for Respiratory Care presents The Rick Sells Honorary Lecture; in honor of William (Rick) Sells for his dedication, leadership, and many contributions to patients and the Respiratory Care profession in North Carolina.



Patient Safety and Respiratory Care Department Staffing

Prepared


By

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Mission Health System

- Presented by Dr. Joe Coyle
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Objectives: Following this presentation, the participant will:

1. Describe the typical process used to determine RC staffing levels.
2. Cite 3 patient safety issues associated with understaffing RC services.
3. Identify CMS and TJC regulatory requirements for staffing RC services.
4. Identify NCRCB and AARC Actions regarding staffing and Patient safety.
5. Implement actions to ensure patient safety and adequate staffing.



Outline

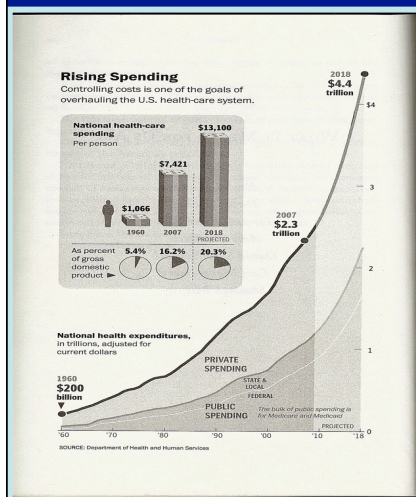
- *Background: Why is this issue important?
- *Where does number of RC staff come from?
- *Staffing metrics: How valid are they?
- *NC Surveys for Patient Safety and Staffing
- *NCRCB and AARC Actions:
- *How can this information be used for action?

Background: Why is this issue of Patient Safety and RC Staffing Important?

Question: Are there more frequent news headlines than the following:

1. "Healthcare Costs Continue to Increase"
 - "Hospital Effort to Reduce Errors and IHI 100,000 lives Campaign".
 - USA facing bankruptcy: Medicare & Medicaid Driving Costs
2. Affordable Care Act: A Paradigm Change
 - ACOs & Procedures vs. Outcomes

Why are RC Staffing and Patient Safety Important?



Institute for Healthcare Improvement:
<http://www.ihl.org/Pages/default.aspx>

Moral Hazard

- Impact on the Psyche of the Respiratory Therapist who is asked to do more than humanly possible...
 - Professional Development
 - Psychiatric Health
 - Career Duration
 - Turnover
 - Leaving the Profession



Dr. Ron Perkin
ECU, Chair, Pediatrics
NCRCB

Missing Information!!

- We Need Data!
 - “EBM would be great in Respiratory Care... We just don’t have much evidence...”
 - Dr. David Bowton FCCP FCCM,
Wake Forrest School of Medicine



Nurse Staffing and Inpatient Hospital Mortality

- N Engl J Med 2011; 364:1037-1045 [March 17, 2011](#)
- Needleman, J et al

Tertiary care medical center; 176,696 shifts

- **CONCLUSIONS:**
- Higher mortality when 8 hours understaffed and high acuity times
- “In this retrospective observational study, staffing of RNs below target levels was associated with increased mortality, which reinforces the need to match staffing with patients' needs for nursing care.”



Ventilator Deaths

- 2002
 - Joint Commission issues alert to hospitals after 23 deaths reported related to ventilator malfunction
- 2004 TJC makes ventilator alarm safety a national priority
- 2005 they drop it...



The Boston Globe

Ventilator errors are linked to 119 deaths.

Warnings are often ignored, missed by overtaxed caregivers

Review of FDA Records 2005 to 2010

By Liz Kowalczyk

| Globe Staff December 11, 2011



Background

*NCRCB has received RCP complaints from licensed RCP's of mathematically impossible workloads.

*NC Managers for Respiratory Care reported ongoing patient safety issues resulting from external hospital consultants, using inadequate metrics to determine RC staffing, productivity, and overall number of staff Full Time Equivalent (FTEs).



Background: Staffing Metrics

Metric: Fundamental statistic upon which staffing resources are based.

The AARC Uniform Reporting Manual recommends using the Relative Value Unit (RVU) as the metric to determine FTE resources, staffing levels, productivity, and for use with comparative data.

RVU Example: 1 RC Consult procedure = 22 minutes.



NC Survey for Patient Safety and RC Staffing

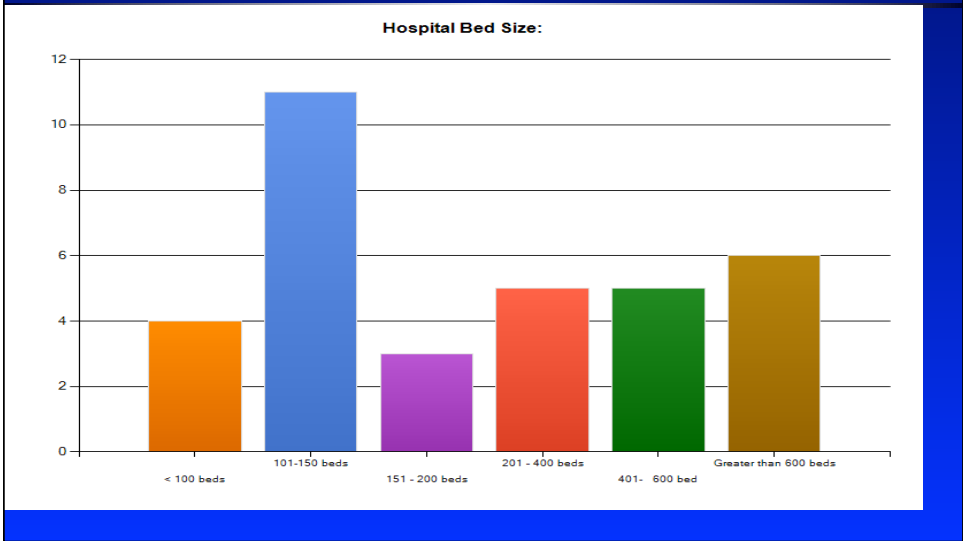
In June 2011, the NC Respiratory Care Board conducted a survey of hospitals (about 150) to determine relationships between patient safety issues and staffing.

As of June 21, a total of 35 (n = 35) RC Directors/managers completed the survey, for a 23% response rate ($35/150 = .23$)

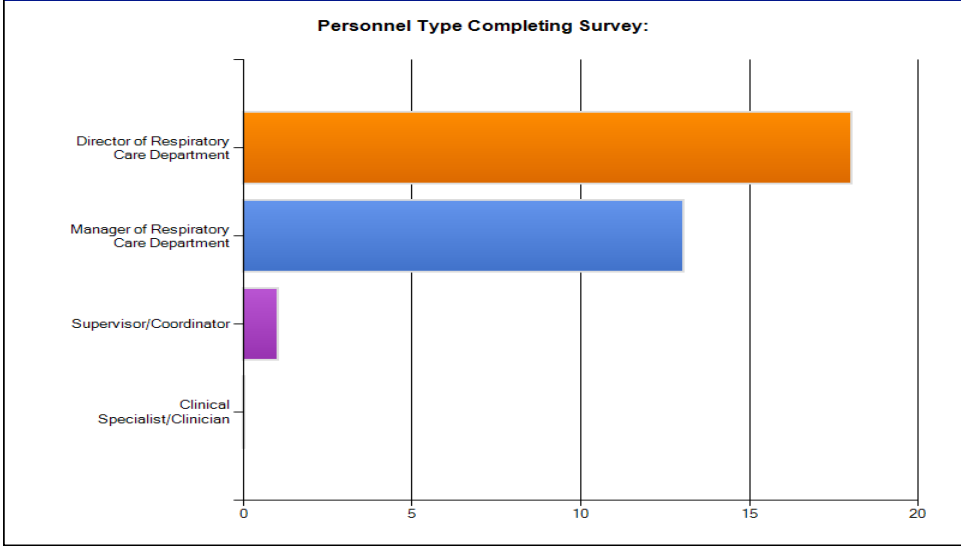
NC Survey for Patient Safety and RC Staffing

Survey Results:

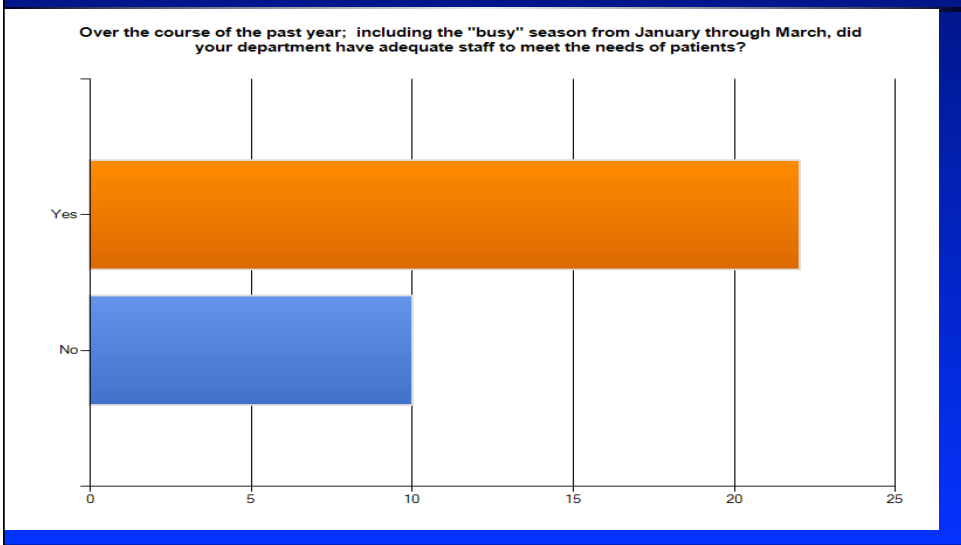
Hospital Bed Size:



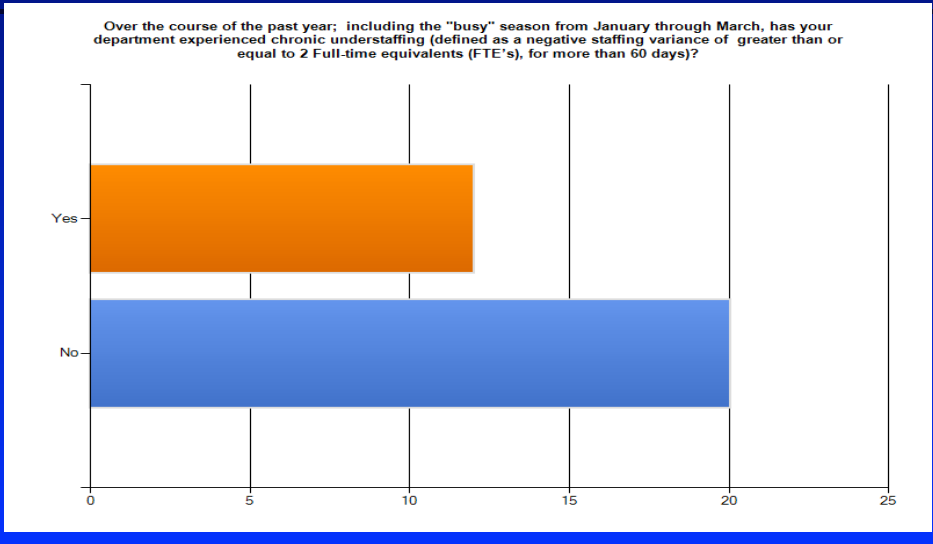
Personnel Type Completing Survey:



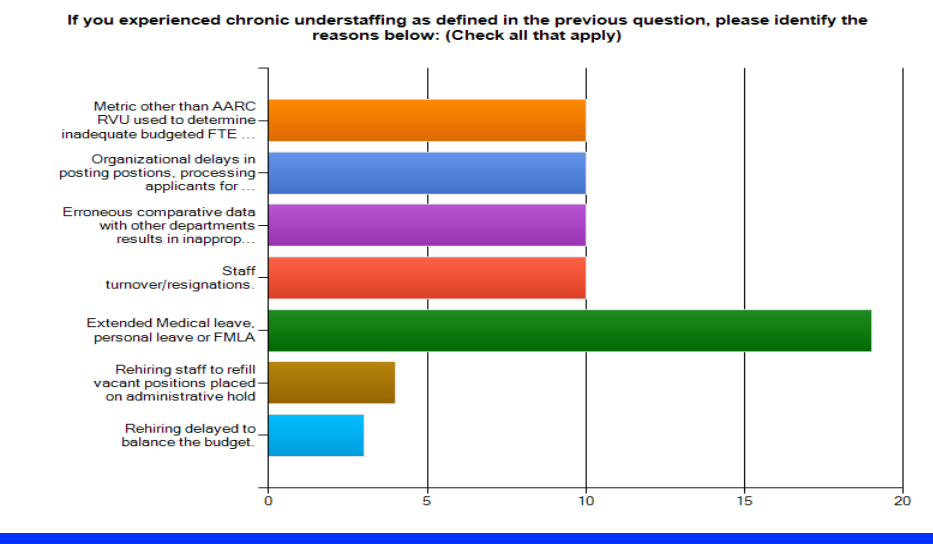
From January through March, did your department have adequate staff to meet the needs of patients?



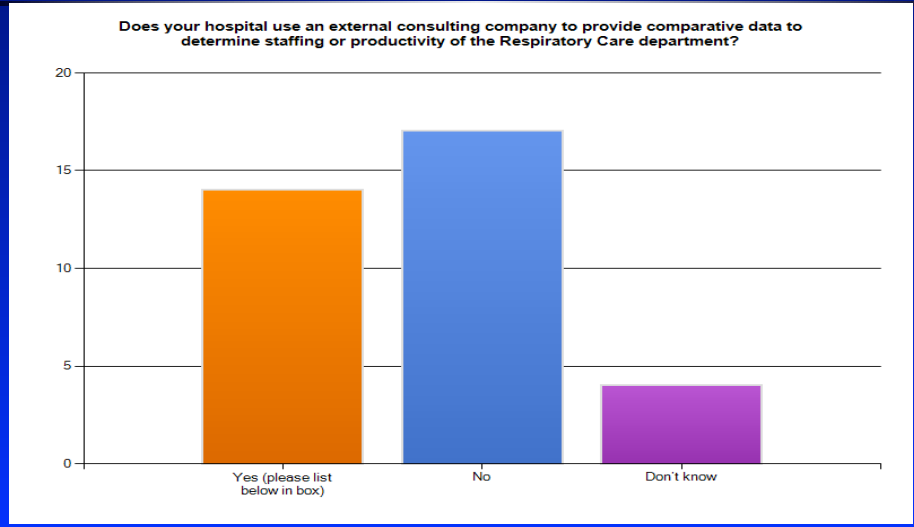
From January through March, has your department experienced chronic understaffing (defined as a negative staffing variance of greater than or equal to 2 Full-time equivalents (FTE's), for more than 60 days)?



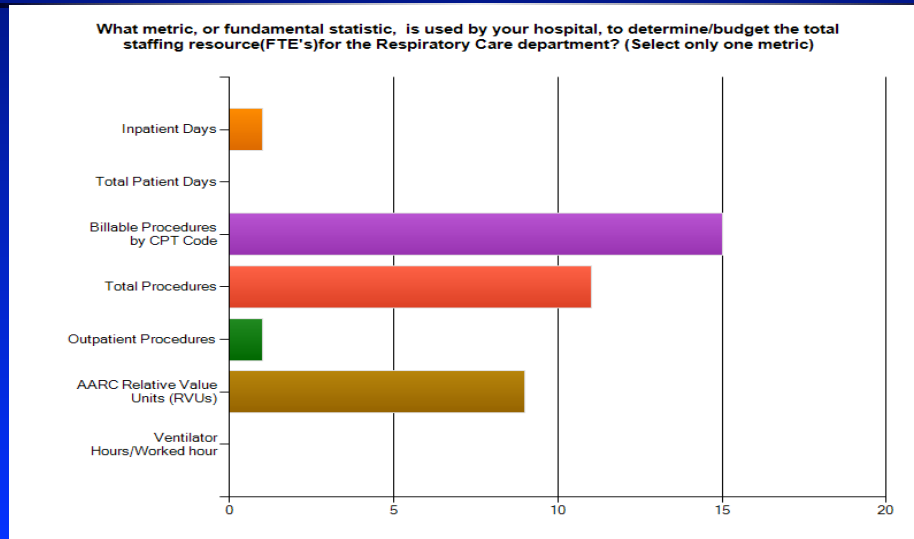
If you experienced chronic understaffing as defined in the previous question, please identify the reasons below:



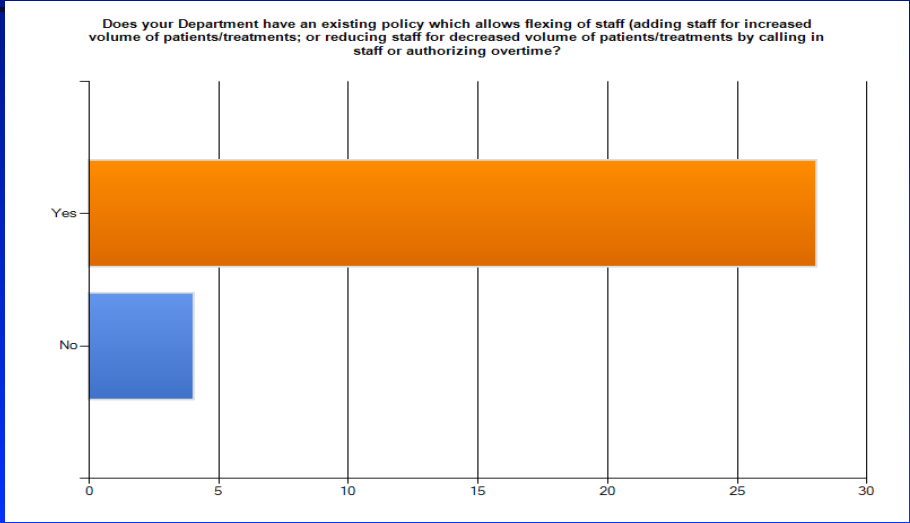
Does your hospital use an external consulting company to provide comparative data to determine staffing or productivity of the Respiratory Care department ?



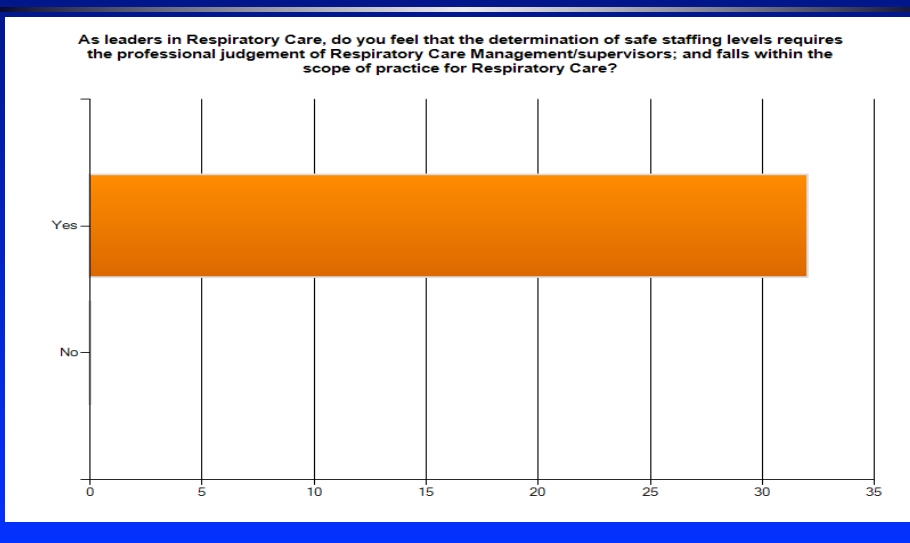
What metric, or fundamental statistic, is used by your hospital, to determine/budget the total staffing resource(FTE's)for the Respiratory Care department?



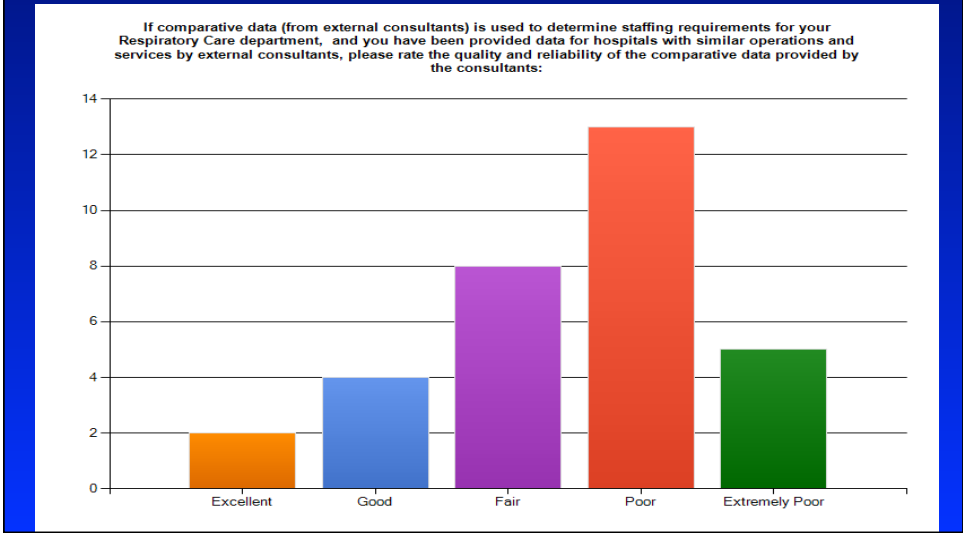
Does your Department have an existing policy which allows flexing of staff (adding staff for increased volume of patients/treatments; or reducing staff for decreased volume of patients/treatments by calling in staff or authorizing overtime?



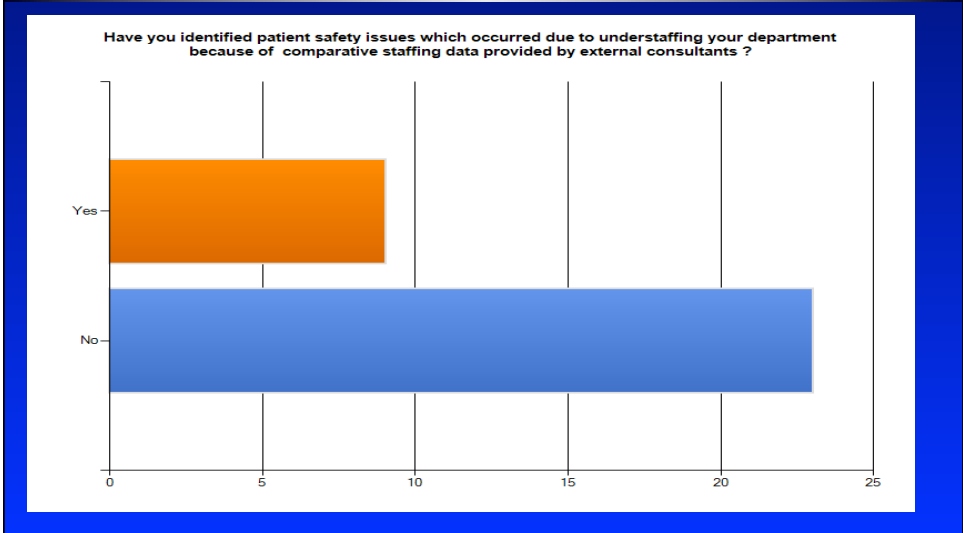
As leaders in Respiratory Care, do you feel that the determination of safe staffing levels requires the professional judgement of Respiratory Care Management/supervisors; and falls within the scope of practice for Respiratory Care?



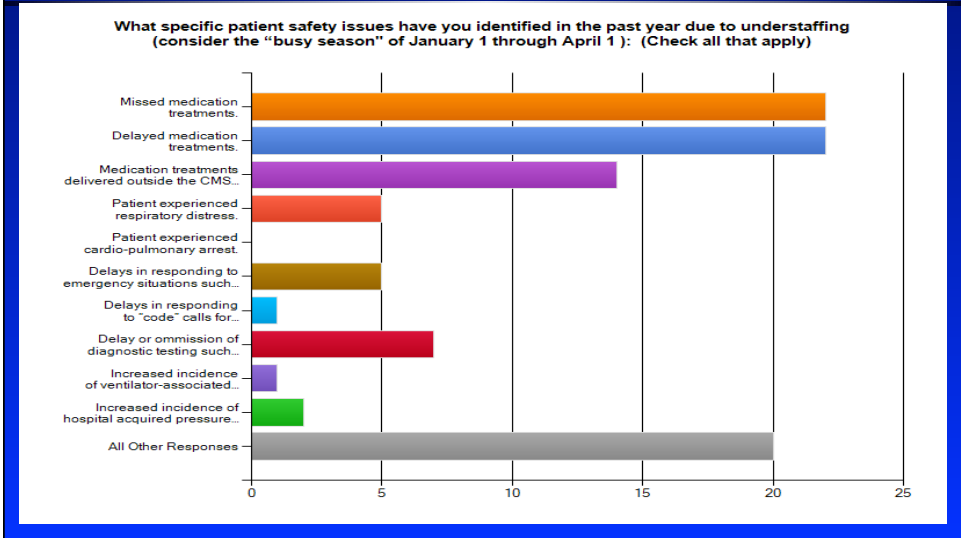
If comparative data (from external consultants) is used to determine staffing requirements for your Respiratory Care department, please rate the quality and reliability of the comparative data provided by the consultants:



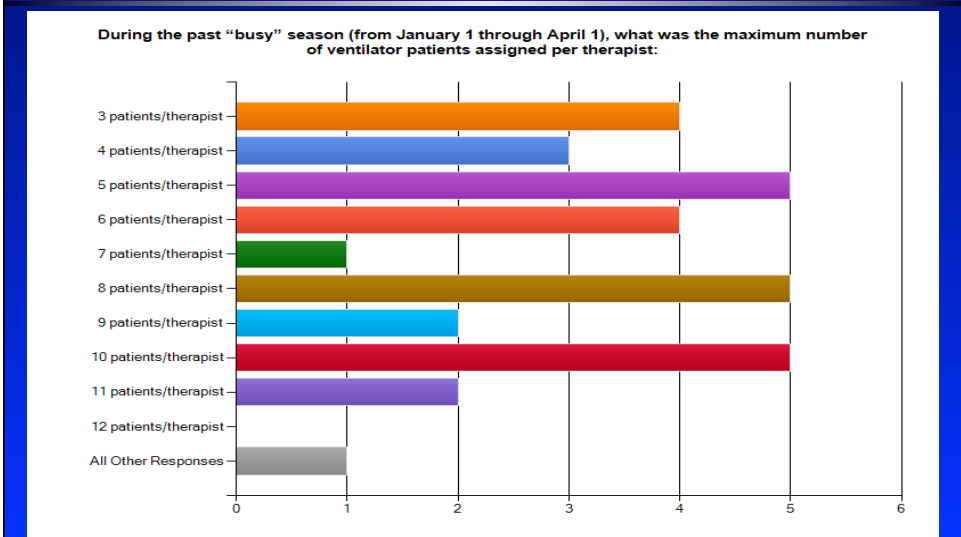
Have you identified patient safety issues which occurred due to understaffing your department because of comparative staffing data provided by external consultants ?



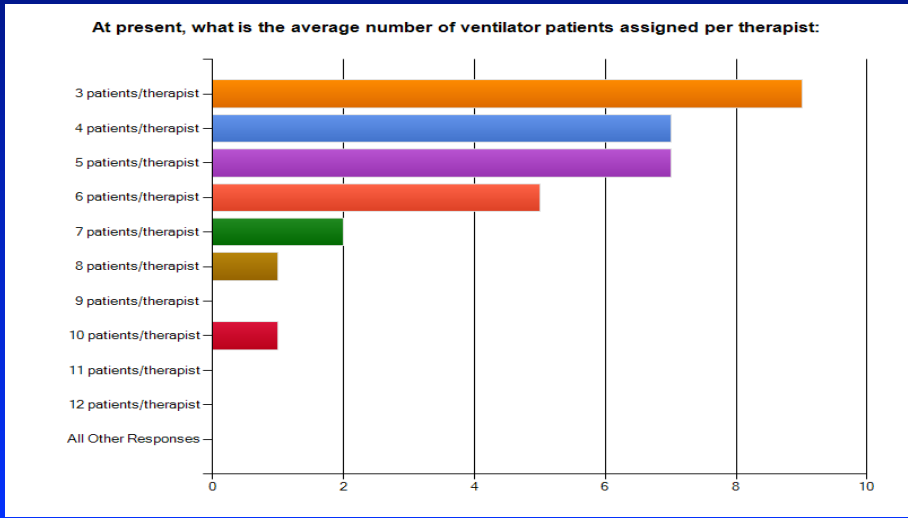
What specific patient safety issues have you identified in the past year due to understaffing (consider the “busy season” of January 1 through April 1):



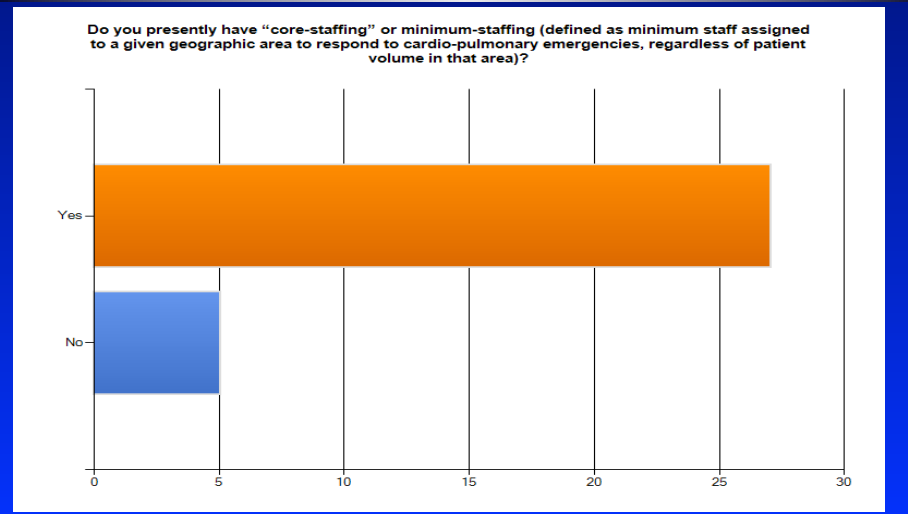
During the past “busy” season (from January 1 through April 1), what was the maximum number of ventilator patients assigned per therapist:



At present, what is the average number of ventilator patients assigned per therapist:



Do you presently have "core-staffing" or minimum-staffing (defined as minimum staff assigned to a given geographic area to respond to cardio-pulmonary emergencies, regardless of patient volume in that area)?





Selected Director/Manager Comments from the NC survey:

1. “Stop consulting groups from practicing respiratory care by using incorrect staffing metrics and incorrect productivity targets”.
2. “Flexible staffing models based on volumes and patient acuity, Standards that address RT to Vent patient ratio.”
3. “Assign reliable RVU's to all activities and establish goals for the total number of RVU's per scheduled practitioner on each shift.”
4. “Determine a national acceptable work target for each therapist....so that it may be utilized for any size hospital....”

#	Item	Yes	No	N/A	Services	Grade
1	Dedicated Staff for NICUP?	4	3	5	4/7 = 57%	F
2	Dedicated Staff for PEDI'S?	2	0	10	2/2 = 100%	A
3	Do you cover resp care txs in ED?	9	3	0	9/12 = 75%	D
4	Do you perform bronch in lab/OR?	6	6	0	6/12 = 50%	F
5	Do you perform bronchs at bedside?	8	4	0	8/12 = 66%	F
6	Do you perform high frequency oscillatory ventilation?	5	7	0	5/12 = 41%	F
7	Does your staff perform Nitric Oxide administration?	3	9	0	3/12 = 25%	F
8	Does your staff monitor O2 in hospital?	11	1	0	11/12 = 91%	A
9	Do you set up pulse oximeters?	6	6	0	6/12 = 50%	F
10	Do you monitor pulse oximeters?	8	4	0	8/12 = 66%	F
11	Is staff responsible for O2 inventory for hospital?	4	8	0	4/12 = 33%	F
12	Equipment processing done by dept?	6	6	0	6/12 = 50%	F
13	Equipment stocking/repair done by dept?	7	5	0	7/12 = 58%	F
14	Does your staff perform EE, G, E, KG, HBO?	6	6	0	6/12 = 50%	F
15	Does your department metric include items that are non-billable procedures?	3	9	0	3/12 = 25%	F

Benchmarking

➤ : Benchmarking has been defined as “the continual and collaborative discipline of measuring and comparing the results of key work processes with those of the best performers in evaluating organizational performance”

Dukes et al, This Meeting



§ 482.57 CMS Condition of participation: Respiratory care services.

(2) “There must be adequate numbers of respiratory therapists, respiratory therapy technicians, and other personnel who meet the qualifications specified by the medical staff, consistent with State law.”



How Valid are Staffing Metrics?

- A recent correlation study using different metrics showed poor correlations between the AARC standard (RVU' s), and other staffing metrics recommended by external consulting companies.

Comparison of Metrics for a Respiratory Care Department in an 800 Bed Medical Center

Metric	Correlation with AARC RVU's (R ²)	Sample Size (Days)
Non-Billable Procedures	0.002	n = 835
Adjusted Discharges per patient day (Output procedures)	0.10	n = 835
Total Patient Days	0.28	n = 835
Total Inpatient Days	0.28	n = 835
Average Daily Census	0.34	n = 835
Total RC Procedure Volume	0.57	n = 835
Billable Procedure by CPT code	0.61	n = 835

NCRCB and AARC Actions and Resources:

1. NCRCB Position Statement adopted January 2012. (www.ncrcb.org)
2. AARC Position Statement : adopted August 2012. (www.aarc.org)
3. AARC White Paper: Best Practices for RC Staffing and Productivity—in Press.
4. AARC Uniform Reporting Manual (5th edition) updated and available Fall 2012.



Recommended Action Plan

1. In order to ensure patient safety by adequately staffing RC services, adopt the metric of the AARC Relative Value Unit (RVU) to determine RC staffing and productivity targets. . (Note: CMS has already adopted RVU's for physician reimbursement.)
2. Develop "Plan of Care /Scope of Services" policy (required by TJC) based upon your departments' charge master ---have policy signed by Medical Director and your VP. Include billable and non-billable activities in scope of services in the policy.
3. Adopt the RC department staffing system described in the AARC Uniform Reporting Manual (URM) which is RVU-based. Utilize the AARC benchmarking system for comparative data.



Acknowledgments:

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- | | |
|-----------------------------------|----------------------|
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