Using staffing Analytics to Support Optimal Clinical Resource Scheduling Across a Safety Net Hospital System

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BACKGROUND
Recently, many hospitals have closed or decreased their inpatient footprint. Additionally, many hospitals have become part of or formed networks or systems to ensure viability through consolidation of resources (Faller & Gogek, 2016). Scheduling and staffing of nurses is a dynamic process that can have significant financial implications for healthcare organizations.

PURPOSE
- Describe the development and utilization of analytical tools in supporting Nursing leaders in forecasting and planning distribution of nursing resources.
- Lessons learned along the way in a safety net health care organization.

METHOD
- Development of staffing analytical tools that are utilized across a safety net healthcare system in New York City.
- New York Health and Hospitals is made up of 11 Acute Care Facilities; 5 Long Term Care Facilities; and 6 Diagnostic and Treatment Centers that provide health care services to the residents of New York City.

CONCLUSIONS
A numeric value of nursing care has always been difficult to quantify. However, researchers have demonstrated findings that show increases in nursing and skill mix are associated with improved quality through a decrease in adverse effects (Martsolf, Auerbach, Benevent, Stocks, Jiang, Pearson, et al., 2014); patient experience and satisfaction are better with increased nurse staffing and positive work environments (Kutney-Lee, et al., 2009); and greater numbers of core rather than contingent (i.e. agency) nurses per bed increased patient satisfaction (Hockenberry et al., 2016). Nursing leaders are challenged, as never before, with maintaining and improving quality outcomes with an ever changing and at times shrinking labor force. They are rarely schooled in how to receive and interpret data to support the increasingly regulated and fluctuating staffing needs on the unit and at divisional level. Safe nurse staffing is not just a numbers game, it is a commitment and part of the organizations mission to serve our patients. Data is critical but just one tool in the arsenal needed by nursing leadership.

FUTURE NURSING RESEARCH
- Impact of Staffing models on patient satisfaction, quality and safety?
- Impact of planning for ongoing professional education as a measurement of employee engagement?
- Do certain acuity types demonstrate particular EcoSize needs?

REFERENCES