

Patient Classification Systems

Current Considerations for Use

The purpose of this document is to provide nursing leadership with a brief overview of patient classification systems, in relation to how they were utilized in the past, current types of systems being utilized and contemporary uses for such systems. A number will follow many of the bulleted items. This number corresponds directly to a bibliographic resource where more detailed information can be obtained.

Background:

- Traditional patient classification systems (PCS) have been in use since the early 1930's. These traditional systems were designed to reflect timed nursing activities and tasks. They were perceived to be insensitive to the role of the professional nurse and the nursing process. This resulted in the original intention, and often the only intention, to use the PCS for daily staffing and/or unit budgeting.
- Current literature reviews acknowledge that PCS were not effective (based on design) solely for the purposes of guaranteeing adequate staffing. These systems cannot be the only data element used for staffing and cannot guarantee adequate staffing. They can be very useful for resource determination and cost management tools if the purpose and design is clear.

*“A PCS and staffing system developed with specificity and clarity of measurement and purpose are essential building blocks for strong, integrated macrosystem applications.”
Van Slyck 2000. (8)*

- Many important variables, such as volume, length of stay, staff competencies, skill mix etc., were missed in determining staffing levels based on a time-task PCS model. As a result, there was dissatisfaction with using such models and eventually these systems were abandoned by many hospitals. Even the JCAHO eliminated the mandate for PCS use.
- For those states currently facing legislative efforts for staffing ratio bills, patient acuity systems may be embedded in some of the bill's language. In California, the requirement for a patient classification system was retained within California Title 22. (Refer to the ANA website for current national legislative updates.)
- In the most recent 2003 MHA/MONE Survey of Hospital Nurse Staffing in Massachusetts, nineteen hospitals, out of sixty-seven, reported that they use a patient classification system to determine staffing needs for inpatient nursing units.
- Debra O'Donnell, a MONE member, recently completed her graduate study on the use of acuity-based staffing systems in acute care hospitals in Massachusetts. Attached is a presentation on the results of her study.

Types of Systems:

There is a variety of terminology in the literature to describe types of patient classification systems. In general, the science of patient classification systems indicates that there are essentially two approaches to patient classification. First is a prototype evaluation type system and the second is a factor evaluation system.

- In the prototype evaluation system, categories are determined and parameters are defined for each category and the patients are assigned to the categories as the description of care need indicates. The strengths of this system are that it is simple and well received by the nursing staff. The weakness of this system is that inter-rater reliability is frequently poor.
- In the factor evaluation system, critical indicators are predetermined, defined and rated separately for each patient. This cumulative score then determines the category of care for the patient. A strength of this system is that it is more objective than the prototype system. The weakness of this approach is that it requires a judgment about nursing care assessment and therefore, introduces the element of subjectivity.

Contemporary Uses:

- Managing Patient Care Outcomes
 - Data has been utilized to
 - provide across-the-continuum perspectives on patient populations. (7)
 - perform quality checks on rationale around readmissions through a comparison of patient's acuity levels on admission and discharge. (7)
 - correlate unexpected patient incidences with patient acuity levels. (7)
 - assign patients with complex needs to more experienced staff. (7)
 - support the development of clinical pathways that incorporates expected acuity levels. (7)
 - determine readiness for patient transfer or discharge. For example, one institution makes rounds on patients with the lower acuity levels to determine probable discharges and bed availability, which, in turn, facilitates better throughput on transfers and admissions. (7)
- Managing Costs
 - Data has been utilized to
 - determine nursing costs by "sensitizing" the volume resulting in weighted by acuity patient days when developing the operational budgets. (7)
 - costing out nursing services by linking costs to specific patient populations. (7)
 - develop models to predict acuity and workload in anticipation of changes in admissions and length of stay (3)
 - project workload and nursing resource requirements as clinical programs expand or contract (3)
 - describe changes in patient populations that are beginning to affect interdepartmental workload (3)

- benchmark with other institutions utilizing the same tool (3)
- challenging payer denials
- negotiate payment rates based on patient acuity (7)
- Staffing Models
 - Data has been utilized to
 - establish productivity measures and projected staffing needs (3)
 - determine skill mix models or staffing mix even on a shift-by-shift basis (7) *Note: the system's use for this purpose was also in conjunction with other staffing variables.
 - dynamically share shift staff between units based on patient acuity and resource requirement data (8)
 - utilize the acuity data as a benchmark for role redesign initiatives (8)
 - design staff development and competency programs. (8)

General Recommendations:

- Design a PCS and staffing system to have a clear purpose, structure and application. (8)
- Select a system that is most consistent with the philosophy of the hospital and organizational culture. (6)
- Select a system that uses the fewest number of nurse resources to complete and maintain the system. (6)
- Consider integrating data already collected through computerized documentation as a source for acuity data collection
- The 2003 Graf et al article (3) recommends that once a system is in place:
 - Capture and store data at the smallest possible data element
 - Implement regular reliability testing
 - Market the system
 - Experiment with ways to use the data to address questions related to changes in patients and within the organization

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Resource Bibliography

1. Averill, Carolyn B. and Fairbrother, Mary Beth, "Developing a Statewide Patient Classification System." Nursing Administration Quarterly, Vol. 24(4), Summer 2000, p.29-35.
2. Botter, Mary L., "The Use of Information Generated by a Patient Classification System." Journal of Nursing Administration, Vol. 30(11), November 2000, p544-551
3. Graf, Christina M., Millar, Sally, et al. "Patients' Needs for Nursing Care". Journal of Nursing Administration, Vol. 33(2), February 2003, p. 76-81.
4. Malloch, Kathy and Conovaloff, Andy. "Patient Classification Systems, Part 1." Journal of Nursing Administration, Vol. 29(7/8), July/August, 1999, p. 49-55.
5. Malloch, Kathy, Neeld, Ann P, et al. "Patient Classification Systems, Part 2." Journal of Nursing Administration, Vol. 29(9), September 1999, p. 33-42.
6. Seago, Jean Ann, "A Comparison of Two Patient Classification Instruments in an Acute Care Hospital." Journal of Nursing Administration, Vol. 32(5), May 2002, p. 243-249.
7. Van Slyck, Ann and Johnson, Karen, "Using Patient Acuity Data to Manage Patient Care Outcomes and Patient Care Costs." Outcomes Management for Nursing Practice, Vol.5 (1), Jan-Mar 2001, p. 36-40.
8. Van Slyck, Ann, "Patient Classification Systems: Not a Proxy for Nurse 'Busyness'." Nursing Administration Quarterly, Vol.24(4), Summer 2000, p. 60-65.
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Use of Acuity – Based Staffing Systems In Acute Care Hospitals In Massachusetts

Presented By: Debra O'Donnell



Research Question

- How do nurse executives in Massachusetts utilize acuity based staffing / patient classification data in their organization?



Sampling

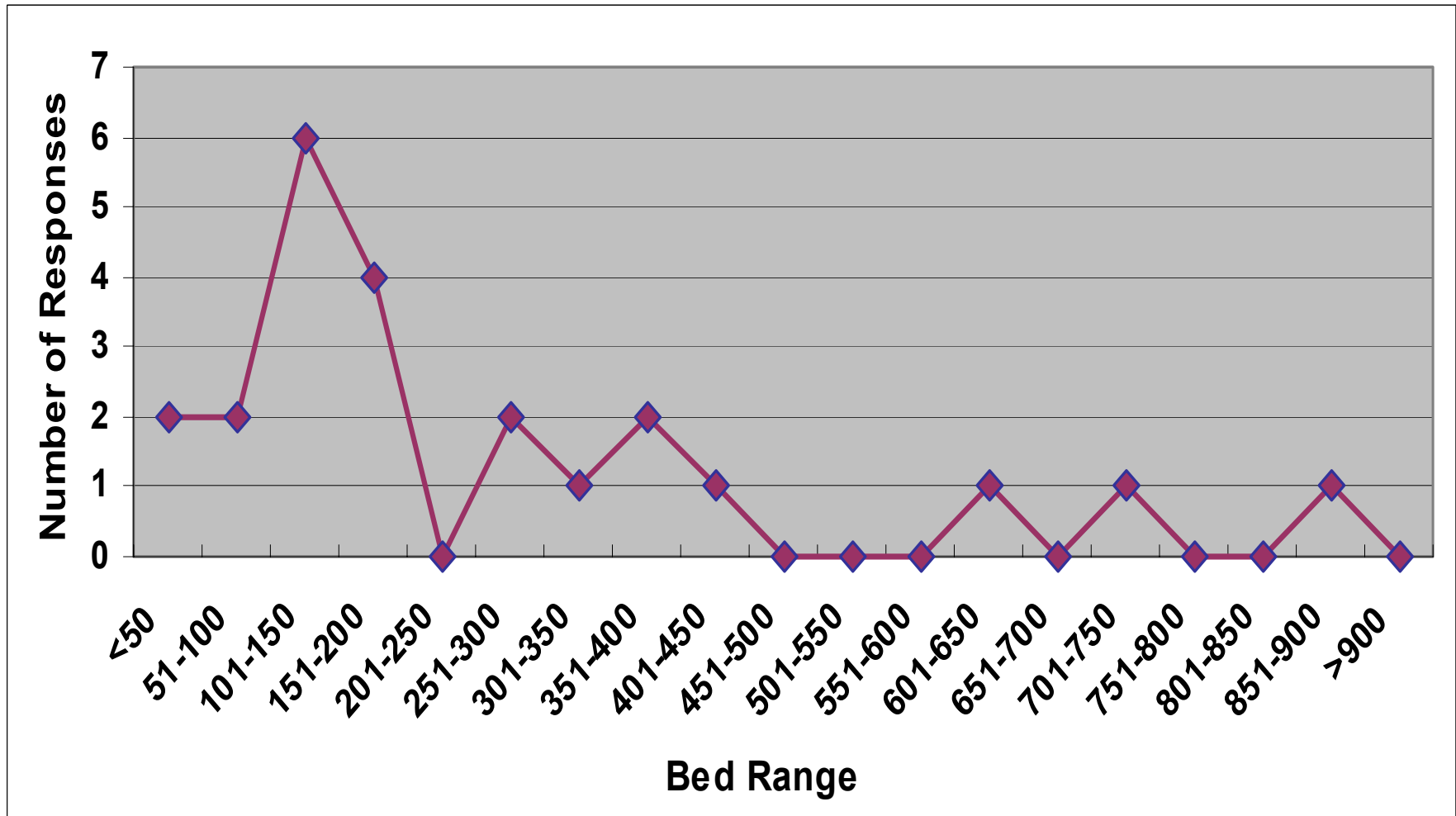
- Convenience sample
- Self report questionnaire was mailed to 54 nurse executives listed in the 2003 – 2004 MONE Directory on February 24, 2004
- Follow up email was sent to recipients on February 29, 2004
- Thirteen recipients responded to the email



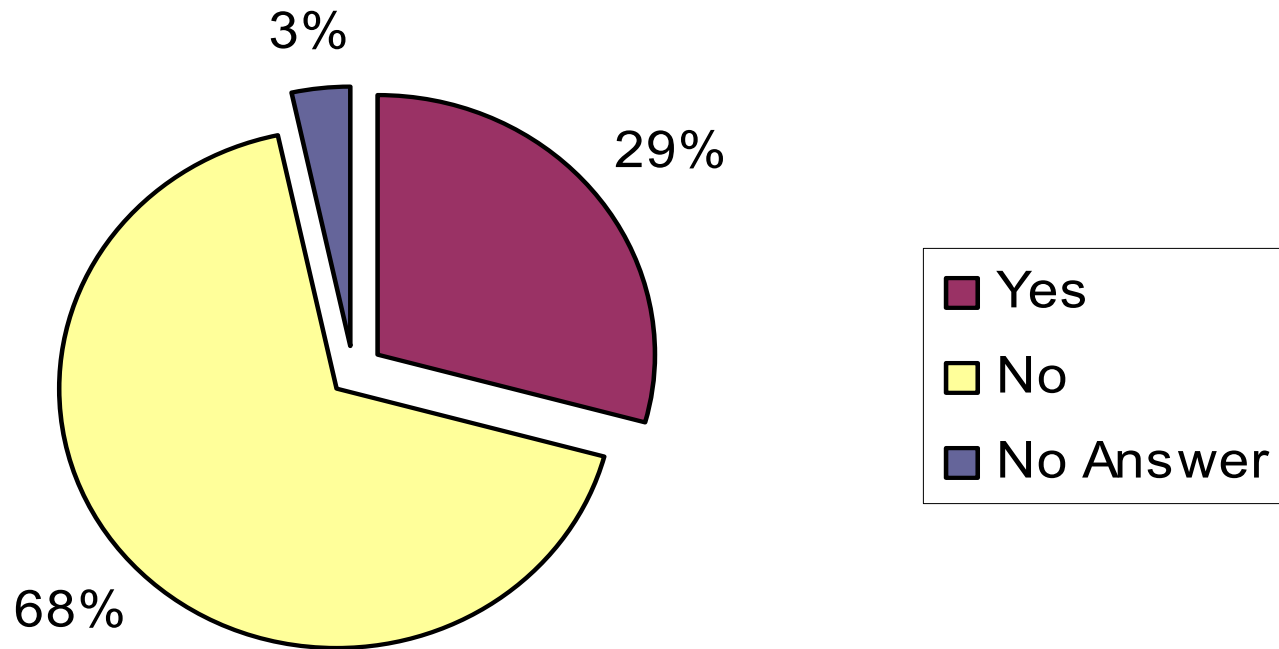
Survey Results

- Of the 54 survey questionnaires sent out 31 were returned
- Survey response rate was 57%
- The respondents of the survey were Vice Presidents of Patient Care Services, CNOs, COOs, Directors of Nursing, and Nurse Executives

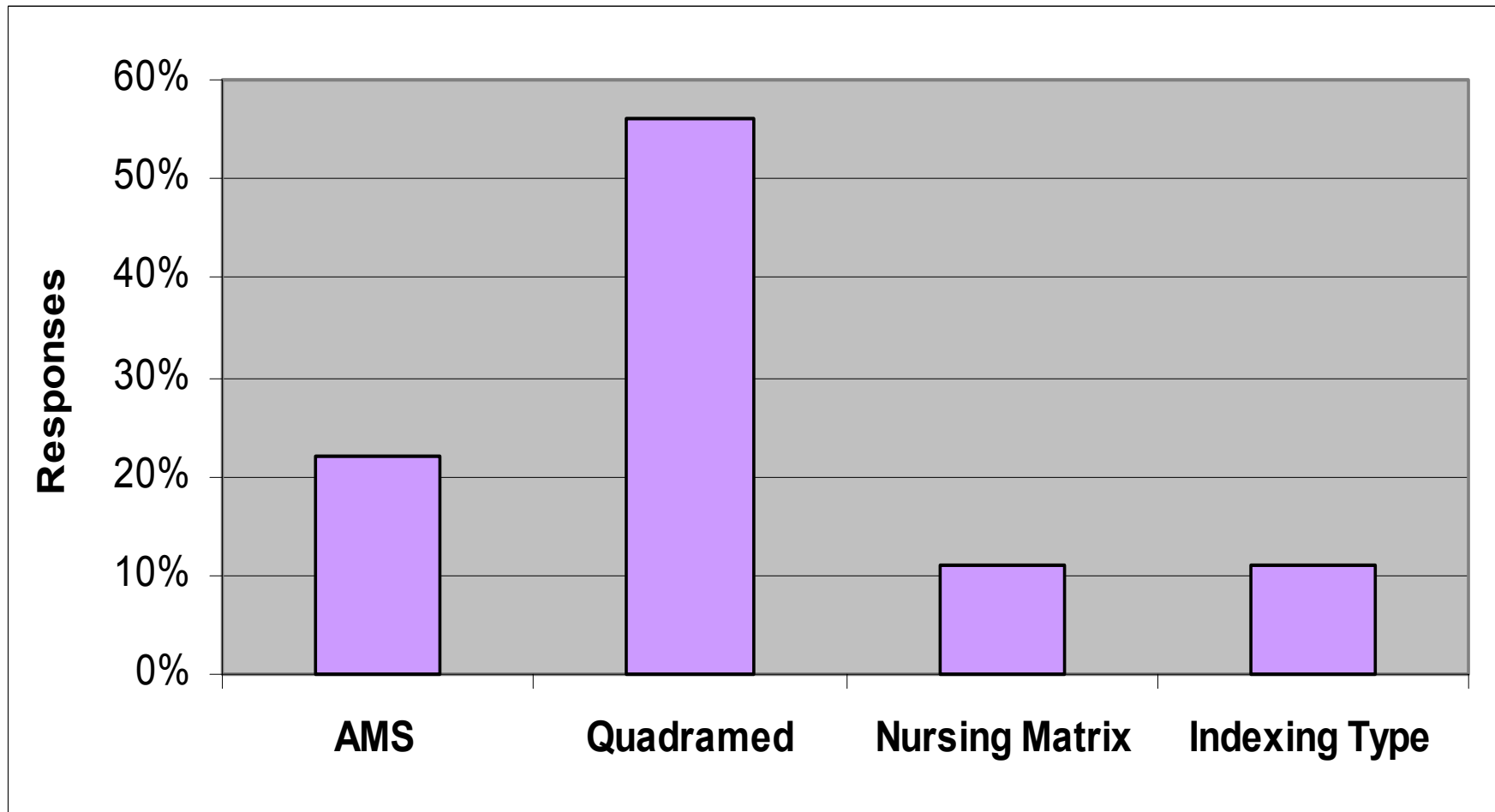
Licensed Bed Range of Participating Hospitals



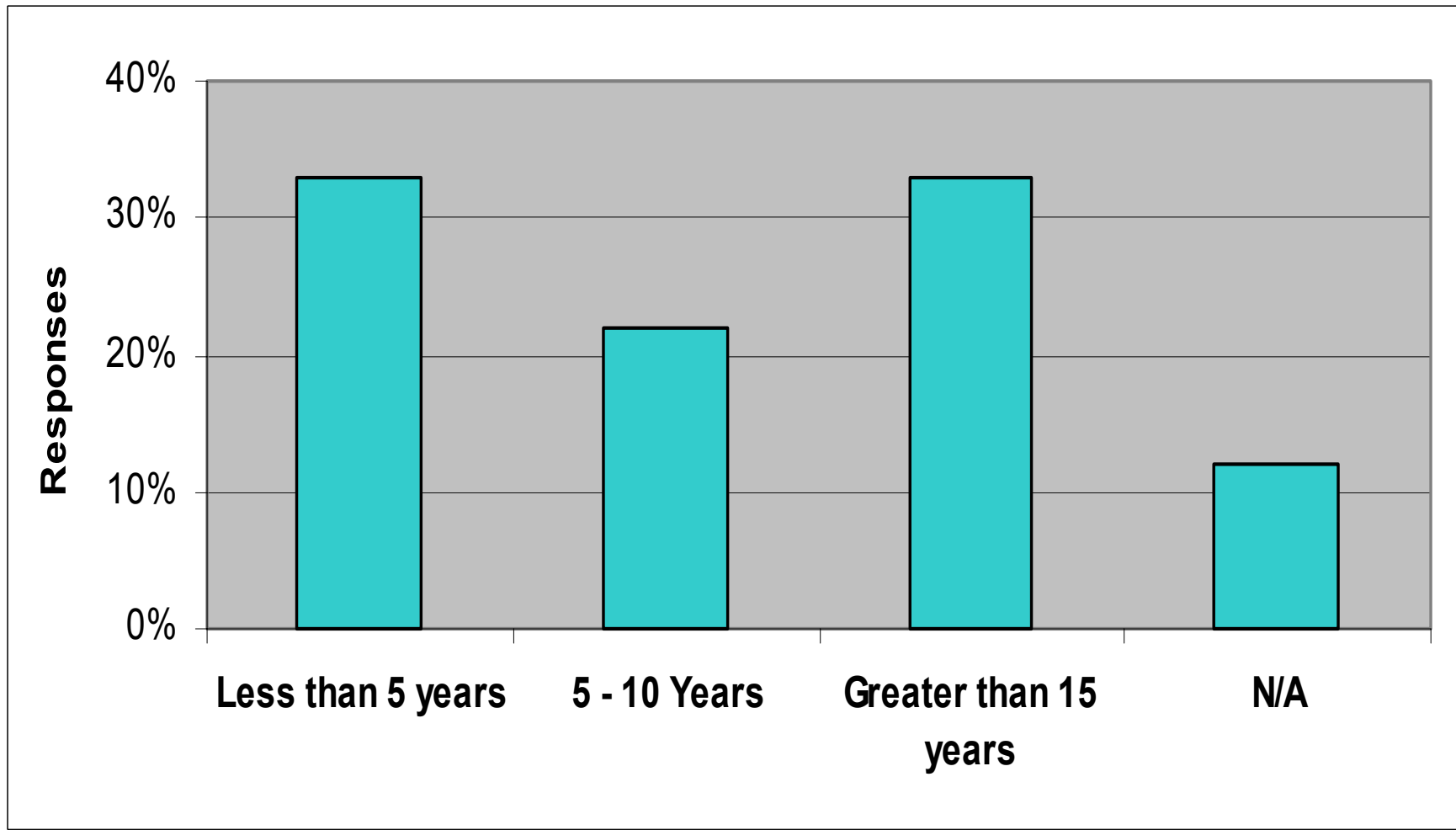
Do You Have An Acuity Based Patient Classification System?



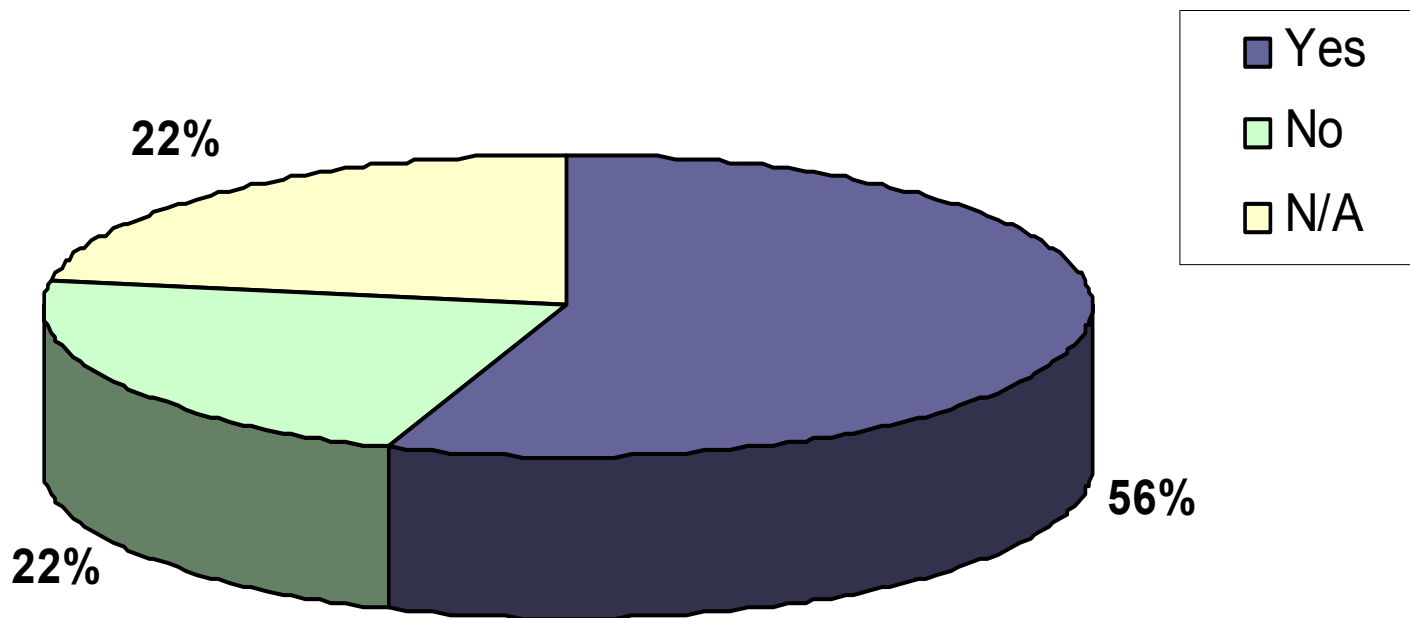
Types Of Acuity Based Patient Classification System



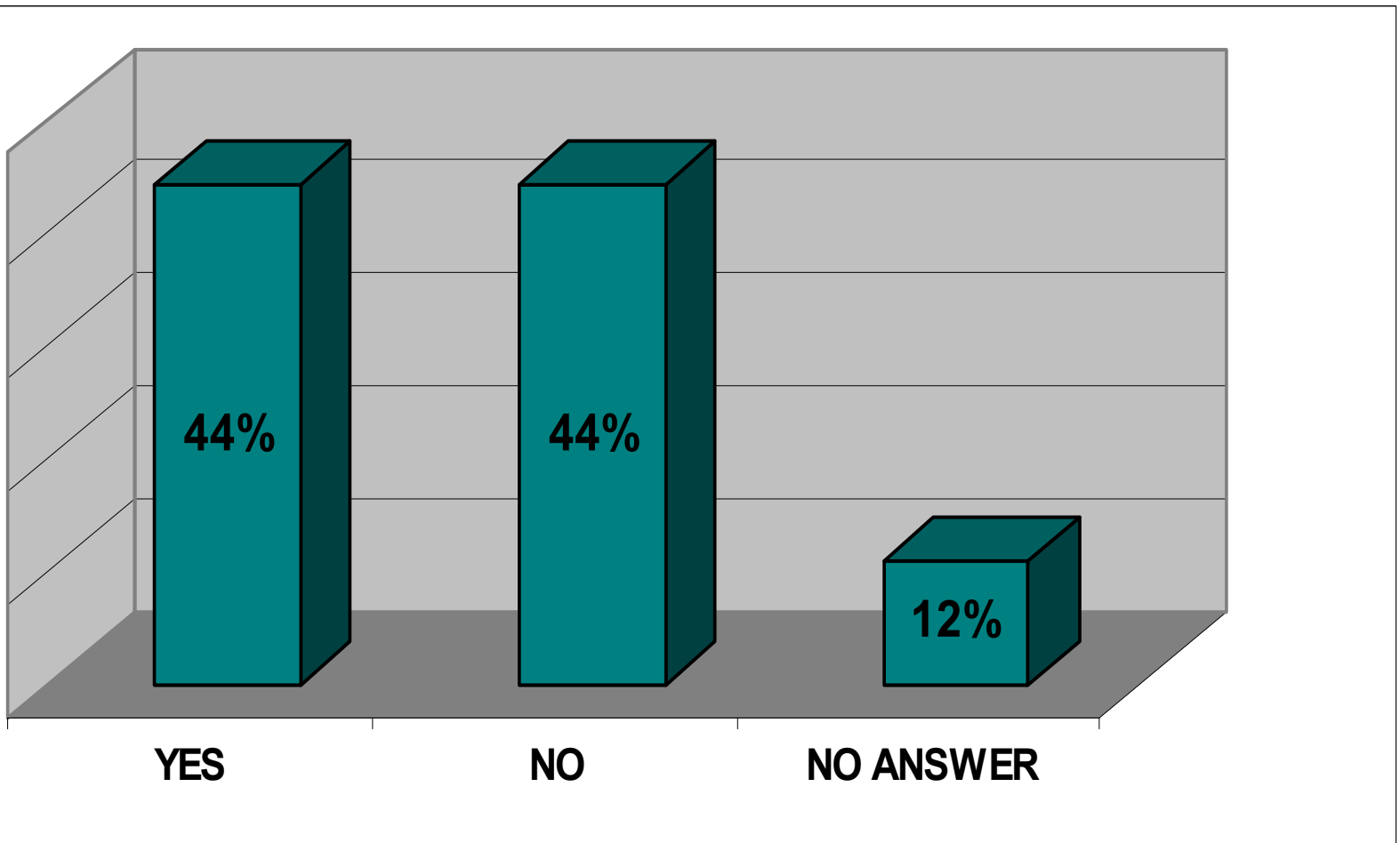
How Long Has Your Acuity Based Patient Classification System Been In Use?



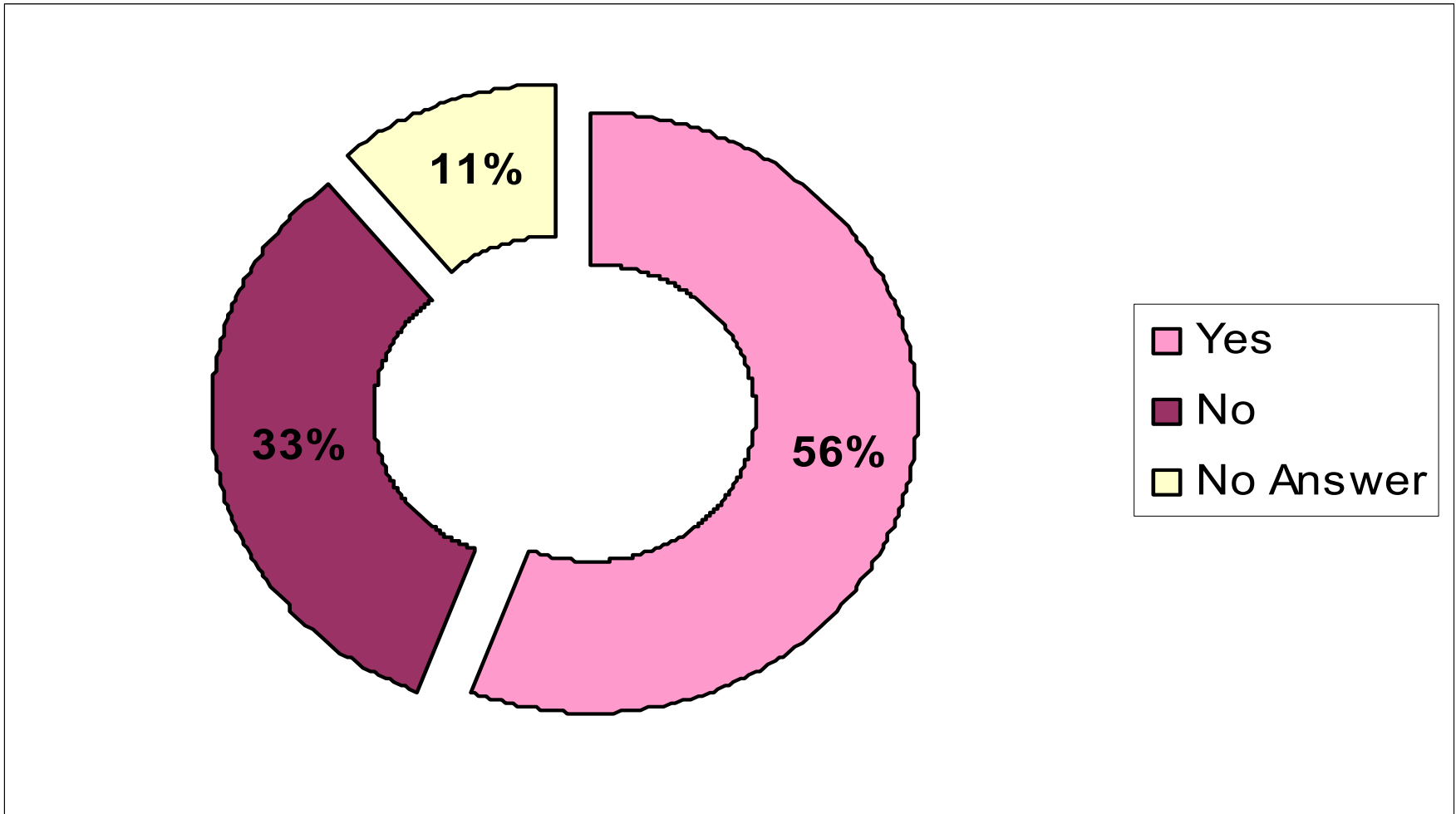
Is Your Acuity Based Patient Classification System Meeting Your Needs?



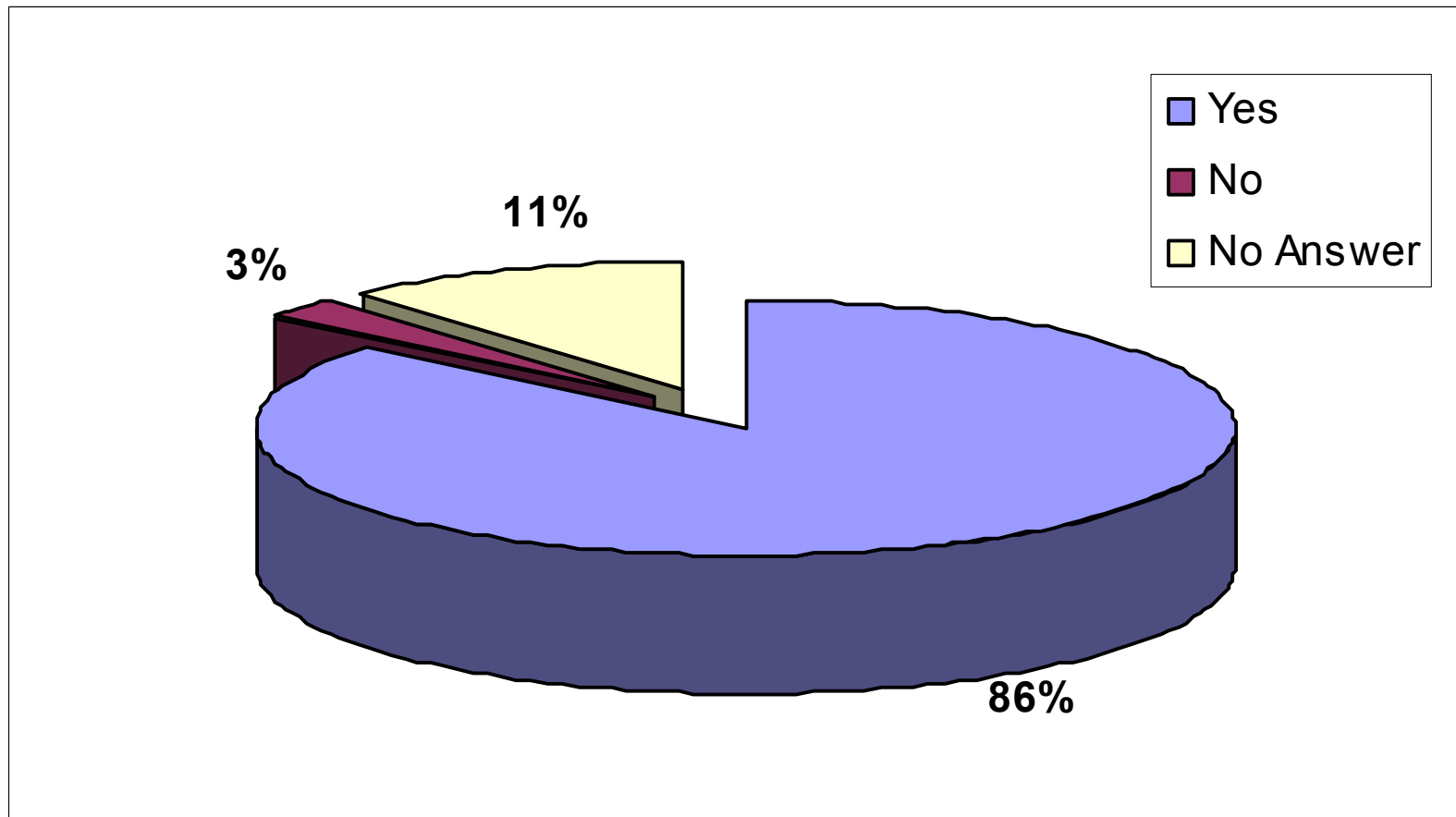
Do The Staff RNs Have Confidence In Your Acuity Based Patient Classification System?



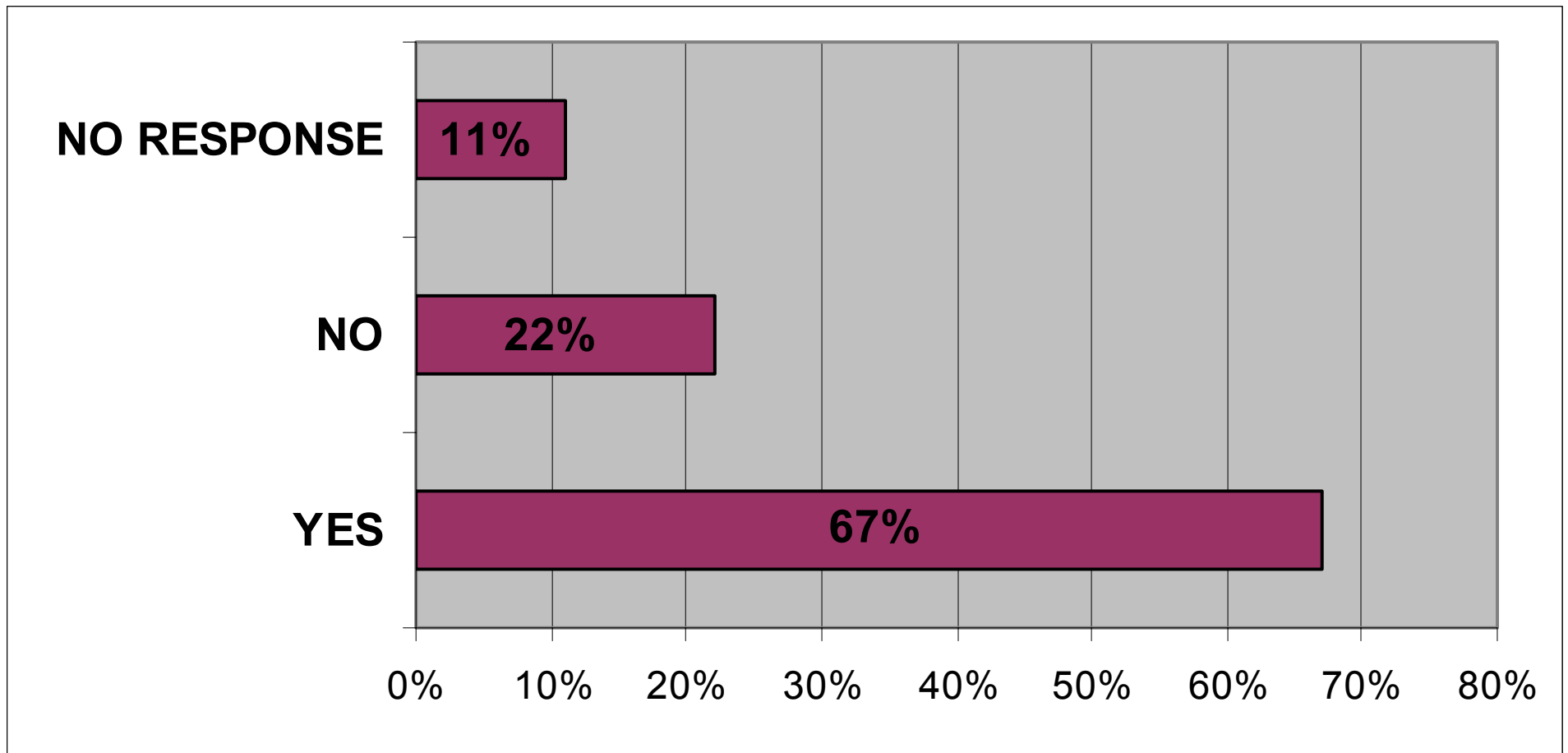
Is Your Acuity Based Patient Classification System Helpful In Decision Making?



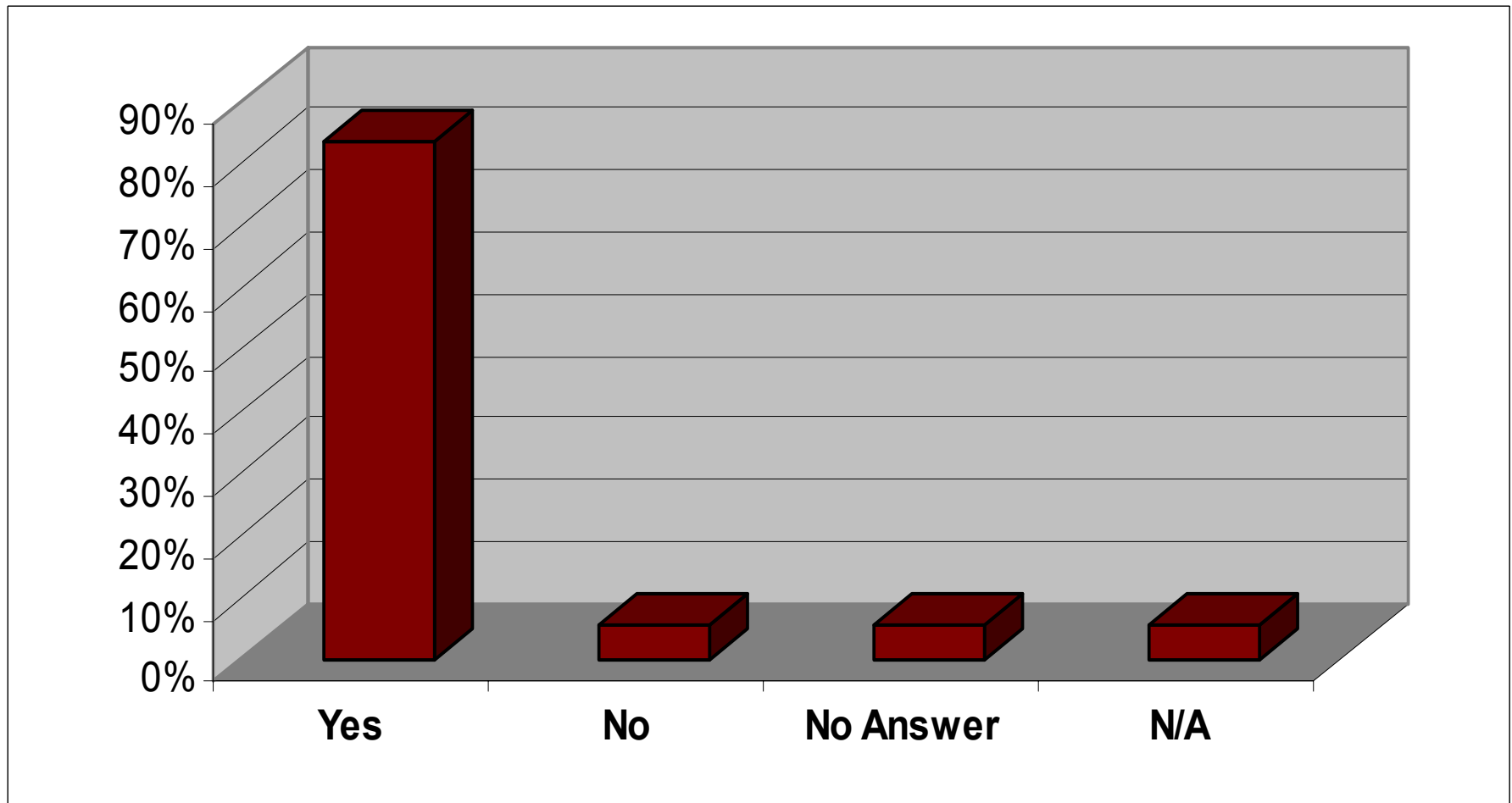
Is the Acuity Based Patient Classification System Reliable – Used For Budget Development – Used In Strategic Planning?



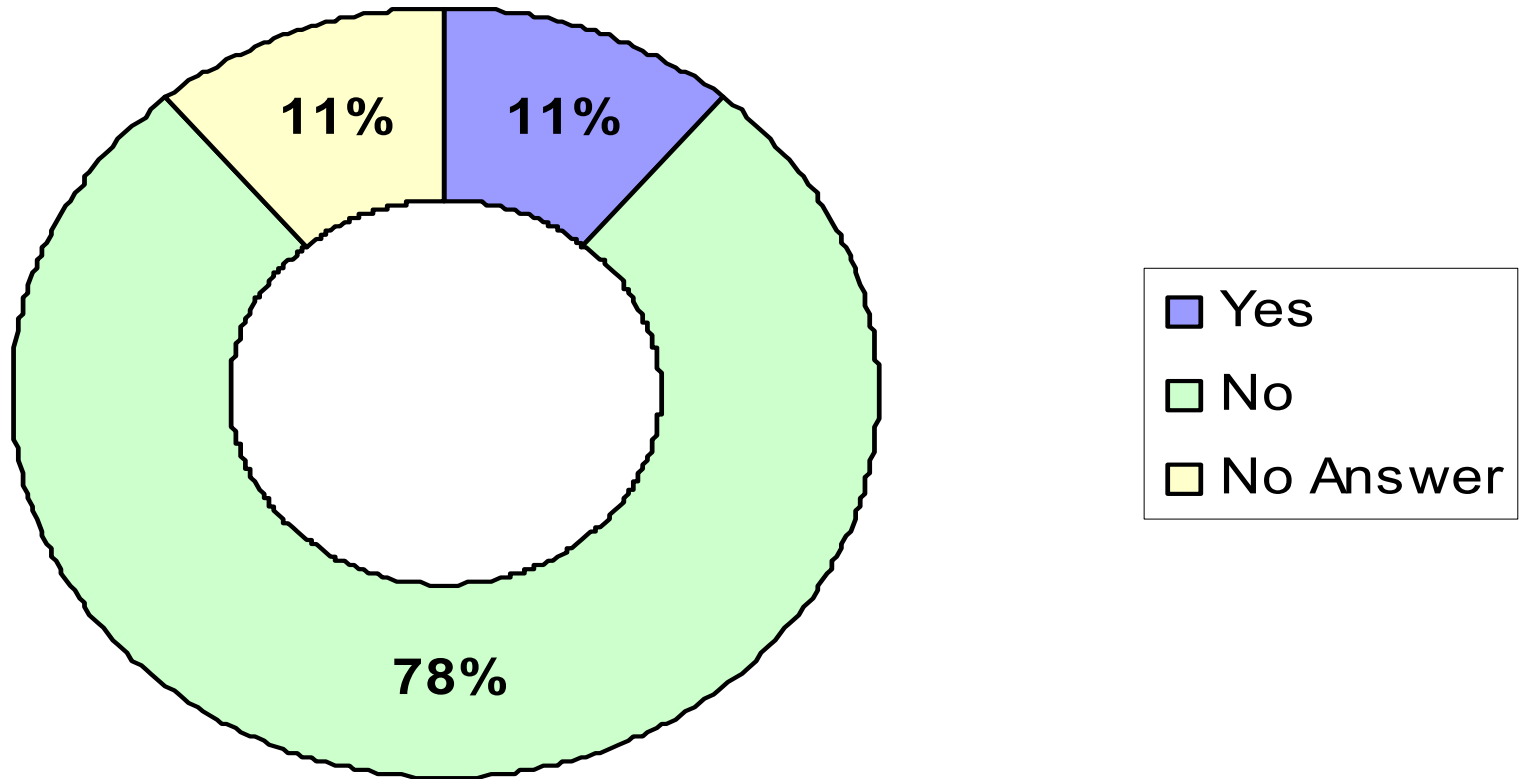
Does Hospital Finance Utilize The Acuity Based Patient Classification System Information In Discussions Of Staffing Requirements?



● ● ● | Is The Acuity Based Patient Classification System Information Audited / Validated On A Regular Basis?



● ● ● | Are You Considering Changing / Utilizing Another Acuity Based Patient Classification System?





List Of Tools To Determine Adequate Staffing

- Reports
- Hours
- Evaluating / Communication
- Staffing
- Meetings
- Satisfaction
- Benchmark
- Information
- Matrix
- Measures
- Skill Mix / Case Mix

What Are The Ways In Which Shift to Shift Daily Under Staffing Is Addressed?

