

End User Guided Nurse-Sensitive Indicator Dashboard

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Introduction & Background

- 98,000 Americans die in U.S. hospitals each year due to preventable medical errors (National Academy of Medicine [NAM], 2000, formerly Institute of Medicine [IOM]).
- Many more suffer complications while in our care which can be attributable to nursing
 - Falls
 - Hospital Acquired Conditions
- Data informs quality
- Nurses face challenges in retrieving uniform and actionable data because of varied data streams
- Data fragmentation is a threat to meaningful use
 - Piecemeal data leads to practice variance
 - Ill-informed decisions

Purpose

The purpose of this Doctor of Nursing Practice (DNP) Scholarly Project was to streamline the process for communicating nurse-sensitive data to nurse managers and others involved in QI. The goal was to simplify and standardize the process nurse managers undertake to investigate nurse sensitive indicators (NSIs) in the provision of care and implementation of QI interventions. During the planning stages of this project, the Johns Hopkins Hospital began automating a collection of ubiquitous NSIs and integrating them into a standardized nursing dashboard.

Aims

1. Over four weeks, collaborate with engineering students, clinical analytics, nurse leaders on the usability of the dashboard
2. Educate clinical analytics team on usability of the dashboard during the discovery phase
3. Collaborate with stakeholders on the execution of the dashboard between October and November 2021.
4. Evaluate frequency of dashboard use since it was implemented

Methods

Design: Quality improvement, mixed methods
Setting: Johns Hopkins Hospital, Baltimore, MD.
Sample: Convenience sample of Magnet Ambassadors, user's login activity on Tableau, and A3 accountability plans were reviewed for data usage.

Interventions

- Discovery Phase
 - Meeting with engineering students
 - Brainstorming sessions with end users
 - Summative usability report and presentation
- Dissemination Phase
 - Nursing Leadership Forum (NLF), Oct 21'
 - Nursing Clinical Quality Improvement (NCQI) Committee, Oct 21'
 - Magnet Ambassadors Meetings, July 21', Nov 21', Jan 22')

Results

Yes	27
No	12
Total Number of Responses	39

Table 1. Affirmative and Negative Responses to Question 1



Figure 1. Performance Indicator Graphs

Department	No	Yes	Grand Total
Medicine	2	4	6
Neurosciences	2		2
Oncology		1	1
Pediatrics	2		2
Surgical Sciences	2	5	7
Grand Total	8	10	18

Table 3. High Focus Unit A3s Grouped by Department, Performance Indicator Graphs Used

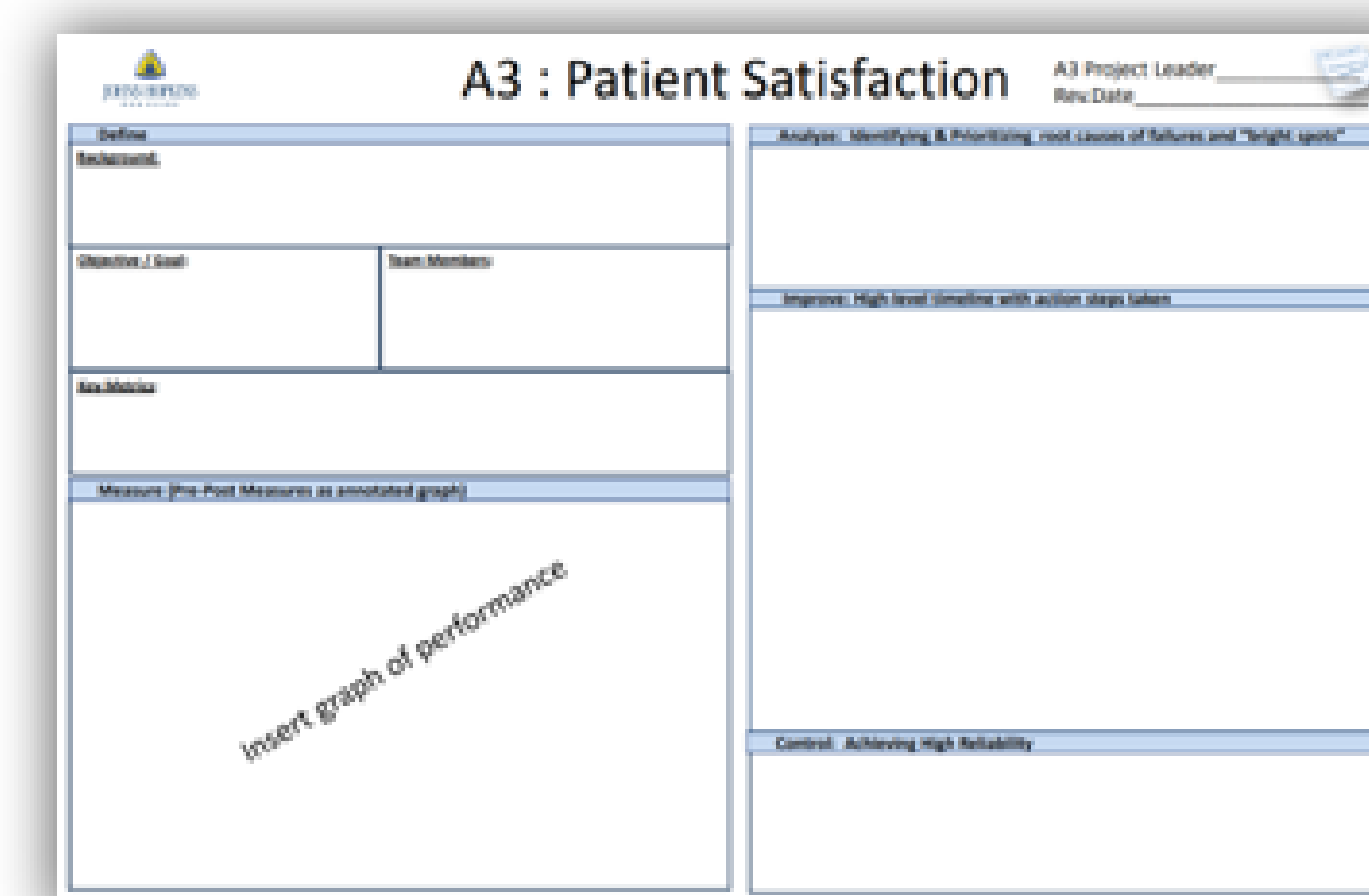


Figure 2. Example A3

Breakdown of Q1 Affirmative Responses by Department

Department Name Reported	Number of Affirmative Responses
Surgical Sciences	11
Medicine	5
Pediatrics	4
Neurosciences	1
Oncology	1
Obstetrics & Gynecology	1
Miscellaneous Responses	4
• Huddle (2)	
• Unit Name Not Reported (2)	
Grand Total	27

Table 2. Breakdown of Q1 Affirmative Responses Grouped by Department

Conclusions

- Eased data analysis for all users
- Drove data-driven decisions
- Optimized the accountability process for underperforming units
- Not a panacea to complex healthcare issues

References

Institute of Medicine (IOM) Committee on Quality of Health Care in America. To err is human: building a safer health system. Kohn LT, Corrigan JM, Donaldson MS, editors. Washington (DC): National Academies Press (US); 2000. PMID: 25077248.