



From Pilot to Program; Outcomes and Lessons in Creating a Virtual Nurse Model in the Pediatric Acute Care Unit

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Background

Historically, iterations of virtual nursing programs have focused on the care of adult-aged patients, primarily in the intensive care unit. The utilization of virtual nurse models started to grow, fueled primarily by the rapid COVID-19 pandemic. A pilot program was developed to learn from these efforts to build a model supporting staff caring for pediatric patients in a specialty pediatric hospital. Using input from frontline staff, unit leaders, and literature, a model focused first on the admission and discharge process in the acute care units at the primary intervention. The primary outcome examined was nurse-sensitive measurements from patient surveys completed after discharge, determined to be impacted by the virtual nurse pilot. Secondary outcomes include nurse satisfaction with the virtual nurse model and impact on 30-day readmission rates. The pilot study and program development significantly improved patient experience and readmission rates. Feedback from staff and qualitative patient survey data was mixed, presenting opportunities to address in the next phase of this program.

Aim

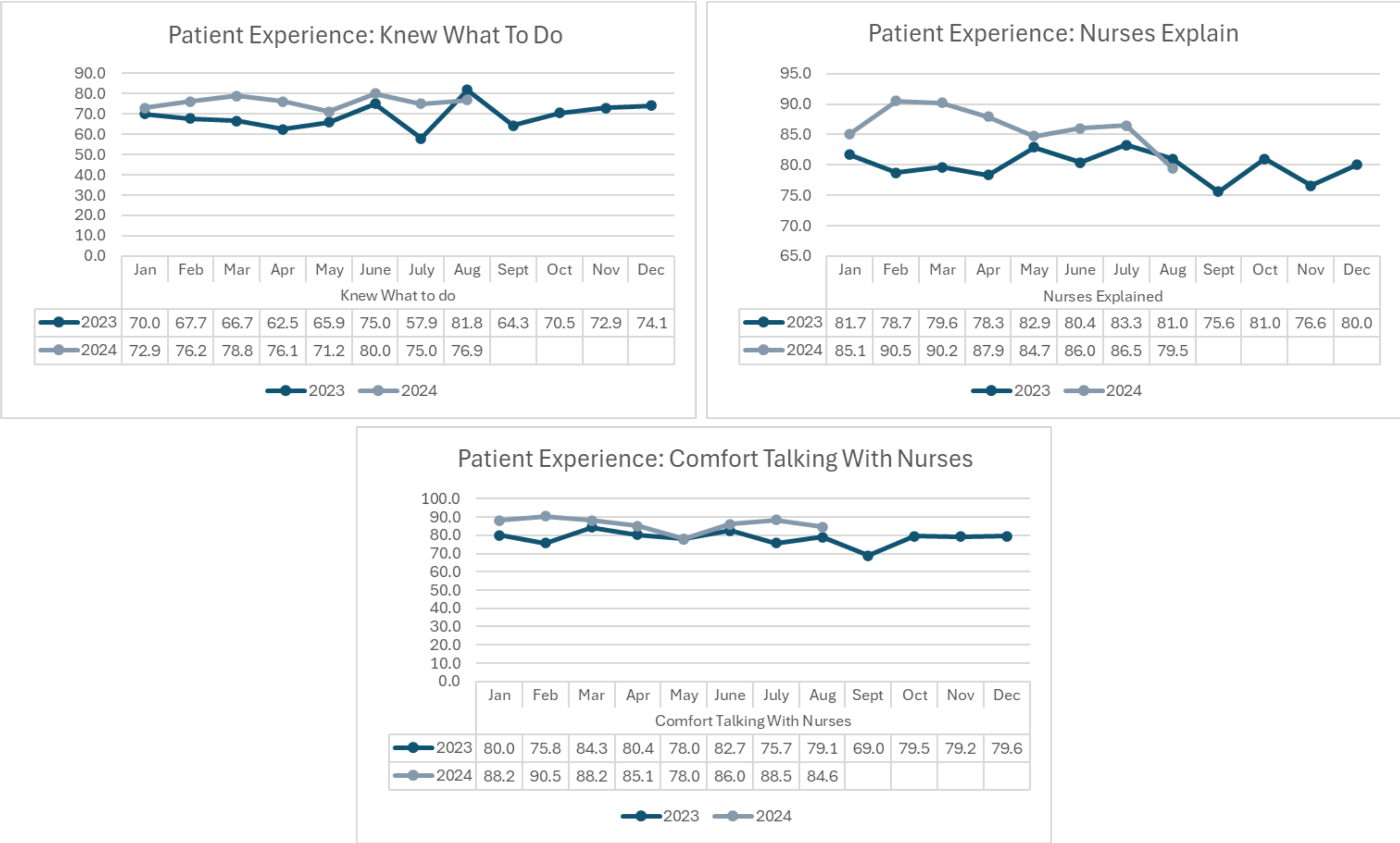
Our aim with this study was to examine collected data from the pilot, which continued afterward into the formal program launch, to determine the impact on patients and staff, as well as unexpected outcomes and considerations.

Methods

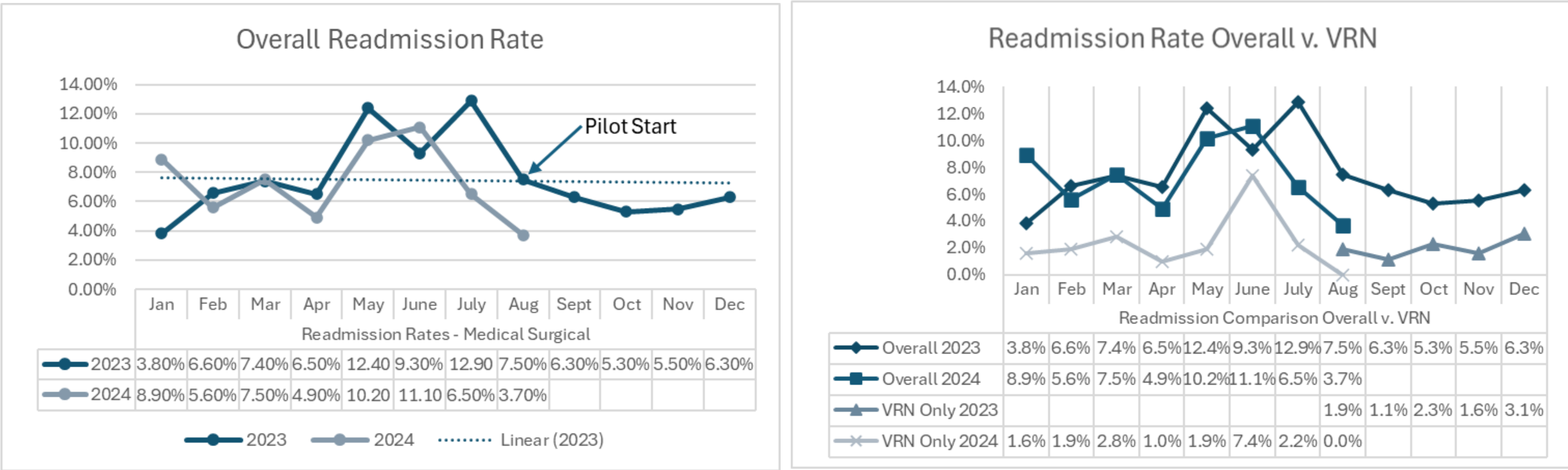
- Retrospective Design
- Examined data collected via quality metrics analysis platform, patient experience survey vendor, and previous pilot study nursing staff surveys.
- Inclusions:
 - Discharged from Medical-Surgical unit covered by Virtual Nurses
 - Patients readmitted to the hospital within 30 days of discharge
- Exclusions:
 - All non-Medical Surgical Units
 - Data after August 2024
- Measurements:
 - 30-Day Readmission Rate
 - Patient experience questions:
 - Did you know what to do after discharge
 - Did the nurses explain things in a way you could understand
 - Were you comfortable speaking with the nurse
 - Qualitative themes from staff nurse survey during the pilot study and patient experience survey comments.

Results

Patient Experience



Readmission Rate



Survey Themes

- Helps with workflow
- Added resource, which helps
- Communication essential
- Need to improve role definition
- Provide tools to increase independence
- Virtual Nurse increases efficiency
- Enhances quality of care
- Increased ability to do best each day

Discussion

Patient Experience

- Notable improvement in knowing what to do after discharge
- Communication and comfort with nurses improved, surpassing benchmarks
- Gaps in patient/family perception of virtual nurse role and program
 - Addition to care team vs. replacement of bedside staff
 - Protection of patient privacy

Staff Perceptions

- Overall favorable response from staff
- Virtual nursing is viewed as a beneficial resource, creating efficiency, freeing up time by the majority of staff
- There is a need to better define the virtual nurse role relationship to the bedside role, addressing concerns from unit staff

Readmissions

- Measurable reduction in readmissions
- Trends have continued beyond the pilot and initial program launch
- Other factors related to discharge teaching are also likely to impact readmissions
 - After visit summary (AVS) quality and completeness
 - Factors related to discharge planning (i.e., DME and prescriptions)

Unexpected findings

Quality gaps in the admission process (database completion, medical history accuracy) and process standardization impacted patient care, discharge planning, and discharge education.