



Rapid Deployment of a Large-Scale Virtual Nursing Program

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Learning Objectives

- Describe the benefits of FTE modeling for rapid deployment of a virtual nursing program.
- List lessons learned during large-scale rollout at an urban health system, including a variety of specialty care patient units.



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Agenda



Overview



Planning & Implementation



Full Time Employee (FTE) Modeling



Outcomes



Lessons Learned



Key Takeaways



Questions

Innovation in Clinical Care



- Staffing challenges and nursing shortages
- Turn over
- Bed closures
- Delay in throughput





Contributing Factors



What hasn't worked

- Retention bonuses
- Hiring bonuses
- Salary increases
- Contract labor
- Independent site staffing





- Innovative
- Remote bedside support
- Patient Centered Care
- Time saving for bedside team
- Increased healthcare employment opportunities

Virtual Nursing

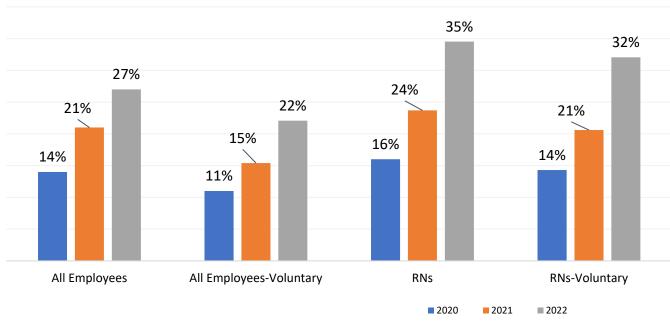


Unsustainable Trends

Turnover Was Quickly Trending in the Wrong Direction

Houston Methodist Employee Turnover Trends

Annualized Turnover 2020/2021/2022



People-based solutions:

| PAY INCENTIVES | >50% increase in various bonuses over 3 years |
|---------------------|-----------------------------------------------------------|
| SALARY INCREASES | 5 market adjustments over 2 years |
| TRAVEL NURSES | Nearly 6X increased utilization of travelers over 4 years |

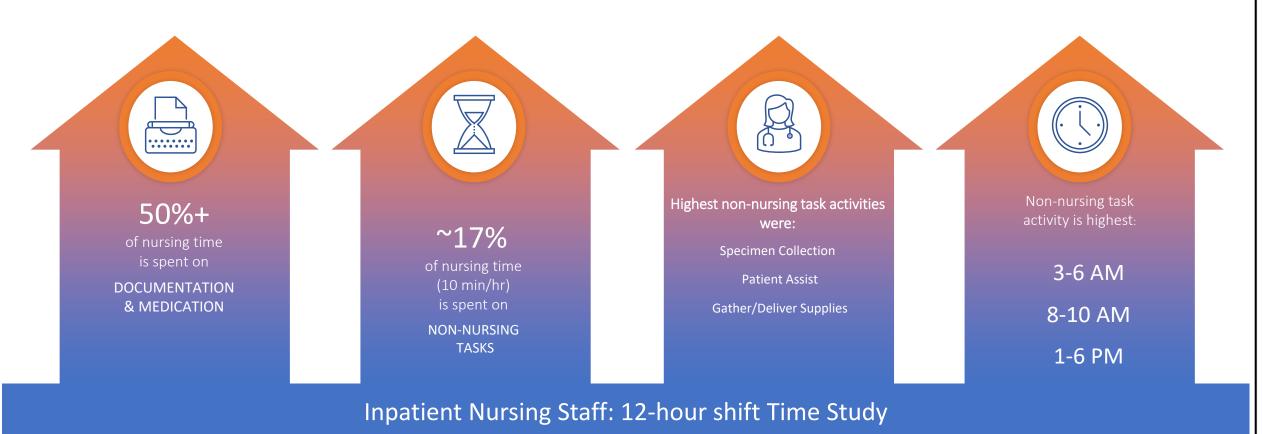
Source: Houston Methodist Human Resource

Houston Methodist needed to implement an innovative solution in their inpatient hospitals



Bedside RN Time Study

Findings And Opportunities For Virtual Interventions











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Virtual Nursing Survey

| Nursing admission profile assessment | Participating in MD rounding |
|--------------------------------------------------------|-----------------------------------------------------------|
| Other admission tasks (specify in comments) | Inpatient Texting |
| Discharge Instructions | Orienting patient to room |
| Coaching/Mentoring/Policy Help | Order review (24-hr chart checks, signed & held orders) |
| Post-TPA monitoring | 2 nd observer for foley insertion |
| Pre-procedure checklist | CAUTI/CLABSI bundle monitoring |
| Scribe for Assessments/Tasks/Other | Prep for Care Coordination Rounds |
| 2 nd signature for High-Risk Meds | Verification with consults for clearance for DC/procedure |
| Blood product admin cont observation | Double checking documentation at end of shift |
| Answering patient/family questions/referencing MD PN's | Other (free text) |

The survey asked respondents to select 4 tasks, out of a 21-item list, they would most appreciate assistance with - to lighten their workload.

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Overview

Virtual Nursing Process Overview

Providing remote support to the bedside operations to deliver personalized care to our patients, while reducing bedside clinician workload.

Virtual Nursing *Technology*

Utilized existing resources rather than seeking to add new technology to the portfolio.

Virtual Nursing Tasks



Admission Questionnaires

Completion of Nursing
Admission Profile
Documentation in medical
record
Placing any needed
consults



Discharge Instruction Review

Pharmacy Confirmation



Other:
Pre-Op
Remote Patient
Monitoring – inpatient
Obs Patient Support
Social Determinates of
Health (SDOH)

Technology



Tablets



Audio/Visual (A/V) System



Secure Messaging

Analytics and Reporting

Early Electronic Medical Record (EMR) Admission/Discharge/Transfer (ADT) reporting

Self developed encounter tracking tool

Audio/ Visual (AV) reporting

- Call durations
- Wait times

Staff productivity and scheduling

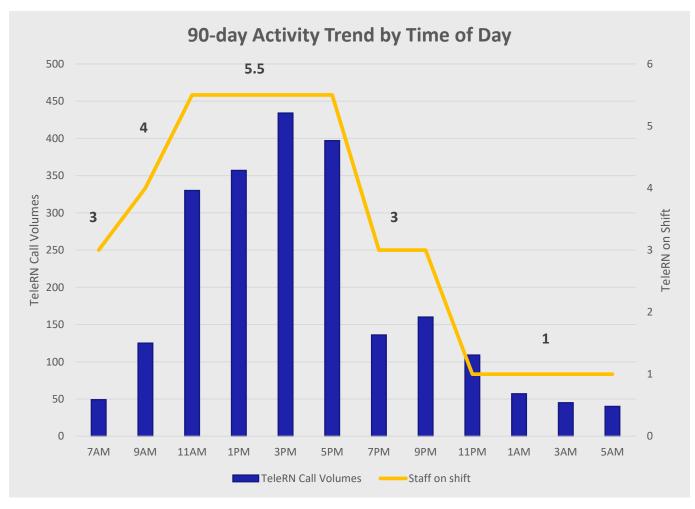
Remote work rotation

Interdisciplinary consult volumes





Original FTE Modeling



Initial strategy used vacant FTEs from bedside units

Initial FTE need based on fixed ratio

Multishift options to accommodate time of day volume trends

Rotational Hybrid work option

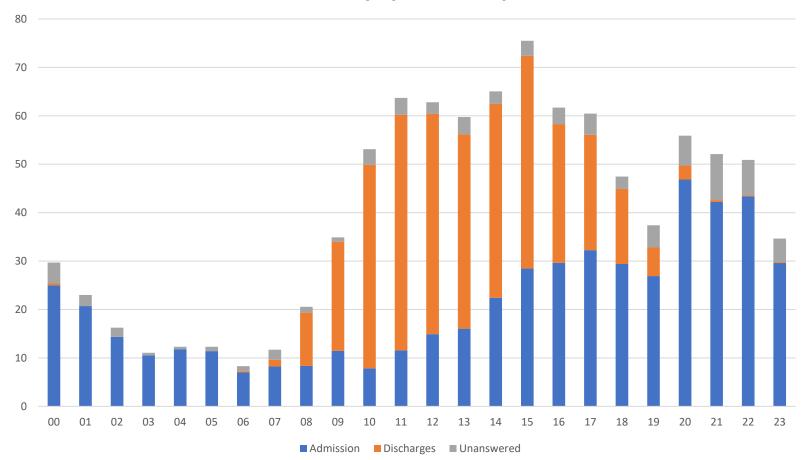
Leverage light duty resources

urce: Houston Methodist Virtual Medicine Dep

Current Staffing Model

- Analyzing both completed and missed volumes to staff appropriately
- Bedside staffing ratio adjustments
- Maximizing hours of coverage
- FTE needs based on facility subscription model

Activity by Time of Day



Source: Houston Methodist Virtual Medicine Dept, Caregility™ Analytics



Virtual Nursing A/V Analytics



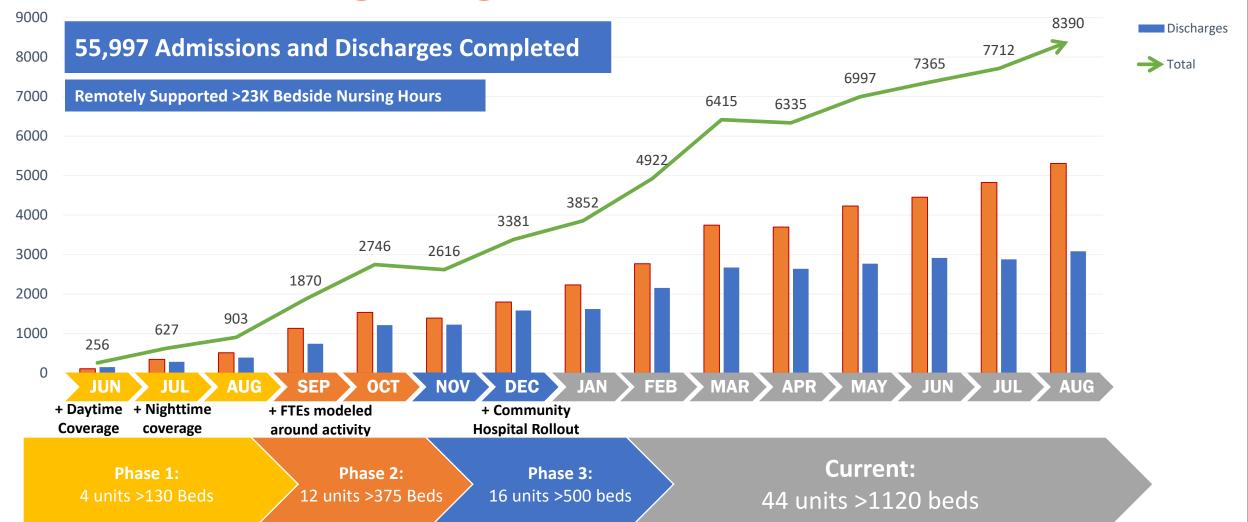


Utilization of translation services

Remote family engagement

Source: Caregility™ Analytic

Virtual Nursing Program Growth





Admissions

Virtual Nursing Outcomes

Bedside Team

- More time to focus on in-person tasks
- Better management of capacity

Virtual Nursing Team

- Continuous use of credential-level skills
- High degree of dedicated patient interaction

Patient Experience

- Personalized 1:1 nurse interaction
- Uninterrupted discussions with virtual nurse
- More predictable day of discharge timeline

ource: Houston Methodist

Bedside RN Perception of Virtual Nursing

A post implementation survey was completed across multiple campuses with 106 bedside nurses participating

95% responded that the acute care Virtual Nursing program was "very helpful" or "somewhat helpful."

89% responded it saves them time

85% indicated it allows them to focus on more urgent clinical needs

Most comments reflected that TeleNurses help bedside nurses in their own time management

Nurses responded they feel supported in having extra hands available

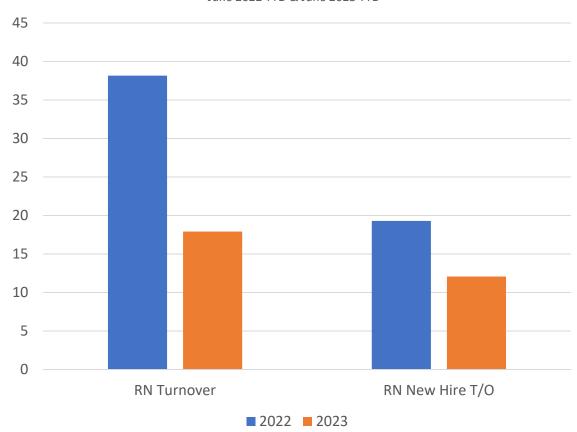
There was perceived **improvement in patient safety** by having a TeleNurse who could "catch missed" issues (like an "incorrect pharmacy identified"), while also allowing the primary bedside nurse to focus more intensely on other needs, which also **promotes improved safety**—essentially creating a **two-fold safety promotion**



Pilot Units RN Staffing

% RN Turnover YOY Reductions

June 2022 YTD & June 2023 YTD



RN Contract Labor Trend

of Contracts in 4 Pilot Units



Source: Houston Methodist Human Resources & Centralized Staffing Office



Virtual Nursing Stories



"Last week I discharged 4 patients in one-day... I never would've been able to do that without the new program." - Bedside Nurse



Bedside Nurse message to TeleNurse: "Thank you!!! First time I've used it. How nice...appreciate you!"



Bedside Nurse floated for a shift to a unit without TeleNursing "What do you mean we don't have TeleNurse support?"



"Thank you very much, saved me a lot of work today" -Bedside Nurse



Hospital CEO "This program is so popular with our nurses. I couldn't take this away tomorrow even if I wanted to."



"I'm new to this and this is very helpful" – Bedside Nurse



"This new TeleNursing program is a mess... tablets not working... Not sure it will work... (One week later) OK, I love this program, it is so helpful. How do we get more coverage?"- Bedside Nurse



"I like this, and you took the time to personalize it for me" - Patient



"This is fancy and so advanced" Patient



"This hospital is high tech and advanced" - Patient

Great catches from Virtual Nursing:

- Correcting the pharmacy location for discharge medications
- Finding discrepancies on discharge medication dosages
- Following up on missing prescriptions
- Following up on discharge education
- Addressing concerns from family members and giving reassurance on plan of care
- Addressing pending items and helping bedside RNs better cluster care



Lessons Learned



Organizational Readiness

- Controlling the speed of the program rollout can help to avoid overwhelming staff
- Rapid recruitment is key to preventing demand from exceeding staff supply



Change Management

- Change management must be continually considered
- Many stakeholders are involved and must be engaged with early in the process
- Keep workflows and handoffs simple



Technology Partnerships

- While unavoidable, technical challenges can be mitigated
- Partnering with an A/V vendor to build infrastructure can help to preclude challenges



Analytics & Reporting

- Incorporating analytics and reporting early in the process improves outcome tracking
- Don't let remote documentation become an afterthought

Key Takeaways

- Virtual Nursing programs are unique in terms of services offered
- Our strategy to select a narrow scope of services allowed us to scale the program quickly
 - Helped to easily quantify FTE needs
- Early engagement of bedside nurses and unit leadership in program design is essential
- Early utilization and reporting of analytics
- Don't be afraid to use handheld devices or mobile carts to start program

Questions?



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This educational session is enabled through the generous support of the Vizient Member Networks program.

