CASE STUDY

for U.S. healthcare providers

How Allegheny Health Network's Blended Nursing Model Addresses Staffing Shortages

Reorganizing nursing staff to optimize employee experience and care delivery

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Overview

The challenge

Like many other health systems, Allegheny Health Network (AHN) spent the last few years struggling to succeed in an environment where they have been largely unable to recruit a sufficient number of RNs.[1] Solutions to fill staffing gaps — specifically, the use of high-cost travel nurses and using permanent nurses to work overtime — were unsustainable and lead to burnout. Additionally, there was clear evidence of communication breakdown amongst the interdisciplinary team relative to delineation of duties. RNs were performing their duties as well as some of the PCT[2] duties, leaving them overworked and the PCTs unfulfilled. All these elements contributed to a challenging care environment.

The organization

Allegheny Health Network is a ten-hospital, integrated healthcare delivery system serving 29 Pennsylvania counties and portions of New York, Ohio, and West Virginia. AHN also serves as the clinical campus for Drexel University College of Medicine.

The approach

In response to the staffing and care role challenges, AHN launched the Blended Nursing Model of Care. Foundational to this model was the care team of the RN, LPN,[3] and PCT leveraging their collective expertise to deliver high quality patient care. AHN is based in a region with a strong pipeline of LPNs currently practicing or in training, giving the organization the ability to create the model and welcome LPNs into the acute care setting. (Historically, LPNs in the region only practiced in post-acute care or ambulatory nursing.) Nursing units worked with their unit-based practice councils to customize the Blended Nursing Model to their unit's specific needs.

The result

The Blended Nursing Model of Care has resulted in improvements in clinician wellness (including taking a meal break), engagement, and nursing sensitive quality indicators. The model has provided relief from the nursing shortage as well as financial benefits for the health system.

1. Registered nurse.
2. Patient care technician.
3. Licensed practical nurse.

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Approach

How Allegheny Health Network implemented the Blended Nursing Model

Faced with nursing workforce challenges in spring 2021, AHN leaders made organizational staffing changes to meet increased volume demands and continue providing high-quality patient care, while also controlling costs and reducing travel nurse levels post-pandemic. They evaluated the strengths and weaknesses of their nursing workforce and used those findings to develop a model that would holistically address their challenges.

The four steps

Allegheny Health Network followed four steps to introduce and implement the new model throughout their health system.

01 Identify staffing concerns

02 Design a new staffing model

03 Pilot the Blended Nursing Model of Care

04 Scale the Blended Nursing Model of Care

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01 Identify staffing concerns

In spring 2021, severe workforce challenges led nursing leaders at AHN to look for a scalable solution. The nursing leaders knew the health system would not be able to continue using travel nurses at the same volumes due to the exorbitant costs. In AHN's geographical area, the competition for RNs was fierce, especially in light of the shortage in the region. The health system could not hire enough permanent nurses to meet volume demands. To ensure all issues were being addressed in the design of the model, nurse leaders were surveyed. The results of the survey provided more information on key factors contributing to the wellbeing of the nursing workforce.

Wellness concerns

Survey data showed that nurses were not taking meal breaks, hydrating, or taking bathroom breaks regularly. This was because they did not want to leave their assigned patients without definitive coverage. This challenge with clinician wellness uncovered a need for a system that would allow nurses to have certainty that other caregivers would attend to their patients when they needed to take a break.

Culture and communication concerns

The survey data also revealed that there were concerns about communication and respect between RNs and PCTs. Often, RNs felt they were doing most of the work to care for patients, but PCTs felt their work and opinions were not acknowledged by RNs. This tension led to a break in communication amongst the interdisciplinary team, something health system leaders also sought to address.

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02 Design a new staffing model

After consultation with nurse leaders to better understand the main issues, the Chief Nurse Executive and the Vice President of Nursing Education and Professional Practice (VP) introduced the idea for a new staffing model that would change the way nurses interacted with each other.

This flexible model utilizes teams comprised of RNs, LPNs, and PCTs. The introduction of LPNs into the acute care setting is foundational to the model. In contrast to the primary nursing model, this team model assigns a cohort of patients to the team. Every day, each team has a "daily report" meeting at the beginning of the shift. After daily report, the group takes time to plan out and designate times for breaks for each of their team members. Establishing set break times gives each team member the certainty of patient coverage by their colleagues when they take a break.

The model is designed as a team approach to care with delineated work according to the specific scope of practice of each team member. Because of the availability of LPNs in the region, having them as members of the care team meets a patient care need that was not previously being filled, due to the lack of available RNs. The model was carefully created to ensure that care quality was not compromised with fewer RNs and that RNs would receive the support they needed to practice at top-of-license. The strong LPN pipeline in the organization's footprint allowed for more consistent hiring.

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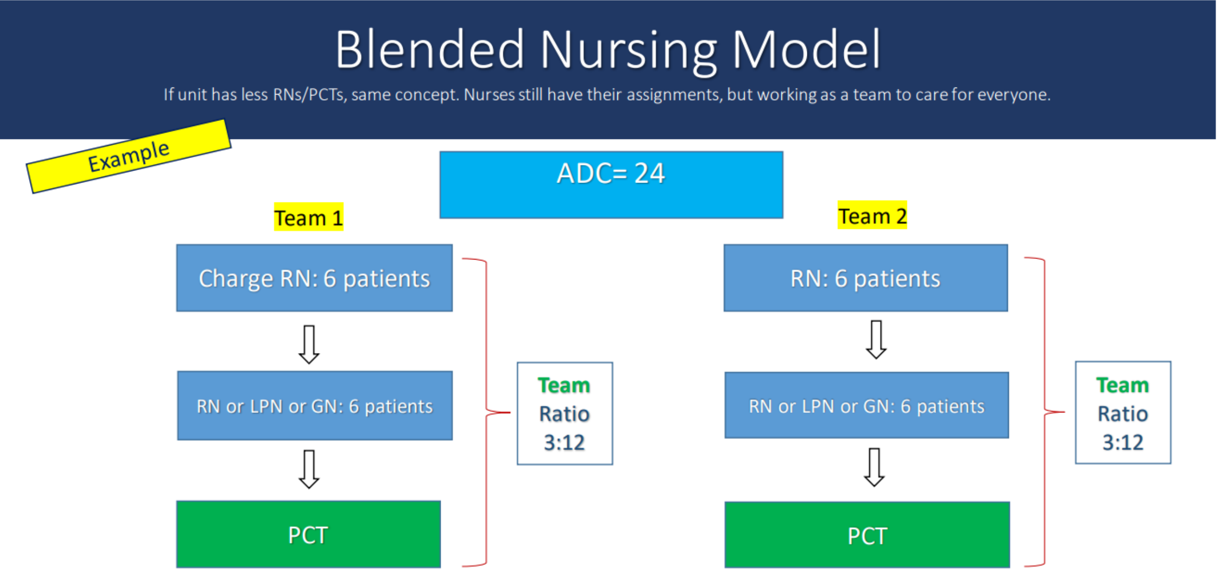
2. DESIGN A NEW STAFFING MODEL (CONT.)

Making the model customizable

Another key aspect of the model is the ability to customize the execution to the particular unit. Recognizing the unique differences in nursing units, the model was created to ensure it was not a "one size fits all" approach. The model could be adapted to team members beyond LPNs and PCTs supporting the RN, and therefore could include a variety of interprofessional employees that would most benefit the unit. For example, the rehabilitation unit includes physical therapists in their team models.

Figure: An excerpt from Allegheny Health Network's *Blended Nursing Playbook* illustrating potential team make-ups.



Sources: "Blended Nursing," Allegheny Health Network, 2022; Advisory Board Interviews and Analysis.

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03 Pilot the Blended Nursing Model of Care

Following design of the model, the VP collaborated with a project manager in executive nursing to move toward implementation. In May and June of 2021, the pair presented to Chief Nursing Officers (CNOs) across the health system, requesting feedback and seeking to introduce the model across the network. The CNOs supported the new model, as challenges facing the health system had an outsized impact on their nursing workforce. The VP took steps to implement the model and identify units across multiple hospitals to pilot the model, and together with the project manager, met with nurse leaders and directors of those units to roll out the model.

The Playbook

An important aspect of the model is that it is customizable to most units in the health network. However, the VP and the project manager needed to identify a way to cohesively educate nursing leaders on the basics of the model, even if the specifics didn't look the same. Nursing Unit Managers, in collaboration with unit-based councils, had the ability to make necessary changes conducive to their unit, if the basic principles of the model remained intact. Basic principles were provided in the form of a Blended Nursing Model Playbook describing the value of blended nursing, the expected results, and some examples of how the nursing teams could be set up. Unit-based practice councils then adapted the models to their units, based on what would work best-in-practice for them. This is open to change based on the specialty, the care setting, or the physical layout of a unit.

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The Pilot

The six-month pilot launched in fall 2021 and continued through spring 2022. During the pilot, the VP and the project manager remained closely involved with the units. The pair had scheduled calls every two weeks with each of the pilot units to troubleshoot, remove barriers, adjust the model, and review new literature about team-based nursing. Throughout the pilot period, leaders conducted site visits, elicited feedback from participants, and recorded measurable results.

Chart: Hospitals and units piloting the Blended Nursing Model of Care at Allegheny Health Network

Hospital	Unit
Allegheny General Hospital	Oncology
Allegheny Valley Hospital	PCU Cardiology
Canonsburg Hospital	Med-surg / telemetry
Jefferson Hospital	Respiratory
Saint Vincent Hospital	Cardiology
West Penn Hospital	Surgery
Forbes Hospital	Ortho / stroke / trauma

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04 Scale the Blended Nursing Model of Care

When the six-month pilot ended in spring 2022, leaders noted positive outcomes from measured metrics, so AHN Executive Nursing sought to scale the work across the network, where appropriate.

Deploying the model more broadly required several modifications from the pilot. The VP and project manager altered the original rollout process of bi-weekly meetings as they were challenged with bandwidth. They created a new process for rollout, engaging the nurse leaders who had been part of the original pilots on their units to serve as resources for the nurse leaders who were subsequently rolling out the model. This provided collateral benefits to both the original rollout manager and the new rollout manager, such as the ability to easily share best practices. The were able to use the already developed Playbook and concepts hardwired into the model to support their efforts. Additionally, they leveraged the Director of Nursing Council, where the Blended Nursing Care Model became a standing agenda item for ongoing communication, collaboration, and sustainability.

Since the pilot program, more units at all AHN hospitals have implemented the model. (See Chart on page 11.)

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Chart: Units utilizing the Blended Nursing Model of Care as of October 2022.

Hospital	Unit
Allegheny General Hospital	• Oncology • Telemetry • CMCU • Surgery / TC
Allegheny Valley Hospital	• PCU Cardiology
Canonsburg Hospital	• Med-surg / telemetry • Rehabilitation
Jefferson Hospital	• Neurology • Bariatrics • Rehabilitation
Saint Vincent Hospital	• Surgery • Cardiology • Oncology • Rehabilitation • Labor & delivery • Mother/baby • NICU • Pediatrics

Beyond the above units that have implemented the Blended Nursing Care Model, there continue to be discussions around adding more units, where appropriate. There is recognition that this model may or may not work in some units in the network. Currently, a total of 39 out of 108 units across the health system are actively using the blended model.

Note that a few of the units have implemented variations on the model. For example, the rehabilitation unit incorporates physical therapists into their blended nursing model, highlighting how the model was designed to be customizable.

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Results

How we know it's working

The blended nursing model has led to a variety of positive outcomes for the units that have implemented it so far, despite existing for less than a year.

- **Decreased turnover:** A decline in turnover has been observed in both PCT and RN roles. PCT turnover rate declined from 43% in 2021 to 38% in 2022.[1] RN turnover rate declined from 30.9% in 2021 to 23% in 2022.
- **Improved employee engagement:** Nurses participating in the new model reported increased workplace engagement. The engagement score on the bedside nursing index rose from 45% in 2021 to 53% in 2022.
- **Improved clinician wellness:** Nurses in blended nursing units reported reduced burnout as a result of scheduling intentional breaks (meal and general). Staff nurse burnout declined by 13% from 2021 to 2022.
- **Improved patient experience:** After the implementation of the blended nursing model, patient experience improved. AHN achieved top box scores in their HCAHPS2 results for the "responsiveness of staff" metric, improving from 63.06% in 2021 to 69.87% in 2022.
- **Improved quality of care:** HAPI[3] incidence across AHN decreased on the units implementing the new model. In 2021 there were 1,088 HAPIs on those units, and only 562 reported January through October 2022.

As the program is implemented throughout units across the health system, leaders expect the positive impacts on workforce, patients, and quality of care to continue.

1. All 2022 data reflect January through October of 2022, which was the most current information at the time of publishing.
2. Hospital Consumer Assessment of Healthcare Providers and Systems.
3. Hospital-acquired pressure injury.

Source: Allegheny Health Network, Advisory Board interviews and analysis.

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Supporting artifact(s)

Sample content from AHN's *Blended Nursing Playbook*

Purpose
Why is Blended Nursing important?

AHN Nurse Manager feedback *revealed that many nurses are not taking wellness breaks/lunch breaks because they don't want to leave their patients without having definite coverage, or don't know best person to ask for coverage.*

Managers also reported there is a gap in communication between Nurses' and PCTs, and if this was improved, this could have a positive effect on retention, culture, and quality care.

Managers reported that staff not taking breaks and not communicating their needs with other team members was not helpful during normal times, and especially during challenging times

Managers agreed that improvement in teamwork would contribute to staff wellness. Managers stated that staff would take more breaks if there was an ***established agreement*** *with another nurse to monitor their patients.*

Blended Nursing supports teamwork and will improve caregiver wellness: physically and mentally.

Sources: "Blended Nursing," Allegheny Health Network, 2022; Advisory Board Interviews and Analysis.

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4. SUPPORTING ARTIFACTS (CONT.)

Sample content from AHN's *Blended Nursing Playbook* (cont.)

Benefits

Blended Nursing culture supports ALL team members

Everyone will benefit from working in a **team environment**; there will always be someone to count on for patient care and to take breaks

Blended Nursing **empowers all team members** to speak up and share needs

PCTs & Nurses will have im**proved communication and collaboration**

New nurses will **feel supported** and adapt quicker to the unit; team culture **increases organizational commitment**

How do we do Blended Nursing?

1. Identify the Teams
Nurses are assigned patients as usual. Manager identifies the Teams (Team 1, Team 2, etc.)
These teams will depend on each other throughout the day. (visual on next page)

2. Nurse and PCT Huddles
Increase communication within the team. PCT empowerment to share what they need for patient care (2 assist, turning, prep for procedures, etc.) and vice versa- nurse to share information with PCT. Ask each other, "What can I help you with today?"

3. Lunch breaks
During huddles, establish times for lunch breaks and establish who is covering who

4. Perform check-ins with each other team members throughout the shift

Are there opportunities to convert RN positions to LPN, or add LPN positions?

OPTIONAL:
Based on the needs of the unit: Teams can consider performing individual tasks to care for patients --> All nurses are assigned patients as usual (that they assess and chart on), but the team works together to care for all patients.

Example: 1 nurse give all the meds, 1 nurse performs first hourly rounding/prep patients for procedures, 1 nurse handles admissions/transfers, PCT can prepare patients for discharge, empty foleys, etc.

Everyone works as a team to care for patients together.

Sources: "Blended Nursing," Allegheny Health Network, 2022; Advisory Board Interviews and Analysis.

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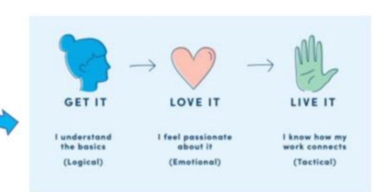
4. SUPPORTING ARTIFACTS (CONT.)

Sample content from AHN's *Blended Nursing Playbook* (cont.)

Next Steps: Blended Nursing

Managers Next Steps:

Managers must review and understand Blended Nursing concepts BEFORE discussing with staff



Explain the "Why" to your team: Blended Nursing supports ALL team members.

- Current nurses will appreciate the *improved work culture and teamwork*
- Blended Nursing *empowers PCTs & Nurses* to collaborate and improve communication
- *New nurses will feel supported* and adapt quicker to the unit (increase retention)

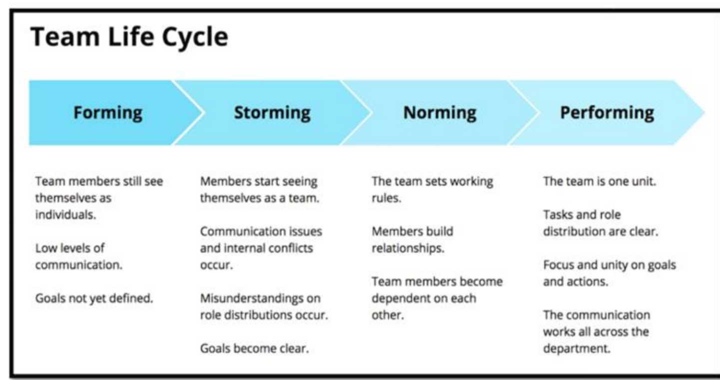
Ask your team for *their* ideas. Include your team in the planning process- Nurses and PCTs

Tie Blended Nursing culture to existing survey results you hope to improve on your units

Change Management

How nurse leaders can implement change, 6 steps:

1. Leaders need to 1st accept and prepare **themselves** for change.
2. Write down a **clear** vision and **simplified** plan for your team.
3. Present your vision and plan, ask your team for ideas and input. Make modifications to plan as appropriate.
4. Go for it. Implement the changes.
5. Embed these positive concepts into your unit's culture, practices, and into onboarding/training.
6. Analyze the outcomes.



Remember-
Some resistance is normal and okay!
Continue supporting your team!

Sources: "Blended Nursing," Allegheny Health Network, 2022; Advisory Board Interviews and Analysis.

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4. SUPPORTING ARTIFACTS (CONT.)

Sample content from AHN’s *Blended Nursing Playbook* (cont.)

Goals, Objectives, and Outcomes

Goals

Improve clinician wellness, retention, core behaviors, NDNQI, and unit culture

Objectives

1. **Decrease swipes of No Lunch**
2. **Improve retention and turnover both RNs and PCTs**
3. **Impact of Patient Experience**
4. **Improve Core Behaviors/Gallup**
   Opinions Count
   Know what is expected of me at work
5. **Improve Clinician Wellness**
   Lunch breaks scheduled-hydration and nutrition
6. **Improve Quality Measures**
   Falls with injury
   HAPI

Data Collection

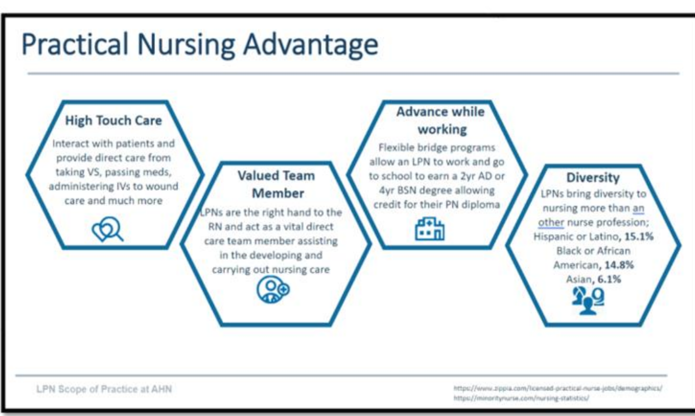
Existing surveys

Kronos

HR dashboard

As needed: LPN Scope of Practice

Click here : LPN Scope of Practice



Sources: “Blended Nursing,” Allegheny Health Network, 2022; Advisory Board Interviews and Analysis.

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