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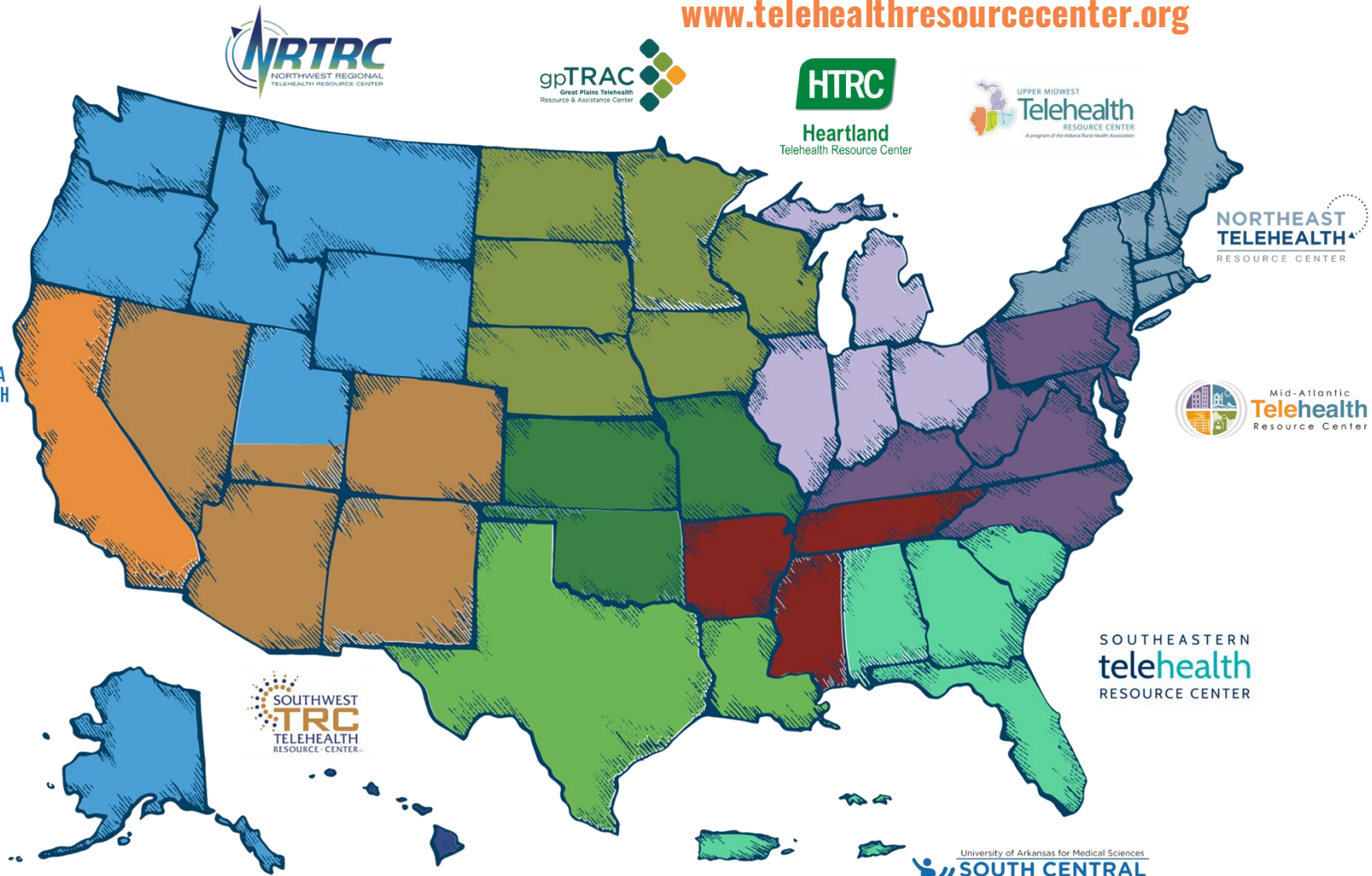
**Advancing Telehealth
Integration in Patient Care**

February 20, 2025



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VIRTUAL NURSING: ADVANCING TELEHEALTH INTEGRATION IN PATIENT CARE

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THE STATE OF NURSING

According to the National Council of State Boards of Nursing (NCSBN, 2023)

Approximately 100,000 registered nurses (RNs) left the workforce during the COVID-19 pandemic in the past two years due to stress, burnout and retirements.

Another 610,388 RNs reported an "intent to leave" the workforce by 2027 due to stress, burnout and retirement.

188,962 additional RNs younger than 40 years old reported similar intentions.

Altogether, about one-fifth of RNs nationally are projected to leave the health care workforce.

62% of the sample reported an increase in their workload during the pandemic.

A quarter to half of nurses reported feeling emotionally drained (50.8%),

used up (56.4%), fatigued (49.7%), burned out (45.1%), or at the end of the rope (29.4%) "a few times a week" or "every day."

MARKET FORCES AND CHALLENGES

Shift in Healthcare Environment:

The post COVID landscape of healthcare has seen many changes over the few years. The patients being admitted to hospitals today are much more acutely ill and require specialized care compared to a decade or two ago.

Patient Complexity: The patients who remain hospitalized have complex medical conditions that demand greater resources and a higher level of care specialization.

Need for a Digital Support System: In response to these changes, Healthcare institutions are creating new models of care that utilize a virtual nurse and better support bedside nurses.



Rapidly evolving healthcare landscape intensifies staffing challenges.



Healthcare institutions face significant challenges in staffing critical areas like providers, physicians, and nursing.



Increasing demands on essential personnel strain resources to their limits.



Urgent need for innovative staffing solutions to address mounting challenges.



Challenge prompts a reevaluation of traditional staffing models.



Exploration of new, efficient ways to utilize resources gains momentum.

MARKET FORCES AND CHALLENGES

COMMON NURSING MODELS OF CARE



Total Patient Care- implemented by Florence Nightingale; one nurse is responsible for the care of a group of patients throughout the shift (Prentice et al., 2021).



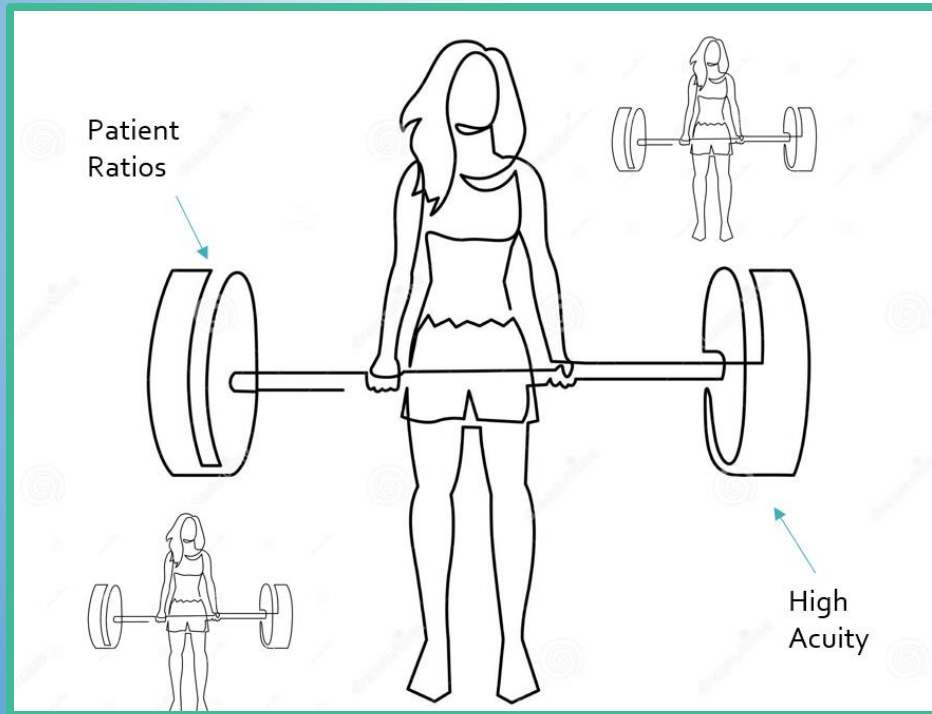
Team Nursing- became popular in the 1950s, there is a team leader along with RNs and LVNs to care for a group of patients. Team lead assigns tasks to other team members which include unlicensed staff (Prentice et al., 2021)



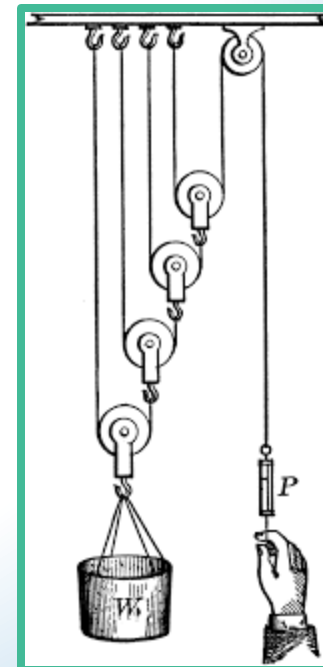
Primary Nursing- Focus is on patient centered care where one nurse cares for the patient for their entire hospital stay (Prentice et al., 2021).

NEW MODELS OF CARE

Total patient care : A Solo Sport



Embracing Technology





Telenursing

- “When a nurse uses telecommunications technology to contact chronically ill persons in their home, to conduct an assessment, to evaluate the individual's understanding of his/her illness and treatment plan and/or to provide nursing interventions to assist the person in achieving an optimal level of health, that is telenursing” (Milholland 1995, 13).
- Utilized for decades in conjunction with Telehealth programs

Virtual Nursing

- Synonymous with Telenursing, Virtual Nursing utilizes digital options such as videoconferencing to provide nursing services to patients remotely.

VIRTUAL NURSING: PAST AND PRESENT



ROLE OF A VIRTUAL NURSE



ROLE OF A VIRTUAL NURSE



Remote Patient Monitoring:

Monitoring patient data and vital signs through connected devices
Identifying early signs of deterioration or critical changes in patients' conditions



Real-time Clinical Assessments:

Conducting virtual assessments of patients' symptoms and conditions
Collaborating with bedside nurses to gather comprehensive patient information



Timely Intervention:

Notifying bedside nurses or healthcare providers about critical patient events
Recommending appropriate interventions based on clinical guidelines



Medication Management:

Reviewing medication orders and ensuring correct dosages and administration
Collaborating with pharmacists and physicians to address medication-related concerns

ROLE OF A VIRTUAL NURSE



Communication and Collaboration:

Engaging in virtual rounds and team meetings to discuss patient care plans
Facilitating communication between bedside staff, physicians, and other care team members



Patient Education and Support:

Providing patients and families with information about their conditions and treatments
Offering guidance on self-care strategies and managing chronic illnesses



Care Coordination:

Ensuring seamless transitions of care between different healthcare settings
Collaborating with discharge planners to plan patients' post-hospital care



Early Identification of Risks:

Utilizing data analytics to identify trends and patterns in patient conditions
Detecting potential risks and proactively addressing them to prevent adverse events

ROLE OF A VIRTUAL NURSE

Documentation and Reporting:

- Documenting virtual nursing interactions, assessments, and interventions
- Providing clear and accurate reports to support continuity of care

Mentorship and Training:

- Offering guidance and mentorship to novice nurses and less experienced care team members
- Sharing clinical knowledge and expertise to enhance the skills of others

Workflow Optimization:

- Participating in process improvement initiatives to streamline virtual nursing workflows
- Collaborating with IT and other departments to enhance technology integration

Patient Advocacy:

- Advocating for patients' needs, preferences, and rights within the care process
- Ensuring patients receive safe, high-quality care that aligns with their best interests

BUILDING THE BUSINESS CASE



Alignment with Organizational Goals:

Linking virtual nursing initiative with broader organizational objectives
Demonstrating how the program aligns with patient care excellence



Engaging Key Stakeholders:

Conversations involving CEO, CFO, and other influencers
Highlighting the impact of virtual nursing on patient care and financial sustainability



Layout cost savings:

Focus on all areas of cost savings impact, efficiency gains and financial return on investment (ROI)



Addressing Workforce Shortages:

Highlighting virtual nursing's role in overcoming staffing challenges
Showcasing the program's contribution to maintaining optimal care levels



ROI EXAMPLE: OPTIMIZATION OF THROUGHPUT

What is throughput?

Hospital throughput refers to how efficiently patients move through the healthcare system—from admission to discharge—while maintaining quality care.

Why does throughput matter?

Hospitals must balance capacity, efficiency, and reimbursement to ensure smooth patient flow. Bottlenecks (like full beds, ER crowding, and delayed discharges) can lead to longer wait times, financial losses, and reduced patient satisfaction.

Optimizing throughput means ensuring the right patient is in the right bed at the right time

IMPACT ON THROUGHPUT BY REDUCING DISCHARGE DELAYS

Decreased Length of Stay

A virtual nurse can expedite discharges earlier in the day, preventing unnecessary inpatient bed occupancy. This improves hospital throughput and financial performance, as prolonged stays are not always reimbursed.

Decrease in Observation Hours

Observation status is reimbursed differently than inpatient care, often only for the first 24 hours. A virtual nurse can help transition patients appropriately, reducing financial losses from extended observation stays.

Decreased Emergency Room Boarding

When inpatient beds are full, admitted patients remain in the ER, creating bottlenecks and delaying new emergency patients. Virtual nurses expedite discharges, freeing up beds faster and improving patient flow.

Prevent Bottlenecks

Efficient discharges prevent congestion throughout the hospital system, ensuring that patient movement—from ER to inpatient units to discharge—remains smooth and timely.

Decreased Diversion Hours

When the ER reaches unsafe capacity, hospitals may divert ambulances elsewhere, impacting patient care and hospital revenue. By optimizing inpatient bed availability, virtual nurses help reduce the need for diversion.

RETENTION AND RECRUITMENT

Nurse turnover presents significant financial challenges for hospitals.

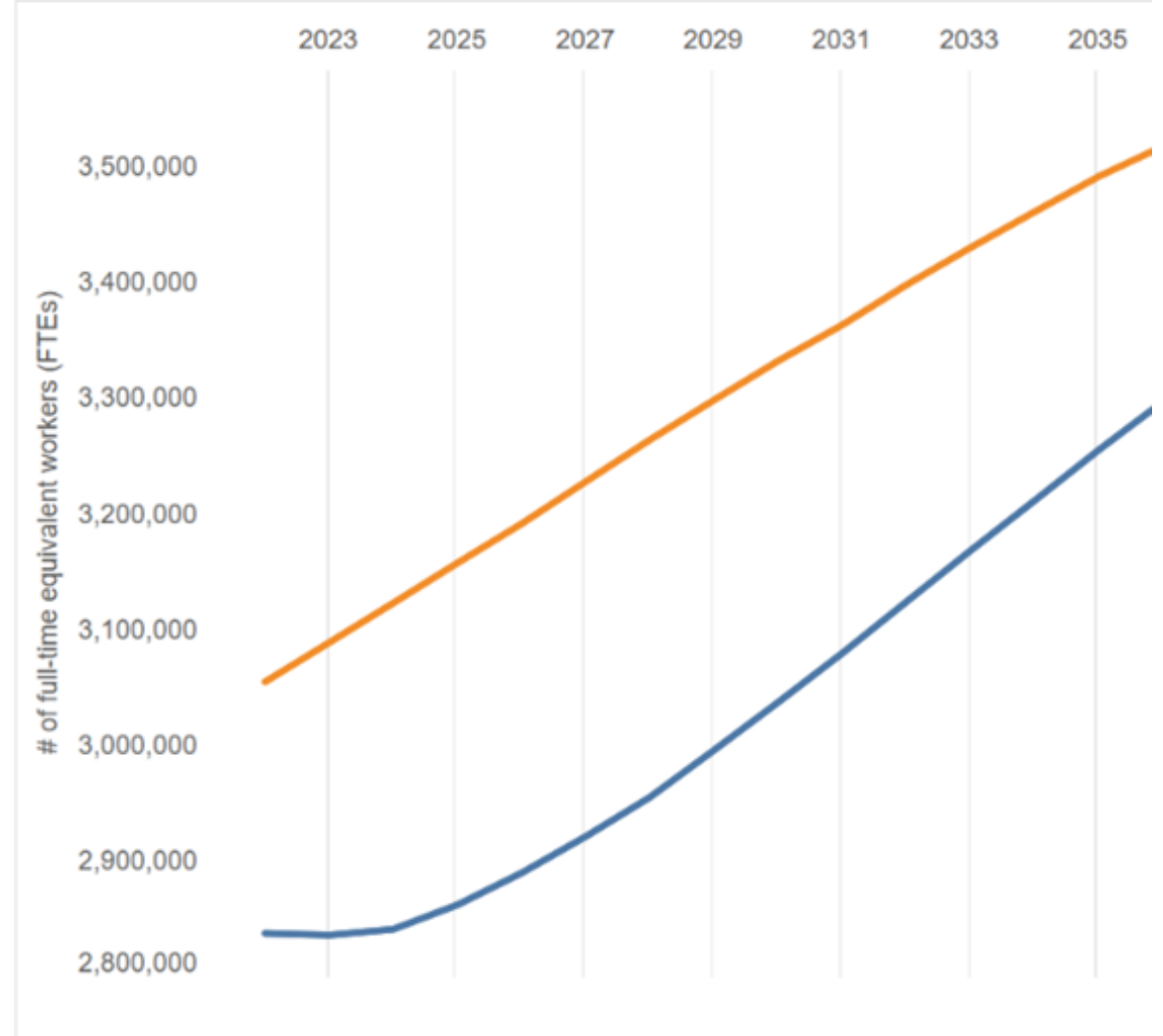
Average RN turnover cost:
~\$56,300 per nurse. (NSI Nursing Solutions, 2023)

Estimated range: \$45,100 –
\$67,500 per nurse. (NSI Nursing Solutions, 2023)

According to HRSA Workforce Projections, the demand for nurses will continue to grow.

Supply
Demand

Registered Nurses
Supply & Demand 2022 - 2037



<https://data.hrsa.gov/topics/health-workforce/workforce-projections>

VIRTUAL NURSING'S ROLE IN RETENTION AND RECRUITMENT

Reducing Burnout and Fatigue:

Alleviating physical and emotional strain on bedside nurses
Contributing to increased job satisfaction and retention rates

Empowering Novice Nurses:

Providing mentorship and guidance from experienced virtual nurses
Enhancing confidence and knowledge retention among new nurses

Attracting Millennial Workforce:

Meeting the expectations of tech-savvy millennial nurses
Offering a modern and innovative work environment

Work-Life Balance:

Providing flexible work arrangements through virtual nursing options
Enhancing work-life balance and supporting nurse well-being

Recruitment Advantage:

Positioning the organization as a leader in innovative healthcare practices
Attracting top nursing talent seeking progressive and fulfilling roles



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ADDITIONAL TELEHEALTH USE CASES



Telemedicine Consultations: Enable patients to consult with specialists remotely, reducing the need for travel and increasing access to care for patients in remote or rural locations.



Mental Health Services: Virtual mental health visits to patients, providing easy access to therapy, counseling, and psychiatric support.



Telepharmacy Services: Enable pharmacists to provide consultations remotely, improving medication safety and access, especially in rural hospitals or pharmacies with staffing shortages.



Virtual Clinical Trials: Use telehealth technology to remotely monitor patients participating in clinical trials, enabling more patients to participate without the need to travel to a study site.

VIRTUAL NURSING PROGRAMS

Covenant Medical Center, Lubbock, Texas

Implemented the “Co-Caring model” integrating virtual nurses with bedside teams.

Key Benefits:

- **Virtual Nurse Support:** Assists with patient care tasks, enhancing efficiency and reducing nurse workload.
- **Enhanced Collaboration:** Facilitates interdisciplinary team meetings to optimize care coordination.
- **Improved Retention:** Reduces nurse turnover by 73%, helping maintain local staffing and reducing reliance on travel nurses.

(Providence Health Team, 2023)



VIRTUAL NURSING PROGRAMS

Guthrie Clinic, Sayre, Pennsylvania

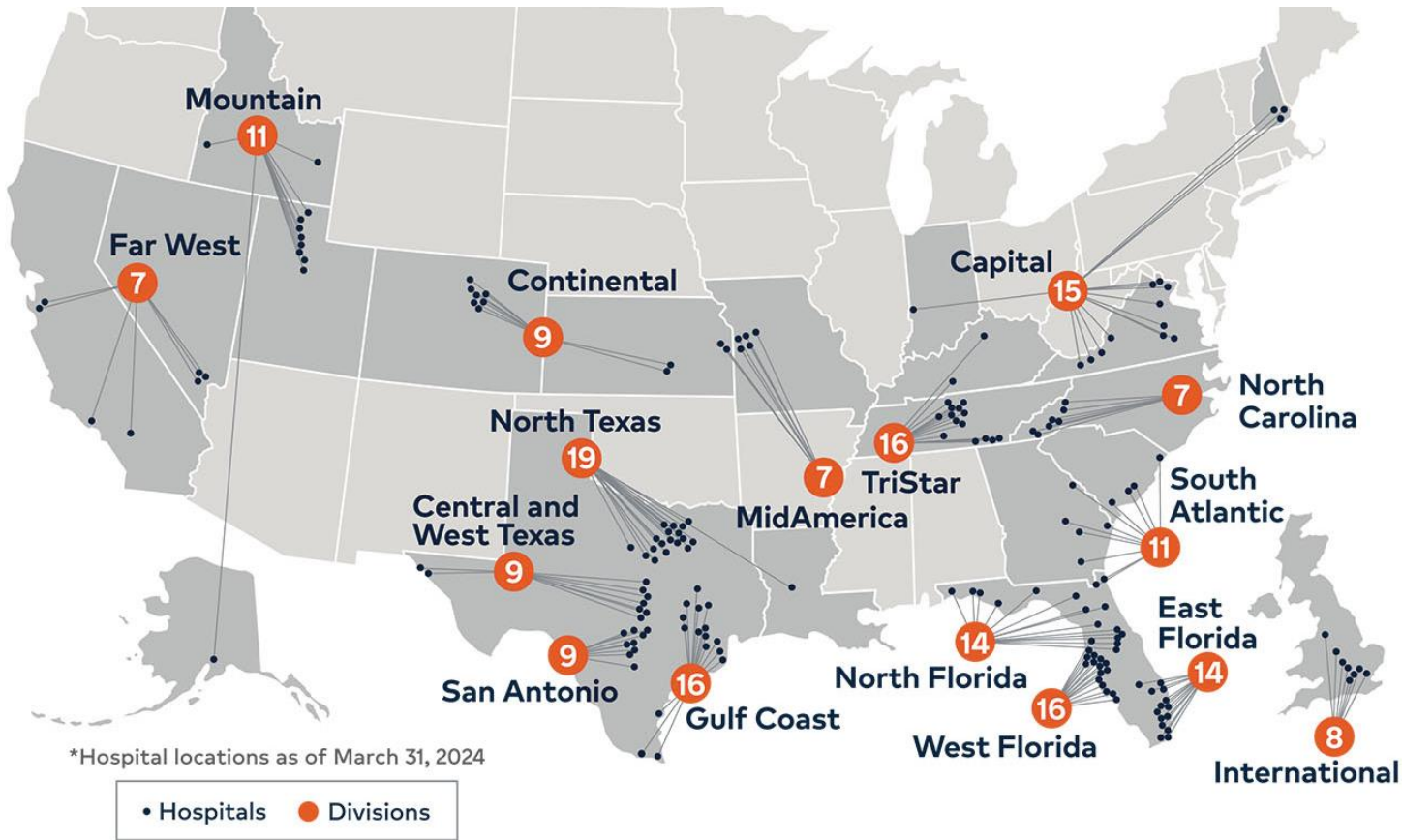
Guthrie Clinic, a not-for-profit health system serving rural communities in New York and Pennsylvania, has successfully implemented AI-driven virtual care models to tackle nurse turnover, enhance patient care, and improve operational efficiency.

Key Benefits:

- **Reduced Nurse Turnover:** Lowered turnover from 25% to 13%.
- **Cost Savings:** Saved \$7 million by reducing travel nurse reliance.
- **Improved Efficiency:** Reduced EHR time by 30 minutes per shift.
- **Expanded Access:** Increased care access across a 9,000-square-mile area.
- **Better Outcomes:** Improved quality metrics like sepsis care.
- **Award Recognition:** Won the 2023 ECRI Health Technology Excellence Award.

(Siwicki, 2024)

Image source: Siwicki, B. (2024)



VIRTUAL NURSING PROGRAMS

HCA Healthcare

HCA Healthcare's virtual nursing program enhances patient care by allowing experienced nurses to remotely manage administrative tasks, thereby enabling bedside nurses to dedicate more time to direct patient care.

Program locations:

HCA Florida University Hospital in [Davie, Florida](#)

Mission Hospital in [Asheville, North Carolina](#)

TriStar Skyline Medical Center in [Nashville, Tennessee](#)

Menorah Medical Center in [Overland Park, Kansas](#)

HCA Midwest Health in [Kansas City, Missouri](#)

HealthONE Virtual Care Center in the [Denver Tech Center, Colorado](#)

(HCA Healthcare, 2024)

Image source: HCA Healthcare (2024)

CURRENT VIRTUAL NURSING PROGRAMS

As reported in Becker's
HEALTH IT
(Schwartz, 2023)

Philadelphia-based Jefferson
Health: check-ins, admissions,
discharge paperwork, patient
education, care consultation
and EHR documentation.

Nashville, Tenn.-based
Vanderbilt University Medical
Center: admissions, discharges
and rounding.

Portneuf Medical Center,
based in Pocatello, Idaho:
admission process, medical
history and discharge
information.

Cincinnati-based Bon Secours
Mercy Health: beam in nurses
through televisions into patient
rooms to help with admission,
discharge, patient education
and medication verification.

Bryan-based Texas A&M's
Health Center of Excellence in
Forensic Nursing: provide
follow-up care to violence
and trauma survivors.

ROI OF VIRTUAL NURSING AND TELEHEALTH

Reduced Turnover Costs: Enhancing job satisfaction through collaborative care models can decrease nurse turnover, leading to substantial savings.

Shorter Length of Stay: Telehealth facilitates timely interventions and continuous monitoring, leading to reduced hospital stays and improved patient satisfaction.

Improved Access to Care: Virtual nursing and telehealth expand access to healthcare services, especially in underserved areas, preventing hospital closures and reducing the need for costly transfers.

Enhanced Patient Outcomes: Remote patient monitoring and tele homecare enable early detection of health issues, leading to better management of chronic conditions and improved patient outcomes.

Cost Savings: Virtual nursing and telehealth can lower operational costs by reducing the need for temporary staffing, agency nurses, and overtime, resulting in overall cost savings.



CULTURAL IMPACT OF VIRTUAL NURSING



Collaborative Culture:

Fostering interdisciplinary collaboration between virtual nurses and care teams

Creating a culture of partnership and shared responsibility



Embracing Innovation:

Shifting organizational culture towards embracing technological advancements

Encouraging a culture of innovation and continuous improvement



Patient-Centered Care:

Reinforcing patient-centric focus through responsive virtual nursing interventions

Strengthening patient engagement and satisfaction

THE FUTURE OF VIRTUAL NURSING

Integration and Expansion:

- Virtual nursing becoming a standard practice across healthcare settings
- Expanding capabilities to cover various specialties and patient populations

Data-Driven Insights:

- Leveraging data analytics to identify trends and optimize virtual nursing strategies
- Using insights to enhance patient care and streamline workflows

Enhanced Patient Outcomes:

- Continuously improving care quality and patient safety through virtual nursing
- Impacting patient outcomes positively through timely interventions

Continuous Learning and Adaptation:

- Staying updated with advancements in technology and healthcare practices
- Remaining agile to adapt virtual nursing approaches to ever-changing needs

Revolutionizing Healthcare:

- Contributing to the transformation of healthcare delivery and patient experiences
- Virtual nursing revolutionizing the nursing profession and the healthcare landscape

EMBRACING THE FUTURE



Adapting to Emerging Technologies:

- Staying current with advancements in technology that can enhance virtual care
- Being open to integrating new tools and platforms that can drive better outcomes



Celebrating Successes:

- Acknowledging and celebrating milestones and achievements in virtual care
- Recognizing the positive impact of virtual nursing on patient care and outcomes

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THANK YOU



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Our Next Webinar

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Hosting TRC: Great Plains Telehealth Resource & Assistance Center (gpTRAC)

Telehealth Topic: Telehealth at Yet Another Crossroads: Analysis of Our Present and Potential Futures

Date: March 20, 2025

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