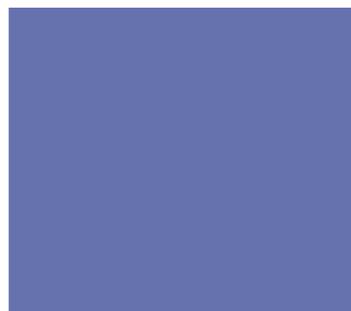
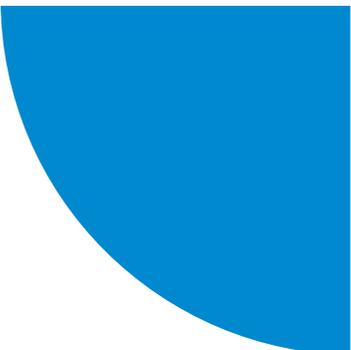


# NURSING/PATIENT CARE **BIENNIAL REPORT** 2022-2023





Ruth Gafanhao, BSN, RN, staff nurse I with Sawyer - 9 East-General Medicine

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# Boston Children's Hospital: Mission, Vision, and Values



## Our Mission

To provide the highest quality health care, be the leading source of research and discovery, educate the next generation of leaders in health care, and enhance the health and well-being of children and families in communities near and far.



## Organizational Vision

Boston Children's will continue to be the world leader in compassionate, equitable, family-centered care and science. Our vision is to lead change in the care and well-being of children through cutting-edge research, state-of-the-art innovative clinical care and diagnostics, and the development of therapies to solve the problems of tomorrow.



## Nursing/Patient Care Team Vision

Through powerful partnerships with patients and families, Boston Children's nurses and interprofessional teams serve as local, national and global leaders in shaping the science and delivery of safe, high-quality, and equitable pediatric health care, while nurturing healthy work environments.



## Our Shared Values: The Boston Children's Way™

At Boston Children's, we hold ourselves to the highest values of **respect, inclusivity and diversity, teamwork, and kindness** to provide patients, families, and each other with an experience equal to the care we deliver.

### Featured on the cover:

Sonia Garcia, BSN, RN, CPN, staff nurse III with Niraiza - 9 East; Kelly Bartkus, MSN, RN, CPNP-PC, APN II with Theyab - General Surgery; Megan Lally, BSN, RN, and Jacqueline Canniff, BSN, RN, staff nurse I - MICU; Jacqueline Steiding, BSN, RN staff nurse III with Noah - Pulmonary Nursing; Reilly Birmingham, BSN, RN, CPN, staff nurse I with Ben - Mandell 3, PACU; Lindsay Saaristo, BSN, RN, staff nurse I with Lilun Li, MD and Jacob Blum, MD - Operating Room; Soraya Beaubrun, BSN, RN, staff nurse I with Layla - 10 Hale - Complex Surgery

# Nursing/Interprofessional Practice Model

Boston Children's Nursing/Interprofessional Practice Model provides a framework to guide how nurses and team members practice, communicate and develop professionally. It defines what is important to our care delivery teams, describes the environment in which care is delivered, drives future professional practice evolution, and depicts how all clinical team members interact with patients, families, and colleagues to provide evidence-based, equitable, high-quality care.



# Nursing/Patient Care Goals: 2022-2023

## System-Wide Goals

## Nursing Patient Care Goals and Key Accomplishments

### Access & Impact



#### Community

- Staff volunteer opportunities at Family Food Connections
- Behavioral health cohort placement
- Interdisciplinary initiatives aimed to support unhoused patients/families

### Our People



#### Thriving & Engaged

- Align advancement model within professional governance structure
- Scale HWE via local champions
- Implement advanced practice clinician transition to practice program
- Create Secret Garden Staff well-being space
- Implement and scale Joy Forums
- Design and launch Advanced Practice Provider organizational structure

### Equity, Diversity, Inclusion, & Belonging



#### Inclusive Excellence

- Implement summer student placements with academic partnerships to support EDIB initiatives to strengthen the nursing recruitment pool
- Engage external experts to increase awareness of racial disparities related to patient care and workforce well-being

### Innovation & Discovery



#### Research & Innovation

- Implement virtual care opportunities throughout nursing and patient care operational teams
- Support nursing and patient care teams in the selection and workflow design for new enterprise electronic health record and mobile communication transition

### Clinical Care



#### Optimal Care & Patient Experience

- Create behavioral health technician role
- Implement staff duress/mobile RFID technology to advance team member communication and well-being
- Design and implement Feeding Preparation Center
- Establish nurse-led vaccine clinic

# Enterprise Strategic Framework

Since the organization’s founding in 1869, Boston Children’s has existed for the same reason – to improve the health and well-being of children. Key efforts have long been directed through scientific research, leading-edge clinical practices, and the education of future physicians and health care team members in close collaboration with communities near and far. Children comprise a small portion of the world’s population, yet represent all of our collective futures. Through values informed by kindness, respect, inclusivity, and teamwork we strive to care for one another while expanding access to high-quality child health services to create healthier tomorrows for children everywhere.<sup>1</sup>

## 2022-2023\*



## 2023 and beyond



Infographic inspired by:

<sup>1</sup> \*Sinek, S. (2009). *Start with Why: How Great Leaders Inspire Everyone to Take Action*, Penguin Group.



# Leadership in Challenging Times: Strengthening Interprofessional Care Delivery Together



Dear Colleagues,

As I reflect upon your collective accomplishments over the past two years, I am truly grateful for the numerous initiatives you have advanced to sustain and improve the care of children and families regionally, nationally and beyond. It is indeed remarkable to consider the impact of your leadership, spanning

years three and four of the COVID-19 global pandemic. For many, the years of 2022-2023 featured in this report stand apart as among the most disruptive years of our personal and professional lives. This window further deepened our understanding of long-standing, significant societal disparities that were laid bare and led to new goals and actions.

Through your sustained efforts, you guided the opening of the Hale Family Building in June 2022, making available long anticipated critical care beds, expanded family living and team collaboration spaces, and perioperative and procedural services. The move into these new physical spaces tested our ability to scale up new processes and new technologies at a time we were also welcoming and supporting hundreds of new RNs, APRNs, and team members throughout the organization. Your attention to high reliability organization (HRO) practices strengthened our ability to safely introduce so many changes during this compressed window.

Soon to follow in July 2022, akin to the consolidation of pediatric care delivery occurring both regionally and nationally, Tufts Children's Hospital made the difficult decision to curtail most pediatric inpatient care and pediatric ambulatory specialty care services. Boston Children's physician leaders, nurses, and numerous patient care operations team members worked together to support continuity of care for many children seeking pediatric health care services in the region. This was accomplished through the creation of a new hospital Foundation and rapid expansion of both ambulatory appointments and inpatient care.

Only a few weeks later in August 2022, a national surge in respiratory syncytial virus (RSV) coupled with COVID-19 and flu hit Boston and the entire United States, months ahead of traditional winter virus season. Additionally, unmet child mental health and behavioral health (MH/BH) care needs surged, calling upon our emergency department and inpatient care teams to keep children safe and initiate treatment while awaiting admission to dedicated inpatient settings or outpatient care.

Despite the confluence of these significant challenges, your leadership, perseverance and integrity fueled new knowledge, innovation, and professional practice initiatives. This report highlights a wide range of contributions including the evolution of a novel advance practice provider leadership structure, the evolution of our nursing professional development model, collaboration with families to expand family housing and social services supports, the growth of PT/OT care delivery and innovation, gene therapy nursing and interprofessional practice, specialty pharmacy expansion including the introduction of Collaborative Drug Therapy Management (CDTM) team members, the creation of a centralized enteral feeding center and the emergence of new nursing and interprofessional care delivery models including virtual nursing care. Your contributions continue to make a difference to advance our missions and support the care of children, families and our community each and every day.

With gratitude to all,

*Laura J. Wood*

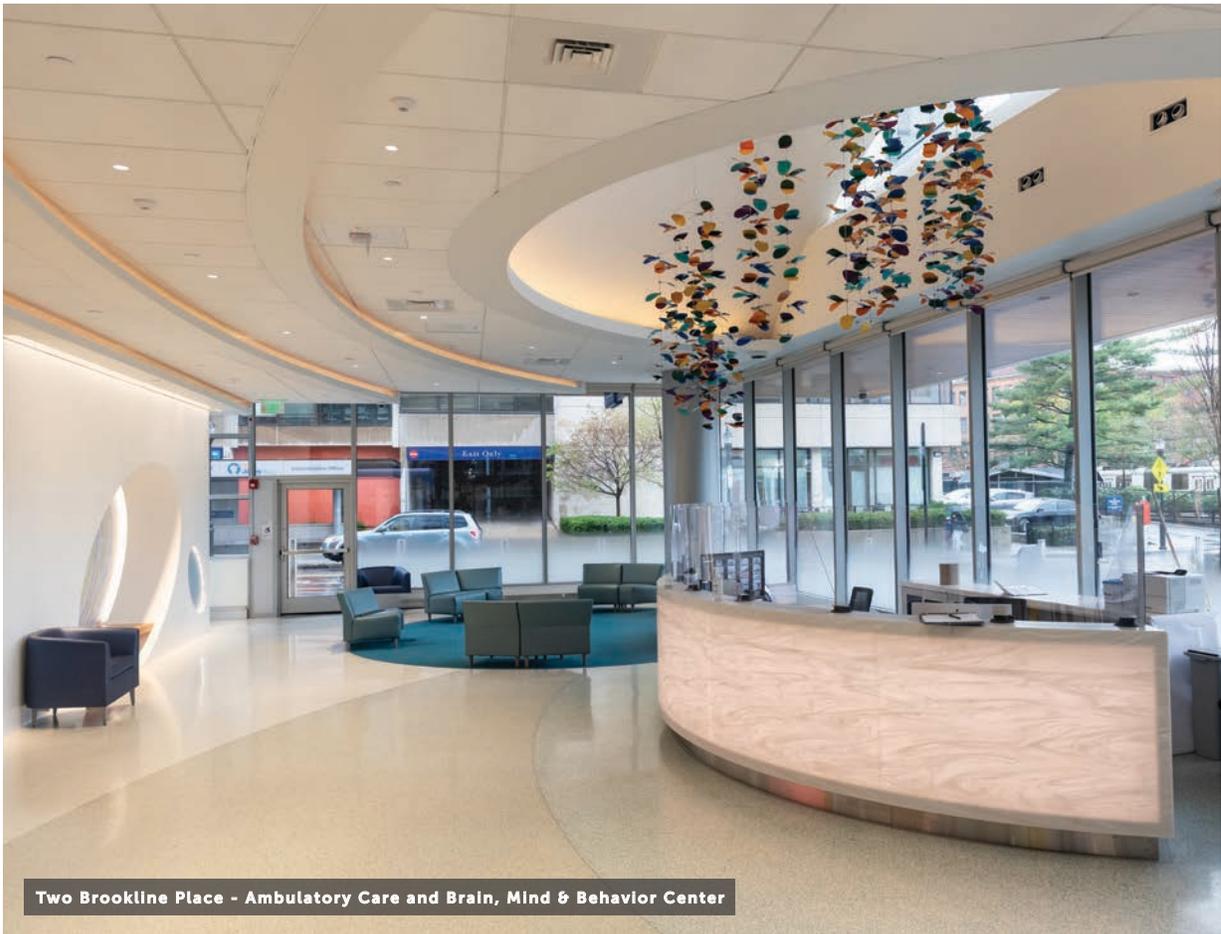
Laura J. Wood, DNP, RN, NEA-BC, FAAN  
Executive Vice President, Patient Care Operations &  
System Chief Nursing Officer  
Spring Carpenter Chair for Nursing  
Boston Children's Hospital





# New Knowledge and Innovation

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Two Brookline Place - Ambulatory Care and Brain, Mind & Behavior Center

# Nurses, Interprofessional Team Members, and Families Guide Facility Design

Nurses work at the nexus of patient care, operations, processes and organizational culture, with an intimate knowledge of the health care environment. Registered nurses, senior nurse leaders, and patients and families have long provided essential guidance for decades in the design of physical spaces that support the delivery of safe, effective patient care.

At Boston Children's Hospital, nurses are key members of the Transition and Occupancy Planning Team (TOPS), partnering with facilities planners, project managers and families on complex departmental moves, expansions and openings. **Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations & System Chief Nursing Officer is a member of the senior facilities planning

team together with other senior physicians and administrative leaders. **Patty Hickey, PhD, MBA, RN, FAAN**, senior vice president, Cardiovascular, Perioperative and Critical Care Nursing/Patient Care Operations was the co-clinical executive sponsor of the Hale Clinical Building planning and design with physician co-lead, **Rick Robertson, MD**, associate chief medical officer Ambulatory and Satellite Operation and Medical Director for Virtual Operations.

**“We believe family involvement in facility design planning improves safety and quality, and provides first-hand insights to make care more equitable and inclusive.”**

***Katie Litterer, BA, program manager, Family Partnerships, Office of Experience***

In addition to senior nursing sponsors, Boston Children’s has established a model increasingly being studied and now applied nationally to integrate experienced staff nurses as full-time leaders within facilities design teams. “We have been able to show value to the hospital because we understand operations, we understand key interprofessional relationships, and we can readily solve challenges related to the alignment of people and processes,” says **Steph Altavilla, MSMI, RN**, senior director, Transition and Occupancy Planning. “Within each project, our nurse-led activation team engages a wide range of impacted user groups to provide continuity and consistency, and facilitate smooth operational transitions.”

Altavilla, who was once the only nurse in this role, has grown the team to include nursing and administrative expertise (see sidebar). Members bring institutional insights based on previous experiences and relationships, and ongoing participation in organizational leadership groups. They enable and support communication and decision-making, and consult on all operational issues.

## Transition and Occupancy Planning Team Members

**Steph Altavilla, MSMI, RN**, senior director

**Dick Argys, MHA**, executive vice president, Hospital, Satellite and Ambulatory Operations, chief culture officer

**Shari Bedar, MBA**, planning director

**Hazel Boyd, MBA**, operations manager

**Karen Hinsley, MSN, RN, CCRN**, clinical operations manager

**Rachel Marrano, BS**, senior director

**Anne McDonald, AD**, program coordinator

**Jane Romano, MSN, RN**, clinical operations manager



## Facilities and Senior Management Planning Team

**Dick Argys, MHA**, executive vice president, Hospital, Satellite and Ambulatory Operations, chief culture officer

**Melissa Aureli, MS**, senior director, Research Capital Projects & Space Management

**Courtney Cannon, AB, MBA**, senior vice president, Executive Operations

**Donna Casey, MHA**, senior vice president, Strategic Business Planning

**Vincent Chiang, MD**, senior vice president, chief medical officer, Division of General Pediatrics

**SueEllen Donahoe, LEED AP**, senior director, Facilities Planning & Design

**Ryan Hastings, MBA**, vice president, Clinical Services

**Lisa Hogarty, MS**, senior vice president, Real Estate Planning

**Michael Gillespie, MPH**, senior vice president, Clinical Operations

**Paula Quan, MBA**, vice president, Capital Planning & Design

**Bob Sullivan**, vice president, Facilities Project Management & Construction

**Sara Toomey, MD, MPhil, MPH, MSc**, senior vice president, chief experience officer, Division of General Pediatrics

**Doug Vanderslice, BBA**, executive vice president, Enterprise Services, system chief financial officer

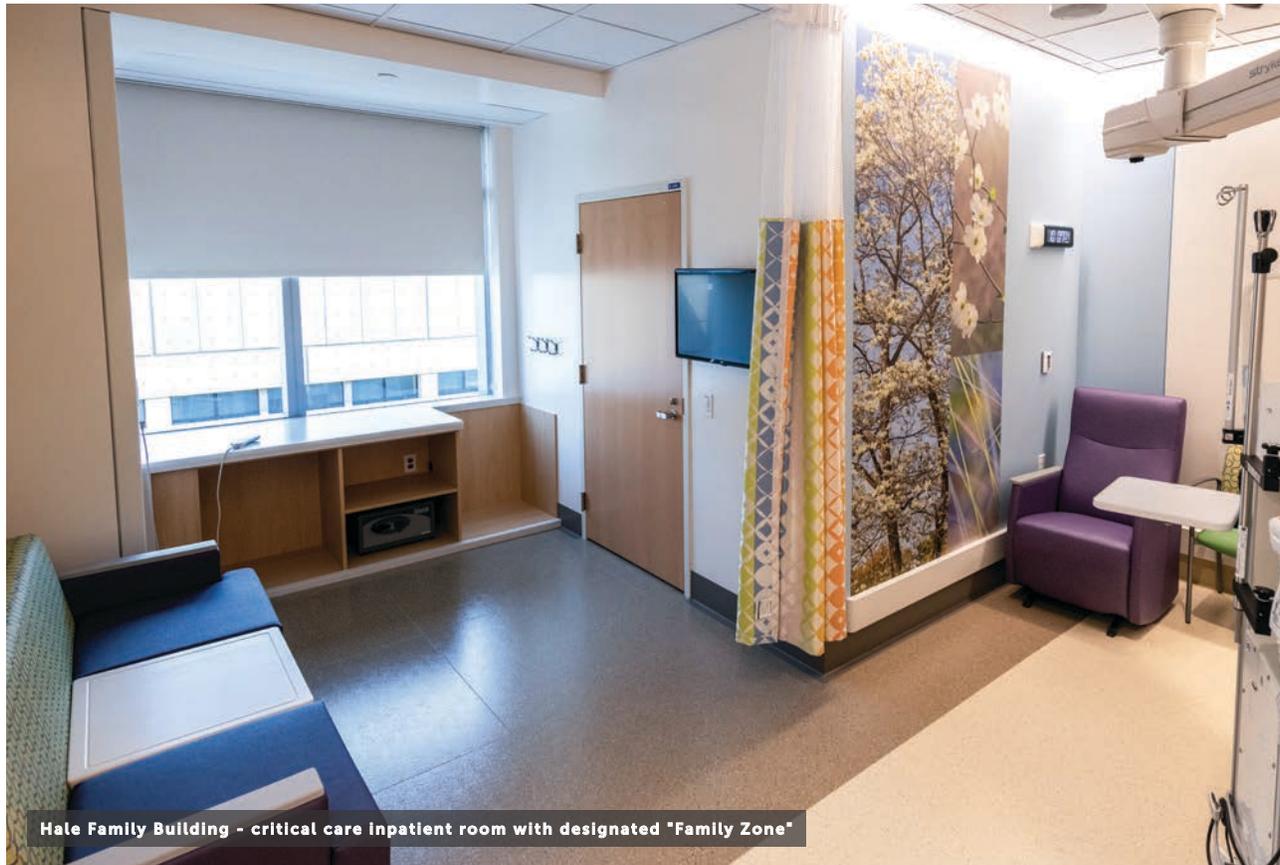
**Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations, System Chief Nursing Officer

Altavilla says this is a huge change from prior years when teams more commonly worked in silos and nursing's influence in the design process was more limited. "In the past, when we moved into a new building, nurses were invited to provide input specific to their specialty. Today, nurses contribute to whole system planning, lead the design and use of facilities-related simulation, and shape purchasing and planning decisions throughout the organization."

## Welcoming the Voices of Families

Input from patients and families is critically important in facility design and planning. Family Advisory Council (FAC) members – parents and caregivers who provide input that affects quality of care, safety and the patient experience – are involved at pivotal stages and give their "FAC Seal of Approval" to all major projects. Families participate in everything from contributing to determination of need (DON) proposals, to recommending optimal equipment placement in exam rooms, to selecting color palettes and art. They are involved at critical stages on wayfinding, parking and building access. "We believe family involvement in facility design planning improves safety and quality, and provides first-hand insights to make care more equitable and inclusive," says **Katie Litterer, BA**, program manager, Family Partnerships, Office of Experience, who supports the FAC and other Boston Children's patient and family advisory initiatives.

The family voice is embedded into many elements across Boston Children's and makes a lasting impact. "The engagement of families creates a better end product for our hospital because of the perspectives they bring," says **Lisa Rubino, MBA**, administrative director, Office of Experience. "When families speak up, it helps the organization to pause and think differently to improve care delivery processes."



Hale Family Building - critical care inpatient room with designated "Family Zone"

Recent examples of newly opened or soon-to-open facilities that incorporated family input include:

- **The Brain, Mind & Behavior Center at Two Brookline Place.** Families of autistic patients provided helpful insights about sensory issues including use of frosted glass, calming colors, engaging artwork, and accessibility for children in lifts, wheelchairs and strollers. Many of these themes carried over into the redesign of facilities in Weymouth and Needham.
- **Check-in Desks at Two Brookline Place.** After viewing the cardboard city simulated care environments, families suggested the height of the front desks be lowered to ensure staff could see children in wheelchairs or strollers during check-in. Putting the desk at table level promotes a human connection at the first encounter, and is now a consistent design in new settings.

- **Weymouth Design.** Families of children with visual impairment recommended keeping color schemes consistent with other locations to provide continuity and reassurance.
- **Hale Building.** During the planning process, parents requested that "Family Zones" on the inpatient units be redesigned to be more like living rooms, with seating areas to support quiet activities.

Litterer, whose twin girls receive care at Boston Children's, has seen the hospital-family relationship strengthen over the years to become a fundamental part of the hospital's culture. "Welcoming the voices of patients and families into improvement efforts leads to better solutions for those we care for," she says. "When families walk into the hospital and see their feedback it builds trust. Parents contribute to project outcomes and sustainability, but above all, they feel fulfilled." ■



## Offering Hope, Inspiring Wonder

As part of the move to the Hale Family Building in 2022, Boston Children's opened a new, multi-faith chapel for families, patients and staff. The first floor view of the Wishing Stone Garden offers a quiet refuge for prayer, meditation and solace. It also serves as a gathering place for baptisms, baby namings, memorial services and even weddings.

The Hale Family Building and chapel incorporates themes and treasures from the hospital's prior garden spaces, including dawn redwood tree wood used to construct the altar table. The new space also creates welcome spaces for younger generations—not just staff and parents. The Teen Advisory Committee was enlisted to arrange the furniture to be welcoming to all ages to demonstrate sensitivity to the diverse community seeking spiritual respite.

Nature is a unifying focus in the chapel's artwork. A hand-painted screen of the four seasons, created for the original chapel by artist Evelyn Berde, was transformed into digitalized pictures that now appear on the wall outside the new space. In addition, the hospital commissioned art inside the chapel that builds on a four seasons theme. "Nature and the changing seasons provide comfort and reflect where people are in their health care journey," says **Rabbi Susan Harris, MHL, BCC**, director, Spiritual Care. "We sometimes ask a person to consider 'What season do you find yourself in?'"

The new art features more than 270 pendants hanging from the ceiling that refract myriad sources of light, including illumination from custom programmed projectors. Over the course of a day, the light changes, giving the chapel a different look depending on the time and vantage point. The palettes of light change according to the seasons, as well. Of note, the work's designer, Caleb Hawkins, underwent a lifesaving heart surgery at Boston Children's in 1993.

**Elizabeth Gordon**, manager, Art Program, led a team of hospital chaplains on a national and international search for a new commission. In the end, they chose a local firm, Masary Studios. "We wanted an exciting piece of art that would complement existing pieces and create a tradition within our hospital," she says. "This design brings a sense of wonder and fascination, and that is exactly what we were looking for."



Kate - gene therapy inpatient program

# Nursing Leadership Contributions to Gene Therapy Operations

## Interprofessional Operational Model Drives Access and Early Adoption

Boston Children's Hospital is an international leader in gene therapy with one of the largest pediatric gene therapy programs in the world. At the heart of the program is a system-level strategic approach to rapidly onboard innovative gene therapies, which has grown to become the leading edge treatment option for many complex and life-threatening conditions.

Since the first foray into gene therapies with the CAR-T cell product, KYMRIAH® in 2018, the hospital has successfully used the same nurse-led implementation framework to onboard six additional FDA-approved gene therapies. Today, Boston Children's is the only pediatric hospital in the United States to offer all seven of these innovative treatments to patients (see sidebar on next page.)

## Gene Therapy Interprofessional Care Delivery Model



### Nursing Leadership to Advance Novel Therapies



Gene therapies are both new and in many cases complex to deliver, requiring an interprofessional team effort. Pharmaceutical companies that manufacture these therapies have selected centers of excellence with established protocols, a dedicated infrastructure and the expertise to get each new therapy to patients quickly and efficiently.

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**“We are amazingly proud of this model and its ability to bring much-needed therapies to patients as soon as possible.”**

***Colleen Dansereau, MSN, RN, CPN, senior director of clinical operations, Gene Therapy Program***

“Boston Children’s is often first on the list,” says **Colleen Dansereau, MSN, RN, CPN**, senior director of clinical operations, Gene Therapy Program. “This is born from the reputation we’ve built over the past five years, creating an interprofessional, nurse-led model that enables us to be nimble and efficient – knowing when these therapies are coming and what

we need to do to get them to patients safely and expeditiously. It speaks to the success of our model that we are now able to go from FDA approval to patient-ready care delivery processes within three to four weeks.”

Boston Children’s has established an interprofessional, team-based model organized through the hospital’s Office of Emerging Medical Discoveries. This team includes participants from Nursing/Patient Care Operations, Pharmacy, as well as business and legal services. The office maintains an ongoing market scan of new products and engages with pharmaceutical companies up to a year in advance of FDA approval to support patient access. Once a new drug therapy becomes available, a larger group of stakeholders is assembled with defined roles and responsibilities to plan the timing and care delivery needs to support future administrations.

Nurses remain at the center of the process. “Nurses collaborated with Pharmacy and Finance to develop the model,” says **Patricia Pratt, MA, BSN, CPHQ, CPN**, senior vice president and associate chief nurse, Medical, Surgical and Behavioral Health Programs. “They use their holistic planning skills to see the extended system as part of a continuous quality improvement framework.”

## Subject Matter Experts

Boston Children’s interprofessional emerging therapy model is increasingly gaining recognition for its novel approach to effectively accelerate the integration of new gene therapies in patient care. Other health care delivery organizations are increasingly seeking out consultations to identify best practices and gain insight into how to create a reproducible model to introduce new therapies.

“We are amazingly proud of this model and its ability to bring much-needed therapies to patients as soon as possible,” Dansereau says. “We have broken down silos spanning a wide range of disciplines and external organizations to improve access. Everyone involved is proud and excited to be able to provide these life-changing medications to our patients.” ■

## Boston Children’s Gene and Novel Therapies: 2018 to Present

### Gene therapies:

- KYMRIA<sup>®</sup>, a CAR T cell therapy to treat refractory or relapsed acute lymphoblastic leukemia
- LUXTURNA<sup>®</sup>, for inherited retinal disease
- ZOLGENSMA<sup>®</sup>, for spinal muscular atrophy Type 1
- ZYNTELGO<sup>®</sup>, to treat the underlying cause of beta-thalassemia, an inherited blood disorder that reduces hemoglobin levels
- SKYSONA<sup>®</sup>, to slow the progression of neurological dysfunction in boys with cerebral adrenoleukodystrophy (CALD)
- ELEVIDYS, to delay or halt the progression of Duchenne muscular dystrophy (DMD)
- ROCTAVIAN<sup>™</sup>, to treat severe hemophilia A, a condition in which the blood does not clot properly

### Other innovative therapies under the Office of Emerging Medical Discoveries’ purview:

- SPINRAZA<sup>™</sup>, to treat spinal muscular atrophy
- TZIELD<sup>®</sup>, to delay the onset of Stage 3 type 1 diabetes



Vivian Williams, MSN, RN, CPNP, APRN III, APRN director, Urology and multi-specialty care

## APRN Innovator Receives American Academy of Nursing Edge Runner Award

In the fall of 2022, **Vivian Williams, MSN, RN, CPNP, APRN III**, APRN director, Urology and multi-specialty care – was selected as one of 11 nurse innovators nationally to receive this prestigious award at the American Academy of Nursing (AAN) annual policy conference. The Academy's Edge Runners initiative recognizes the nursing profession's contributions to transforming the health system through nurse-led solutions that impact cost, improve health care quality and enhance consumer satisfaction.

Williams is the architect of a nurse-practitioner-led Newborn Circumcision Clinic (NCC) model. She was

recognized by AAN for her design and scaling of a nurse-led care delivery model to transform traditional circumcision care for patients and families. Over a several-year period, Williams collaborated with both nursing and surgical colleagues to develop the NCC to address a gap in care for parents who choose to have their child circumcised and cannot do so in the immediate newborn period. Quite often, infants are prevented from having this procedure performed immediately after birth due to medical, anatomical issues, or other cultural reasons. Previously, families would have to wait until their child was older, with

the procedure often occurring using general anesthesia in a hospital operating room setting.

Williams has practiced within Boston Children’s for the past 18 years. In her current role as director, APRN for urology and multispecialty care, she manages the care of patients who are admitted to the hospital, oversees ambulatory consults, proposes privileges, guides competency standards for inpatient and outpatient nurse practitioners within the Department of Urology and contributes to the professional development of colleagues.

“The purpose of this program is to provide parents with an alternative to the traditional care model,” says Williams. “Through this nurse-led model, we can offer circumcisions to newborns who meet specific criteria as part of a protocol. We can also perform the procedure with the use of a local anesthetic, thereby reducing the risks associated with general anesthesia in the newborn population. This approach also lowers the cost of care, and expands access for patients and families. Importantly, this nurse-designed model supports parent presence, effective pain management, and prepares parents to effectively provide post-discharge care management. Our research shows that we provide safe and compassionate care.”

The AAN Edge Runner initiative recognizes outstanding nurses whose groundbreaking solutions are transforming health care. Innovation starts with an idea, a clinical question that is guided by research clinical inquiry and evidence-based practice. However, it is also true that “it takes a village”. Innovation takes a multidisciplinary team for successful integration into practice. “I was honored to work with such a team, which encouraged, supported and partnered with me to develop and disseminate an innovative practice model that represents Boston Children’s mission, vision and values including patient and family centered care, as well as advancing health equity.” ■



### **Boston Children’s Urology Team: 2023 American Nurse Journal All-Pro Nursing Honorable Mention Recipient**

Boston Children’s Hospital Urology team received Honorable Mention in the American Nurse Journal 2023 All-Pro Nursing Team Awards. The awards recognize the best teams in the United States based on several professional criteria, including communication, responsiveness and adaptability, as well as demonstrating a winning formula that drives success.

Teams provide narratives that illustrate extraordinary performance both in patient outcomes and the work environment. The Urology team highlighted steps taken to support and engage nursing staff and enhance nurse retention. Key to success was interdisciplinary collaboration, ensuring all voices were heard and all stakeholders represented. This cooperation across roles and divisions contributed to success and satisfaction and aligned with Boston Children’s commitment to a Healthy Work Environment.



**Jeremy Thomsen, BS, director, Facility Engineering; Lindsay Weir, MPH, CIC, lead infection preventionist/ infection preventionist III, Infection Prevention & Control (IPC); Jennifer Ormsby, DNP, RN, CPN, CIC, CPNP-PC, senior director, Infection Prevention & Control (IPC); and Nicolas Kielbania, MS, CSP, CHHM, senior director, Environmental Health & Safety**

# Infection Prevention and Control Contributions to Advance Water Management Standards

In hospitals and health care delivery settings, water systems have complex distribution pathways with many potential risk areas related to water stagnation and contamination.<sup>1</sup> These systems can spread antibiotic-resistant pathogens and healthcare-associated infections (HAI), putting patients, families and caregivers at risk.

In 2018, The Joint Commission (TJC) required hospitals to implement a water management plan that specifically addressed the risk of Legionella – a waterborne pathogen more commonly known as Legionnaire's Disease. Over the next few years, as evidence grew that a more wide-ranging approach could prevent most HAIs,<sup>2</sup> TJC expanded its requirements. Boston Children's **Jennifer (Jen) Ormsby, DNP, RN, CPN, CIC, CPNP-PC, senior director, Infection**

**Prevention & Control (IPC), Nicolas Kielbania, MS, CSP, CHHM, senior director, Environmental Health & Safety, and Jeremy Thomsen, BS, director, Facility Engineering** have guided the creation of a system-level, interprofessional water management program with co-leaders from numerous departments to mitigate risk and improve reliability throughout Boston Children's system of care.

## From Water Management Plan to Water Management Program

The new standard of care, which incorporates the latest research and evidence-based practices, took effect in 2022. The standard requires hospitals to have a comprehensive

water management program in place that addresses not only Legionella, but also all other waterborne pathogens. This all-hazards approach must include rigorous team oversight, evaluation of water supply sources, monitoring protocols and corrective actions. “The new standard requires Boston Children’s Hospital to control for waterborne pathogens across the enterprise, monitor for hazardous conditions and document detailed response plans,” says **Lindsay Weir, MPH, CIC**, lead infection preventionist/infection preventionist III, Infection Prevention and Control (IPC). “The standard includes multiple levels of performance and extremely specific response criteria, including year-round monitoring to assess effectiveness.”

### Multidisciplinary Collaboration Drives Success

The first step was to establish a multidisciplinary Water Management Team, comprised of a nurse-led IPC team, Facilities & Engineering, and Environmental Health & Safety (EH&S) to implement the new program and oversee day-to-day operations. Because the program touches all areas of the hospital, the team pulls in members from numerous clinical and support departments as needed.

“The Engineering team serves as the first line of defense in overseeing the numerous water systems daily. Through close collaboration with EH&S and IPC, we’ve set forth stringent standards for water quality to deliver water that meets these standards so important for patient care,” says **Jeremy Thomsen, BS**.

**Nicolas Kielbania, MS, CSP, CHHM**, agrees. “The primary role of EH&S is to maintain a safe and compliant environment for our patients, caregivers, clinical and operational team members. As a stakeholder in the water management team, we work together to tackle issues that arise to maintain high-quality water standards.”

Prior to implementation, the team met with an external environmental health consultant and reviewed the new standard line by line to ensure all key elements were incorporated into the proposed program. The team now performs monthly environmental monitoring and reviews results; discusses emerging and ongoing priorities (vs. projects); and reviews quarterly clinical surveillance data and control charts to ensure there is no signal indicating significant changes related to pathogen detection.

Perhaps the biggest challenge is the scale of environmental monitoring and surveillance required. “Our first job was to go through each site and identify everything that uses water,” says Weir. “We catalogued all the sinks, showers, toilets and pieces of medical equipment. For each, we determined the water source, level of exposure to patients, risk of waterborne infection and effectiveness of control measures.”

**“Through close collaboration with EH&S and IPC, we’ve set forth stringent standards for water quality to deliver water that meets these standards so important for patient care.”**

**Jeremy Thomsen, BS, director, Facility Engineering**

One category was identified as a priority for focused surveillance as part of the system-level program: medical equipment with water reservoirs. Because this equipment is especially vulnerable to contamination, the team identifies potential risk levels, addresses gaps, and implements a preventive cleaning and maintenance plan.

“Our water management program revisions, updates and response algorithms took many months to build, but in the end we continue to collectively prioritize the safety of our patients, families and team members,” says **Jennifer Ormsby, DNP, RN, CPNP-PC, CIC, CPNP-PC**, senior director, Infection Prevention & Control (IPC). “IPC is honored to collaborate with experts from different backgrounds – Facilities & Engineering, EH&S and clinicians – to problem-solve complex health care systems to prevent infections for our patients.” ■

Citations:

<sup>1</sup> Perkins KM, Reddy SC, Fagan R, Arduino MJ, Perz JF. Investigation of healthcare infection risks from water-related organisms: Summary of CDC consultations, 2014-2017. *Infect Control Hosp Epidemiol*. 2019 Jun;40(6):621-626. doi: 10.1017/ice.2019.60. Epub 2019 Apr 3. PMID: 30942147; PMCID: PMC7883772.

<sup>2</sup> Soda EA, Barskey AE, Shah PP, Schrag S, Whitney CG, Arduino MJ, Reddy SC, Kunz JM, Hunter CM, Raphael BH, Cooley LA. Vital Signs: Health Care-Associated Legionnaires’ Disease Surveillance Data From 20 States and a Large Metropolitan Area-United States, 2015. *Am J Transplant*. 2017 Aug;17(8):2215-2220. doi: 10.1111/ajt.14407. PMID: 28724206.





# Exemplary Practice

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70%

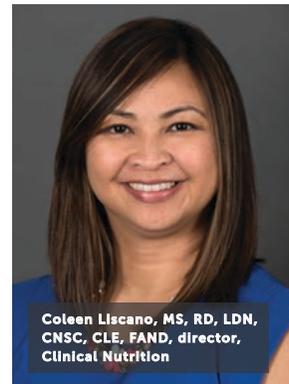
Human milk storage volumes have grown by 70% since program launch June 2022 to present

# Optimizing Nutrition Clinical Practice

## New Parenteral Nutrition Workflow Expands Registered Dietitians' Scope of Practice

Parenteral nutrition (PN) is a lifesaving therapy for patients with long-term inadequate enteral nutritional intake or absorption. PN is administered intravenously. It is considered a high-risk therapy given the inherent complexity associated with ingredient dosing specific to each patient and the need for frequent changes to PN orders. Many hospitals, including Boston Children's, did not initially fully implement the 2014 Centers for Medicare & Medicaid Services (CMS) Therapeutic Diet Order ruling allowing hospitals to privilege Registered Dietitian Nutritionists (RDN) to independently write orders for a therapeutic diet, enteral and/or parenteral nutrition, and related lab tests. However, Boston Children's executive vice president, Patient Care Operations and System Chief Nursing Officer **Laura J. Wood, DNP, RN, NEA-BC, FAAN** did introduce this regulatory change to the hospital's Medical Staff Executive Committee (MSEC), and proposed physicians, pharmacists, and nutrition senior operational leaders consider implementation of the CMS ruling following the introduction of a new ordering process.

Historically at Boston Children's, Registered Dietitian Nutritionists would provide PN recommendations verbally to physicians, advanced practice registered nurses (APRN), and physician assistants (PA), who would in turn enter a PN order. Subsequently, the pharmacy would begin to compound each PN order. This method had potential to add risk, explains **Coleen Liscano, MS, RD, LDN, CNSC, CLE, FAND**, director, Clinical Nutrition. "PN orders include a great deal of specificity and detail at the ingredient level including carbohydrates, protein, lipids, electrolytes, vitamins and trace elements.



**Coleen Liscano, MS, RD, LDN, CNSC, CLE, FAND, director, Clinical Nutrition**

These details can be misunderstood when communicated verbally, risking transcription errors and incorrect orders."

When the Hale Family Building opened in 2022, there was a significant increase in patient volume

with associated nutrition-related care needs. With the addition of 70+ inpatient beds, PN volumes also grew, increasing workload demands and associated PN order modifications.

The hospital's Nutrition Advisory Committee (NAC) and Pharmacy & Therapeutics Committee (P&T) sought to streamline the ordering process. This joint effort led to the pilot of a new workflow in which RDNs proposed the PN orders themselves, with order co-signature from physicians and advanced practice providers (APP) - physician assistants and nurse practitioners.

The pilot began in April 2022 on units with high PN volume, including the Medical/Surgical Intensive Care Unit, Cardiac Intensive Care Unit and Medical Intensive Care Unit. While safety events decreased, the new procedure revealed hidden workflow inefficiencies. Long

**"Not only have we improved safety and timeliness, but we are currently the first children's hospital to allow full scope of practice for RDNs."**

**Joy Vreeland, PharmD, BCPS, vice president, chief pharmacy & therapeutics officer**

### Three Key Nutrition Services, Innovations and Safety Measures



Implementation of the new Timeless Medical Systems alongside EPIC will reduce feeding preparation and administration errors by integrating enteral feeding orders in real time.



Automatic generation of nutrition labels will prevent errors from manual entry and safeguard for look-alike and sound-alike commercial milk products and allergen identification.



Enhanced inventory and management of human milk, customized expiration dates, and tracking of lot numbers and expiration dates for commercial milk products/formulas for recall are additional safety features to optimize delivery and tracking of enteral nutrition.

waits for co-signatures caused delays in the pharmacy, which led to delays in parenteral nutrition preparation and delivery to the bedside.

The NAC and Pharmacy and Therapeutics (P&T) Committee collaborated with the hospital's Office of General Counsel (OGC) and Program for Patient Safety and Quality (PPSQ) to again analyze and propose changes to the PN order-writing process. This dialogue subsequently supported PN competent RDs to practice at the top of their scope and license to write specific orders for PN without medications and enabled the PN Pharmacy to begin compounding the solution. PN orders with medications continue to require a prescriber's co-signature. "This change is consistent with the scope of practice for RDNs in Massachusetts, and has significantly improved efficiency without introducing safety-related events. It has also eliminated delays in the Pharmacy and has led to more timely administration of PN doses during our pilot," says Liscano.

After demonstrating positive safety and efficiency outcomes from the pilot, Boston Children's Medical Staff Executive Committee (MSEC) approved the Parenteral Nutrition Ordering proposal in early 2023. Clinical Nutrition Services (CNS) led hospital-wide education of residents, fellows, advanced practice providers, nursing staff, dietitians, pharmacists, and the primary care team. The new procedure was launched across the enterprise in March 2023.

"This is a significant milestone for RDNs managing PN patients at Boston Children's," says **Katelyn Ariagno, MPH, RD, LDN, CNSC**, senior clinical nutrition specialist & clinical nutrition educator. "By allowing RDNs to practice at the top of their scope and license, they

can utilize their skill set and expertise to further optimize nutrition delivery to the patient." Ariagno praises her RDN colleagues who stayed committed to this positive change, as well as the hospital for advancing a collaborative health care delivery model.

"Not only have we improved safety and timeliness, but we are currently the first children's hospital to allow full scope of practice for RDNs, when benchmarked against peer children's hospitals," says **Joy Vreeland, PharmD, BCPS**, vice president, Chief Pharmacy & Therapeutics Officer. "It is a privilege to be part of the continuing professional development of these expert health care specialists."

### Hospital Teams Unite to Mitigate Nationwide Formula Shortage Impact

In February 2022, Abbott Nutrition recalled three types of widely used powered formulas due to potential bacteria contamination, and ordered a shutdown of its production plant in Michigan. The events sparked a nationwide infant and pediatric formula crisis, leaving Boston Children's, children's hospitals, and parents throughout the country scrambling to find a safe and appropriate alternative for children who relied on these specialized products.

Fortunately, the CNS team was able to quickly source alternative products from another supplier in partnership with the hospital's Emergency Management team and key physician, nursing, and Supply Chain administrative leaders. The CNS team moved swiftly to expedite distribution and safely transitioned all hospitalized patients and outpatients to alternative formulas.

“From the moment we learned of the recall, teams across the hospital rallied to ensure our inpatient and outpatient populations were not without the specialized formulas they needed,” says Liscano. “It’s a testament to our supply chain and emergency management colleagues that we could meet these challenges with minimal to no disruptions to patient care.”

Emergency Management, Case Management, Pharmacy, Nutrition, Marketing, Government Relations, and nursing and physician partners collaborated to coordinate:

- **Communication.** The hospital launched an all-out effort – via mail, email, phone and social media – to get information to families and the community.
- **New Prescriptions.** Rewriting prescriptions for patients at home turned out to be one of the biggest challenges. Approval was required from insurance companies before comparable formulas could be delivered from community pharmacies and durable medical equipment companies.
- **Family Education.** Once new prescriptions were written, the hospital rewrote care plans and re-educated families about the alternate formula.

Amid the crisis, CNS team members were invited to share their experience with the Centers for Medicare and Medicaid Services (CMS) and the Biden Administration. They discussed roadblocks and offered recommendations for improvement.

“Before this crisis, most people thought of infant formula as a staple you keep in the cupboard, but it’s much more than that,” noted Dr. Vreeland. “It is

a therapeutic treatment for children impacted by a wide range of health care challenges including failure to thrive, growth abnormalities and other complex medical conditions. For these patients, it is as critical as any drug or lifesaving medicine.”

### Centralized Preparation of Enteral Feedings Improves Safety, Capacity and Efficiency

As part of the Hale Family Building transition planning process, Boston Children’s consolidated the Feeding Preparation Center (FPC) into a centralized hub for all of the hospital’s specialized formula and human milk preparation. The FPC receives, stores, processes, maintains and prepares breastmilk, donor human milk and specialty formulas in a single, dedicated location. More than 23 nutrition technicians, trained in both formula and human milk preparation, staff the FPC from 7 a.m. to 10 p.m., seven days a week. Patient-specific orders entered by dietitians and prescribers for human milk and specialty formulas flow into a dedicated system that allows for patient-specific labels specifying all enteral nutrition components. These labels are then scanned at the point of care to ensure the right patient is receiving the right nutrition. This has been a key quality and safety advance. Integration of these systems was led by **Brenda Dodson, PharmD, ACHIP™**, director, Clinical Optimization and Informatics Integration, Clinical Education and Informatics, Quality and Practice.

Patient safety is the driving force. “The center follows established guidelines and recommendations related to safe

feeding practices,” says **Tyra Bradbury, MPH, RD, CSP, LDN**, clinical nutrition manager, FPC. “Multiple studies show that a centralized location with trained, dedicated technicians, rigorous infection prevention and control guidelines, and on-site storage and preparation is safest for patients.”

Consolidating functions and staff in one place also improves capacity and efficiency, and provides optimum staff support. “It’s not just a matter of pouring breastmilk into a bottle,” says **Kimberly Barbas, BSN, RN, IBCLC**, director, Lactation Support Program. “The nutrition technicians must be able to recognize different types of fortification, understand aseptic handling techniques, know what each recipe means, and follow proper labeling and identification.”

For Barbas, who has guided the hospital’s nurse-led Lactation Support Program for 25 years, opening the centralized FPC is the realization of a long-standing goal to further advance safe and state-of-the-art infant nutrition delivery. But the transition was not without its challenges. Because nurses had performed these tasks themselves for many years, handing off responsibility to the nutrition technicians required both teams to collaborate, to refine workflows and communications to ensure the accuracy of all nutrition orders.

“This change has resulted in a huge improvement in the way the hospital provides nutrition to our most vulnerable patients,” says Barbas. “Boston Children’s recognizes that need and supports it.” ■

# Textured Hair Care Initiative Supports Inclusive Care

Patients with textured hair have unique care needs that require specific products and techniques. The Textured Hair Care Initiative at Boston Children's Hospital addresses these needs by providing products and resources designed to ensure all children receive their hair care of choice, regardless of hair type or texture.

"For many years, the hospital offered only one brand of shampoo for every patient, which was especially ineffective for children with textured hair," explains **Lynne Hancock, DNP, RN, NE-BC**, director, Nursing Excellence, Innovation and Magnet® Program and co-chair of the Clinical Products Committee. "Staff kept a secret stash with a wide variety of hair care products on many units. They brought these products in themselves or appealed for donations. Everyone was trying to solve the problem individually."

**"Many patients were used to living without adequate self-care while hospitalized. With this initiative, they have more confidence in their care providers to meet their needs"**

**Charlotte Gilroy, BS, behavioral health counselor**

**Charlotte Gilroy, BS**, behavioral health counselor, raised the issue with hospital leadership, which convened an interdisciplinary clinical team to find solutions. The group worked with Supply Chain managers, the Skin Subject Matter Expert group and others to select nine products that would meet the needs of patients with textured hair. After a three-month pilot to ensure the products worked as intended, the initiative went live across the hospital in May 2023.

"Our goal is to make sure children and families with textured hair needs, many of whom are people of color, have greater access to self-care while in the hospital," says Gilroy, the initiative's earliest champion. "We want the products offered to meet their needs, and to show patients we know how important those needs are."

To support learning and encourage open communication, the team developed educational materials, learning modules, questionnaires and other resources for staff, patients and families. In addition, Gilroy and **Pascale Audain, MSN, RN, CCRN**, staff nurse III, MICU, produced an episode for the hospital's podcast *Small Talk*. *Nurturing Textured Hair* featured the journey of health care professionals who are promoting personalized hair care for their patients.

The episode highlighted one of the biggest goals: to act as a bridge between mental health care and medical care. "Many patients were used to living without adequate self-care while hospitalized. With this initiative, they have more confidence in their care providers to meet their needs," says Gilroy.

Audain says the impact on patients, families and staff has been profound. "I've seen parents visibly relax when they learn that we have a variety of textured hair products available to them. I've witnessed staff bonding with a mother as she taught them how to do her child's hair. The initiative has given us the opportunity to provide an added layer of support to our patients and their families, not only physically, but emotionally."

Dr. Hancock notes that, until recently, there was no hair care standard for any patient anywhere. The Textured Hair Care Initiative is an example of empowered staff on the front lines recognizing a care inequity, innovating solutions and raising awareness with hospital leadership who took accountability.

**Clinical Team Members**

Pascale Audain, MSN, RN, CCRN, staff nurse III MICU (co-lead)

Charlotte Gilroy, BS, behavioral health counselor

Myrtho Altidor, BA, administrator Bader 5/CBAT/5W

Brianna Cheatham, BSN, RN, staff nurse 6NE

Lauren Dulude, MS, CCLS, child life specialist

Soad Tahlil, BSN, RN, staff nurse 9E

**Nursing Patient Care Operations**

Lynne M. Hancock, DNP, RN, NE-BC, director Nursing Excellence, Innovation and Magnet® Program, co-chair Clinical Product Committee (co-lead)

**Education**

Eva Gomez, MSN, RN, NPD-BC, CPN, former senior professional development specialist, Clinical Education and Informatics, Quality and Practice, now senior director, Nursing Lattice Program/Patient Care Diversity, Inclusivity and Professional Advancement

Herisa Stanislaus, MPH, program administration manager, Patient & Family Education, Communications

**Supply Chain**

John Pilcher, MSN, RN, CRNI, VA-BC, CPN, clinical sourcing & value analysis manager

Arkey Taylor, manager, A.C.E. Supplier Diversity Program

**Textured Hair Care Resources**

**My Hair Care**

Hi!

My name is \_\_\_\_\_ My favorite thing about my hair is \_\_\_\_\_

My hair is \_\_\_\_\_  
 curly  wavy  straight

Here are some things you should know about how I take care of my hair.

- I \_\_\_\_\_ have allergies to chemicals or products.  
 Do  Don't  
 I'm allergic to: \_\_\_\_\_
- Washing my hair is \_\_\_\_\_ for me.  
 Easy  Hard
- I \_\_\_\_\_ washing it.  
 Like  Don't like
- My hair gets wet \_\_\_\_\_  
 Easily  Not easily
- I \_\_\_\_\_ sleep with a bonnet every night.  
 Do  Don't
- My favorite ways to style my hair are:  
 \_\_\_\_\_  
 \_\_\_\_\_
- When my hair is styled, I \_\_\_\_\_ get an (itchy, tender, painful) scalp.  
 Do  Don't
- I \_\_\_\_\_ have trouble sitting still when my hair is being styled.  
 Do  Don't  
 Some things that help me are:  
 \_\_\_\_\_  
 \_\_\_\_\_
- Hair care products I use:  

	Every day	Every other day	Every week
Shampoo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Conditioner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Leave-in conditioner	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Detangler	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Curl cream	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Scan me to take a caregiver survey.

Please note: This information is to help your care team give you what you need to care for your hair and scalp while you're in the hospital. It isn't part of your medical record.

**Helpful tips for hair care**

Most patients, parents and caregivers know how to use textured hair care products. However, it's important to understand the different stages of hair care and techniques in order to integrate them into the daily plan of care and/or step in when a patient needs help.

**Infants**

1. Wash with shampoo during bath as needed
2. Brush as needed

**Ages 1 and up**

1. Wash and condition hair 1 time per week (or according to the patient's routine): dividing or parting hair into 2-3 sections
2. Detangle using detangler and a wide-tooth comb, start detangling at the end of hair and moving up to the scalp
3. Gently dry hair with a pillowcase to avoid tangles and friction
4. Apply leave-in conditioner for styling (according to the patient's routine)
5. If applicable, wash and condition braids or twist extensions, gently dry with a pillowcase, and apply leave-in conditioner to condition scalp and hair as needed
6. Style hair according to the patient's routine in a protective style
7. Ask if they want to wear a scarf or bonnet when sleeping

**Also consider the following**

- Make sure the patient is in a comfortable position during the washing, detangling and conditioning process to avoid neck and shoulder straining.
- Protective hair styles, such as braids or buns, keep the ends of the hair protected from knotting or snagging.
- Detangling can be a very painful process. Use detangler a gentle approach considering the patient's comfort level and scalp sensitivity when helping with this process.
- Protective hair styles, such as braids or twist extensions, can also be washed.

**Pre-Op Shampooing Practice**

- Wait 1 hour after shower/hair care to use Chlorhexidine Gluconate antiseptic wipes
- For patients having a surgical procedure above the shoulders, their hair should be washed the day/night before surgery. Completely rinse and do not use any leave-in products.



400

days without a fall with injury occurring within inpatient oncology services - 2022-2023

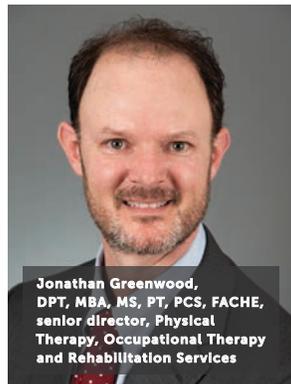
109

Since it opened in July 2022, the Pediatric Pelvic Floor Program has averaged 109 visits per month.

# Expanding PT/OT Services to Meet Growing Needs

Boston Children's Hospital is growing its physical therapy (PT), occupational therapy (OT) and rehabilitation services, adding new locations and a broader scope of services to better meet the needs of patients and families. Initiatives have improved quality, safety, access and outcomes across the enterprise.

## Multidisciplinary Collaboration Promotes Early Intervention



Physical Therapists increasingly partner with oncology nurses to identify deconditioning risks among cancer patients early in their stay. The team can intervene

sooner to address loss of strength, flexibility, fitness and mobility. As a result, the oncology units went more than 400 days without a fall with injury in 2022-2023. Therapists also work with the orthopedic team to promote early recovery and discharge. "The sooner we get in to see patients, and develop an interprofessional informed, patient-centric plan of care, the better the outcome. Our therapists appreciate the opportunity to collaborate with these teams to make meaningful change," says **Jonathan Greenwood, DPT, MBA, MS, PT, PCS, FACHE**, senior director, Physical Therapy, Occupational Therapy and Rehabilitation Services.

## Unique Pediatric Pelvic Floor Program Fills Need

After identifying a need for increased pelvic floor services for patients, the hospital started a Pediatric Pelvic Floor Program in 2022. As one of the first multidisciplinary pelvic floor programs in the country, it attracts patients and families from across the region and around the world. The program treated more than 500 children in the first year alone.

A dedicated team of specially trained physical therapists works hand in hand with physicians, nurse practitioners, registered nurses, and physical therapists from Urology, Gastroenterology, Gynecology, Colorectal Services and other programs to address issues such as urinary incontinence, constipation, pelvic pain and genetic syndromes.

Interventions include biofeedback, therapeutic exercise and other therapies tailored to each patient's unique condition. Patients and families are key members of the team. "When your child is having accidents in the classroom, or can't go for a sleepover for fear of wetting the bed, or can't play sports without wetting a uniform, this is a quality of life issue for the entire family," says **Eleni Moulis, PT, DPT**, physical therapist, Pediatric Pelvic Floor (PPF) Program. "We give patients, parents, and caregivers hands-on education and exercises they can do at home. Our results have been a resounding success." These results are derived from Boston Children's Colorectal Clinic's patient survey, which found 80% of children who came to pelvic floor physical therapy have improved their pelvic floor health including improved bowel movements and decreased fecal incontinence.

Dr. Moulis and PT team members **Megan Dakhlian, PT, DPT, PCS**, and **Kellie Fokin, PT, DPT**, work directly with PPF program patients in collaboration with Urodynamics. They also serve as liaisons to referring services teams and have extensive experience working with these patient populations. Drs. Moulis, Dakhlian, and Fokin will soon earn their Certificate of Achievement in Pelvic Health Physical Therapy (CAPP) from the American Physical Therapy Association.

## Robotic Technology Enhances Care Delivery

Boston Children's is one of a few pediatric PT/OT programs in the country to offer care using Tyromotion robotics, an innovative, technology-based rehabilitation company. The newest addition is DIEGO®, a unique, sensor-based robotic device that helps restore arm-shoulder function in children with neurological and orthopedic conditions. The program also offers AMADEO®, which targets the fingers and thumb, and the PABLO®, which utilizes wearable sensors that can be worn anywhere on the body. The advanced technology features a video game-based interface to engage and motivate young patients.

**“We give patients, parents, and caregivers hands-on education and exercises they can do at home. Our results have been a resounding success.”**

***Eleni Moulis, PT, DPT, physical therapist, Pediatric Pelvic Floor (PPF) Program***

“As the prevalence of robotic technology has increased so has the sophistication,” says **Christopher Goodman, OTR/L, BCP**, occupational therapist III. “For these kids, using this equipment is like playing a game, which makes a long, difficult and sometimes painful recovery engaging and fun. They learn to play and then they play to learn.”



## New Locations Improve Access

To ensure more families have access to a full range of high-quality PT and OT services close to home, the department is exploring strategies to expand locations beyond suburban Boston. When it opens in 2024, the new Boston Children's Weymouth site will house a 5,000-square-foot, state-of-the-art PT/OT clinic, offering the same services and Tyromotion equipment found in the Boston location. Families on the South Shore, Cape Cod and the Islands will no longer have to travel into the city to receive advanced care. Plans are also in the works to add services at the new Boston Children's facility in Needham to open in 2025.

## Professional Development Builds Expertise

While the expansion of programs is important, so is growth of people. Team members are encouraged to develop their clinical skills through education and cross-training, and their leadership skills within the profession. “We build our teams so they have the expertise and autonomy to lead from where they are, whether they are new hires or seasoned professionals,” says Dr. Greenwood.

Increasingly, team members have opportunities to collaborate with other programs on research projects. Examples include studies of patients with neuromuscular disorders requiring physical therapists to measure the impact of life-changing medications and medical interventions on the patient's function and quality of life. ■



Joel Sanon, volunteer with Marianne Fitzgerald, BS, RN, clinical coordinator, Patient Flow and Capacity Center - Family Food Connections

# Advancing Health Equity: Community and Hospital Focused Actions

## Boston Children's Expanding Efforts to Address Food Insecurity

Food insecurity is a key social determinant of health (SDoH) that impacts health outcomes and contributes to health disparities. Research shows that food insecurity – defined as “limited or uncertain access to food” – is especially detrimental to children.<sup>1</sup> Those who do not get enough to eat face long-term medical, developmental and behavioral problems, including asthma, toxic stress, hyperactivity, anxiety and depression.<sup>2</sup>

Food insecurity was already a significant health-related social issue in America before the COVID-19 pandemic contributed to this challenge. According to the U.S. Department of Agriculture, more than 34 million people, including 5 million children, live in food-insecure households.<sup>1</sup> A survey conducted by the Greater Boston Food Bank in 2022 found that 32 percent of people in Massachusetts experienced food insecurity, with rates continuing to increase dramatically. Food insecurity was disproportionately high among communities of color, those identifying as LGBTQ+ and households with children.<sup>3</sup>

## Translating Evidence into Practice: DAISY Health Equity Grant

Boston Children's Hospital has long taken proactive steps to address food insecurity through ongoing screenings of patients and families in the Emergency Department (ED) and ambulatory sites. In 2021, the Department of Nursing was awarded a Health Equity Evidence-Based Practice Grant from the DAISY Foundation to study the feasibility of expanding those screenings to inpatient settings.

**“Because food insecurity is a sensitive issue, our approach here is to remove the stigma associated with accessing food resources. Patients may not be forthcoming if they sense they are being judged,”**

**Tyonne Hinson, DrPH, MSN, RN, NE-BC, prior Director of Nursing Diversity Initiatives and the Nursing Career Lattice Program**

The quality improvement (QI) pilot, *Reducing Food Insecurity in Pediatric Patients and Families: Translating Evidence Into Practice*, was conducted between February 2021 and July 2022 on 10 Northwest (10 NW), Boston Children's inpatient general surgery and orthopedics unit. 10 NW records the highest number of admissions annually for inpatient units in the hospital. **Tyonne Hinson, DrPH, MSN, RN, NE-BC**, Boston Children's prior senior director, Nursing Diversity Initiatives and the Nursing Career Lattice Program 2017 - 2022, and **Alexandra Yusah-Cramer, MSN, RN, CPHQ**, former nurse manager of 10 NW and past chair of the Nursing Cultural Sensitivity and Diversity Forum led the team. **Patricia Dwyer, PhD, RN**, nurse scientist and **Eric Fleegler, MD, MPH**, emergency medicine physician and researcher provided mentorship to the team. The goal was to integrate evidence identified by many Boston Children's Emergency Department (ED) nurses with well-established sources of evidence in the literature to translate evidence into practice, thus demonstrating that screening for food insecurity helps identify patients at risk.

Nurses on 10 NW screened admissions using the Hunger Vital Sign™ food insecurity screening tool (see sidebar). Initially, nurses collected the information electronically via a REDCap survey tool, then tested use of a QR code on an iPad, and finally tested the use of basic pen and paper to capture parent

### The Hunger Vital Sign™

Developed by Drs. Erin Hager and Anna Quigg and members of the Children's HealthWatch team, the Hunger Vital Sign™ is a validated two-question tool used in medical and community settings across the country to identify households at risk of food insecurity.<sup>1</sup>

Within the past 12 months, you worried that your food would run out before you got the money to buy more.

never true

sometimes true

often true

decline

Within the past 12 months, the food you bought just didn't last and you didn't have money to get more.

never true

sometimes true

often true

decline

If patients answer "often true" or "sometimes true" to either statement, they are deemed at risk for food insecurity.

Citation:

<sup>1</sup>Hager, E. R., Quigg, A. M., Black, M. M., Coleman, S. M., Heeren, T., Rose-Jacobs, R., Cook, J. T., Ettinger de Cuba, S. E., Casey, P. H., Chilton, M., Cutts, D. B., Meyers A. F., Frank, D. A. (2010). Development and Validity of a 2-Item Screen to Identify Families at Risk for Food Insecurity. *Pediatrics*, 126(1), 26-32. doi:10.1542/peds.2009-3146.

feedback. Most parents preferred the pen and paper method, noting they did not wish to answer the sensitive screening questions in front of their children. Of the 401 screenings conducted, 42 patients screened positive, a 10% positivity rate.

Families identified as at risk received information about HealthSteps, an online app that connects populations to Massachusetts community resources, including food banks, the United Way and 211 – a Massachusetts-based call center that provides information directly to callers regarding the location of open shelters, transportation and a wide range of essential services. HealthSteps also links families to federal nutrition programs such as the Supplemental Nutrition Assistance Program (SNAP) and the Women, Infants and Children Program (WIC). Some families opted to receive hands-on support from the nursing staff to download the app onto their devices.

### From QI Pilot to Research: Boston Children’s IDEA Grant

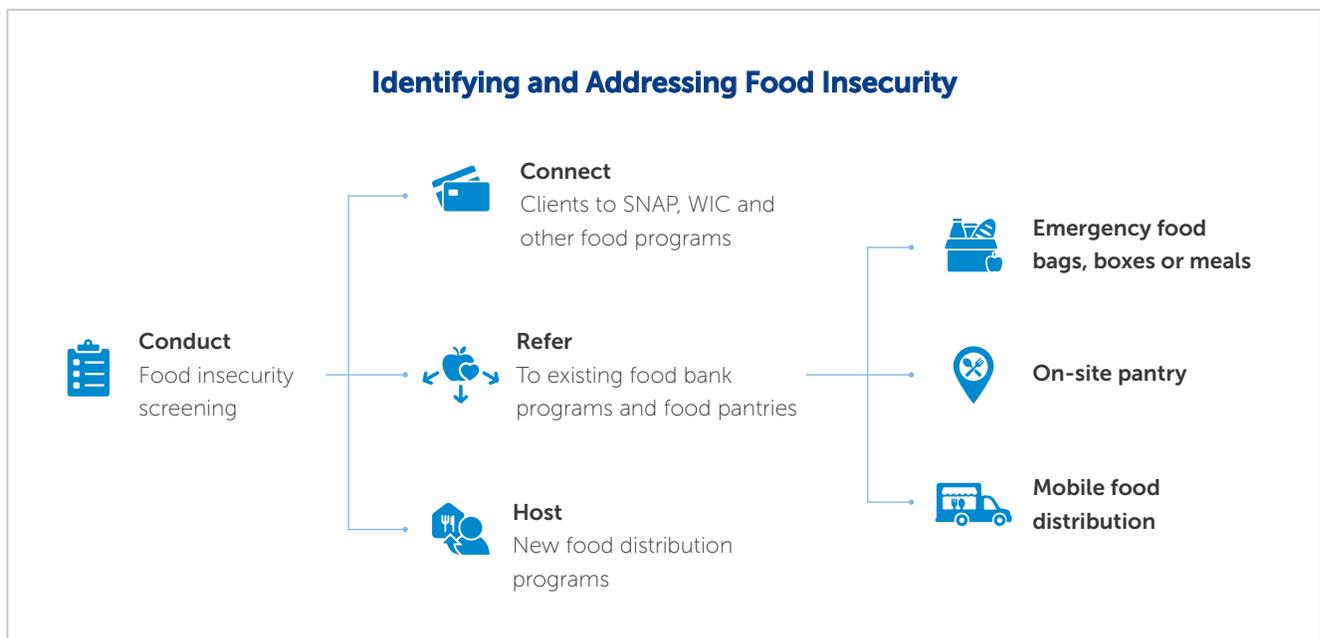
Following the pilot, the team received a Boston Children’s Inquiry Investment Drives Evidence Into Action (IDEA) grant to transition from a QI project to a nursing-based research initiative. Multidisciplinary partners across

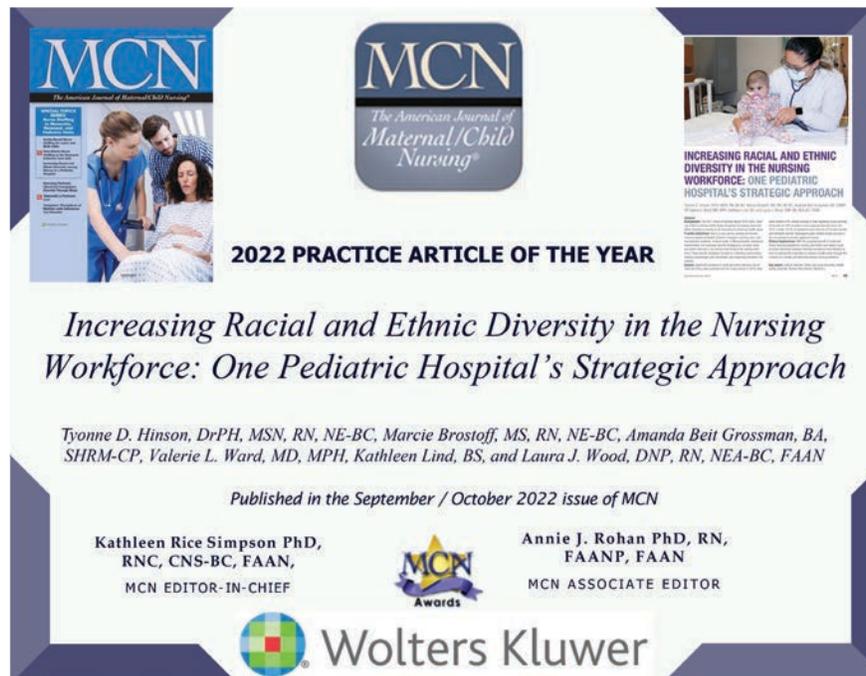
the hospital included Social Work, Clinical Nutrition, the Office of Community Health and Family Food Connections leadership.

The study, *Addressing Food Insecurity Among Inpatients at Boston Children’s Hospital*, was focused on assessing facilitators and barriers to inpatient screening, as well as gaining deeper insight into how families use the tools and resources. “We wanted to move beyond the screening to better understand how minimal intervention might increase engagement,” says Dr. Dwyer. “We incorporated tests of change and processes, including following up two weeks after discharge to see if families were using the HealthSteps app to access the resources available.”

### Implementing Screenings Without Bias

The team is now working on ways to implement the food insecurity screening into the Nursing Admission Assessment. Making the screening a standard practice could take the guesswork out of trying to identify families who might need help. However, simply adding the screening to a list of admission questions is challenging. “Because food insecurity is a sensitive issue, our approach here is to remove the stigma associated with accessing food resources. Patients may not be forthcoming if they





## Nurse Leaders Receive Maternal-Child Nursing Practice Paper of the Year

An article written by Boston Children's Hospital nursing and human resource leaders was awarded the American Journal of Maternal/Child Nursing (MCN) Practice Paper of the Year - 2022.

*Increasing Racial and Ethnic Diversity in the Nursing Workforce: One Pediatric Hospital's Strategic Approach*<sup>1</sup> appeared in MCN's September/October 2022 issue. The article describes efforts to develop, implement and evaluate strategies to increase racial and ethnic diversity in the registered nurse (RN) workforce within Boston Children's Hospital. Significant increases in racial and ethnic diversity were achieved through a multi-pronged approach. These strategies can be helpful for nurses and other health care leaders to advance health equity through the creation of a racially and ethnically diverse health care workforce.

MCN recognizes three articles for paper of the year (research, practice, and scholarly review or quality improvement). A distinguished panel of experts selected Boston Children's article as the 2022 MCN Practice Paper of the Year, noting "outstanding scholarly attributes as well as clear applicability to clinical nursing practice."<sup>2</sup>

Citations:

<sup>1</sup> Hinson, Tyonne D. DrPH, MSN, RN, NE-BC; Brostoff, Marcie MS, RN, NE-BC; Grossman, Amanda Beit BA, SHRM-CP; Ward, Valerie L. MD, MPH; Lind, Kathleen BS; Wood, Laura J. DNP, RN, NEA-BC, FAAN. *Increasing Racial and Ethnic Diversity in the Nursing Workforce: One Pediatric Hospital's Strategic Approach*. MCN, *The American Journal of Maternal/Child Nursing*. 47(5):265-272, September/October 2022.

<sup>2</sup> <https://journals.lww.com/mcnjournal/pages/collectiondetails.aspx?TopicalCollectionId=1>, accessed 1.7.23.

sense they are being judged,” says Dr. Hinson.

Results of this scholarly work are in the process of being disseminated internally and externally to add to the body of evidence about food insecurity interventions that are essential to improving health and reducing health disparities nationally.

### Family Advisory Council Elevates Equity, Diversity, Inclusion & Belonging

To welcome and sustain a membership that best reflects patients and families at Boston Children’s Hospital, the Family Advisory Council (FAC) has made a formal commitment to Equity, Diversity, Inclusion & Belonging (EDIB) as part of its strategic plan and culture.

The council embarked on a multi-year EDIB journey in 2017, spending two years building a strong foundation that included bylaws, role descriptions, onboarding practices and virtual attendance options. Next steps included the establishment of a dedicated EDIB task force, creation and adoption of an FAC-specific EDIB strategic plan and establishment of partnerships with hospital leaders.

“EDIB progress is a shared and long-standing priority for our volunteer membership,” says **Katie Litterer**, program manager, Family Partnerships, Office of Experience. “We

want to create a culture that is welcoming, inclusive and respectful of diversity, and cultivate a membership with a variety of experiences and backgrounds that truly represent those we care for at Boston Children’s Hospital.”

Among the FAC’s key accomplishments to date: revised recruitment materials incorporating messages of commitment to EDIB; a streamlined onboarding process that eliminates barriers for participation; virtual membership to welcome new voices; and interpretation and translation for a non-English speaking member.

The FAC is now working on EDIB plan updates for the 2024-26 Strategic Plan, with a further focus specifically on Inclusion and Belonging. Volunteer members continue to drive both the content and priorities of this plan. The FAC voted to adopt these changes at the end of 2023. ■

Citations:

<sup>1</sup> <https://www.ers.usda.gov/topics/food-nutrition-assistance/food-security-in-the-u-s/key-statistics-graphics/>

<sup>2</sup> <https://www.feedingamerica.org/hunger-in-america/child-hunger-facts>

<sup>3</sup> <https://www.gbfb.org/news/press-releases/gbfb-food-equity-access-report-2022/>

## Family Advisory Council (FAC) Vision for Equity, Diversity, Inclusion, and Belonging

The Family Advisory Council works collaboratively to advance culturally effective patient and family-centered engagement. We strive to have our voice reflect the diversity of patients and families at Boston Children’s Hospital. Our impact on hospital programs and decisions is strengthened by our differences, improved understanding of the diverse needs of patients and families, and a culture of inclusivity and respect that embraces different viewpoints and beliefs.

**FAC members**

- Variety of healthcare experiences
- Live near to and far from Boston Children’s
- Multiple languages
- Moms, Dads, Adult patient
- Variety of life experiences
- Racial/ethnic diversity

3,587

families served  
from 2022-2023



The Bon - Patient Family Housing Program

## Family Housing Program Expands to Meet Evolving Needs

### More Options Promote Cohesion and Family-Centered Care

A family's ability to stay together and in close proximity during a pediatric hospital stay provides important benefits including an improved care experience, greater well-being and better perceptions of child recovery.<sup>1</sup> Family accommodations enable parents to be active participants in their child's treatment.

Since 2004, Boston Children's Hospital has provided low-cost accommodations to any family, parent or guardian who lives more than 50 miles from the hospital and whose child is receiving active inpatient or ambulatory care. The program included 38 rooms at a

mix of locations across the city. Many of these accommodations featured a communal model in which families shared small spaces. However, impacts from the COVID-19 pandemic coupled with a sharp increase in demand, required the hospital to completely rethink its approach.

"COVID disrupted our shared model and factors such as rising patient acuity, longer length of stay and an increase in critical care beds in the Hale Family Building meant demand for long-term housing quickly outstripped supply," says **Miranda Day, MS, MBA, CCLS**, director, Family and Volunteer Services. "Given the added challenges of a tight Boston housing market, we had to find new ways to accommodate a growing number of families."



Isandro and Rafaela - Yawkey Family Inn

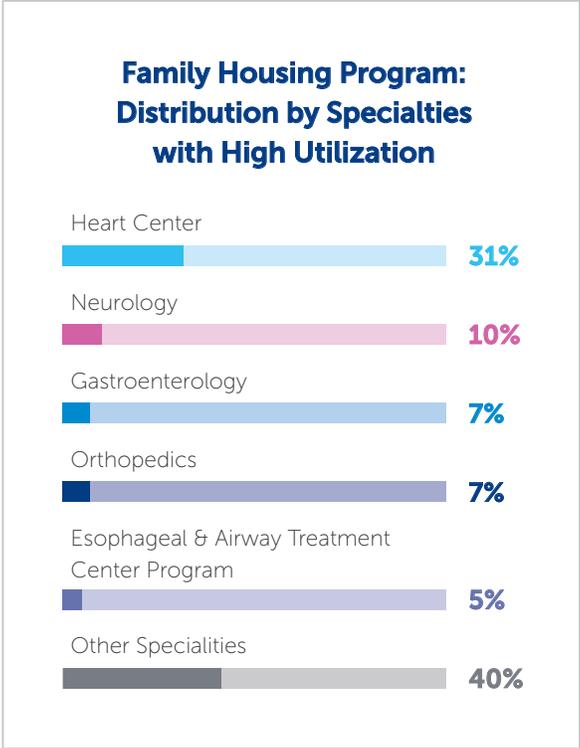
Boston Children’s rolled out a consolidated and reimagined Family Housing Program in 2023. The new model offers enhanced accommodations at two main locations. The Bon, on Boylston Street in Boston, includes a mix of 28 studio, one-bedroom and two-bedroom apartments, a community kitchen and access to a large outdoor garden. In nearby Brookline, the Yawkey Family Inn, with 22 rooms, features a renovated kitchen, television and more. Both locations offer many of the amenities of home, as well as on-site support from a social worker, free shuttle service to and from the hospital, donated meals and other supports to families.

Boston Children’s plans to build a hospital-owned family housing complex in the near future. The Corey-Griffin House will be a stand-alone property with 50+ private suites, on-site parking, a large community space and private green space.

“Families are an integral part of our care model and we want to do all we can to ensure they are involved with their child’s care,” says Day. “Providing a family-centered residence removes some of the financial and logistical hurdles, and offers continuity and comfort during a stressful time. In the end, it improves the entire family experience.” ■

Citation:

<sup>1</sup> Franck LS, Gay CL, Rubin N. Accommodating families during a child’s hospital stay: implications for family experience and perceptions of outcomes. *Fam Syst Health*. 2013 Sep;31(3):294-306. doi: 10.1037/a0033556. Epub 2013 Jul 22. PMID: 23876064.



80

EAGH has served approximately 80 parent/caregiver participants from 2022 - 2024.

100%

of participants found the workshops to be therapeutic.

100%

of participants evaluated the workshops to be helpful in navigating their grief experience.



## Expressive Arts for Grieving Hearts

Bereavement support is an integral part of caring for families, and art has been used since the beginning of time in mourning rituals and expressions of grief.<sup>1</sup> The Expressive Arts for Grieving Hearts (EAGH) Workshop Series at Boston Children's Hospital is the first of its kind to offer creative modalities for processing, expressing and connecting through grief. The multidisciplinary program is a partnership between the Pediatric Advanced Care Team (PACT) and Child Life Services to support bereaved parents and caregivers following the loss of a child.

The program was developed by PACT clinical social workers **Marsha Joselow, MSW, LICSW**, and **Eleanor Frechette, MSW, LICSW** in response to parent/caregiver feedback, and designed as an alternative to traditional talk-based support

groups. "We often heard from families that the profound depth of losing a child is difficult to describe with words. We recognize that these families were an underserved population within the hospital," says Frechette. "Modalities including visual arts, music, journaling and movement have been demonstrated to support families as they navigate the complexities of grief and share emotions that are hard to verbalize."

Workshops are held year round and include music, journaling, visual arts, grief yoga, and mindfulness and aromatherapy. The Journaling and Photograph Workshop, led by **Ginny Lewis, MA, CCLS**, senior art specialist, and **Laki Vazakas, MA**, senior art specialist, combines writing sessions with shared video and photo projects. "Parents appreciate the opportunity to have a safe space to connect with each other across an

artistic experience,” says Lewis. “In many cases, they are surprised by how much they enjoy journaling and how it helps them move through the grief process.”

**Hannah Foxman, MT-BC**, music therapist, and **Mark Fuller, MPH, MT-BC**, lead the Music Therapy workshop. Families listen to songs and analyze how the lyrics relate to grief and loss. Many parents share music that was connected to their child or the loss experience. Foxman says leading the workshop has sparked a new-found passion for post-end-of-life care. “This is the first time we as therapists have seen what life looks like after the death of a child. Witnessing music’s role in the grief process gives us a new perspective, and it is an honor to be in that space.”

Evidence abounds that art therapy interventions can help people express and communicate emotions. A literature review of creative arts in bereavement shows that art enhances meaning-making practices and continuing bonds, and helps empower families in strengthening coping behaviors. Studies also found that engagement in art therapies reduces anxiety, depression and pain-related symptoms.<sup>1 2</sup>

EAGH has enhanced multidisciplinary collaboration across the hospital to provide excellent bereavement care to families. In addition to Child Life and PACT, support and commitment have come from **Miranda Day, MS, MBA, CCLS**, director, Family and Volunteer Services, and the Hale Family

Center for Families; **SoYun Kwan, MSW, LICSW, CCTSW**, clinical social worker, the Boston Children’s Bereavement Program; **Abby Rosenberg, MD, MS, MA**, chief, Pediatric Advanced Care Team; and the PACT Social Work Team.

To date, more than 65 families have participated in the program. All those who took part rated the workshops as helpful in navigating their grief, and many said the experience led to deeper connections with their children. “We hear from many families that Boston Children’s is like home to them, and the loss of their child is also a loss of their support network,” says Lewis. “EAGH is a bridge that can restore these connections so parents continue to feel love and support, but in a different way. It’s part of the wraparound care we provide to the Boston Children’s community.” ■

Citations:

<sup>1</sup> Weiskittle RE, Gramling SE. *The therapeutic effectiveness of using visual art modalities with the bereaved: a systematic review. Psychol Res Behav Manag. 2018 Feb 1;11:9-24. doi: 10.2147/PRBM.S131993. PMID: 29440940; PMCID: PMC5798551.*

<sup>2</sup> Collette N, Güell E, Fariñas O, Pascual A. *Art Therapy in a Palliative Care Unit: Symptom Relief and Perceived Helpfulness in Patients and Their Relatives. J Pain Symptom Manage. 2021 Jan;61(1):103-111. doi: 10.1016/j.jpainsymman.2020.07.027. Epub 2020 Jul 31. PMID: 32739559.*

## Expressive Arts for Grieving Hearts Team

### Program facilitators:

Marsha Joselow, MSW, LICSW

Eleanor Frechette, MSW, LICSW

### Artist and group facilitators:

Grief Yoga and Mindfulness:

**Katelyn Stevens, RN**

Aromatherapy, Integrative Therapies:

**Kristen Guilmette, RN**

Summer Gardening Workshop:

**Evelyn Berde, visual artist**

Journaling and Photograph Workshops:

**Ginny Lewis, MA, CCLS; Laki Vazakas, MA**

Music Therapy: **Hannah Foxman, MT-BC;**

**Mark Fuller Jr, MPH, MT-BC**

## Reflections of parents and caregivers who participated in the EAGH workshops:

“These workshops help with a huge secondary loss for a family. Having the opportunity to stay connected to the people our daughter adopted at Boston Children’s Hospital really helps our hearts.”

“It takes time, but grief is something you have to walk through and it helps to know you’re not alone.”

“I have always shared my journey of grief but not in a way that makes me reflect. This time, the questions and the prompts were for me to reflect on my grief. Thank you so much for the opportunity to participate.”



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Sylvia Leung, BSN, RN, staff nurse | with Cloe - 10 Hale - Complex Surgery



# Transformational Leadership

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# 40

More than 40 clinical and security staff served as Welle trainers in 30 practice environments providing live training to 1,500 people.

## Promoting Physical and Psychological Safety

### Boston Children's Launches Multiple Initiatives to Promote Patient and Staff Safety

Workplace violence in health care is a serious and growing national challenge. Health care workers are five times more likely to experience a violent incident on the job than workers in other industries. Adverse events continue to rise.<sup>1</sup> Exposure to workplace violence often impairs effective patient care and can lead to psychological distress, job dissatisfaction, and employee absenteeism and turnover.<sup>2</sup>

In Massachusetts and nationally, pre-existing gaps in community-based resources to provide mental/behavioral health services led to an influx of children and adolescents reaching hospital emergency rooms and inpatient units during the COVID-19 pandemic. As the number of patients with severe behavioral health issues

spiked at Boston Children's Hospital, staff across the enterprise shared they needed more formal support to safely manage these patients and asked for help. "Nurses and patient care teams outside of the hospital's existing mental/behavioral health care settings (e.g., Main Campus: Bader 5 inpatient unit and Waltham Campus: Community-Based Acute Treatment (CBAT) and 5 West inpatient unit) did not have prior experience caring for this high-acuity patient population," says **Patricia Pratt, MA, BSN, CPHQ, CPN**, senior vice president and associate chief nurse, Medical, Surgical, Procedural and Behavioral Health, Nursing/Patient Care Operations. "Boston Children's has always been committed to providing a safe and secure environment for patients, families, and staff, but we knew we had to take a more comprehensive, hands-on approach to support staff through new systems and education."

### Welle Behavioral Safety Management for Health Care: Progressive Training Levels



A Behavioral Health Steering Committee was launched and led by **Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations & System Chief Nursing Officer, and **Dick Argys**, executive vice president, Hospital, Satellite and Ambulatory Operations and chief culture officer. Together with a team of senior leaders and front-line team members, they advanced a wide range of initiatives to promote physical and psychological safety. These included violence prevention training tools, resources, and policies and procedures to reduce environmental risks to patients, families and staff.

### **Welle: Verbal De-escalation to Prevent Violence**

The most pressing change involved strengthening staff's ability to recognize and prevent violent incidents. "Our patient population was changing and many clinicians had a knowledge gap," says **Gregory Durkin, MEd, RN, NPDA-BC**, director, Clinical Education and Informatics, associate director for Interprofessional Education, BCH Academy, Clinical Education, Informatics, Practice and Quality. "A hematology nurse and a cardiac surgical bedside nurse historically were not meant to be mental health practitioners, yet nurses and

teams throughout the hospital were needed to care for these children and teens during what many regarded as a second rail during the COVID-19 pandemic. We needed a higher level of education and support for staff across the enterprise."

The De-Escalation Task Force, an interdisciplinary group comprised of Behavioral Response Team members, Social Work, Safety, and Psychiatry Services completed a broad external analysis and selected Welle – a behavioral safety management system that could be implemented organization-wide throughout both inpatient and ambulatory care settings. The program provides training to prevent violent incidents before they occur through the use of recovery-based, trauma-informed care.

Staff are educated in the skills they need, depending on their role. Everyone learns a fundamental set of assessment and verbal de-escalation techniques to identify early signs of distress and manage those behaviors proactively. Hands-on caregivers in emotionally charged environments, such as the ED and Security, receive a higher level of training in non-abusive physical protection to reduce the likelihood of conflict and improve outcomes (see graphic). Training is a combination of in-person and self-directed learning.

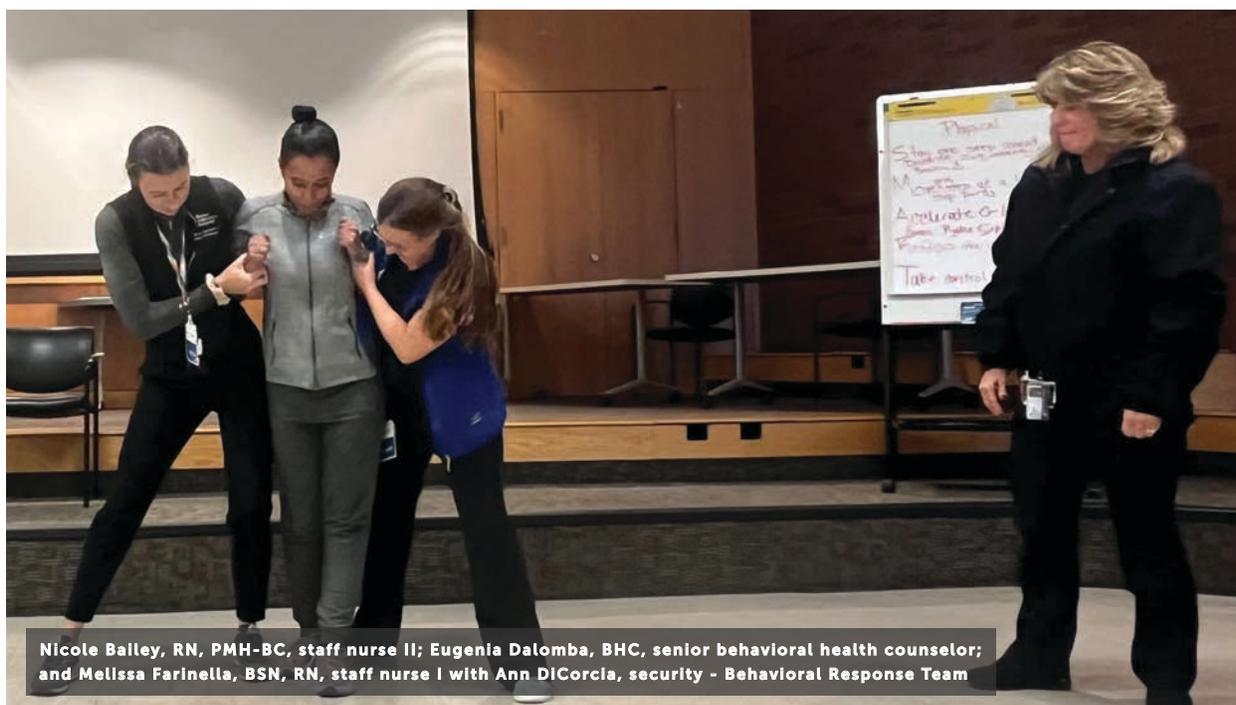
### **Supporting Patient Voices**



As Boston Children's Human Rights Officer, **Judith Farley, MSN, RN**, ensures that every child hospitalized, including

those receiving inpatient mental health services, has a voice. Farley works alongside the clinical team to provide an objective ear and make sure each child feels supported. Per Massachusetts Department of Mental Health (DMH) requirements, she meets proactively with patients and families to inform them of their rights upon admission and throughout each inpatient stay, and answers questions in an effort to address their needs and requests.

Farley's role is mandated for all patients within closed inpatient units, but she also sees patients with mental and behavioral health care needs who are boarding on other units while waiting for transfer to a specialized inpatient setting. These requests have increased significantly over the last couple of years. "Staff on these units often ask me to intervene in specific situations and meet with patients or families to explain things, review their rights and to serve as a bridge between patients, families, and care team members," says Farley. "At the same time, I help staff understand that physical and psychological safety is a priority for both patients and team members."



Nicole Bailey, RN, PMH-BC, staff nurse II; Eugenia Dalomba, BHC, senior behavioral health counselor; and Melissa Farinella, BSN, RN, staff nurse I with Ann DiCorcia, security - Behavioral Response Team

Welle program implementation began in early 2022. Led by **Caroline Costello, MBA, BSN, RN, CPON, BMTCN, NPD-BC**, professional development specialist, Clinical Education, Informatics, Practice and Quality, the implementation team categorized each practice setting as high, moderate or low risk, and tailored training plans accordingly. High- and moderate-risk settings selected trainers to educate staff. Classes were small and interactive so people could practice what they learned. The engagement and participation of colleagues from the practice environment teaching the techniques proved to be invaluable.

**“Boston Children’s has always been committed to providing a safe and secure environment for patients, families and staff, but we knew we had to take a more comprehensive, hands-on approach.”**

**Patricia Pratt, MA, BSN, CPHQ, CPN, senior vice president and associate chief nurse, Medical, Surgical and Behavioral Health Programs.**

Costello and the trainers managed day-to-day implementation. “Coordinating trainers, schedules, classes and learning management system content was resource-intensive and challenging,” she says. “Over 40 clinical and security staff were designated as trainers in 30 practice environments to provide live training to 1,500 people in full-day classes. This required an amazing commitment from trainers and leadership teams to support the participation of front-line staff who were navigating many concurrent challenges related to COVID-19 and the scale-up of staff into the new Hale Family Building.”

Approximately 2,700 staff completed the online and in-person training in 2023. A new cycle begins in the fall with renewal education, which is especially important for staff who don’t use the techniques often. Renewal also promotes nurse retention.

“Actual and perceived threats are all around us and when you are the only person in the room it can be scary,” Durkin says. “Nurses and patient care staff need the tools to feel competent and confident. To say, ‘I know how to handle this.’”

## Welle Program Implementation Improves Confidence and Safety

Patient care team members in Boston Children's Central Staffing Office (CSO) were the first to complete Welle education in 2022. The CSO includes nurses, clinical assistants and care companions who work in practice settings throughout the hospital. Because staff float everywhere, including the ED, it was important they received their education and training as soon as possible.

**Corinne Breed, BSN, RN, CPN**, staff nurse III Med/Surg CSO, **Julie Cazeau, BSN, RN, CPN**, staff nurse II Med/Surg CSO and **Nicole Seyboth, MSN, RN, CCRN**, staff nurse II, Med/Surg CSO served as team trainers to support the roll-out of the Welle program for the CSO. To prepare, they spent four days at an intensive train-the-trainer course learning everything from how to assess levels of risk to verbal de-escalation techniques to physical protection skills. Breed, Cazeau, and Seyboth then spent several months preparing all 200 CSO staff. This preparation included four hours of net learning and 4.5 hours of in-person class time. "We wanted to be sure everyone learned the same language and was on the same page when caring for patients," Breed says.

Feedback has been positive among all CSO team members. For **Hasanna Campbell, BSN, RN**, staff nurse I, learning simple techniques such as how to position herself correctly, give

the patient space and redirect behavior makes a big difference in her practice. "Since my Welle training, I haven't had to use any hands-on-engagement with patients, relying instead on therapeutic communication," Campbell says. "Knowing the correct procedures helps me feel safer and more confident."

## Commure Strongline: Staff Duress System

For situations in which de-escalation is not feasible, Boston Children's has implemented Commure Strongline, a staff duress system, staff can use to summon help quickly and discreetly. Activating a staff duress button attached to employee ID badges sends an instant alert to Security with the person's name and location to dispatch support immediately.

Commure Strongline badges were implemented in 2022 in response to staff requests for better, more efficient ways to communicate with Boston Children's Security team members – ideally prior to a heightened safety concern worsening. "We are always looking to improve safety in the workplace and Commure Strongline works together with Welle to add another level of protection " says **Scott Glynn**, director, Security and Operations, "Commure Strongline is an easy way for staff to get help if they feel unsafe or threatened."

All Boston Children's staff and associated personnel are eligible to receive a Strongline badge.



## The Joint Commission Revises Workplace Violence Prevention Standards

The growing incidence of workplace violence prompted The Joint Commission to create new and revised safety standards for all accredited hospitals. Effective January 2022, the new standards provide a framework to guide hospitals in developing effective workplace violence prevention systems, including leadership oversight, policies and procedures, reporting systems, data collection and analysis, post-incident strategies, training and education. The standards define violence to include aggression that does not involve physical contact, such as bullying, humiliation and sexual harassment.

**Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations & System Chief Nursing Officer, was an appointed member to The Joint Commission's 2021 10-member national standards review panel chartered to address workplace violence prevention at the national level.

## Exploring Ethical Questions and Concerns



**Kerri Kennedy, DBE, RN, HEC-C, director, Office of Ethics and co-chair, Ethics Advisory Committee**

Boston Children's Office of Ethics helps clinicians as well as patients and families navigate a host of ethical issues that can arise in both inpatient and outpatient settings, including disagreements

over care goals, a child's decision-making capacity, and cultural, religious, or spiritual differences. The team also helps to explore the risks, benefits, and ethical implications of specific treatment options.

In many cases, the Ethics Team is called in to address psychological or psycho-social issues that impact a patient's well-being. "We weigh in on difficult questions when one or more members of the care team is concerned the patients, parent and care team members may not have a common perspective," says **Kerri Kennedy, DBE, RN, HEC-C**, director, Office of Ethics and co-chair, Ethics Advisory Committee. "For example: Under what circumstances might parents and the care team propose a treatment pathway for an adolescent who wishes to refuse treatment for a potentially life-threatening health concern?"

Dr. Kennedy points out that most of the time Ethics Team members are asked to consider a wide range of questions, often outside of a formal ethics consultation process. Boston Children's Hospital has maintained a commitment to this work for many decades and aims to contribute to the complex work that care teams navigate.

Education is provided via a brief NetLearning module. Although the technology is intended for team members working in patient-facing areas, any Boston Children's employee who wants a Commure Strongline badge who works in a setting with security personnel present can have one.

"This is a solution we were able to deploy quickly to approximately 8,000 employees in a short amount of time," says **Julee Bolg, DNP, MBA, RN, NEA-BC**, executive director, Satellite Clinical Operations. "The technology offers support for team members in a wide-range of roles, from registration desks to nurses in clinical settings, and has been deployed throughout both our main campus and satellite settings. Staff know if they wear their badge to work they can readily summon colleagues if needed."

### Post-Event Care: Formalizing Employee Support

While preventing or mitigating violence is the goal, adverse events occur and threats to staff remain. A comprehensive, post-event support program is important. Boston Children's recognized a need to develop a consistent, standardized response

to support the physical and emotional needs of nurses and all hospital team members.

Hospital leaders formed the Post Event Care Task Force, comprised of nurse leaders and participants from the Program for Patient Safety and Quality (PPSQ), Occupational Health & Safety (OHS), Environmental Health & Safety (EH&S), Bader 5 Inpatient Psychiatry Unit, Behavioral Response Team (BRT), Social Work and Clinical Education and Informatics (CEI).

The task force identified knowledge gaps among front-line leaders and staff. For example, how to request the Behavioral Response Team (BRT), how to access resources at satellite locations, whom to call if the incident occurred at night or on the weekend, and what to do after an event took place.

Working with senior leadership, the team developed processes to address these priorities. At the heart are specific steps all managers can follow in the aftermath of an adverse incident. "We gave managers the tools they need to navigate the post-care process, whether the event occurs at 2 p.m. or 2 a.m.," says **Cindy Gardell, MSN, MBA, RN, NE-BC**, Waltham NAOC/nurse manager Radiology Nursing/Waltham Code Team co-chair and tri-chair of the

### Post-Event Manager Check List:

- ✓ Call an immediate unit huddle to assess patient's safety plan
- ✓ Identify if staff member is injured or feels upset
- ✓ Send staff member for immediate medical treatment if necessary
- ✓ Determine if a short break or release from assignment is needed
- ✓ Ensure the staff member completes and files a Patient Behavior/Event form
- ✓ Notify chain of command
- ✓ Give staff member information packet with post-event medical and clinician support resources
- ✓ Explain EH&S may schedule a multidisciplinary injury investigation depending on severity rating
- ✓ Place a follow-up call to ensure staff member arrived home safely

Post Event Care Task Force. "Tools include an algorithm, immediate huddle guidance, a checklist and staff resource documents."

In addition, the task force identified and modified a previously fragmented reporting structure. "Injury and safety event data were logged in different silos that did not communicate with one another," says **Allison Haskell**, program manager, Environmental Health and Safety, Satellite Operations. "We integrated existing information systems to capture behavioral events and employee injuries within one secure and peer-protected environment." The result of these system changes is that employee safety events are now reported in a similar manner as patient safety events.

Manager and supervisor training began in 2022 on three inpatient units and has since gained momentum across the Boston Children's enterprise now spanning the main campus, the Martha Eliot Health Center, and many satellite settings. The formalization of this program has been well received throughout the hospital. "Managers feel better prepared to respond to adverse events and staff have greatly appreciated the immediate response and support in the aftermath of an event," says Gardell.

### Restraint Policy Evolution and Revisions

In 2022, Boston Children's implemented new, system-wide restraint policies. The guidelines are intended to cover all types of restraint care. In

addition, the policies align with the latest standards from The Joint Commission.

In addition to physicians, both advanced practice registered nurses and physician assistants may now place and discontinue restraint orders. "Previously, only attending physicians, residents, and fellows could issue these orders and it was sometimes challenging for nurses to obtain new orders as rapidly as designed," says **Ashley Renaud, MSN, RN, CNL**, senior clinical quality improvement specialist. "Now, the process is more efficient. Staff can secure orders far more readily and move forward to implement the plan of care."

An interprofessional team comprised of colleagues spanning PPSQ, inpatient psychiatry services, BRT, behavioral health nursing, and the restraint policy group led a comprehensive review and revision of existing practice. The team also clarified what happens after restraint use ends. The policies helped the nurses implement mitigation strategies and aim to reduce the risk of patients exhibiting aggressive or self-destructive behaviors.

"Boston Children's ultimate goal is to reduce or eliminate the use of physical and chemical restraints," says Renaud. "Clear and consistent policies help us move toward this goal." ■

Citations:

<sup>1</sup> Bureau of labor statistics/OSHA

<sup>2</sup> The Joint Commission



**Boston  
Children's  
Hospital**

Where the world comes for answers

**CRITICAL CARE TRANSPORT TEAM**

Karan Jhaveri, BSN, RN, Inpatient staff nurse II; Sarah Smith-McAlvin, PhD, RN, CPNP, staff nurse III; Melissa Bryant, BSN, RN, staff nurse; and Maxwell Zwiener, EMT/Communication Specialist - Critical Care Transport

# Building a Regional Hub for Pediatric Critical Care Transport

## Boston Children's Expands Resources to Coordinate Care and Expertise

Critical care transport is an essential service, providing a safety net for patients requiring interfacility transfer. As was the case nationally, pediatric intensive care unit (PICU) beds in New England, already impacted by the onset of the COVID-19 pandemic in 2020, were further strained by the increased demand associated with the range of viral surges - including respiratory syncytial virus (RSV) that arose in 2022. In response, Boston Children's Hospital strengthened its Critical Care Transport Program, adding staff, triage support, and providing real-time guidance for community providers. As a result, the program is now an even more valuable resource for accessing medical and logistical support for inter-hospital transfer of critically ill and injured pediatric patients throughout New England and beyond.

**“During the national pediatric bed shortage at the height of the respiratory viral crisis in the fall 2022, we did a lot of balancing of clinical needs – internally and externally – managing what was most pressing with what needed to be dealt with immediately in partnership with our ICU colleagues. This was a great example of how we as an institution worked across teams to solve a problem together.”**

*Courtney Cannon, AB, MBA, senior vice president, Enterprise Operations*

## Addressing Growing Capacity Challenges

The hospital was already pursuing a vision to improve patient flow as part of its High Reliability journey when the COVID-19 outbreak put the process on a fast track. “The volume of calls and expectations quickly overwhelmed our staffing model,” says **Robert Shields, DNP, RN, CCRN, CEN, NRP**, senior nursing director, Critical Care Transport Program, Nursing/Patient Care Operations. “We needed a way to break down silos and facilitate communication to provide more just-in-time, real-time decision-making.”

In 2020, the hospital rapidly created the Patient Flow and Capacity Center (PFCC), co-locating the Emergency Communications Center (Comm Center), Coordinator of Patient Placement Team, and admitting staff (See sidebar on next page). Despite the PFCC's success in improving communication, capacity challenges persisted. The hospital was unable to accept a substantial number of acute patients and needed better coordination to facilitate admissions and discharges.

A series of events in 2022 brought new and still more serious challenges. In July, Tufts Medical Center closed its pediatric ICU and inpatient unit, converting all 41 beds to care for critically ill adults. By fall 2022, as a “triple-demic” hit, a collision of respiratory syncytial virus (RSV), the flu and COVID-19, the number of sick children needing ICU-level care grew rapidly. Pediatric ICU bed availability throughout New England and the country became increasingly scarce. Community hospitals or emergency departments throughout the region sought the help of Boston Children's to augment their existing pediatric critical care expertise and to expedite transfers to higher levels of care when specific patient needs led to the need for patient emergency transport.

## Optimizing Patient Flow and Capacity

Established in 2020 in the wake of the COVID-19 pandemic, the Patient Flow Capacity Center (PFCC) is an enterprise-wide approach to enhance decision-making, data transparency and teamwork around patient flow, staffing requirements, and resource utilization. The PFCC co-locates three extended teams that touch all patients coming in and out of Boston Children's: the Emergency Communications Team (which facilitates and coordinates emergency patient referrals and transport), the Coordinator of Patient Placement Team (which coordinates and expedites patient throughput) and the admitting staff.

"The PFCC allows our tightly integrated teams to be physically near one another to promote communication and teamwork with the goal of facilitating decision-making related to admissions and discharges efficiently and safely," says

**Kathryn Cotraro, DNP, MSN, RN, NE-BC**, senior nursing director, PFCC and Central Staffing Office. "Constant back and forth means we can be agile when each patient comes in – knowing the level of care needed and ensuring an ICU bed is available if necessary."

In the spring of 2022, the PFCC implemented EPIC Corporation's Transfer Center module, an electronic tool that communicates information about new admissions throughout the organization to key departments. Consolidating this documentation in one system further aligns and streamlines the admissions process.

As it looks to the future, the PFCC is currently working to build predictive models into its capacity planning and move to an era where it can forecast needs to proactively manage periods of high demand. Predictive analytics can perform advanced calculations and analyze real-time data to help safely accommodate patients, unlocking capacity and leading to improved patient access and less burden on staff. These tools are currently being tested and refined, and will increasingly guide capacity management and Boston Children's operations going forward.

## 24/7 Triage and Guidance for Regional and Local Partners

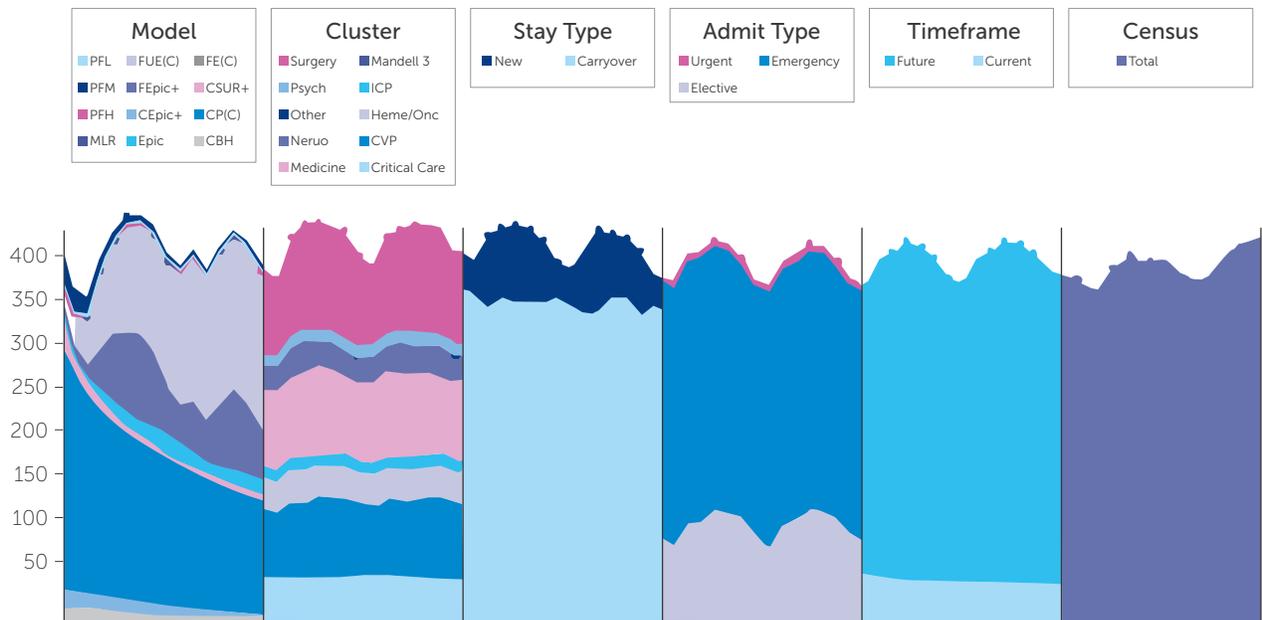
As the crisis worsened, **Monica Kleinman, MD**, medical director, Medical/Surgical Intensive Care Unit (MSICU); associate medical director, Transport Program; senior associate in Critical Care Medicine, Department of Anesthesiology, Critical Care and Pain Medicine and currently serving in a newly appointed role as Boston Children's Chief Safety Officer, and

**Jordan Rettig, MD**, medical director, Critical Care Transport Program; associate in Critical Care Medicine, Department of Anesthesiology, Critical Care and Pain Medicine, approached Boston Children's leadership with a proposal for additional funding to expand staffing and resources.

Drs. Kleinman and Rettig used the funds to establish the role of Comm Center Physician to provide real-time triage for patients referred for interfacility transfer. The immediate availability of an attending critical care physician strengthened rapid decision-making and improved system efficiency. When transfer was either delayed or declined due to capacity constraints, the referring provider was offered a consult with the Comm Center Physician for advice on stabilization. In the interim, the Comm Center made inquiries on ICU bed availability at other institutions if the child did not improve.

"Our specialists successfully guided many community hospital physicians to support their ability to safely manage critically ill children with rising acuity so the patients could be treated locally rather than transporting them," says Dr. Rettig. "Our regional and local partners previously lacked a mechanism to make key triage decisions. If there was a child in a New England community hospital, prior to our establishing this new Comm Center Physician consult model, there were few options but to transfer the patient. Boston Children's is now able to offer the necessary consultation expertise in a timely manner."

### Using Advanced Analytic Tools to Optimize Patient Flow and Capacity



Authors: **Derek Mathieu, MBA**, director of Business Intelligence for the Physicians Organization; **Mark Sanders**, program director; **Katie Gallagher, MA**, senior continuous improvement consultant; **Peter Hong, MD, MBI**, physician informaticist; **Julie Ferullo, MHI**, continuous improvement consultant, and **Erin Migausky, MPH**, senior director of operations, Health Affairs

### Creating a Regional Support Hub

A focal point for these efforts was the Comm Center, which serves as the intake point for all emergent referrals to BCH, including trauma and inter-facility transfers. On a typical day, the Comm Center team receives approximately 450 calls; during the crisis, this number increased to as high as 900 calls in a 24-hour period. To address the rapid increase in volume, the hospital approved additional Comm Center specialist positions, and more staff were hired and oriented.

With these added resources, Boston Children’s Transport Program, including its critical care nurse-led transport team, re-emerged as the leader of a region-wide coordination effort to address a growing national pediatric bed crisis, leveraging communication expertise, emergency medical services (EMS) expertise, as well as nursing and physician expertise. As the bed challenges grew, the Comm Center, in partnership with Boston MedFlight, the hospital’s air

and ground transportation partner, produced a bed status “snapshot” every four hours – updating available beds both in the hospital and across New England. The data were transparent and available to other organizations who needed it. Some days, the only pediatric ICU bed within the multi-state New England region was in Maine, necessitating transport out of state to obtain ICU-level care.

A nationwide shortage of EMS providers compounded the challenge. Lack of Emergency Medical Technicians (EMTs) and paramedics meant Boston Children’s received additional requests to provide advanced life support (ALS) transport, as well as critical care transport. “This made the bed issue even trickier to manage,” says **Michael O’Melia, DNP, RN, CCRN, EMT**, clinical coordinator, Critical Care Transport Program. Michael also noted, “Caring for ALS patients is within our mission, and thanks to the additional communications and nursing resources added, our team had the capacity to do so.”

"During the bed crisis, we did a lot of balancing of clinical needs – internally and externally – managing what was most pressing with what needed to be dealt with immediately in partnership with our ICU colleagues," says **Courtney Cannon, AB, MBA**, senior vice president, Enterprise Operations. "This was a great example of how we as an institution worked across teams to solve a problem together."

**"Caring for Advanced Life Support (ALS) patients is within our mission, and thanks to the additional communications and nursing resources added, our team had the capacity to do so."**

***Michael O'Melia, DNP, RN, CCRN, EMT, clinical coordinator, Critical Care Transport Program***

The crisis also demonstrated how Boston Children's critical care physicians drove collaboration across institutions to ensure any child who needed an ICU bed could get one. **Jeffrey Burns, MD, MPH**, chief and Shapiro Chair, Division of Critical Care Medicine and Professor of Anesthesia, Harvard Medical School, worked with state and federal entities to conduct weekly conference calls including participants from all pediatric intensive care units (PICUs) throughout New England. This forum provided a valuable opportunity to share strategies for capacity management and address common issues. Ultimately, the external agencies looked to this group to ensure critically ill pediatric patients were cared for – ideally in their own state, but, transported for specialty care when necessary.

## Community Ambassadors

Now more than ever, the transport team is the face of Boston Children's Hospital locally and across the region, says **Patricia Hickey, PhD, MBA, RN, CHPQ, NEA-BC, FAAN**, senior vice president and associate chief nurse, Cardiovascular, Perioperative, and Critical Care, Nursing/Patient Care Operations. "The transport team's impact extends well beyond our hospital walls. They are true ambassadors for our institution at the most crucial time in a family's life – when a child is critically injured or ill."

Parents are encouraged to be involved in the care process from the start, which builds trust. And because the transport unit is a mobile ICU, the team of nurses, paramedics and EMTs can spread Boston Children's critical care resources into the community. The Boston Children's Transport Program is one of just six in the northeast accredited by the Commission on Accreditation of Medical Transport Services (CAMTS), a testament to the program's safety practices and quality of care.

"We are the most experienced and specialized pediatric transport team in the region and proud to be an extension of Boston Children's ICU care," says Dr. Rettig. "It's a feeling shared by all of our partners across New England – when you see our transport team members wearing those navy blue suits arrive, you know the kids are going to get great care." ■

20+

More than 20 departments are involved in the Hazardous Vulnerability Analysis process.

# Strengthening a Culture of Emergency Preparedness

## Emergency Management Evolves Post-COVID

Catastrophic weather events. Mass casualty incidents. Cybersecurity attacks. Future global pandemics. These are just some of the possible emergency scenarios confronting hospitals and health care systems today.

At Boston Children's Hospital, the Emergency Management (EM) Department is responsible for preparing for, and responding to, all hazards that have the potential to disrupt hospital operations. With new threats coming in many directions, and critical lessons learned from COVID-19, the hospital is revamping its emergency strategies to evolve from a culture of responsiveness to one of preparedness.

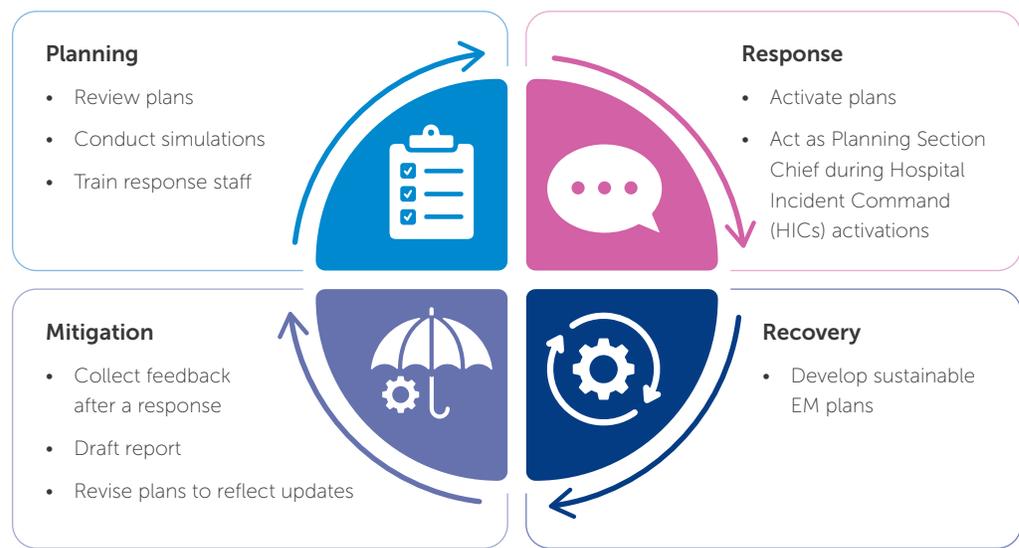


Mary Devine, MPH,  
senior director,  
Emergency Management

The EM Department, in collaboration with hospital leadership, is updating critical infrastructure, communication plans and other essential functions to be ready for future crises.

"Nobody knows exactly what the next big emergency will look like, so we have to be prepared on multiple levels," says **Mary Devine, MPH**, senior director, Emergency Management. "COVID-19 and the resulting staffing and supply chain disruptions,

## Emergency Management Program Functions





**Lucia Palladino, supervisor, Frontline Ambulatory Clinics - Emergency Department**

capacity issues and communication challenges prompted us to reassess our strategies to ensure we can continue operations even when all the tools we typically rely on are not in place.”

Devine and **Jon Whiting, DNP, RN, NE-BC, CCRN-k**, vice president and associate chief nurse, Nursing/Patient Care & Clinical Operations, and **Vincent Chiang, MD**, senior vice president, chief medical officer, form the multidisciplinary Emergency Management Committee, working under the direction of the hospital’s Senior Clinical Leader Council (SCLC) as needed. They lead hospital-wide simulations; train staff; review and update response plans; and collaborate with regional and national entities to increase preparedness. Every year, the committee conducts a Hazardous Vulnerability Analysis, calculating the relative risk of 90+ potential hazards that could impact the hospital. More than 20 different departments are involved in the process. For example, in the case of a generator failure, Engineering provides input on how much fuel is on site and how weather conditions might trigger an event. If an issue is identified, the committee presents its findings to senior leadership with a plan to improve safety.

In the case of an actual event, EM quickly brings people together and establishes incident command. In 2022, when supply chain disruptions caused a national and global formula shortage, a team was rapidly assembled to include: Materials Management, Clinical Education and Informatics,

Patient Safety and Quality, the Office of General Counsel, departmental leadership, Pharmacy/Nutrition Services and Enterprise Communications. Also in 2022, responding to several external security events, EM collaborated with both clinical team members as well as Security, Information Technology, Patient Relations, the Office of General Counsel and Enterprise Communications.

After every incident, a debrief is held with responders to capture successes and opportunities. One of the biggest lessons learned during the COVID-19 pandemic was the need for improved communications systems to optimize a system-level response to a major event. “Feedback focused on ways to engage front-line leaders, such as managers and directors, earlier in the process,” says Devine. “As a result, we’ve developed an all-new communications protocol for disseminating information in a large-scale emergency that includes mid-level leadership from the start.”

To build a culture of preparedness, EM is focused on three key priorities:

- **Cybersecurity Planning.** As cybersecurity threats against health care systems increase, EM is partnering with IT and Clinical Education and Informatics to create procedures and processes to support institutional needs during downtime. This includes strategies to ensure continued access to electronic health records, payroll programs and other digital tools.
- **Climate Resilience.** Extreme weather is on the rise, and EM is working with the Climate Resilience Committee to integrate action items into plans for both summer and winter. In the first four months of 2023, the hospital faced two climate-related facility and infrastructure failures. Pipes burst due to extremely low temperatures in January causing flooding, and extreme heat in April caused a large chilled water shutdown.
- **Patient Volume Surge.** With capacity and patient surges an ongoing issue, EM is collaborating with the Patient Flow and Capacity Center (PFCC) to update protocols and develop a coordinated system if the hospital is full. Preparedness includes an emergency staffing plan, enhanced training for a significant pediatric surge from a multi-casualty event, and a new Code Orange simulation plan for patient decontamination. ■

30%

Boston Children's associate clinical staff has grown 30% over the last five years, with NPs making up 80% of the APP workforce.

630

As of 2023, the hospital had more than 630 APRNs.

# Designing an Advanced Practice Provider Leadership Structure

## New Model Promotes Recognition and Support

Advanced Practice Provider (APP) roles are rapidly expanding as new professional practice models are considered to address evolving care delivery priorities. At Boston Children's Hospital, the associate clinical staff – Advanced Practice Registered Nurses (APRN), Physician Assistants (PA), and Pharmacist (PharmD) workforce has increased by 30% in the last five years, with nurse practitioners (NP) now accounting for 80% of those positions. APPs work across the care continuum in nearly every specialty and practice setting, including inpatient, outpatient, procedural, and hybrid roles. They positively influence both clinical and access-sensitive outcomes, and increasingly contribute to evolving care models nationally and within Boston Children's.<sup>1,2</sup>

**“A key goal is for APRNs to feel supported and able to continue to expand their impact throughout Boston Children's. Another aim is to positively impact APRN engagement, retention and recruitment.”**

*Julia McSweeney, MSN, RN, CPNP, senior director, Advanced Practice Nursing, Advanced Practice Nurse III, Department of Cardiology*

With growing reliance on APPs as part of the organization's team-based care model, Boston Children's leadership recognized the need to concentrate on this key workforce. **Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations & System Chief Nursing Officer; **Courtney Cannon, AB, MBA**, senior vice president, Executive Operations, **Michael Gillespie, MHA**, senior vice president, Clinical Operations and **Peter Laussen, MBBS, FANZCA, FCICM**, executive vice president, Health Affairs, led a more intentional planning focus on APPs including both APRN and PA roles that would provide a professional practice foundation for today and the future.

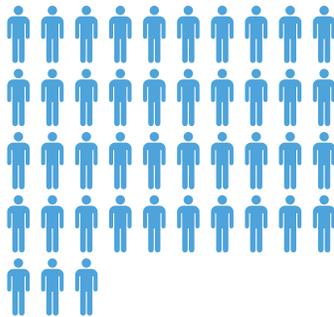
## Creating Leadership Opportunities

In the fall of 2021, **Julia McSweeney, MSN, RN, CPNP**, senior director, Advanced Practice Nursing, Advanced Practice Nurse III, Department of Cardiology, was named the hospital's inaugural APRN Director. To assess the current state, Julia engaged in a listening tour, meeting with Boston Children's nurse leaders, physician leaders, and more than 300 NPs and Clinical Nurse Specialists/Nurse Practice Specialists. In addition, she

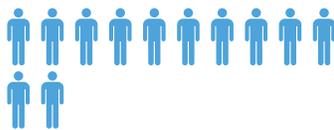
## Promotions

Since the APP Framework was established in 2022:

**43** NPs have been promoted to Lead APRN  
*(Averaging .6 FTE direct care/.4 FTE administrative time)*



**12** NPs have been promoted to APRN Director  
*(Averaging .6 FTE direct care/.4 FTE administrative time)*



**1** NP has been promoted to Senior Director



met with APRN directors at Boston hospitals and other top-tier peer organizations throughout the country. This listening tour inspired significant efforts to grow and develop APRN practices at Boston Children's over the past two years.

Numerous changes have been made to further support and expand APRN professional practice including recognition, retention, and recruitment efforts, as well as broader nursing leadership and educational system enhancements. One major aspect is the creation of a formalized APRN leadership structure. As a first step, the Lead APRN role was implemented in 2022. This position recognized existing NP leaders, standardized role nomenclature, and provided opportunities for APRN professional advancement. Since 2022, the hospital has promoted over 40 NPs into Lead APRN roles that fuse both direct care delivery with priorities related to advanced nursing practice and professional development.

The APRN Director role was next operationalized in concert with the appointment of 12 APRN Directors in December 2023. The APRN Directors have an active understanding of each clinical setting and specialty culture, and function as a "go to" for physician chiefs, nurse leaders, APRN leaders and NP direct reports. "Our goal is to formalize APRN leadership roles. APRNs now lead with both specialty-specific and role-specific insights. A key goal is for APRNs to feel supported and able to continue to expand their impact throughout Boston Children's. Another aim is to positively impact APRN engagement, retention and recruitment," says Julia McSweeney. "Importantly, in keeping with the provision of high-quality team-based care to patients and families, the collaboration between the triad of APRN Leaders, Nursing Leaders, and Physician Leaders is essential to the success of this organizational structure."

Operationally, the new structure complements existing nursing and physician governance models, a reflection of collaboration in the provision of high-quality care to patients and families.

## Investing in the Future

Implementing these changes is expected to enhance the hospital's ability to recruit future team members, offer advancement opportunities and demonstrate an investment in APRN futures. Ultimately, the evolution

of this model seeks to contribute to high-quality, family-centered care delivery. Several leading health care organizations that have implemented a formalized APRN leadership structure have reported reduced turnover and increased staff productivity and team member engagement.<sup>3</sup>

“As we see workforce landscape changes, we must evolve, adapt and lead differently,” says Cannon. “APPs are essential to the high quality and coordinated care we provide for our patients. APPs are incredibly committed to the success of our organization, and we want to ensure they are supported within evolving leadership models that sustain and advance their ability to practice effectively and safely.” ■

#### Citations:

<sup>1</sup> Kleinpell, RM, Kapu, AN, Stempek, S, Sicoutris, C, Broyhill, BS, & D'Agostino, R. (2020). *Developing and expanding APRN and PA teams. Am Nurse Today, 15(12), 6.*

<sup>2</sup> Proulx, B, DNP, RN, PNP-BC. *Advance Practice Provider Transformational Leadership Structure: A Model for Change. JONA: The Journal of Nursing Administration 51(6):p 340-346, June 2021. | DOI: 10.1097/NNA.0000000000001024*

<sup>3</sup> McDermott KL, Schindler CA, Olson KR, Petersen TL. *Acute Care Pediatric Nurse Practitioners as Leaders: Perceptions, Self-Identity, and Role Congruity. J Pediatr Health Care. 2021 Sep-Oct;35(5):559-563. doi: 10.1016/j.pedhc.2020.12.005. Epub 2021 Apr 18. PMID: 33879358.*



## Enhancing Pediatric Knowledge, Advancing Health Equity

To support new to professional practice nurse practitioners (NP) and physician assistants (PA), Boston Children’s launched an Advanced Practice Provider Fellowship in 2023. The 12-month program aims to support NPs and PAs with less than one year of professional experience in any work setting transition into their new professional roles.

“With our RN transition-to-practice residency programs well established, we recognized the need for a similar program for our advanced practice providers (APP),” says **Chris Reeves, MSN, CNP, NPD-BC**, professional development specialist, Clinical Education, Informatics, Practice & Quality. “The fellowship seeks to not only enhance pediatric clinical knowledge, but also build community among novice practitioners through formal and informal peer support, and through the benefits of further professional development.”

The fellowship aligns with the National Academy of Medicine’s Future of Nursing 2020–2030 report, calling for nurses to support the advancement of health equity. Participants acquire professional skills and consider ethical practices that help to situate and contextualize their clinical work within the broader health care system and a variety of care delivery models.

In the first six months, the program has grown to include more than 35 advanced practice providers. Boston Children’s is currently completing American Nurses Credentialing Center (ANCC) Advance Practice Provider Fellowship Accreditation (APPTA) requirements to formally establish a system-wide fellowship program for next-to-practice APRNs and PAs, targeting a fall 2024 accreditation timeframe.



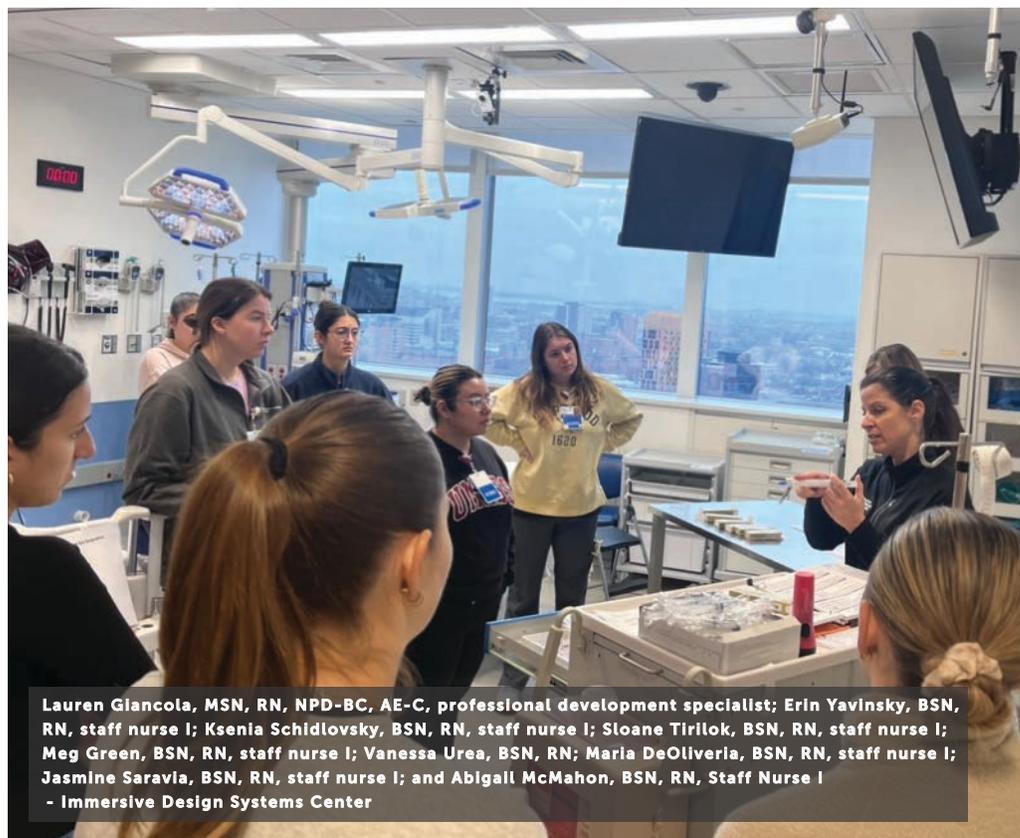


# Structural Empowerment

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14

Boston Children's  
nurses have achieved  
the NPD-BC™ credential



## Leading the Evolution of Nursing Professional Development

Nursing Professional Development (NPD) practitioners play a critical role in preparing registered nurses (RN) and advanced practice registered nurses (APRN) for current and future roles within increasingly complex health care environments.<sup>1</sup> Harper & Maloney (2022) define NPD as “a nursing practice specialty that improves the professional practice and role competence of nurses and other health care personnel by facilitating ongoing learning, change, and role

competence and growth with the intention of improving population health through indirect care.”<sup>2</sup>

NPD has evolved dramatically over the last 20 years to position itself as a true specialty practice in the nursing profession. “Across the country and at Boston Children’s Hospital, NPD practitioners are only more recently being viewed as experts in this field,” says **Gregory Durkin, MEd, RN, NPDA-BC™**, director, Clinical Education and Informatics,

associate director for Interprofessional Education, BCH Academy, and director of the Clinical Education, Informatics, Practice and Quality/Nursing Professional Development (CEIPQ/NPD) team. “We can now say, ‘Here is what we should be called, here are the components of our specialty, here is our body of knowledge, and here are our contributions to organizations and consumers.’”

When Durkin began his career at Boston Children’s two decades ago, his department included just three professional development nurses. They ran orientation classes, prepared preceptors and hosted educational sessions. Fast forward 20 years, and the CEIPQ/NPD department has increased significantly, with a broad portfolio of professional development activities.

**“The evolution of nursing professional development as a specialty requires a paradigm shift among nurses who pursue this work. This transition is happening across the country and within Boston Children’s Hospital.”**

***Laura J. Wood, DNP, RN, NEA-BC, FAAN, executive vice president, Patient Care Operations & System Chief Nursing Officer***

The broad portfolio touches every area of the Boston Children’s enterprise, including inpatient, ambulatory, satellite, perioperative, emergency, procedural and specialty practice. Responsibilities include the content creation and delivery of initial RN and APRN onboarding/orientation, defining and guiding the competency assessment process throughout all practice settings, to providing a host of continuing education activities spanning leadership role development, including preceptor and charge nurse training, collaborative practice and clinical

### **Clinical Education, Informatics, Practice and Quality/Nursing Professional Development (NPD) Team:**

Gregory Durkin, MEd, BSN, RN, NPDA-BC®, director

- Caroline Costello, MBA, BSN, RN, CPON, BMTCN, NPD-BC, professional development specialist
- Emily Crossen, MSN, RN, NPD-BC, professional development specialist
- Stephanie Cummings, MSN, RN, CPEN, professional development specialist
- Lauren Danforth, MSN, RN, NPD-BC, senior professional development specialist
- Lauren Giancola, MSN, RN, CPN, AE-C, professional development specialist
- Eva Gomez, MSN, RN, CPN, NPD-BC, senior professional development specialist\*
- Joyce LoChiatto, MS, RN, CPNP, professional development specialist
- Colleen Molinari, MSN, RN, CNRN, CPN, professional development specialist
- Ourania Pappas, MA, web training specialist
- Christopher Reeves, MSN, CNP-BC, professional development specialist
- Kate Ulukaya, MSN, RN, CPN, CNE, CNRN, professional development specialist
- Lee Williams, PhD, MSN, RN, NE-BC, NI-BC, vice president, associate chief nurse

*\*Promoted to Senior Director, Nursing Lattice Program/Patient Care Diversity, Inclusivity and Professional Advancement in 2023.*

inquiry. CEIPQ/NPD team members sit on more than 20 hospital councils and committees to influence positive change and identify areas where professional development support is needed.

Durkin and his team want people to view NPD as a distinct specialty, not simply another add-on to a professional nursing role. While the nurses can translate procedures related to medications and dressings, nursing professional development professionals guide the creation of learning frameworks and content. NPD specialists have the expertise to put together a curriculum to give new graduate nurses clinical experience caring for an extremely

high acuity patient population in complex practice settings. Through collaboration with front-line RNs, APRNs and their leaders, NPD specialists are designing and implementing key educational and transition-to-practice innovations.

"The evolution of nursing professional development as a specialty requires a paradigm shift among nurses who pursue this work. This transition is happening across the country and within Boston Children's Hospital," says **Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations & System Chief Nursing Officer.

### Nursing Professional Development Practice Impacts: 2023

**2,764**

registered nurses

**606**

advanced practice registered nurses

**797**

unlicensed assistive personnel (UAP) staff

### Professional Development Activities:

**1,737**

participants had 243 hours of role development education

**1,006**

new hires (RNs, APRNs and UAPs) had 127 full days of orientation/Transition to Nursing Practice/Advanced Practice Fellowship programming

**129**

competencies tracked and supported

**116**

new Nursing Continuing Professional Development programs approved

**285**

total education programs tracked

**21,170**

contact hours provided through nursing and interprofessional hours

**1,214**

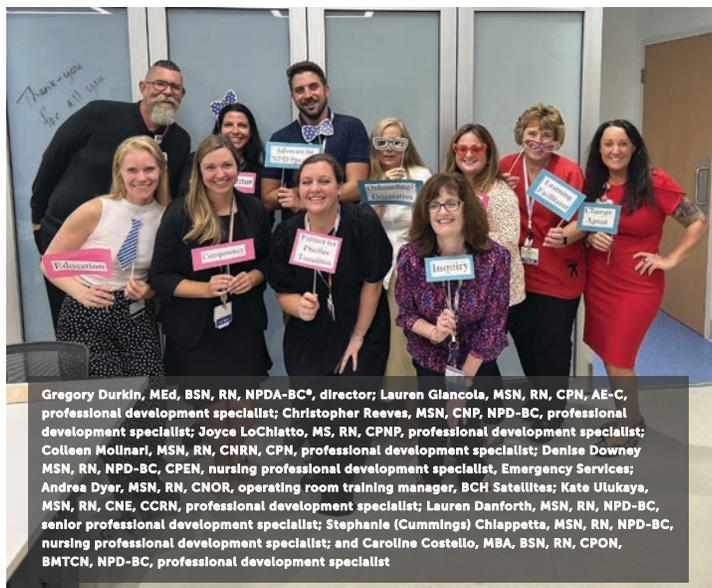
support actions related to Learning Management System

## Impacting Standards Nationwide

Boston Children's NPD professionals are leaders in the field, contributing to efforts to raise NPD's visibility and impact nationwide. (See sidebar) In 2022, the Association for Nursing Professional Development (ANPD) released the NPD Scope and Standards of Practice, 4th Ed, which includes competencies and standards of performance for NPD practitioners. Vetted and approved by the American Nurses Association, Scope and Standards affirms NPD as a specialty practice akin to perioperative, emergency, and other specialty nursing practices. Durkin was part of the working group that wrote the 4th edition, contributing his knowledge to inform national standards.

NPD is a recognized specialty certification administered through the American Nurses Credentialing Center (ANCC), further vetting the field's legitimacy. A total of 14 Boston Children's nurses have achieved the NPD-BC™ credential so far, and that number is growing. In 2021, the Competency and Credentialing Institute rolled out advanced-level board certification for NPD – making it one of only a handful of specialties with a two-tiered progressive credential. Just 30 people in the country have achieved the advanced level to date, including Durkin and **Dennis Doherty, PhD, MSN, RN, NPD-BC, NPDA-BC**, Boston Children's senior nursing professional development specialist who sadly passed in early 2023.

Progress is reflected in the nation's graduate schools of nursing, as well. Where once these schools offered only nurse practitioner or nurse manager degree options, today many offer an MSN with a concentration in nursing education. Programs have multiplied over the last 20 years, producing a vital pipeline of NPD practitioners for both clinical and academic settings. In addition, as research



## Nursing Professional Development (NPD): Team Spotlight

The Nursing Professional Development (NPD) team is proud to share that 30% of the nurses in the centralized professional development function are former participants in the Transition to Nursing Practice Program, previously known as Boston Children's New Graduate Program for RN. **Emily Crossen, MSN, RN, NPD-BC**, was a participant in the former New Graduate Program in August of 2013 as a 6NE staff nurse I, and subsequently joined the NPD team in 2019. **Christopher (Chris) Reeves, MSN, CNP, NPD-BC**, professional development specialist, was a participant in the New Graduate Program with **Kate Ulukaya, MSN, RN, CPN, CNE, CCRN**, in January of 2014 – both new to Boston Children's. Chris worked in the hospital's ED, next as a Nurse Practitioner at Massachusetts General Hospital, and subsequently joined the NPD team in 2022. Kate worked on 9E as an inpatient medicine staff nurse and the MICU before joining the NPD team in 2023. Both Emily and Chris are pursuing PhD studies within University of Massachusetts programs. The ongoing development of these three nurses is testament to the power and importance of a strong transition-to-practice program for newly licensed registered nurses (RN) and advanced practice registered nurses (APRN)!

in the field of NPD has increased, more people are pursuing PhDs, including half of Boston Children's CEIPQ/NPD team.

## One Goal: Improving Patient Care

Above all, NPD is critical to quality patient outcomes. As the name, roles and standards have changed, one overarching goal remains the same: How does the specialty make patient care better? This is a key factor in pediatric nursing, which requires highly specialized knowledge and skills from the start.

In 2022 alone, the hospital onboarded more than 1,245 new Boston Children's nurses all of whom received a combination of didactic and practice-based education from a unit-based educator, NPD specialist and/or preceptor. "Given the acuity and complexity of pediatric health care in the current environment, a strong NPD program and skilled NPD specialists provide our nurses the proper foundation, preparation and support to do the work they need to do and deliver care the Boston Children's way from day one," says Durkin. "It helps ensure the provision of the best care possible for patients and families." ■

### Citations:

<sup>1</sup> Brunt BA, Morris MM. *Nursing Professional Development*. [Updated 2022 Sep 20]. In: *StatPearls [Internet]*. Treasure Island (FL): StatPearls Publishing; 2023 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK531482/>

<sup>2</sup> Harper MG, Maloney P. *Nursing Professional Development: Revision of the Scope and Standards of Practice*. *J Nurses Prof Dev*. 2016 May-Jun;32(3):171-3. doi: 10.1097/NND.000000000000255. PMID: 27187836.



Nancy Doherty accepted the posthumous award on behalf of her husband, Dennis

## Nursing Education Award Renamed in Honor of Dr. Dennis Doherty

In a moving presentation by colleagues, **Dennis Doherty, PhD, RN, NPDA-BC**, was posthumously named the recipient of the inaugural Excellence in Nursing Education Award. Dr. Doherty was a senior professional development specialist in Clinical Education and Informatics who continually displayed excellence in nursing education. For the past 20 years, he dedicated his career to the patients, families and colleagues within Boston Children's. His profound impact was clearly evidenced within the HRO 2.0 Faculty Development Committee, the Evidence-Based Practice Mentorship Program, Healthy Work Environment Champion Program, Professional Advancement, the Nursing Patient Care Operations series *Leading From the Frontline*, education for nurses caring for patients with autism, RN orientation Boot Camp and more.

In honor of Dr. Doherty's enduring legacy and leadership as an educator, the award has been renamed in his honor. Moving forward, the **Dennis Doherty Excellence in Nursing Education Award** will be presented annually to a nurse who demonstrates ongoing dedication and commitment to providing the highest quality nursing education to patients, families and the community.

### **American Nurse Journal, All Pro Nursing Team Third Runner Up Award Recipient**

Boston Children's Small Talk podcast team was awarded third runner up in the 2023 All-Pro Awards from *American Nurse Journal*. These prestigious awards recognize nursing teams that excel in communication, responsiveness and adaptability, and drive optimal patient outcomes.

Established in 2019, Small Talk was initially founded by **Kate Donovan, PhD, MBA, MS**, clinical director of innovation, **Denise Downey, MSN, RN, NPD-BC, CPEN**, Emergency Department professional development specialist and **Teresa Shannon, MSN, RN, CPN, NPD-BC**, nurse education coordinator, Inpatient Medicine with the aim of connecting personnel from various departments at Boston Children's Hospital. The podcast quickly evolved to become an interprofessional platform, facilitating the exchange of information and insights about pediatric care. Over time, the topics covered have expanded to include bronchiolitis, diabetes, hospital security, behavioral health, professional nursing organizations, mentoring and critical care transport.

What began as a team of three has now grown to nine members, representing diverse nursing specialties such as inpatient medicine, emergency services, oncology, clinical education, informatics, practice and quality, and is supported by a statistician. Furthermore, the podcast has received accreditation from ANCC, allowing nurses who listen to earn continuing education credits.

Small Talk has become a valuable resource that supports and engages nursing staff and fosters a culture of continuous learning and development. The interprofessional approach brings together a range of perspectives and encourages



Erin Zuck, MSN, RN, CPHON; Teresa Shannon, MSN, RN, CPN, NPD-BC; Denise Downey, MSN, RN, CPEN, NPD-BC; Allison Hodges, MS, BA; Kate Donovan, PhD, MBA, MS; Stephanie Cummings, MSN, RN, CPEN (holding a photo of Dennis Doherty, PhD, RN, NPDA-BC); and Eva Gomez, MSN, RN, CPN, CPEN, NPD-BC. Not pictured: Kathy Kiley, BSN, RN, CPEN

collaboration. This has led to innovative solutions to complex challenges and a greater sense of community across the enterprise.

Team members dedicated their All-Pro Award application in memory of their late colleague, **Dennis Doherty, PhD, RN, NPDA-BC**. They emphasized his indispensable role within the Small Talk family and celebrated his extraordinary legacy as a nurse and national leader in nursing professional development.



## Nursing Professorial Development Regional, National, and International Impact

Boston Children's is a leader in nursing professional development regionally and nationally.

**Caroline Costello, MBA, BSN, RN, CPON, BMTCN, NPD-BC**, is a member of the Blood and Marrow Transplant Certification Test Development Committee.

**Emily Crossen, MSN, RN, NPD-BC**, is an ANPD webinar presenter.

**Lauren Danforth, MSN, RN, NPD-BC**, is a lead appraiser for ANCC's Practice Transition Accreditation Program, an ANPD webinar presenter and peer reviewer for *Core Curriculum for Nursing Professional Development, 5<sup>th</sup> Ed.*

**Dennis Doherty, PhD, MSN, RN, NPD-BC, NPDA-BC**, was a member of the ANPD Board of Directors and served on the NPD National Convention Content Planning Committee. He was a leadership column editor for the Journal of Nursing Professional Development (JNPD), author of the Leadership chapter for *Core Curriculum for Nursing Professional Development, 5<sup>th</sup> Ed.*, and authored several peer-reviewed articles.

**Gregory Durkin, MEd, RN, NPDA-BC**, serves as faculty for the Certification Preparation Review Course, an editorial board member for the Journal of Nursing Professional Development (JNPD), a member of the Association for Nursing Professional Development (ANPD) Scope and Standards Revision Working Group and section editor for *Core Curriculum for Nursing Professional Development, 5<sup>th</sup> Ed.* Durkin co-authored the Certification Preparation Study Guide and has written multiple peer-reviewed articles.

**Andrea Dyer, MSN, RN, CNOR**, is a member of the Health Policy Committee for ANA Massachusetts, the director of development for the American Pediatric Surgical Nurses Association, president-elect of the Massachusetts Chapter of the Association of periOperative Registered Nurses, co-chair of the Transgender Task Force for the Association of periOperative Registered Nurses, and an advisory board member, series coordinator and author of "The Stitch," a publication for novice nurses.

**Eva Gomez, MSN, RN, CPN, NPD-BC**, is a member of the ANPD Diversity, Equity and Inclusion Committee, and in 2022 she contributed to the development of a comprehensive survey aimed at assessing the EDI needs of the entire organization. She is also a member of ANA Massachusetts serving both on the Board of Directors and the Professional Program Planning Committee (PPPC)

where she contributes to planning and implementing state-wide education events for members. Additionally, her doctoral work is focused on meeting the needs of persons with low health literacy, language barriers or both. During the spring of 2023 Eva Gomez offered a three-part education series to a state-wide audience of school nurses addressing health literacy topics such as clear communication, patient education strategies and how to create effective patient education materials. This was done in collaboration with **Herisa Stanislaus, MPH**, program administration manager I, Patient & Family Education, who offered the third session on patient education materials.

**Annette Imprescia, BSN, RN, CCRN**, is co-chair of the Education Committee for the Pediatric Cardiac Intensive Care Society.

**Colleen Nixon, MSN, RN, CPHON, NPD-BC**, is a Global Outreach Committee member and author, a poster/paper abstract reviewer, and a member of the Nominating Committee for the Association of Pediatric Hematology/Oncology Nurses. She is also a member of a working group creating education for sub-Saharan Africa nurses for the Society of International Oncology Pediatric Nurses.

**Shelly Pignataro, MSN, RN, NPD-BC**, was recently appointed chair of the ANPD Nominating Committee. She also serves on the ANPD Evidence-Based Practice Academy and is a reviewer for the Preceptor Certificate of Mastery. She was the author of the Learning Facilitator chapter for *Core Curriculum for Nursing Professional Development, 5<sup>th</sup> Ed.* She is also a member of ANCC's NPD Certification Test Development workgroup.

**Louise Quigley, DNP, RN, NPD-BC, PED-BC**, is president of the Massachusetts Chapter of the Society of Pediatric Nurses (SPN).

**Christopher Reeves, MSN, CNP-BC**, is a co-author of the Role Development chapter in *Core Curriculum for Nursing Professional Development, 5<sup>th</sup> Ed.*, regional director of the Massachusetts Coalition of Nurse Practitioners and co-chair of the Legislative Committee for the Massachusetts Chapter of the National Association of Pediatric Nurse Practitioners.

1-2

The average prior authorization submission requires 1-2 hours.

7,000

Every year, Boston Children's completes 7,000 ambulatory prior authorizations across 67 service lines.



Kethlaine Hawkins, Marilyn Rios, and Nicole Green - case management coordinators

## Case Management Coordinator Role: Optimizing Patient Care Outcomes

### New Role Adds High-Touch Support for Patients and Families

The burden of administrative tasks on clinicians is a widespread and growing challenge impacting clinical workload.<sup>1</sup> Registered nurses, advanced practice providers (APP), e.g., nurse practitioners and physician assistants, and physicians are increasingly being called upon to obtain prior authorizations (PA) and referrals before being approved by payers to provide clinical services. According to a 2023 survey by the American Medical Association,

physicians and team members spend an average of two entire workdays per week completing this administrative work.<sup>2</sup>

At Boston Children's Hospital, identifying strategies to reduce avoidable administrative burden impacting clinicians is considered a key priority. In 2015, the hospital created the Case Management Associate (CMA) role to support Nurse Case Managers to prepare patients for discharge. CMAs work behind the scenes on inpatient units to obtain PAs for services such as durable medical equipment (DME), home health care, enteral therapy

### Case Management Coordinator Role

- ✓ Identify supporting clinical documentation
- ✓ Identify and complete forms, referrals, prior authorizations and follow-up on approval
- ✓ Coordinate home care visits and durable medical equipment delivery
- ✓ Perform research and educate patients about insurance benefits

and medications. Physician and provider orders are forwarded to the Nurse Case Manager to review for clinical oversight.

"As this role demonstrated the value of this work within inpatient care settings, some of our colleagues in medicine, surgery and neurology reached out and said, 'This is an interesting skill set, could CMAs also work in the ambulatory care setting,'" shared **Lynn Darrah, MSPT, MHA**, senior director, Care Management, Nursing/Patient Care Operations.

In 2017, Darrah and **Julie Kirby, MBA**, director, Care Management, Nursing/Patient Care Operations, launched a pilot project in collaboration with the hospital's Department of Accountable Care and Clinical Integration (DACCI) to expand the CMA role to create a Case Management Coordinator (CMC) role in several ambulatory clinics. CMCs flourished in this setting, proactively managing clinical administrative support so nurse practitioners (NP), nurses and physicians could focus on

patient care. The pilot proved so successful other clinics began asking for similar help. When the DACCI grant funding ended in 2022, Kirby and Darrah worked with clinics and the hospital to fund the positions so they could continue.

CMCs specialize in prior authorizations and referrals for everything from home care, formula and enteral therapy, to DME, medical supplies and medications. The team reports up through the Case Management department led by **Teresa Dean, DNP, MS, RN**, director support and training, before being integrated and embedded into clinics. More than a dozen clinics now have a CMC and that number continues to grow.

Dedicated care coordination in ambulatory care settings is considered atypical in most health care systems and yet promotes greater efficiency, workload, volumes, collaboration and job satisfaction. Nurses no longer have to sit on the phone for hours waiting for a PA or spend time answering and sending out referrals. CMCs know how to talk to insurance companies, pharmacies and home health agencies to get things done quickly and efficiently.

**Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations & System Chief Nursing Officer credits the blended senior nursing and financial/business skill sets of **Jon Whiting, DNP, RN, NE-BC, CCRNk**, vice president & associate chief nurse, Patient Care & Clinical

**"Expanding the role means we can provide formal opportunities for career development and future career progression to continue a Boston Children's employment pathway."**

*Lynn Darrah, MSPT, MHA, senior director, Care Management, Nursing/Patient Care Operations*

Operations and **Courtney Cannon, AB, MBA**, senior vice president, Executive Operations for shaping the evolution of this model.

The new role also improves the patient and family experience. “CMCs are the point of contact for families to help them obtain medications and refills, and to tackle complex insurance issues. If a family gets a denial letter, the CMC can explain coverage nuances and help them navigate obstacles. This not only makes it easier for the family to get help, but also cuts down on calls reaching our direct care clinic team members,” says Kirby.

Implementing the CMC role has created a career ladder for non-clinical staff members. “CMAs work under a nurse’s supervision, while the CMC role has more independence and autonomy and can work with any provider in a clinic,” says Darrah. “Expanding the role means we can provide formal opportunities for career development and future career progression to continue a Boston Children’s employment pathway.”

Looking ahead, Case Management hopes to move beyond the ambulatory clinics and establish a centrally managed group of CMC resources to support a wide range of continuing care needs that may arise in any inpatient or outpatient setting throughout Boston Children’s expanding system of care. ■

#### Citations:

<sup>1</sup> Herd P, Moynihan D. Health care administrative burdens: Centering patient experiences. *Health Serv Res.* 2021 Oct;56(5):751-754. doi: 10.1111/1475-6773.13858. Epub 2021 Sep 13. PMID: 34515996; PMCID: PMC8522557.

<sup>2</sup> <https://www.ama-assn.org/practice-management/prior-authorization/prior-authorization-research-reports> accessed 10.1.23

### Case Manager Coordinator Role: Impact on RN, APP, and MD Effectiveness and Satisfaction



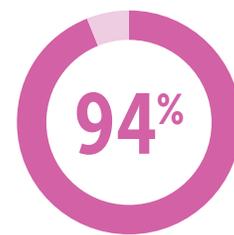
#### Resource efficiency

Having a CMC as part of the team allows clinicians to work at the top of their license and reduces the cost of managing referrals by 50%.



#### Clinician satisfaction

83% of RNs, NPs and MDs reported they spent less time on administrative tasks and more time with patients and families.



#### Deference to expertise

94% of clinicians agreed that the CMC role allows them to focus on patient care and should be expanded and standardized across all ambulatory clinics.

1,985

team members accessed the Secret Garden from 2022 to 2023.



Sarah Becker, BSN, RN, CCRN, staff nurse I with Hadley - Neonatal Intensive Care Unit

## Evolving Care Delivery Models

### Neonatal and Pediatric Critical Care

Even as the COVID-19 pandemic tapered significantly in 2023, hospitals across the country continue to struggle with shortages of nurses and other essential clinical team members. Given the highly specialized nature of care within Boston Children's Hospital and other leading children's hospitals, the situation is especially acute in pediatric critical care settings nationally that provide complex care to the sickest, most vulnerable patients.

"At Boston Children's Hospital, these are important issues and the pandemic has brought them into sharp focus," says **Patricia Hickey, PhD, MBA, RN, CHPQ, NEA-BC, FAAN**, senior vice president and associate chief nurse, Cardiovascular, Perioperative

and Critical Care Nursing/Patient Care Operations. "Every day we are working to strengthen our professional practice model to retain nurses and ensure work environments are satisfying and support our nursing staff throughout their careers – from orientation well into the future."

Boston Children's longstanding commitment to a healthy work environment (HWE) has given the hospital a distinct advantage. As an early adopter of the American Association of Critical-Care Nurses (AACN)'s Healthy Work Environment Assessment Tool, the hospital has long focused on the attitudes, culture and behaviors important to sustain a strong workforce.

Appropriate staffing, which AACN defines as "staffing that ensures an effective match between

patient needs and nurse competencies,” affects everything from staff performance and retention to quality of care, patient outcomes and hospital costs.<sup>1</sup> At Boston Children’s, appropriate staffing goes beyond the number of nurses to include case mix and skill set. Guided by contemporary acuity measurement, appropriate staffing takes into account the cognitive workload and complexity of nursing, ensuring staffing models with properly educated and experienced nursing staff.

The culture must be satisfying as well. Staff recognition and appreciation, a focus on diversity, equity, inclusion and belonging, valuing every member of the team, and offering pathways for advancement are all critical for long-term retention. “Looking to the future, it’s up to all of us to provide an environment where people can do their best work, where they can thrive, and where they can feel a spirit of innovation and collaboration,” says Dr. Hickey.

### Shared Decision-Making in the NICU

In Boston Children’s level IV neonatal intensive care unit (NICU), safe and appropriate staffing is an ever-present focus. Caring for the most critically ill and complex neonates requires nurses with subspecialty expertise, clinical judgment, and critical thinking skills. When the NICU team moved to its new, state-of-the-art space in the Hale Family Building in 2022, a new set of challenges arose. With a much larger footprint and 30 single-bed rooms instead of open bays, the NICU’s size and novel layout meant staffing models would have to change.

Leaders turned to the nursing team to find innovative ways to adapt. “With the move, we focused on how to optimize our staffing models so we could do our work most effectively,” says **Cheryl Toole, MS, RN, CCRN, NEA-BC**, senior director, Neonatal Intensive Care Unit and Maternal Fetal Care Center, Nursing/Patient Care Operations. “Nurses were an integral part of the decision-making process. We asked NICU RNs their perspective regarding the number of resource nurses required to support the care team in this setting. After piloting both options, nurses unanimously chose to add the second clinical resource nurse to meet both patient needs and the learning needs of more novice RNs joining the organization.”

Retaining the NICU’s highly skilled workforce is a priority, and leaders provide a support system to sustain nurses

throughout their careers. Meaningful recognition is a key component. A robust Meaningful Recognition Committee – run by nurses for nurses – develops and implements recognition activities that enhance nurses’ well-being in and out of the workplace.

The unit’s multi-generational committee understands that what makes one nurse feel recognized might not matter as much to another. “A nurse who has been here 30 years often values different recognition than someone who has been here two years,” says **Keri Kucharski, BSN, RN, CCRN**, NICU clinical coordinator, who leads the committee. “We try to find a balance across generations – a unique, individualized approach versus one size fits all.”

**“Parents bring their children here from around the world and they turn to us because we provide new care delivery and treatment options. Attention to the health of the work environment for our teams is essential to provide care to patients and families with complex needs.”**

**Jason Thornton, DNP, RN, CPHQ, NE-BC, senior director, CICU, cardiac operating rooms, Nursing/Patient Care Operations**

Even if a specific request cannot be met, the conversation helps nurses gain a better understanding of the issues involved. “When we come together as a team, it enhances shared decision-making, partnership, mutual collaboration, and respect. Nurses see staffing challenges through a different lens,” says Toole.

Another resource is the Nurse Education and Support Team (NEST), an evidence-based program in which nurses help other nurses manage morally and ethically complex situations in everyday practice. Experienced nurses serve as NEST coaches, providing just-in-time peer support with the added benefit of expertise. Any front-line nurse can call the NEST coach at any time for a confidential discussion. Nursing team members highly value this program, which currently spans all critical care and cardiac care areas.<sup>2</sup>

## Applying Improvement Science to Transform Care Delivery: Launching Virtual Nursing

In the summer of 2023, Boston Children's was one of five health care systems nationally selected to participate in the Institute for Healthcare Improvement (IHI) and Johnson & Johnson Center for Health Worker Innovation's Learning and Action Prototyping Network. This year-long program was created to advance nurse-led care delivery solutions and focused on the refinement of virtual care models. The IHI curricula is based upon quality improvement methodologies that support rapid prototyping of small tests of change. In the first six months, Boston Children's teams completed more than 50 plan-do-study-act (PDSA) cycles that support rapid testing of virtual nursing models and helped the team to consider iterative improvements. The five participant organizations also met on a bi-weekly basis to pool learnings and gather insights from colleagues across the network.

Boston Children's participation in this IHI/J&J initiative built upon a prior pilot launched in December 2022 on 9 East/Inpatient Medicine. This was the hospital's initial test of change related to virtual nursing models. The team utilized remote resource nurses to support onsite staff and identified a wide range of insights and opportunities. The pilot focused on linking novice nurses to expert nurses via Zoom for assistance and guidance. The pilot's success was attributed to staff nurses' and nurse leaders' contributions and collaboration. Their commitment to making virtual nursing a success and their openness to testing this novel model in their daily practice was instrumental. 

"We found that experienced virtual nurses provided new-to-practice nurses with an additional level of support and psychological safety. The virtual nurse could augment another nurse in a direct care role on the unit when admitting patients. The virtual nurse could do deeper dives into patient charts and extrapolate data in real-time while on-site nurses were busy at the bedside," says **Elizabeth-Anne King, DNP, RN, NE-BC, CPN, CPHQ**, senior nursing director, Inpatient Medicine Programs.

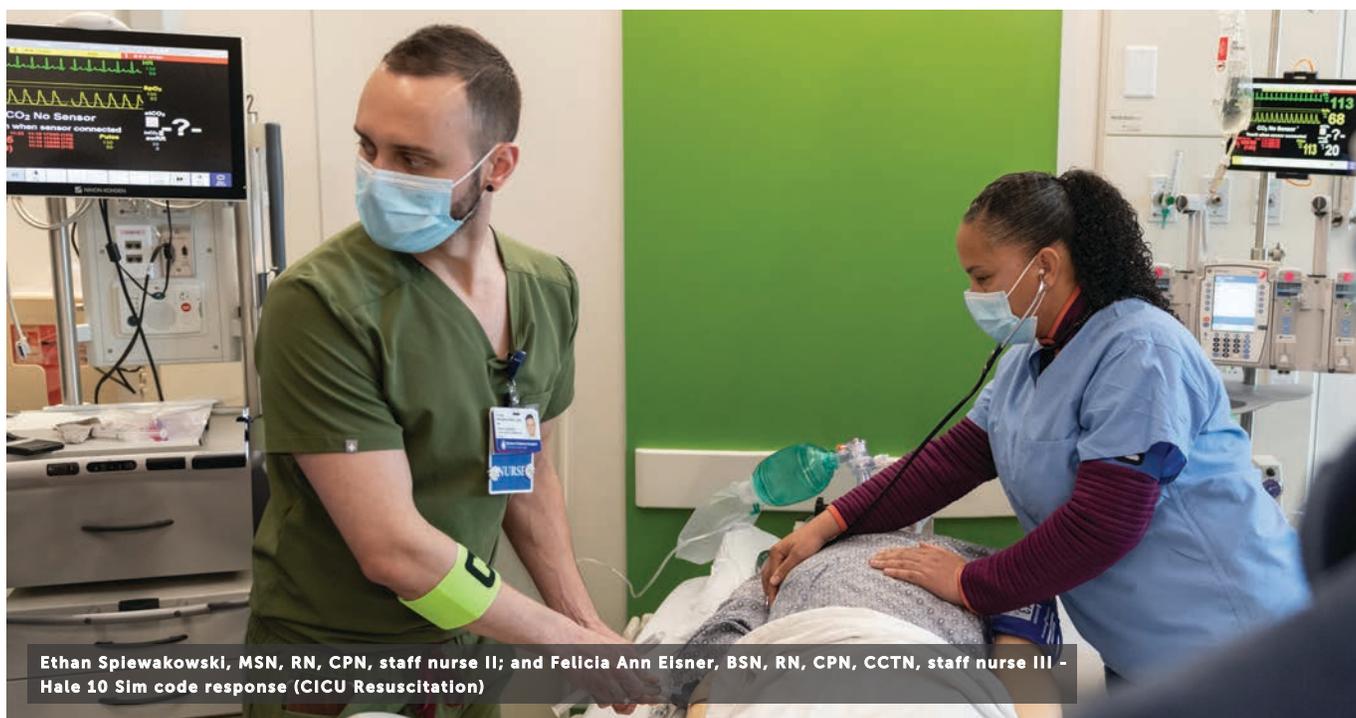
To expand the testing of virtual nursing scenarios, beyond nurse-to-nurse support, an interprofessional workgroup was also launched to consider how these initial learnings might be applied as new care delivery systems evolve. **Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations and System Chief Nursing Officer serves as the IHI/J&J Learning and Action Network Prototyping executive sponsor. Dr. Wood shared, "A key priority of this work is to provide the most effective levels of support we can to new-to-practice RNs. We also aim to create opportunities for more flexible work arrangements to support nurse and team well-being, being measured via a 'Thriving' conceptual model shared by IHI."

The local nursing teams on 9 East and 10 Northwest units. The 10NW/inpatient surgery team partnered with Boston Children's Innovation & Digital Health Accelerator (IDHA). **Aaron Farber-Chen, MSN, RN, FNP**, senior manager for clinical innovation with IDHA, and **Kate Donovan, PhD, MBA, MS**, clinical director of Innovation Inpatient Medical Programs and Pediatric Intermediate Care Unit, co-lead the workgroup. The workgroup formulated virtual nurse use cases, with input from clinical nurses, and conducts rapid, small-scale tests of changes. To date, 55+ Plan-Do-Study-Act (PDSA) cycles have been completed involving patient discharges, admissions, and nurse leader rounding scenarios, and have been prototyped. The next steps include engaging with patients and families to gather additional feedback related to how virtual nursing and virtual team care could augment the care provided currently.

"The COVID-19 pandemic changed the perspective about clinical remote work and accelerated the concept of virtual nursing and care delivery in health care settings across the board," says **Christina Brown, MS**, senior product manager with IDHA, Virtual Visits. "As virtual nursing gains in acceptance among our team members, we look forward to expanding its reach."



[Click here](#) or scan the QR code for a brief video to hear from the 9 East medicine staff nurses who led Boston Children's 2022-2023 virtual nursing initiative.



Ethan Spiewakowski, MSN, RN, CPN, staff nurse II; and Felicia Ann Eisner, BSN, RN, CPN, CCTN, staff nurse III - Hale 10 Sim code response (CICU Resuscitation)

## Deepening Support for New Nurses in Pediatric Critical Care

Staffing and workforce challenges are top of mind in the Cardiovascular Intensive Care Unit (CICU) as well. Boston Children's is a leader in the development and delivery of specialized pediatric cardiac intensive care. Over the last three years, the CICU has adapted its staffing models and expanded support programs to ensure it can continue to meet this high threshold.

To build new nurses' resilience, the unit recently added a clinical practice mentor. This highly experienced resource nurse focuses on staff nurse colleagues with fewer than two years of experience. Mentors spend as much one-on-one time with each team member as necessary to strengthen the capabilities and confidence of more novice nurses.

"The clinical practice mentor is here to help new nurses build their critical thinking skills so they can practice independently with confidence," says **Jason Thornton, DNP, RN, CPHQ, NE-BC**, senior director, CICU, cardiac operating rooms, Nursing/Patient Care Operations. "We want novice nurses to think in advance about the trajectory their shift might take, and how they will handle new scenarios that more experienced nurses navigate automatically."

As the workforce continues to evolve, the CICU must evolve with it, says Dr. Thornton. "Parents bring their children here from around the world and they turn to us because we provide new care delivery and treatment options. Attention to the health of the work environment for our teams is essential to provide care to patients and families with complex needs."

The same is true in Boston Children's Medical-Surgical ICU (MSICU), one of the highest volume pediatric intensive care units in the United States. An expansion from 30 to 48 beds in progress over the past year has required a strong focus on recruitment and transition to practice for large numbers of both new graduate and experienced staff nurses. Onboarding nurses, especially new graduate nurses, is a gradual process to ensure newer nurses gain independence and self-assurance in a structured environment, says **Mary O'Brien, MHA/MSN, RN, NE-BC**, senior director, MSICU, Nursing/Patient Care Operations. "All new hires are paired with an experienced preceptor to support them during orientation. They then transition to a formal mentor to support them as we increase the complexity and acuity of patient assignments."

Boston Children's intensive focus on HWE has paid off. The MSICU, CICU, NICU, and ORs have expanded with new beds and in many cases have supported additional patient volume. "People want to work on our teams," says Dr. Hickey. "They know they are valued and how important the work is. When staff are happy, patients and families are happy. The ongoing professional development of front-line nurses is central to quality and patient safety, as well as staff nurse engagement. And that's what's important for the future."

### Supporting RN Transition to Practice in Medical, Surgical and Behavioral Health Care Specialties

While the impact of an expert nurse preceptor as a foundation to support nurse retention and patient safety is well understood, COVID-19 workforce shortages further challenged hospitals and health care settings to find innovative ways to optimize new graduate onboarding to provide optimal care to complex patient populations.

Prior to the COVID-19 pandemic, nurse preceptors had long been viewed as critical in the orientation and retention of new graduate nurses. Nurses frequently noted the importance of a dedicated preceptor or resource nurse as the number one factor to remain on the job. Pre-COVID, it was recognized that new graduate or novice nurses needed more than 12 months of orientation to transition from novice to a proficient level of practice. Historically, up to 26% of new graduate nurses left the profession within the first two years

of practice.<sup>3</sup> The pandemic added complexity to these challenges, disrupting pre-licensure education at a time of high capacity and workload, further straining the hiring and retention of nurses and support staff. These disruptions meant nursing students received unpredictable learning experiences resulting in gaps in their pre-hire skills related to communication, psychomotor skills, and the ability to plan and prioritize patient care when caring for several patients concurrently.

"We know that changes in the health care landscape coupled with the COVID-19 pandemic added complexity to the critical nursing shortage that is being experienced nationwide,"<sup>4</sup> explained **Patricia Pratt, MA, BSN, CPHQ, CPN**, senior vice president and associate chief nurse, Medical, Surgical, Procedural and Behavioral Health, Nursing/Patient Care Operations. "To retain our new nurses, it's critical to increase their confidence and make them feel part of the team. A supportive culture is essential."

To address the increasing demands on preceptors and reduce the cost and length of new graduate nurse orientation, Boston Children's is piloting a new model of precepting on the inpatient surgical units. Groups of two or three nurses work with one preceptor without a patient assignment for the first few weeks of the clinical orientation program, learning and developing core nursing concepts. After this initial introduction to the clinical setting, new-to-practice RNs and preceptor assignments reflect the needs and skills of each orientee.

"This nurse-led model both shortens the orientation period, and reduces preceptor burden at a time of high

capacity and clinical constraints given the large population of new graduate nurses requiring orientation," says **Kierrah Leger, DNP, MS, RN, NE-BC**, senior director, Inpatient Surgical Programs, Nursing/Patient Care Operations.

The model directly addresses both short- and long-term challenges brought on by the pandemic, says **Alexandra Arrigo, MSN, RN, CPN**, nursing professional development practitioner, Surgical Programs. "This program will be studied further but is expected to increase retention by supporting new graduate nurses during a time of transition by promoting belonging and relationship within adjacent units in surgical programs." ■

#### Citations:

<sup>1</sup> American Association of Critical-Care Nurses, <https://www.aacn.org/nursing-excellence/healthy-work-environments/appropriate-staffing>. Accessed 3.20.23.

<sup>2</sup> DeGrazia M, Porter C, Sheehan A, Whitmore S, White D, Nuttall PW, Blanchard T, Davis N, Steadman J, Hickey P. Building Moral Resiliency Through the Nurse Education and Support Team Initiative. *Am J Crit Care*. 2021 Mar 1;30(2):95-102. doi: 10.4037/ajcc2021534. PMID: 33644802.

<sup>3</sup> [https://journals.lww.com/cns-journal/abstract/2013/11000/new\\_graduate\\_survey\\_\\_\\_factors\\_that\\_influence\\_new.10.aspx](https://journals.lww.com/cns-journal/abstract/2013/11000/new_graduate_survey___factors_that_influence_new.10.aspx)

<sup>4</sup> American Nurses Association (ANA). ANA urges US Department of Health and Human Services to Declare Nurse Staffing Shortage a National Crisis. September 1, 2021. Accessed October 26, 2021. <https://www.nursingworld.org/news/news-releases/2021/ana-urges-us-department-of-health-and-human-services-to-declare-nurse-staffing-shortage-a-national-crisis/>

# Improving Access to Care

## Improving Access to Specialized Pediatric Care: Intermediate Care Program Expansion

With a growing need for higher acuity beds, and the closure of another regional children's hospital, Boston Children's Intermediate Care Program (ICP), recently renamed the Pediatric Intermediate Medical Care Unit (PIMCU) has doubled in size. At the same time, higher-than-historical nurse turnover during the peak of the COVID-19 pandemic led the program to incorporate the use of both travel nurses and new graduate nurses to support the initial expansion. The PIMCU needed new processes to further support this changing environment.

PIMCU nurse leaders worked in partnership with nursing professional development (NPD) specialists to evolve and implement a new RN orientation model. Recognizing that many new graduate nurses were joining the hospital with less clinical practice experience due to COVID-19, the PIMCU implemented a boot-camp approach to meet the needs of this team. The new model was designed to increase comfort with technology, communication and basic processes. Resource nurses were added to each shift to guide new-to-practice staff nurses to develop critical thinking, problem-solving and error-avoidance skills.

**“By combining staff input, support systems, and a commitment to education and development, the unit nurtures a collaborative and inclusive work environment, promoting staff engagement, satisfaction and retention.”**

*Susan Stone, DNP, RN, NE-BC, CPN, nursing director, PIMCU*

“At Boston Children's Hospital, our commitment to supporting our care teams is a priority,” says **Patricia Pratt, MA, BSN, CPHQ, CPN**, senior vice president and associate chief nurse, Medical, Surgical, Procedural and Behavioral Health, Nursing/Patient Care Operations. “Developing and retaining new graduate nurses and supporting and retaining our expert nurses are equally critical at a time when many seasoned nurses have left the workforce due to the pandemic.” As Pratt explains, expert nurses serve as role models to help new graduate nurses develop skills necessary for the hospital's increasingly complex practice environments. These include communication skills, psychomotor skills, and the ability to navigate increasingly complex patient assignments.

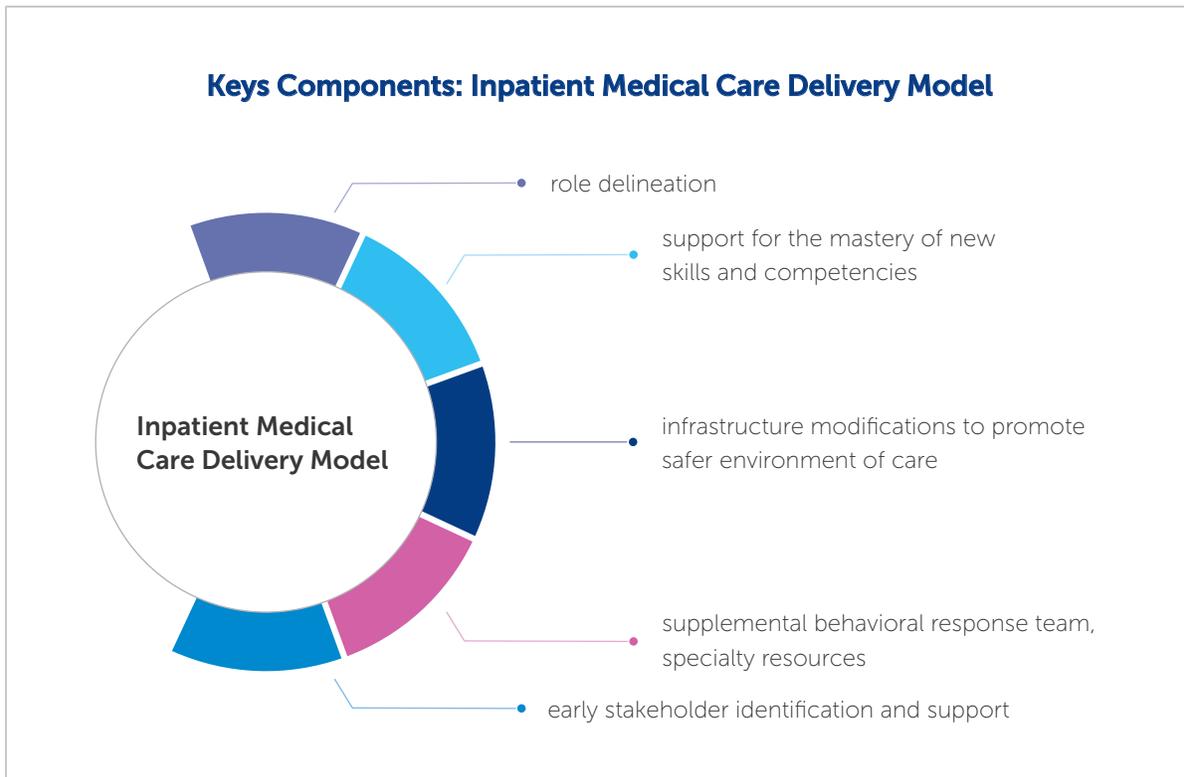
To retain expert nurses, the PIMCU implemented two complementary initiatives. The Generational Taskforce is comprised of nurses with varying years of experience and backgrounds. Taskforce members work together to develop guidelines for shift rotation, weekend staffing and vacations. “The preferences and motivations of different generational cohorts were integrated within orientation and learning programs to better meet RN learning needs, thereby increasing retention rates, and maintaining a sense of community and belonging,” says **Susan Stone, DNP, RN, NE-BC, CPN**, nursing director, PIMCU.

The Generational Taskforce developed CORE (Community, Outreach, Resilience, Empowerment) crews. Each crew includes a captain and several members. CORE crews facilitate monthly small group interactions with senior nurses and arrange larger unit-based “meet-ups,” strengthening staff inclusivity and cohesion. “By combining staff input, support systems, and a commitment to education and development, the unit nurtures a collaborative and inclusive work environment, promoting staff engagement, satisfaction and retention. This holistic approach positively impacts patient care outcomes, fosters a culture of continuous learning and strengthens the unit's overall performance and success,” shared Dr. Stone.

## 9 East Behavioral Health Patient Cohorting

The crisis in pediatric behavioral health (BH) care has strained hospital emergency departments and pediatric inpatient care units nationally throughout the COVID-19 pandemic. Although the challenge of pediatric BH boarding is not new, the lack of a community-based care continuum added new pressures to care for large numbers of children and adolescents within inpatient settings. An estimated 50-70% of children with treatable BH diagnoses do not have access to a mental health professional due to acute resource shortages, resulting in substantial increases in patients seeking care in the emergency department. Boarding on inpatient care units until scarce BH inpatient beds or intensive outpatient treatment options become available became increasingly prevalent during the pandemic. Boston Children's nurse leaders and interprofessional teams pivoted rapidly to adapt new care models for patients and families.

"Faced with the current child and adolescent mental health crisis and an associated surge in behavioral health patients boarding on our inpatient medical units, we identified the need to adapt our current environment to improve the safety and quality care experiences for our patients, families and staff," says **Elizabeth King, DNP, NE-BC, CPN, CPHQ** senior nursing director, Inpatient Medical Programs. "The physical environment of most inpatient settings were not designed to provide therapeutic milieu or to manage risk for self-injury, and aggressive or destructive behaviors. These environmental challenges often contribute to delays in medication initiation and active psychoeducational therapies resulting in symptom exacerbation for these vulnerable pediatric patients. Additionally, clinical staff on these units had limited prior expertise to care for these children, increasing the risk of physical injuries and moral distress among nurses and other team members."



Recognizing the need to develop a care delivery model to advance staff safety and care quality, the 9 East nursing care team implemented a nurse-led collaborative expert model for BH patients boarding on a medical unit (see sidebar.)

The Inpatient Medicine (9 East) Behavioral Health patient cohort has created a safer care environment for patients with a BH diagnosis boarding on the unit while awaiting access to a dedicated BH inpatient setting. Additionally, nurses have developed a process to ensure BH therapies are implemented early, mitigating the distress patients and families often experience while awaiting treatment initiation.

**“We look at everything – from social and financial resources to behavioral health issues and language barriers.”**

*Gretchen Waldman, MSN, RN, CDCES, clinical coordinator/diabetes nurse educator, Boston Children’s Hospital Outpatient Program*

### **Transitioning New Onset Type 1 Diabetes Care to Ambulatory Settings**

Type 1 diabetes (T1D) is a lifelong incurable condition that requires frequent glucose monitoring, insulin dosing, and a specialized diet. Modern treatment also includes the use of many technological devices that require continuous monitoring

and attention. The management of T1D is complex and challenging. It is vital to have effective collaboration between the patient, family/caregiver, and the clinical team. Comprehensive education and frequent adjustments to insulin dosing are vital to mitigate acute complications, e.g., diabetic ketoacidosis or severe hypoglycemia, and to prevent long-term complications including neuropathy, retinopathy, and kidney disease. Supporting self-agency by children and adolescents with diabetes also supports their ability to stay engaged with peers and participate in all activities of daily living.

T1D patients require an intensive insulin regime delivered by multiple daily injections or insulin pump, in addition to continuous glucose monitoring devices or frequent blood glucose monitoring by fingerstick. Additionally, these patients and their families require ongoing assessment, education, and care coordination by interprofessional team members every three months at a minimum, as consistent with the American Diabetes Association standards. T1D in pediatric patients is especially complex due to growth, pubertal status, emerging independence, and transition of responsibilities from young childhood through early adulthood. The complexity for newly diagnosed children and adolescents is important to appreciate given multiple caregivers in different households and at school, daycare, homes of friends and extended family, and extracurricular activities

Boston Children’s Diabetes Program provides many virtual group classes to increase access for patients, families and caregivers, and minimize

time lost from school or work. These classes educate and support both children and their families.

In addition to meeting patients’ complex medical needs, clinicians must consider the social and psychological impact of T1D. This is critical to achieving health care equity, as patients in resource-constrained communities often face additional challenges accessing care and support. “Boston Children’s certified diabetes care and education specialist nurses assess the barriers to optimal diabetes control when they evaluate the child’s overall well-being,” says **Gretchen Waldman, MSN, RN, CDCES**, clinical coordinator/diabetes nurse educator, Boston Children’s Hospital Outpatient Program. “We look at everything – from social and financial resources to behavioral health issues and language barriers.”

### **Nurse-Led Staffing Model Improves Vaccine Access**

Among the many challenges that hospitals faced during the COVID-19 pandemic, finding a way to rapidly vaccinate employees and patients was high on the list. Boston Children’s Hospital adopted a unique nurse-led model to clear away hurdles and provide COVID vaccines to protect staff, patients and families. The model proved so successful, the hospital used it to create a formal vaccine clinic in 2021, which was made permanent in 2023.

“In the early months of the pandemic, we needed a way to quickly vaccinate our employees,” says **Dianne Arnold, MSN, RN**, director, Patient Relations.



Akie Toyama, BSN, RN, staff nurse | with Benjamin - Vaccine Clinic

"At the same time, new graduate nurses were looking for jobs. We hired many new graduate RNs to assist with multiple roles that were created in response to the pandemic, including administering COVID vaccines to staff. Soon these nurses were also giving COVID vaccines to patients and flu vaccines to patients and employees."

This effective model was one factor that led to the formal creation of the Boston Children's Hospital Vaccine Program, which consolidated all vaccine administration into a single, hospital-based clinic supported by the Boston Children's Pharmacy. The other impetus was to ensure compliance with the Massachusetts Department of Public Health's childhood vaccine program regulations and to improve patient, family and employee access to needed vaccinations.

The new vaccination program includes COVID-19, flu and respiratory syncytial virus (RSV) vaccines, all childhood immunizations, employee-required immunizations and the Travel and Geographic Medicine Clinic - a nurse practitioner-led clinic that provides comprehensive pre-travel health services and immunizations for adults and children traveling abroad. Originally based within the Emergency Department, the Travel Clinic transferred into the hospital-based clinic in 2023 so families would continue to have access, and to enable access to Boston Children's Pharmacy resources. The vaccine program

still offers new graduate nurses the opportunity to work in the clinic for a short time before moving into the hospital's new graduate RN residency program.

"We see everyone who comes to the clinic in a streamlined way, with no appointment required," says **Gregory Peters, MSN, RN**, clinical coordinator, Vaccine Program. "This is especially convenient for families whose children have fallen behind on vaccines and need to catch up. Many have recently moved to Massachusetts, and more recently some are among the unhoused population presenting in the emergency room. These children need to be vaccinated to be accepted for access to shelters or schools."

To further enhance operations, the hospital is renovating the Patient Entertainment Center to create a true outpatient clinic to house the entire vaccine program. When the new space opens, it will include multiple bays and private exam rooms.

"After our experience with COVID requiring the need for successive boosters, we are both agile and versatile when it comes to offering a new vaccine or responding to a public health emergency," says Arnold. "We are now well-positioned to provide greater access to our patients, families and staff through this important preventive care vaccine program."

## Boston Children's Hospital Vaccine Program Team

**Dianne Arnold, MSN, RN**, director,  
Patient Relations

**Renee Charbonneau, RN, CPNP**, nurse  
practitioner, Vaccine Program

**Erica Lichtman, BSN, RN, CPEN**,  
manager, Vaccine Program

**Rick Malley, MD**, senior  
physician in Medicine, Division of  
Infectious Diseases

**Shannon Manzi, PharmD, BCPPS, FPPA**,  
director, Safety & Quality, Department  
of Pharmacy Faculty, Applied  
Informatics, Computational Health  
Informatics Program, assistant professor  
of Pediatrics, Harvard Medical School

**Kristin Moffitt, MD**, associate  
physician in Medicine, Division of  
Infectious Diseases

**Gregory Peters, MSN, RN**, clinical  
coordinator, Vaccine Program



Secret Garden - Hale Building

## Enhancing Staff Well-Being

### The Secret Garden: Staff Caring for Staff

Health care team members provide for others in thoughtful, therapeutic ways. But this can become difficult if mental and emotional personal resources are depleted. When nurses and other team members experience a self-care deficit, their well-being, as well as patient care, can be compromised. "Because our interdisciplinary care teams provide comprehensive family-centered care to children with complex care needs, it is critical that we provide innovative resources to support staff well-being," says **Patricia Pratt, MA, BSN, CPHQ, CPN**, senior vice president and associate chief nurse, Medical, Surgical, Procedural and Behavioral Health, Nursing/Patient Care Operations.

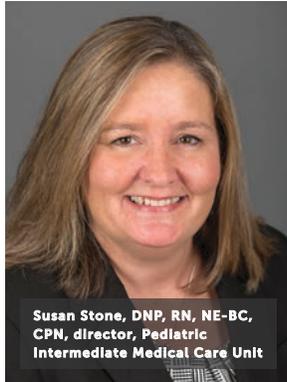
The Secret Garden, a staff-only respite space, was designed and operationalized by an interdisciplinary team directed by two Behavioral Response Team (BRT) leaders. The space is a quiet, low-stimulation, nurturing environment where staff can go to reset and recharge in ways that are meaningful to them. The space includes self-directed yoga and stretch areas, loungers, massage

chairs and journal materials. Soothing music and nature visuals run on a continuous loop. Literature is available on topics ranging from coping skills and breath work, building resilience, recognizing bias and navigating grief. Additionally, some teams access practitioner-led sessions including Reiki circle, guided meditation with breath work, journaling and chair yoga. Many of these activities are offered via Zoom to staff who wish to participate remotely.

"When we identified the opportunity to develop a safe respite space, our leadership teams embraced the concept and supported our BRT colleagues to implement it," says Pratt. "Staff appreciate the importance of having a space to step away from the busy units, decompress and recharge."

In fact, the Secret Garden is more popular than ever. When it opened in November 2022, 454 staff accessed the space. By June of 2023, that number had soared to 1,531 – a 337% increase.

## Implementing Joy Forums to Increase Nurse Engagement and Reduce Turnover



Joy and meaning in work are cornerstones to creating and sustaining an engaged workforce. Joy fosters an emotional, intellectual, and behavioral commitment to meaningful and fulfilling work. Caring and healing are two concepts central to nursing that induce joy and reduce

burnout. Joy builds a sense of optimism and well-being leading to increased innovation, productivity and strengthened relationships. Outcomes from improving joy at work include staff wellness and engagement, patient satisfaction, quality of care, patient safety and organizational performance.

Using the Institute for Healthcare Improvement (IHI) Joy Framework,<sup>1</sup> Boston Children's nurses shared what joy meant to them. Emerging themes included: providing safe care through education, proper staffing and taking breaks; being productive in a meaningful way; ensuring families feel well cared for; having time to make young patients smile; being part of a supportive team with time to help each other; exposure to new knowledge or becoming more expert; and feeling appreciated with both gratitude and compensation.

**“We are continuously working to support our care teams by improving the health of the work environment.”**

**Susan Stone, DNP, RN, NE-BC, CPN, director, Pediatric Intermediate Medical Care Unit**

To these nurses, joy was more about empowerment, achievement and fulfillment resulting from meaningful work, rather than moments of pleasure conferred by hospital leaders. Twelve subsequent joy forums resulted in the implementation of 14 nurse-led quality improvement projects. “We are continuously working to support our care teams by improving the health of the work environment,” says **Susan Stone, DNP, RN, NE-BC, CPN**, director, Pediatric Intermediate Medical Care Unit. “The joy forums provided a venue for staff to share their self-identified barriers to joy at work, and for leaders to empower staff to create solution-based projects to address these barriers. Implementation of joy forums resulted in improved measures of joy at work and a reduction in nurse turnover.” ■

Citation:

<sup>1</sup> Perlo, J, Balik, B, Swensen, S, Kabcenell, A, Landsman, J, & Feeley, D. (2017). IHI framework for improving joy in work [IHI White Paper]. Cambridge, MA: Institute for Healthcare Improvement. *ihi.org* Press Ganey Associates, LLC. (2020, January 16). *Index of work satisfaction [PDF]*.

### Joy Project Survey Results

	Pre-Joy Forums	Post-Joy Forums	Significance
Joy and Meaning Scores	3.52 + 0.88 (N=33)	3.91 + 0.51 (N=29)	p=0.034
Job Satisfaction Scores	3.22 + 0.88 (N=33)	3.86 + 0.64 (N=29)	p=0.002





# Empirical Outcomes

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200+

Total bed days saved in  
the ICU.

62%

Reduction in last-  
case delays for  
Esophagoduodenoscopy  
(EGD) by 62%, from 26.5  
minutes to 10 minutes.

# Designing and Delivering Quality Improvement Innovations

At Boston Children's Hospital, nurses and patient care teams shape the science of high-quality pediatric care. The hospital's culture of clinical inquiry provides a framework to systematically improve the ways care is delivered to patients and families. Research, innovation, and quality improvement (QI) bring to life Boston Children's mission *to be the leading source of research and discovery and nursing/patient care team vision to serve as local, national and global leaders in shaping the science and delivery of high-quality pediatric care*. Over the last two years, nurse and patient care teams pursued QI initiatives across the enterprise, ensuring that clinical practice reflects the latest science while responding to the unique needs, preferences, and values of patients and families.

**“We wanted to think about what we could do as providers to help nurses feel empowered.”**

***Vivian Williams, MSN, RN, CPNP, APRN III, APRN director, Urology and multi-specialty care***

## Improving Complex Bladder Exstrophy Primary Repair

Bladder exstrophy (BE) is a rare birth defect in which the infant is born with the bladder inside out and exposed on the outside of the body. Because BE involves several systems within the body, surgery

to repair the condition is typically lengthy and complex, sometimes lasting as long as 18 hours.

An interdisciplinary team of nurses, physicians and researchers recognized the need for a newer evolution – utilizing the principles of Enhanced Recovery After Surgery (ERAS®), which could streamline the surgical procedure, standardize postoperative management and ultimately reduce or eliminate ICU utilization (see sidebar).

Boston Children's BE Program is part of the Multi-Institutional Bladder Exstrophy Consortium (MIBEC), dedicated to improving care and outcomes for children with BE. “MIBEC shares surgical expertise, research findings and best practices,” says **Vivian Williams, MSN, RN, CPNP, APRN III**, APRN director, Urology and multi-specialty care.

### Phase One: Engage Key Stakeholders and Develop Protocol

The team engaged key stakeholders, including surgeons, urology nurse practitioners, 10 South nursing leadership, inpatient surgical services, pain management, the OR, post-anesthesia care unit (PACU), anesthesia and the intensive care unit (ICU). Collaboratively, an ERAS protocol was created for pre-, intra- and postoperative care.

The team then launched an interdisciplinary quality improvement process to assess whether care provided to BE patients in the ICU could be provided within non-ICU settings. A



Jill Handisides, BSN, RN, with Noah - Post-Anesthesia Care Unit

retrospective cohort analysis was conducted using a sample of children who had the single-day surgery, and children who received elements of the ERAS protocol. Analysis revealed that postoperative management traditionally provided in the ICU could be safely managed by nurses outside of the ICU by: modifying the patient-to-staff ratio for the first 16 hours following surgery; closely collaborating with the inpatient Urology team; and providing extensive education to nursing staff.

To prepare, nurse practitioners educated anesthesia unit leaders, and PACU and inpatient nurses. "We wanted to think about what we could do as providers to help nurses feel empowered," Williams says. "This included education around the new care delivery model, investment of key stakeholders, specialized staffing models, and communication huddles with both the inpatient nurses and the post-anesthesia care unit (PACU) nurses."

### **Phase Two: Apply Enhanced Recovery After Surgery Model to the Bladder Exstrophy Population**

From June 2020 to May 2021, the team rolled out various aspects of ERAS. These included: preoperative collaboration with the primary care physician;

### **Enhanced Recovery After Surgery (ERAS)**

ERAS is a multimodal perioperative care pathway designed to achieve early recovery for patients undergoing major surgery.<sup>1,2</sup> The central elements of this evidence-based protocol include:

- Decreased NPO duration
- Minimally invasive approach when possible
- Early discharge of IV fluids
- Early mobilization
- Opioid-sparing multimodal analgesia

Citations:

<sup>1</sup> <https://erassociety.org/>

<sup>2</sup> <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7780975/>

## Interprofessional QI Team

**Andrea Balthazar, MD, MPH**, resident, Urology

**Joseph Borer, MD**, physician in Medicine,  
Division of Urology

**Lily Cabour, PA-C**, physician assistant,  
Surgical, Urology

**Sabeena Chacko, MD**, physician in Medicine,  
Division of Anesthesia

**Michelle Devincenzo, MSN, RN, CPNP, APRN**,  
Complex Surgery

**Julia Finkelstein, MD, MPH**, physician in  
Medicine, Division of Urology

**Rosemary Grant, BSN, RN, CPN**, nursing  
coordinator, Urology

**Debra Lajoie, JD, PhD, MSN, RN**, director,  
Patient Services

**Richard Lee, MD**, physician in Medicine,  
Division of Urology

**Ted Lee, MD, MSc**, physician in Medicine,  
Division of Urology

**Kierrah Leger, DNP, MS, RN, NE-BC**, senior  
director, Inpatient Surgical Programs, Nursing/  
Patient Care Operations

**Tanya Logvinenko, PhD**, scientist, Clinical  
Research Center & Analysis

**Rachael O'Keefe, MSN, FNP-BC, CPN, APRN**,  
Complex Surgery

**Alexandra Salvia, RN**, staff nurse I,  
Ambulatory, Urology

**Christina Vallery, MSW, LCSW**, social  
worker, Urology

**Vivian Williams, MSN, RN, CPNP, APRN III, APRN**  
director, Urology and Multi-Specialty Care

avoidance of preoperative bowel preparation and prolonged fasting; dividing the surgical procedure into two consecutive days; utilization of epidural anesthesia; minimized narcotic use; early postoperative feeding; reduced use of postoperative antibiotics; and transition from PICC lines to extended dwell peripheral IVs.

As a result of these evidence-based practices, the ICU median length of stay initially dropped from 2.5 days to 1.5 days for post-op care. Once all components of the ERAS pathway were instituted, patients were able to bypass the ICU altogether.

## Evidence-Based Improvements for Patients and Families

The BE team has established a formal pathway for patients who meet inclusion criteria for this procedure, including a key-driver diagram on postoperative management. The new protocol has resulted in multiple, hospital-wide improvements, including:

- Eliminated need for admission to the ICU. This not only hastens recovery of BE patients, but also frees ICU beds and increases capacity and surgical output. Since implementation, no patient has experienced complications necessitating a return to the ICU or a higher level of care.
- No change in frequency of second operations, ED visits and readmission rates after ERAS implementation.
- Improved overall length of stay from 14.5 days to 7.5 days.
- Improved patient/family experience. "This is a real win for our families in so many ways," says **Kierrah Leger, DNP, MS, RN, NE-BC**, senior director, Inpatient Surgical Programs, Nursing/Patient Care Operations. "Caring for patients on the floor means parents can more easily prepare for self-management at home. ERAS guidelines contribute to a faster recovery and a shorter hospital stay, which means families have fewer expenses such as hotels and parking."

The team has shared its findings nationally and across the hospital with a plan to increase the use of ERAS for other surgical procedures.



Patricia Smith, surgical technologist with Elizabeth Kingsbury, MS, RN, CNOR, staff nurse III - Operating Room

## OR Transformation Initiatives

Delays in the operating room (OR) impact patient flow and resource utilization, leading to higher costs and greater patient, family and staff dissatisfaction.<sup>1</sup> In 2020, Boston Children's launched a Lean Six Sigma Green Belt project aimed to achieve sustained improvement in first case on-time starts and room turnover time in the OR.

The work was separated into two distinct project groups. The First Case On-time Start team, led by OR clinical coordinators **Naomi Rent, BA, BSN, RN** and **James Chin, BSN, RN**, includes members from Registration, OR Nursing, Pre-op Nursing, Pre-op Clinic, and the Enterprise Project Management Office (EPMO), as well as surgeons, Certified Registered Nurse Anesthetists, anesthesia technicians, surgical technicians and clinical assistants. The goal was to improve efficiency and patient flow on the day of surgery, reducing the variation between actual starts and scheduled starts by 30%-60%. The process

spanned patient arrival, registration, and OR case start time. Pre-op Clinic activities were included to measure their impact.

**“Our goal was to increase efficiency in the OR, by increasing predictability and reducing variability in the Main OR for patients, families and staff.”**

***Ann Motl Taylor, MHA, program director,  
Enterprise Project Management Office (EPMO)***

Members of the Room Turnover team, co-led by OR clinical coordinators **Christine Benson, BSN, RN** and **Eileen Coyle, BSN, RN, CNOR**, also comprised the same make-up as the First Case On-Time Start team, as well as members from Environmental Services. The goal was to reduce median room turnover time by 20%-30%. Turnover is measured from when the

previous patient leaves the OR (wheels out) until the next patient enters the OR (wheels in).

“Because both processes impact numerous roles spanning multiple departments, the team wanted to be sure team makeup reflected all those involved from throughout the hospital,” says **Andrew Smith, MSN, RN, NE-BC, CPN**, senior director, Main Operating Room. “This interdisciplinary approach ensured everyone committed or contributed something to the project, which helped build consensus around solutions and next steps.”

To prepare, team leaders were trained in Green Belt methodology, which focuses on DMAIC (Define, Measure, Analyze, Improve and Control) to improve processes. Teams performed literature and data reviews, held mini Kaizen sessions, and partnered with Boston Children's Pediatric Simulation Program (SIMPeds), also known as Immersive Design Systems (IDS), to test work flows. IDS gives interprofessional teams the opportunity to practice their clinical skills in a realistic and psychologically safe environment.

“Our goal was to increase efficiency in the OR, by increasing predictability and reducing variability in the Main OR for patients, families and staff,” says **Ann Motl Taylor, MHA**, program director, Enterprise Project Management Office (EPMO).

Quick wins and early interventions include:

- **Readiness checklists** for both Pre-op and the OR to standardize communication, eliminate variability and give all disciplines the same view. Large monitors throughout the operating room display all 80 patient cases for the day.
- **Automated time stamps in Surginet** to provide team members better visibility into patient and room status. The Pre-op Holding team issues a “patient ready” signal and the OR circulating nurse issues a “room ready” signal within Surginet.
- **Modified NPO guidelines** to provide patients more freedom to eat and drink prior to surgery. Shortening the time window in partnership with anesthesia has decreased delays and cancellations and improved patient flow.
- **First-case interdisciplinary huddle** that includes surgeons, the OR circulating nurse, scrub and anesthesia to make sure all team members know the timeline and work together toward the same goals.

Results at the end of the Green Belt project included a 13% decrease in median room turnover time and a four-minute improvement in first-case start times.

One of the biggest interventions is the creation of two new roles in Perioperative Services: OR Attendant and Flow Coordinator. The OR Attendant is an Environmental Services Technician who will receive advanced training in room turnover. This new role is an evolution of environmental services tech, clinical assistant and anesthesia tech roles, and began in late 2023. The Flow Coordinator will oversee all turnover responsibilities in the OR between cases.

### Improving First-Case Starts in the GPU

In Boston Children's Gastroenterology Procedure Unit (GPU), rising case volumes were creating frequent delays, leaving patients, families and staff frustrated. Nursing leaders developed a Lean Six Sigma Green Belt initiative to increase operational efficiency and improve first-case on-time starts.

Led by **Jeff Cardini, DNP, MS, RN, CPN**, senior director, GPU, Interventional Radiology & Radiology Nursing, Nursing/Patient Care Operations, and **Catie Coley, DNP, RN, CPN**, clinical coordinator, GPU, the team included registered nurses, schedulers, anesthesiologists, GI physicians, and EPMO members.

Baseline data showed first case starts ran an average of 24.7 minutes late. The team set out to determine why. “We looked at all of the processes – from patient arrival on site to wheels in the room,” says Dr. Cardini. “We found there was no structured sequence, so we broke down tasks into discrete parts and approached each one in a specific, time-based way. Once workflow cycles were isolated for nursing staff, anesthesia staff and GI surgeons, we were able to make them more efficient.”

The following interventions were implemented with a goal to decrease first-case delays by 30%:

- **Remapped the preprocedure intake process**, adding structure and sequence. Because the nursing cycle is the longest, it goes first.
- **Redesigned process maps to standardize workflows**, reduce variables among preprocedure tasks and reduce nursing cycle time.

- **Created a two-nurse model.** One nurse performs patient care assessments and task-based requirements. The other interviews the patient and family, collects a health history and records data. The entire nursing team was oriented to this new process.
- **Implemented visual cues to prevent interruptions.** Laminated STOP and GO signs at each preprocedure bay alert team members to patient status.

These process improvements produced dramatic results. First-case start time delays decreased from 23.3 minutes to 4.7 minutes – an 80% improvement. In addition, the decision to proactively train nurses and patient care staff in Lean Six Sigma methodology paid off. Staff took great pride as everyone worked from a similar perspective to overcome challenges, drive solutions and successfully execute process changes.

Dr. Cardini used this QI initiative for his doctoral study. In addition, findings were published in the Society of Gastroenterology Nurses and Associates (SGNA) journal in 2021<sup>2</sup>, and further disseminated via a podium presentation at SGNA's annual conference in May 2022.

## High-Flow Weaning Pathway for Bronchiolitis

Bronchiolitis is a common infection in young children and infants that causes inflammation and congestion in the small airways of the lung. Treatment includes the use of high-flow nasal cannula (HFNC) therapy to help patients breathe. However, little medical evidence exists to guide the management and weaning of HFNC, which can lead to longer hospitalization, poorer outcomes and higher costs.<sup>3</sup>

An interdisciplinary team of Boston Children's physicians and nurses from the Intermediate Care Program (ICP), the Medical Intensive Care Unit (MICU) and Respiratory Therapy joined with the QI Department to study the issue and develop a standardized care process for HFNC. Led by **Alla Smith, MD**, and **Susan Stone, DNP, RN, NE-BC, CPN**, nursing director, Patient Care Operations,

## Improving Gastroenterology Procedure Unit Case Time Accuracy

After leading the project to successfully decrease first-case start delays in the GPU, **Catie Coley, DNP, RN, CPN**, clinical coordinator, GPU, saw an opportunity to do more. She launched a QI initiative to improve scheduled case time accuracy throughout the day with a goal to reduce last-case delays by 30%.

"Last-case delays were causing as much frustration as first-case delays and we wanted to see if we could change that," she says. "Why fix the beginning only to have the same problem at the end? If you are taking a 4 p.m. flight, you don't care that the first flight of the day took off on time. You just want your plane to be on schedule."

Dr. Coley selected a small sample population to study: children <2 years having esophagoguodenoscopy (EGD) under general anesthesia. Although many variables could not be controlled, scheduling accurately at the time of booking – with consideration of clinical indicators – could be influenced. Historically, all EGDs were scheduled for 60 minutes regardless of age or clinical considerations. The team added 15 minutes to the scheduling template, bringing total procedure time to 75 minutes.

In addition, Dr. Coley implemented a daily interdisciplinary huddle to optimize workflow and anticipate barriers. Every morning at 10:30, she meets with the surgical scheduler, charge nurse and triage nurse practitioner to review the next day's cases and adjust the schedule if necessary. The huddle has improved information sharing, team building and staff morale.

These interventions improved last-case delays for EGDs by 62%, from 26.5 minutes to 10 minutes. Although the patient population was small, Dr. Coley believes the results offer a strong foundation from which to study additional populations and procedures. "Our goal is to be as accurate as possible – for our patients, our families and our care team," she says.

### Bronchiolitis High-Flow Nasal Cannula Pathway Outcomes

Metrics	Baseline Dec 18 – Nov 19	Phase 1 Jan 20 – Jan 22	Phase 2a Feb 22 – Mid Nov 22	Phase 2b Mid Nov 22 – Dec 22
Hospital LOS (hrs, mean)	102	84	80	69
Total HFNC time (hrs, mean)	38	36	37	26

Pediatric Intermediate Medical Care Unit (PIMCU), the team addressed questions such as, *What is the maximum flow? What is the optimal point to lower flow? How often should patients be assessed and reassessed?*

After gathering baseline data, the team developed the Bronchiolitis High-Flow Weaning Pathway and spent two years applying the pathway to the care of all patients with bronchiolitis, including those with medical complexity. The new protocol guides initiation, escalation and weaning of HFNC for patients under the age of two (see graphic above).

Nurses attempt to wean after four hours of stability, watching patients carefully to ensure they don't backtrack. "Some patients will need to go back on HFNC after an attempted wean, but the idea is to keep trying until you are successful. Without intermittent assessments, it's hard to discern if the HFNC is still medically necessary," says Dr. Stone.

Although other pathways exist that guide weaning, this QI project is the first to iteratively decrease the weaning time while tracking outcome metrics to determine the optimal period of stability before attempting a wean.

Since the project's inception in 2020, improved outcomes include:

- Lower length of stay (LOS). Hospital LOS dropped from 102 to 67 hours.
- Less time on HFNC. Mean hours dropped from 38 to 26.
- Reduced escalated support. Patients needing BiPAP, C-CPAP or intubation dropped from 30% to 7%.

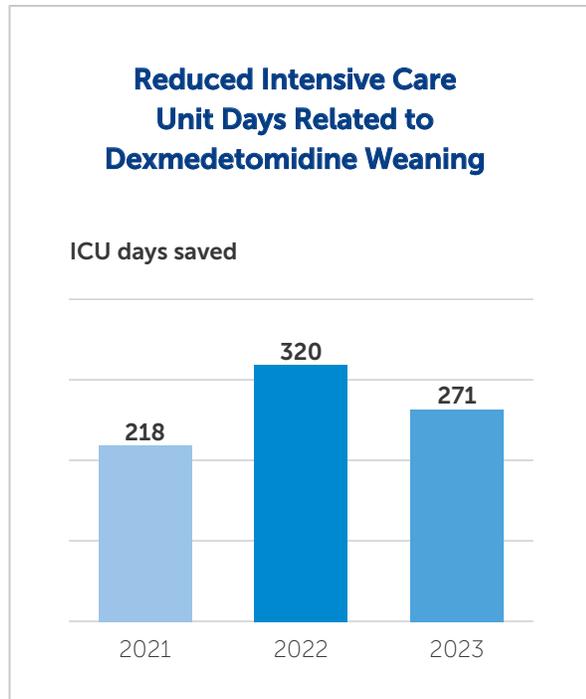
### Nurse Practitioners Develop First Dexmedetomidine Weaning Guideline for Non-ICU Areas



Many patients in the intensive care unit (ICU) require IV sedation to keep them safe and comfortable. However, Boston Children's lacked a standardized method to wean these patients from sedatives following transfer from ICU to non-ICU inpatient settings. Some patients went home and continued to

wean from sedatives post-discharge. Nurse practitioners (NP) in the Department of Anesthesiology, Critical Care and Pain Medicine led an initiative to standardize the sedation weaning process with physicians, staff nurses, and pharmacists for children recovering from a critical illness in non-ICU areas. Standardization of the weaning process decreased the duration of sedation use, and allowed for weaning sedatives in the hospital for safety reasons without increasing length of stay.

Other areas in the hospital took note. **Monica Kleinman, MD**, clinical director, Medical/Surgical Intensive Care Unit; medical director, Transport Program; senior associate in Critical Care Medicine, Department of Anesthesiology, Critical Care and Pain Medicine and more recently now serving as the hospital Chief Safety Officer, asked **Jean Solodluk, PhD, MSN, RN, CPNP**, nurse practitioner and nurse director, Division of Pain Medicine to



collaborate to develop evidence-based clinical practice guidelines to safely wean patients from a specific intravenous sedative – dexmedetomidine – in non-ICU areas.

A search of the literature found no pediatric studies of standardized dexmedetomidine weaning. As a result, Dr. Solodiuk conferred with a broad range of practice experts – pharmacists, physicians and nurses who possessed significant experience weaning patients in an ICU setting. The team then developed a guideline, first testing the model within the ICU to ensure safety, then transferring patients out to continue the weaning outside the ICU within various inpatient settings. The team determined that weaning dexmedetomidine in non-ICU areas was feasible and can be accomplished safely even among patients at high risk for withdrawal using standardized weaning guidelines. Findings were published in *Pediatric Critical Care Medicine* in 2022.<sup>4</sup>

“We first conducted a pilot study of ICU patients who were undergoing a planned wean of dexmedetomidine but were otherwise medically ready for transfer to the floor,” says Dr. Solodiuk. “Our goals were to complete the weaning process outside of the ICUs to enhance recovery as well as free up ICU capacity for the growing number of patients who needed critical care.”

This guideline to wean dexmedetomidine outside of the ICU setting is the first of its kind anywhere, and has changed the definition of what an ICU patient is at Boston Children’s Hospital. “Previously, if a patient was on a dexmedetomidine infusion, that patient was in the ICU, or procedural area,” explains Dr. Solodiuk. “With the implementation of this guideline, patients can safely wean dexmedetomidine in the non-ICU setting and our ICU staff can focus on caring for children who have highly complex care needs.” Following the study, the team continues its work developing a Weaning Assessment Tool to objectively assess withdrawal from dexmedetomidine in the non-ICU setting. ■

#### Citations:

<sup>1</sup> Pashankar DS, Zhao AM, Bathrick R, Taylor C, Boules H, Cowles RA, Grossman M. A Quality Improvement Project to Improve First Case On-time Starts in the Pediatric Operating Room. *Pediatr Qual Saf.* 2020 Jun 24;5(4):e305. doi: 10.1097/pq9.0000000000000305. PMID: 32766485; PMCID: PMC7339335.

<sup>2</sup> Cardini J. Using Lean Six Sigma to Improve First-Case Delays in Pediatric Endoscopy. *Gastroenterol Nurs.* 2021 Nov-Dec 01;44(6):403-411. doi: 10.1097/SGA.0000000000000587. PMID: 34411014.

<sup>3</sup> Hoefert JA, Molina AL, Gardner HM, Miller KH, Wu CL, Grizzle K. De-escalation of High-flow Respiratory Support for Children Admitted with Bronchiolitis: A Quality Improvement Initiative. *Pediatr Qual Saf.* 2022 Mar 30;7(2):e534. doi: 10.1097/pq9.0000000000000534. PMID: 35369406; PMCID: PMC8970083.

<sup>4</sup> Solodiuk JC, Sweet E, Greco C, Manzi SF, Giangregorio M, Homoki A, Li L, Mansfield L, Mahoney J, Kleinman ME. Weaning Dexmedetomidine in Non-ICU Areas: An Implementation Effort. *Pediatr Crit Care Med.* 2022 May 1;23(5):353-360. doi: 10.1097/PCC.0000000000002889. Epub 2022 Jan 6. PMID: 34991138.

90%

More than 90% of patients, families and providers say they are "very satisfied" with Boston Children's Specialty Pharmacy.

72

Since the specialty pharmacy opened in 2022, prior authorization turnaround time has dropped to less than 72 hours.

# Specialty Pharmacy Launch Improves Satisfaction and Outcomes

Boston Children's Hospital opened a specialty pharmacy in 2022 to make it easier for patients and families to fill prescriptions for chronic, rare and complex conditions. Patient liaisons and clinical pharmacists coordinate with families and their physician and provider specialty services to oversee every aspect of the ordering process – from obtaining prior authorizations, securing financial assistance, navigating insurance benefits, and ensuring proper medication delivery and managing refills.



**Jo Stewart, RPh, MS, CSP,**  
manager, Specialty Pharmacy

Specialty drugs include high-cost therapies that often aren't available in traditional retail pharmacies. They typically require prior insurance authorization, special

handling and storage, as well as dosing and administration guidance. The medications can be difficult for families to manage on their own, especially when multiple drugs are involved. "Having this service available helps families navigate the often-complex world of specialty medications and alleviates the added stress of filling these prescriptions so they can focus on their children's care," says **Jo Stewart, RPh, MS, CSP**, manager, Specialty Pharmacy.

## Multidisciplinary Coordination Eases Complexity

Within the hospital, the specialty pharmacy serves as the lynchpin bringing together manufacturers, providers, payers and caregivers to streamline processes and promote optimal patient outcomes. When drug manufacturers offer discount programs, the pharmacy liaison will work with Financial Services to facilitate the patient co-pay process. The pharmacy team also helps patients enroll in assistance programs and obtain financial assistance if needed.

## High Patient and Provider Satisfaction



**Joy Vreeland, PharmD, BCPS,**  
vice president, Chief Pharmacy  
& Therapeutics Officer

Since Boston Children's Specialty Pharmacy opened in 2022, this service has rapidly garnered high praise from both patients and families and has greatly enhanced physician and

provider satisfaction given the new levels of support offered. "This type of pharmacy is higher touch than most commercial pharmacies, as reflected in our high patient and provider satisfaction levels," noted **Joy Vreeland, PharmD, BCPS**, vice president, Chief Pharmacy & Therapeutics Officer. "Surveys conducted as part of the

accreditation process showed more than 90% of families rated the new pharmacy positively.” That level is well above the benchmark and contributed to accreditation from two of the country’s top agencies (see sidebar). In addition, the specialty pharmacy has reduced prior authorization turnaround time to less than 72 hours, which exceeds the 90th percentile nationwide.



**Donna Casey, MHA, senior vice president, Strategic Business Planning**

**Donna Casey, MHA**, senior vice president, Strategic Business Planning and Analysis worked closely with senior leaders to guide the conceptualization of specialty pharmacy services over a several year period. **Joy Vreeland, PharmD, BCPS**, vice president, Chief Pharmacy

& Therapeutics Officer noted, “Donna’s leadership has been invaluable to establish a foundation for specialty pharmacy services within Boston Children’s Hospital.”

### On-site Pharmacists Improve Outcomes

To further support families, Collaborative Drug Therapy Management (CDTM) pharmacists are now available at four clinic locations: Pulmonary, GI, Endocrine and Immunology. The pharmacists provide drug education, counseling and monitoring, and collaborate with physicians and providers to meet prescription needs. Research shows that when pharmacists are embedded in clinical areas, outcomes such as medication adherence, patient safety and patient satisfaction improve.

“Getting these medications quickly, coordinating the many complex details, easing the financial burden and providing personalized clinical support – all are important quality-of-life issues and make a huge difference for our patients, families and providers,” says Dr. Vreeland. “When managed through our specialty pharmacy, it has already demonstrated a strong positive impact.” ■



### Specialty Pharmacy Achieves Accreditation Gold Standard

Boston Children’s Specialty Pharmacy has been recognized by the Accreditation Commission for Health Care (ACHC) for compliance with a comprehensive set of national standards. In addition, the pharmacy earned URAC accreditation for Specialty Pharmacy, demonstrating a superlative commitment to quality care, enhanced processes, patient safety and improved outcomes. URAC is the independent leader in promoting health care quality by setting high standards for clinical practice, consumer protections, performance measurement, operations infrastructure and risk management.

### Phase One: Specialty Medications Supporting Key Treatment Needs

Hepatitis C	HIV
Hepatitis B	Cystic Fibrosis
Multiple Sclerosis	Asthma and Allergy
Rheumatologic Conditions	Growth Hormone Deficiency
Dermatologic Disorders	Pulmonary Arterial Hypertension
Metabolic Disorders	Inflammatory Bowel Disorders such as Crohn’s Disease and Ulcerative Colitis
Hematologic Disorders	
Metabolic Disorders	

# DAISY Award® Recipients: 2022 - 2023



The DAISY Award is conferred monthly to an outstanding nurse at Boston Children's Hospital. Recipients are nominated by patients, families and coworkers to recognize and celebrate compassionate nursing care. RN members of Staff Nurse Council review the nominations and select one outstanding nurse to honor each month. Narratives submitted with nominations describe the ways in which nurses and nursing practices impact patients and families. The program is made possible through the generosity of Mark and Bonnie Barnes who launched this recognition program after experiencing the remarkable impact of registered nurses in the care of their adult son.

Now in place in 2,800+ health care organizations throughout the world, DAISY Award recognition is part of Boston Children's commitment to foster healthy work environments and advance meaningful recognition. Over the past nine years, more than 100 Boston Children's nurses have received a DAISY Award recognizing their individual contributions. Pictured here are Boston Children's DAISY Award winners from January 2022 through December 2023.



**January 2022**

Steve Bova, BSN, RN,  
Staff Nurse I  
6 South Cardiac Cath Lab



**February 2022**

Taylor Hunt, BSN, RN,  
Staff Nurse I  
CSO Med/Surg



**March 2022**

Lindsay Archambault, BSN, RN,  
Staff Nurse I  
Oncology/Hematology



**April 2022**

Abby McMackin, BSN, RN,  
Staff Nurse I  
8S Cardiac ICU



**May 2022**

Teresa Scalzi, BSN, RN,  
Staff Nurse I  
8S Cardiac ICU



**June 2022**

Alicia Apostoles, MBA, BSN, RN,  
CCRN, DNP PNP, Staff Nurse I  
8S Cardiac ICU



**July 2022**

Nicholas McPhee, BSN, RN,  
Staff Nurse I  
MICU



**August 2022**

Michelle Panaccione, BSN, RN,  
Staff Nurse II  
8S Cardiac ICU



**September 2022**  
Megan Lurvey, MPH, BSN, RN, CPON,  
Staff Nurse I  
*Oncology/Hematology*



**October 2022**  
Gabrielle Rozowsky, RN,  
Staff Nurse I  
*6N Oncology*



**November 2022**  
Katherine Nash, BSN, RN,  
Staff Nurse I  
*10NW Orthopedics*



**December 2022**  
Soad Tahlil, RN, CPN,  
Staff Nurse I  
*9 East-General Medicine*



**January 2023**  
Mireille Tabet, BSN, RN,  
Staff Nurse I  
*Medicine ICP*



**February 2023**  
Taylor Jackson, BSN, RN,  
Staff Nurse I  
*MSICU*



**March 2023**  
Katelyn Silva, BSN, RN, CPN,  
Staff Nurse II  
*7 West General Medicine*



**April 2023**  
Matt LaCroix, BSN, RN,  
Staff Nurse I  
*6N Oncology/Hematology*



**May 2023**  
Tracy Myers, RN, BSN, CPN, AE-C,  
Staff Nurse I  
*10 South*



**June 2023**  
Tracy Soucy, RN, BSN,  
Staff Nurse I  
*MSICU*



**July 2023**  
Regina Pezanowski, BSN, RN, CCRN,  
Staff Nurse II  
*NICU*



**August 2023**  
Marisol Hernandez, BSN, RN,  
Staff Nurse II  
*General Medicine*



**September 2023**  
Ryan Sullivan, BSN, RN,  
Staff Nurse III  
*MSICU*



**October 2023**  
James "Sam" Myers, BSN, RN,  
Staff Nurse I  
*NICU*



**November 2023**  
Megan Buchanan, BSN, RN,  
Staff Nurse I  
*Lactation*



**December 2023**  
Teresa Scalzi, BSN, RN,  
Staff Nurse I  
*8S Cardiac ICU*

# Nursing Award Recipients: 2022 - 2023

## Clinical Excellence Award

The Clinical Excellence Award is presented annually to a registered nurse who demonstrates the highest level of professionalism, both in practice and in clinical expertise.

Clinical Excellence Award recipients serve as ambassadors, visibly representing Boston Children's Hospital and professional nursing in the greater Boston community.



**2022**

**Erin Quinlan, BSN, RN, PMH-BC**  
Staff Nurse III  
Behavioral Response Team



**2023**

**Kacey Wiseman, MSN, RN, CPN, VA-BC**  
Staff Nurse III  
Vascular Access Service

## Nursing Leadership Award

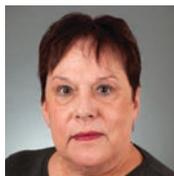
The Nursing Leadership Award recognizes registered nurses who go above and beyond their job description to become role models, resources and mentors.

Recipients of this award have distinguished records of exemplary leadership, patient and family advocacy, and multifaceted engagement with nursing as a profession and as a passion.



**2022**

**Jennifer Steadman, BSN, RN, CCRN**  
Clinical Coordinator  
11 South



**2023**

**Suzanne Reidy, MS, RN, NE-BC**  
Director of Patient Flow and Staffing  
Nursing/Patient Care Operations

## Inaugural Excellence in Nursing Education Award

The inaugural Excellence in Nursing Education Award is presented to a nurse who demonstrates ongoing dedication and commitment to providing the highest quality nursing education to patients, families, and the community.

Recipients of this award demonstrate the scope and standards of the professional development nursing specialty and show commitment to the orientation, continuing education, and advancement of nursing professionals.



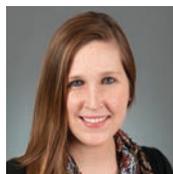
**2023**

**Dennis Doherty, PhD, RN, NPDA-BC®**  
Sr. Professional Development Specialist-RN  
Clinical Education, Informatics, Quality & Practice  
(awarded posthumously)

# Nursing Practice, Leadership & Education Award Recipients: 2022 - 2023

## Inaugural Excellence in Advanced Nursing Practice Award

The Annual Award for Excellence in Advanced Nursing Practice recognizes a direct care advanced practice registered nurse who demonstrates ongoing dedication and commitment to providing the highest quality pediatric care to patients, families, and the community.



**2022**

**Jennifer McClelland, MS, RN, FNP-BC, APN II**  
Staff Nurse III  
Behavioral Response Team



**2023**

**Regina Laine, MSN, PNP-BC, CNRN**  
Advanced Practice RN II  
Ambulatory Neurology/Neuromuscular

## Inaugural Excellence in Advanced Practice Nursing Leadership Award

The Annual Award for Excellence in Advanced Practice Nursing Leadership recognizes an advanced practice registered nurse who demonstrates ongoing dedication and commitment to leadership, advocacy, and action to improve patient care and/or the work environment.



**2022**

**Maria McMahon, MSN, RN, PNP-PC/AC, CPST, TCRN, NE-BC**  
Clinical Coordinator  
11 South



**2023**

**Jean Solodiuk, PhD, RN, PNP**  
Director, Advanced Practice RN  
Pain Treatment Service

## Inaugural Excellence in Advanced Practice Nursing Education Award

The Annual Award for Excellence in Advanced Practice Nursing Education recognizes an advanced practice registered nurse who demonstrates ongoing dedication and commitment to education, advocacy, and action to improve patient care and/or the work environment.



**2022**

**Kristen Lindamood, MS, RN, NNP-BC**  
Advanced Practice RN II  
NICU/Newborn



**2023**

**Katherine Penny, MSN, RN, WOCN, CPNP**  
Director, Cardiac Medical Nurse Practitioner III  
Heart Center

# Nursing Grant Recipients: 2022 - 2023

## Susan Shaw Grant for Direct Care Nurses

The recipient of the Susan Shaw Grant is awarded up to \$5,000 to support the pursuit of a nurse leader career trajectory.

The grant can be used for events such as seminars, training, coaching, and leadership courses.



**2022**

**Erin Leary, BSN, RN, PMH-BC**  
Staff Nurse III  
Inpatient Psychiatry Waltham



**2023**

**Glendalis McLellan, MSN, RN, CPNP, CPHON**  
Advanced Practice Registered Nurse II  
Oncology

## Spring Carpenter Chair Grant for Technical Team Members

The Spring Carpenter Chair Grant supports the professional development of front-line technical team members. The recipient is awarded \$2,500 to be used for events such as conferences, seminars, training, and leadership courses.



**2022**

**Jerrilyn Alvarado**  
Staff Nurse I  
CH Primary Care Center-Clinics

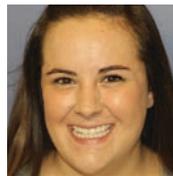


**2023**

**Jerrilyn Alvarado**  
Staff Nurse I  
CH Primary Care Center-Clinics

## Eileen Spring Grant for Frontline Interprofessional Team Members

The Eileen Spring Grant supports interprofessional team members interested in pursuing a clinical leader career trajectory. The recipient is awarded up to \$5,000 to be used for events such as seminars, training, coaching, and leadership courses.



**2023**

**Annika Stout, MS, CCLS II**  
Child Life Specialist II  
Child Life Services

## Anne Jenks Micheli Leadership Fund

The Anne Jenks Micheli Nursing Leadership Grant awards up to \$3,000 annually for non-academic professional development opportunities.

The recipient can use the grant for leadership development and professional advancement, including certificate programs, conferences, executive/leadership courses, professional training skills and more.



**2023**

**Lauren Danforth, MSN, RN, NPJ-BC**  
Senior Nursing Professional  
Development Specialist,  
Clinical Education, Informatics, Quality & Practice

# Nursing/Patient Care Contributions to Organizational Recognition



## U.S. News & World Report Best Children's Hospital Recognition

Boston Children's Hospital is ranked among the best pediatric hospitals in the nation in *U.S. News & World Report's* "Best Children's Hospitals" honor roll, ranking second in 2023. *U.S. News* created the Pediatric Honor Roll in 2009 and began ranking children's hospitals in 2011. There are more than 100 ranked children's hospitals, and Boston Children's is the only hospital to be ranked #1 or #2 on the honor roll 13 years in a row. Rankings are based on three key elements: reputation, patient outcomes, and patient safety care-related factors such as nurse staffing, nursing-sensitive indicators, and breadth of services. To determine the rankings, *U.S. News* analyzed clinical data from nearly 200 medical centers and survey results from 11,000 pediatric specialists nationwide, relying heavily on patient outcomes including mortality and infection rates as well as other nursing-sensitive measures.

<https://www.childrenshospital.org/about-us/us-news-world-report-rankings>



## American Nurses Credentialing Center Magnet® Designation

The American Nurses Credentialing Center (ANCC) Magnet Recognition® is considered the most prestigious institutional distinction a health care organization can receive for quality patient care, nursing excellence and innovation in professional nursing. Only 9.4% of hospitals across the nation have achieved this designation. Boston Children's first achieved Magnet designation in 2008, was awarded redesignation in 2012, 2017 and 2022, and is currently pursuing its 5th designation.



## Emergency Nurses Association Lantern Award

Boston Children's Emergency Department (ED) earned its fourth consecutive Lantern Award from the Emergency Nurses Association in 2021. The ED is currently one of only two children's hospital to be recipients of this award four or more times. This prestigious recognition is held by an estimated 1-2% of hospitals and accorded to EDs that exemplify exceptional practice and innovative performance in the core areas of leadership, practice, education, advocacy and research. Boston Children's ED team first earned the Lantern Award in 2012.



## American Association of Critical-Care Nurses Beacon Award for Excellence

The Neonatal Intensive Care Unit, Acute Cardiac Care Unit - Inpatient Cardiology/ICP, and Cardiac Intensive Care Unit all currently hold gold Beacon Designation for Excellence from the American Association of Critical-Care Nurses. The award recognizes nursing's impact on every facet of patient care, including work environment, leadership structures, evidence-based practice, improvement science, and patient, family and staff outcomes.



## ANCC Practice Transition Accreditation Program

Boston Children's Hospital was awarded accreditation with distinction in 2021 for the design and implementation of its Transition to Nursing Practice Program from the American Nurses Credentialing Center (ANCC) Practice Transition Accreditation Program® (PTAP). The Practice Transition Accreditation Program is widely viewed as the highest standard for residency or fellowship programs that transition registered nurses (RNs) and advanced practice registered nurses (APRNs) into new professional practice settings.

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