

# NURSING/PATIENT CARE BIENNIAL REPORT 2020 - 2021



**Boston Children's Hospital**

Where the world comes for answers



Stephanie Hoag Ahmadi, BSN, RN, CPN and Mary Hastings, BSN, RN - Boston Children's at Waltham

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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™

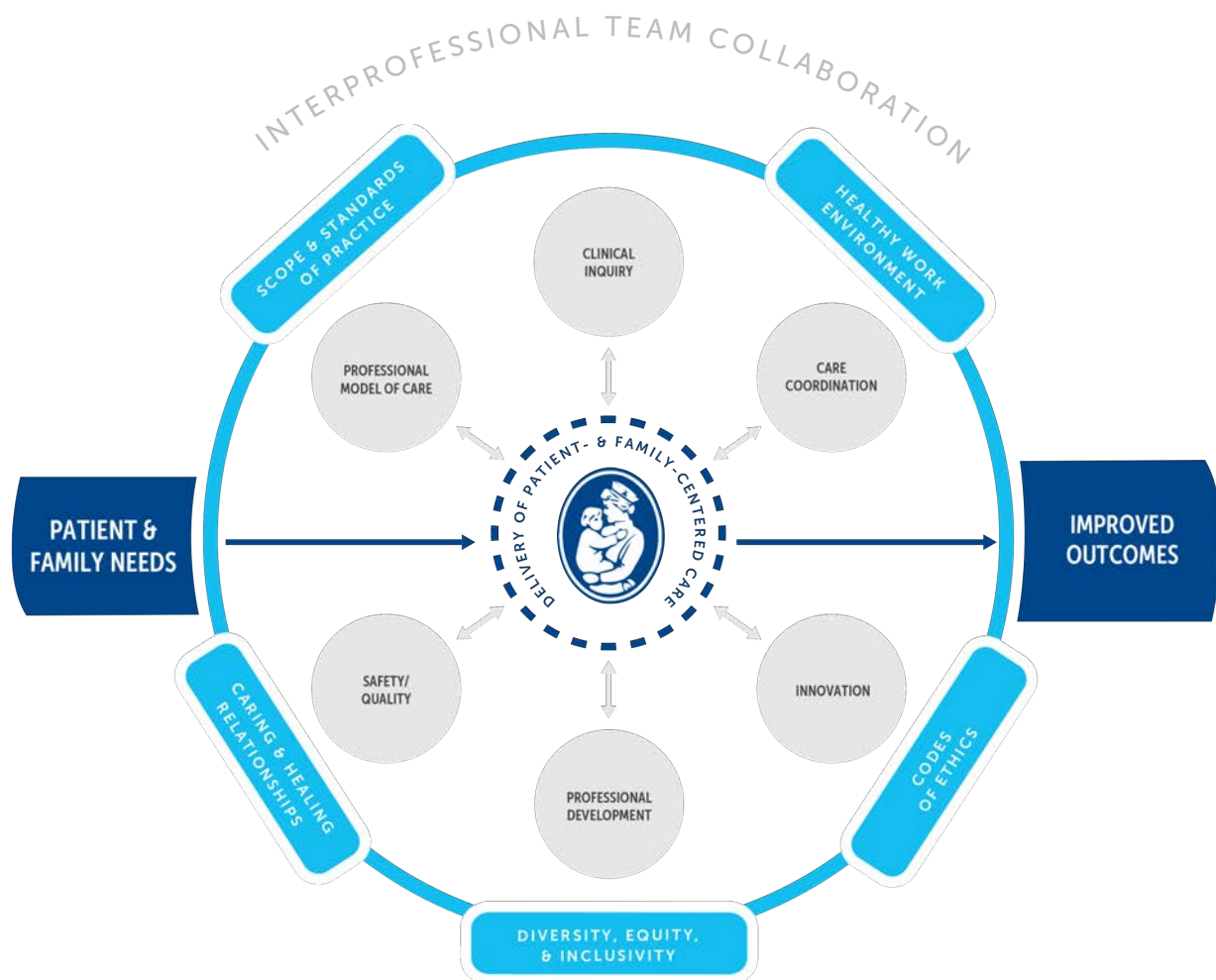
At Boston Children's, we hold ourselves to the highest values of **respect, inclusivity and diversity, teamwork,** and **kindness** to provide patients, families, and each other with an experience equal to the care we deliver.

### Featured on the cover:

Patricia Longo, RN, BSN, CPN, Staff Nurse II with Kaleb - PACU Waltham, Ryan Delpero, RN, Staff Nurse I - 7 South, Bruce Brown, SPD Tech III - Operating Room, Nicolas Cotraro, BSN, RN, Staff Nurse I with Lawson - 6 West, Genevieve Ohemeng RN, BSN, MSN, FNP-C, APRN I with Emelie - 9 South, Claire Dempsey, BSN, RN, CPN, CFER, Staff Nurse II - GPU, Suzy Nguyen, BSN, RN, Staff Nurse I - Vaccine Clinic

# 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 workforce, 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

## System-Wide Goals 2022 – Beyond



**Access & Impact**



**Our People**



**Equity, Diversity & Inclusion**



**Innovation & Discovery**



**Clinical Care**



## Nursing/Patient Care Goals 2022 – Beyond

### Community

- Enhance transitions of care within complex systems
- Expand engagement in community initiatives

### Thriving & Engaged Workforce

- Strengthen professional development, leadership, and advancement opportunities
- Promote the health of the work environment with a continued focus on well-being and renewal
- Expand and evaluate interprofessional residency and fellowship programs
- Design and implement staffing models to strengthen resource advocacy and provide further flexibility

### Inclusive Excellence

- Advance recruitment, retention, and inclusivity initiatives to strengthen workforce diversity
- Increase accountability for workplace professionalism, civility, and mutual respect

### Research & Innovation

- Improve health outcomes by advancing nursing/interprofessional sciences
- Optimize the utilization of technology to enhance care management
- Reduce disparities in care and health equity through focused nursing/interprofessional science initiatives

### Optimal Care & Patient Experience

- Further optimize capacity management and improve access
- Strengthen clinical quality indicators and outcomes
- Optimize child behavioral health care delivery systems
- Increase the opportunities to involve diverse patients/families in the design and improvement of care

# 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>



Reference

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







# Recognizing Key Contributions: Creating Our Path Forward



Dear Colleagues,

While the 1918 influenza epidemic that led to the loss of millions of lives around the world nearly a century ago has long been part of our history lessons, few of us anticipated the far-reaching impact of the COVID-19 pandemic that has now come to dominate so many aspects of our

lives over the past two years. As we approach the third year of this global pandemic, your efforts to persevere through ongoing professional and personal challenges to provide essential care have been profound. Together, our teams have provided critical health care services and served as a beacon of hope for all who count on Boston Children's in our community, the nation and throughout the world.

Yet, we have also come to bear witness to significant health equity gaps, experienced a decline in civility around us, and increasingly recognize the need to prioritize both internal and external resets in our care of self and others. Our collective healing is an essential part of our path forward as nurses and clinical team members.

Though we necessarily focused on emergency responsiveness over the past two years, together we also sustained commitments to important aspects of our professional practice that require ongoing vigilance – including well-being priorities and other employee advocacy initiatives. Key areas of focus in the report include care quality, care delivery innovations, employee and patient safety initiatives, and actions related to health equity, diversity and inclusivity.

During the fall 2021, we completed a refresh of the Nursing/Patient Care Strategic Plan and established goals in alignment with the organization's enterprise priorities. Front-line nurses, interprofessional team members, and senior leaders participated in both synchronous virtual planning sessions and a strategic planning survey process to prioritize future initiatives to guide this process. Our strategic plan aims to strengthen the community, promote a thriving and engaged workforce, advance inclusive excellence, research and innovation, and optimize care and patient experience.

Many goals are already in progress, to be implemented over the next several years with an annual accounting of our progress. While the duration of the pandemic remains unclear, together we will sustain a focus on staff well-being, equity-diversity-inclusivity outcomes, and evolve our culture through actionable programs. I hope you will enjoy the opportunity to read about our path forward as the pandemic becomes a less dominant feature of in our lives and to reflect upon the many ways you continue to improve the health of children, families, and our community through your work.

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







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# INNOVATIONS IN CARE DELIVERY



Average # of enterprise wide text messages monthly:

**282,000**

Average # of enterprise wide phone calls monthly:

**195,000**



# Quality and Experience Innovations in Nursing and Clinical Informatics

## Leading the Way in Reducing Nursing Documentation Burden

Boston Children's Hospital's nursing workforce is highly educated and experienced. Time spent on direct patient care benefits children and families and informs clinical-care decisions made by the larger interprofessional team. However, a growing body of research indicates that nurses and clinical team members spend increasing amounts of time manually documenting in the patient record.

One such study found that in a four-hour period, nurses spent about 52 minutes documenting in the electronic health record (EHR).<sup>1</sup> Other

findings suggest nurses spend up to 35% of their day documenting in the EHR.<sup>2</sup> Interviews with nursing and health care leaders further revealed that clinical documentation is "excessive and takes nursing time away from the bedside."<sup>3</sup>

Ongoing initiatives to streamline documentation while capturing essential data elements to support clinical and research opportunities continue to be a priority among Boston Children's Nursing and Patient Care Operations leaders. Optimization of the EHR process is critical, and impacts patient care as well as the hospital's nursing workforce of nearly 2,500 registered nurses and 500 advanced practice registered nurses.

As part of its formal nursing documentation optimization initiative, Boston Children’s developed a new process to record daily progress notes. The project was guided by **Katie Hunter, MSN, RN, CPN**, senior clinical informatics specialist, under the leadership of **Lynnetta Akins, MSN, RN-BC**, director, Clinical Education & Informatics, Quality and Practice. The process re-purposed an existing toolkit, Dynamic Documentation, that had been used exclusively to support physician-designed workflow, and applied these assets to support key improvements in nursing documentation.

In March 2020, Boston Children’s became the first hospital in the country to implement the nursing mPage for inpatient progress notes. The mPage workflow captures vital information about a patient’s health and enables sharing among care team members. The intent was to streamline the documentation and charting process, reduce time spent on each task, increase time available for direct patient care and provide real-time sharing of information among clinical team members. Within three months of go-live, 100% of all nursing notes throughout the Boston Children’s system of care were consistently completed using this new process.

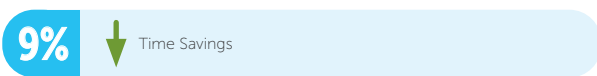
### Bedside Workflow Capabilities and Interdisciplinary Communication

The Information Technology (IT) landscape is quickly transforming to meet the demands of clinicians – from computer-based workflows to mobile solutions. In the summer of 2019, Boston Children’s completed an enterprise-wide go-live of new mobile smartphone devices that supported CareAware Connect applications. The functionality includes texting, voice, nursing applications, camera capture and other internal mobile resources. **Lee Williams, PhD, MSN, RN, NE-BC, NPD-BC**, vice president and associate chief nurse, Clinical Education, Informatics, Quality and Practice, CNIO and **Jonathan Bickel, MD, MS**, senior director, Clinical Health Record and Business Intelligence, collaborated with **Akins** to lead this initiative.

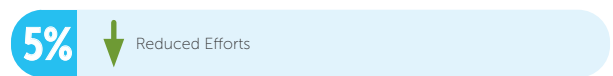
The new smartphone device offers an improved user interface and enhanced features compared to the previous keyboard-based phones. Nurses can now scan medications, labs and enteral nutrition at the bedside, without having to log onto a full workstation.

Communication opportunities were optimized through the creation of a comprehensive contact directory built into the system. Not only can clinicians locate their colleagues by name, they can also reach people based on assigned roles at a specific time of day. This functionality has decreased the need for clinicians to access full workstations and other applications to understand role-based coverage.

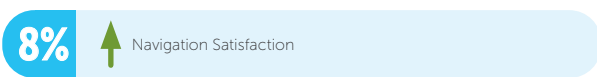
### Empirical Outcomes



This change accompanied an uplift in the admission workflow, resulting in a 9% reduction in time to complete the admission documentation (8:14 to 7:30 minutes.)



There was a 5% decrease in the number of clicks required to complete the documentation.



8% of nurses surveyed after go-live were more satisfied with their ability to navigate and review patient charts than before the change.



68% of nurses reported satisfaction in their ability to document while reviewing patient data compared to 25% of nurses prior to this change - nearly a three-fold improvement.

## Cures Act Compliance: Improving Patient Access to Electronic Health Information

The 21<sup>st</sup> Century Cures Act has significantly impacted how quickly patients can access their personal health information online. Signed into law in 2016, the Cures Act featured a "Final Rule," granting patients the right to free, unrestricted and immediate access to all of their electronic health information, including lab results and other reports, once it is posted within the EHR.

Boston Children's elected to become an early adopter, implementing required Cures Act changes in February of 2021, rather than waiting until the April deadline. While meeting Final Rule requirements was a highly complex process, the hospital was able to effectively implement key changes with the collaboration of several teams, including Children's Hospital Applications Maximizing Patient Safety (CHAMPS), Clinical Education, Informatics (CEI), Project Management, Administration, MyChildren's Patient Portal Support and others.

The Cures Act is an ongoing regulatory effort that will continue to impact Boston Children's systems and processes and provide more efficient access to health care information for patients and families around the world. The CEI team is working to make additional genetics, pathology and other scanned results available on the MyChildren's patient portal, while focusing on future opportunities for documentation, such as nursing notes. The ultimate goal is to provide fast, seamless and secure access to, exchange of electronic health information for health care consumers and providers.

## Converting Clinical Research Orders From Paper to Computerized Provider Order Entry

Boston Children's nursing staff plays a key role in operationalizing the hospital's five-year Research Strategic Plan, initially approved in 2019. One such initiative is converting paper clinical research orders to computerized provider order entry (CPOE). CPOE is one of thirty National Quality Forum "Safe Practices for Better Healthcare" and the first of three key recommendations of The Leapfrog Group.

More than a technology, CPOE is a workflow design of clinical processes that integrates technology to optimize provider ordering of medications, lab tests and other clinical investigations. Boston Children's implementation of CPOE for clinical research was a phased project that started with a nurse-led pilot in the Experimental Therapeutics Unit (ETU). Clinical staff led the transition. The pilot team included several nurses working with pharmacist partners. The team met weekly for more than a year to plan workflow changes to place, review, authorize and carry out research orders. The nurses' knowledge of direct care, their clinical research expertise and their patient-centric thinking ensured the development of plans that promote safety.

## Electronic Health Record System

Patients and families can now access crucial information as soon as it is posted, including:

- Vital signs
- Assessment and plan of treatment
- Care team members
- Clinical notes
- Immunizations
- Labs
- Medications
- Patient demographics
- Problems
- Procedures
- Provenance (when and who created the data)
- Multidisciplinary documentation (notes from prescribers, physical therapists, social workers, etc.)



The goal of the pilot was to test the system, redesign workflows and learn from mistakes before expanding throughout the organization. “The implementation of CPOE for clinical research studies has proven to be more complex than anticipated,” said **Cindy Williams, DNP, MSN, RN, PNP, NE-BC**, nursing director, ETU.

## “Adjustments to the workflow of investigators, research nurses and Investigational Drug Service pharmacists have been required to move from a system of paper research orders to an electronic platform.”

*Cindy Williams, DNP, MSN, RN, PNP, NE-BC, nursing director, ETU*

### Virtualizing Inpatient Care During COVID-19

Among many challenges, the COVID-19 pandemic made it difficult to provide continuity of care to children and adolescents admitted as inpatients. The transition to a hybrid work environment left some key patient care team members working at a distance. To meet escalating demands for a virtual inpatient solution, an interdisciplinary team collaborated to design and implement a secure, video-based meeting option. Information Services Department telecommunications and networking teams, led by **Mark Hourigan**, director, Communication and Infrastructure Services, worked to build virtual video rooms for every inpatient bedspace throughout the hospital.

**Lynnetta Akins** and **Jonathan Hron, MD**, associate chief medical information officer, led a combined nursing, clinical informatics, and physician informatics team to design, implement and support each of the new virtual rooms. As a patient was admitted into a bedspace, the team updated the secure password to allow for a personalized and secure patient/family and care team member experience. **Brenda Dodson, PharmD**, director, Clinical Practice and Informatics Projects, created custom reports to facilitate awareness of admissions

for room updating. **Bill Gagnon**, digital strategist in the Marketing Department, collaborated to create unique QR codes that provided patients and clinicians quick access to the virtual room. Unique scenarios were designed in partnership with Child Life and Volunteer Services team members **Kirsten Getchell, MS, CCLS**, child life specialist III, and **Beth Donegan Driscoll, MS, CCLS**, director, Child Life Services. Together, they brought remote resources to patients, including tutoring, art and distraction techniques to support children undergoing various treatments.

### The Aiva Project

In collaboration with **Sarah Lindenauer, MPH**, director, Innovation & Digital Health Accelerator, and **Annie Hill, BA**, senior strategy and business development associate, Innovation & Digital Health Accelerator, Nursing/Patient Care leadership, and direct care RNs implemented Alexa devices in select patient care rooms on the Hematopoietic Stem Cell Transplant Unit (6 West) and the Mandell building wing of the Inpatient Cardiology Unit (8 Mandell). With support from **Marcie Brostoff, MS, RN, NE-BC**, vice president and associate chief nurse, Clinical and Patient Care Operations, and **Patricia A. Hickey, PhD, MBA, RN, NEA-BC, FAAN**, senior vice president and associate chief nurse, Nursing and Patient Care Operations, the CEI team collaboratively designed, tested, and implemented all devices.

Supported by Aiva Health, this voice-activated smart speaker allows patients and families to request music, games and responses to frequently asked questions about the hospital. It also integrates with the in-room education and entertainment system, so nursing staff can assign custom patient education videos to the bedside TV.

Members of the hospital’s Family Advisory Council participated throughout the design and user acceptance phases. Future enhancements will include the ability to route requests directly to members of the care team and access to children’s stories on demand, read by Child Life specialists.

The devices went live on 6 West in November 2020 and on 8 Mandell in January 2021. Music has been

the most utilized feature on the device so far. Other popular features include TV-related voice commands, such as GetWellNetwork and Q&A with Alexa, which includes custom Boston Children's content. On average, patients and families tend to interact with the device 5.5 times per day.

"Patients and families of all ages love the devices," said **Julie Waite, MSN, RN, CPHON**, clinical coordinator, 6 West. "They can request whatever music suits their mood. From dance parties to lullabies, they use them all."

**Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president patient care operations and system chief nursing officer also noted, "Expanding the use of AVIA is part of an intentional strategy to reduce the management of non-nursing specific care coordination tasks." Similar efforts were accomplished several years ago with the creation of Boston Children's Central Equipment Service (CES) team managed through an application on the desktop of all unit-based computers to request more than 100 pieces of clinical equipment. Reducing charting burden by integrating the use of dynamic documentation tools previously reserved for physicians is another example of our efforts to support front line nurses and clinicians.

## Designing and Implementing a Modern Milk Lab: Advancing Quality and Safety in Nutrition Services

Nutrition is an essential element contributing to an individual's overall health status, particularly for vulnerable neonates and children with specific health concerns. With an emphasis on using the gut as much as possible to deliver nutrition, various combinations of breastmilk, fortified breastmilk and standard and customized formulas can meet patient needs. It is also critical the right patient gets the right preparation, particularly when it comes to breastmilk containing nutrition. After implementing an application to store and manage breastmilk, Boston Children's expanded the focus to include customized formulas. The process of ordering, reviewing, preparing and administering enteral nutrition has been redesigned and standardized to improve efficiency and safety.

**Kimberly H. Barbas, BSN, RN, IBCLC**, director, Lactation Support Program, provided subject matter expertise related to breastmilk and donor milk. Collaboration with the Clinical Nutrition Team, led by **Coleen Liscano, MS, RD, CSP, LDN, CNSC, CLE, FAND**, director, Clinical Nutrition guided the inclusion of fortified breastmilk and customized formulas in this process. **Brenda Dodson, PharmD** designed standardized orders with integration to the enteral nutrition application, as well as reports and nutrition workflows within the application. **Lynnetta Akins** and **Danielle Perley, MSN, RN-BC, CPHON**, senior clinical informatics specialist, Clinical Education and Informatics, led efforts to validate bedside workflows, design documentation, educate clinicians regarding the new processes. Leveraging positive patient identification and preparation identification for enteral nutrition is a critical, yet often missing, capability in clinical information systems and patient care workflows. These recent efforts were carried out with an eye on the future as the transition to the new Hale Family Building, which includes a dedicated milk lab, occurs in mid-2022. ■

### Citations

<sup>1</sup>Yen, P. Y., Kellye, M., Lopetegui, M., Saha, A., Loversidge, J., Chipps, E. M., Gallagher-Ford, L., & Buck, J. (2018). Nurses' Time Allocation and Multitasking of Nursing Activities: A Time Motion Study. *AMIA Annual Symposium Proceedings*. 1137-1146. <https://pubmed.ncbi.nlm.nih.gov/30815156/>

<sup>2</sup>Reinecke, S. (2015, June 15). *Is your EHR Hurting your Nurses?* *Healthcare IT News*. <https://www.healthcareitnews.com/blog/your-ehr-hurting-your-nurses>

<sup>3</sup>Staggers, N., Elias, B. L., Maker, E., & Alexander, G.L. (2018). "The Imperative of Solving Nurses Usability Problems with Health Technology." *JONA*, 48(4), 191-196.













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# EMPOWERMENT & PROFESSIONAL DEVELOPMENT

**18.4%**

In 2014, 18.4% of Boston's residents were Latino/Hispanic, compared to only 2.2% of practicing RNs city wide.

**21%**

In 2021, 21% of Boston Children's RNs were racially and ethnically diverse.



## Diversity and Inclusion Initiatives to Advance Health Equity

Inclusive excellence is a longstanding cornerstone of Nursing and Patient Care Operations at Boston Children's Hospital. Supported by a strong foundation of professional advancement programs such as the Student Career Opportunity Outreach Program (SCOOP) and Nursing Career Lattice Program, the commitment to enhance equity, diversity and inclusivity (EDI) for patients, families and staff has remained a top priority. **Laura J. Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, patient care

operations & system chief nursing officer, often highlights these core values as a "steel thread" integral to all organizational efforts to deliver culturally humble, sensitive care. Together with expansion of the racial and ethnic makeup of the Boston Children's nursing team, the hospital has made it a priority to embed these tenants within nursing workforce, recruitment and retention strategies, and the patient-family experience. This work is central to advancing health equity, as well.



## Development of a Diverse Surgical Nursing Workforce

For many years, the value of inclusion has existed at the center of the mission for Surgical Nursing Programs leadership. Comprised of several surgical specialty inpatient units, the group includes nurses and team members representing a wide array of cultures, races, religions, genders and languages. The group's leader, **Herminia Shermont, MS, RN, NE-BC**, senior director of surgical programs, has served as a role model for building and translating the value of diversity throughout her teams. Shermont grew up in apartheid South Africa. This experience drives her life-long impetus for inclusivity. A leader of surgical nursing at Boston Children's for 21 years, she instills in her team the value of inclusivity and the importance of "making room in your heart for everyone."

Since 2000, Shermont has supported numerous EDI initiatives at Boston Children's, including the development of the first Dedicated Educational Unit (DEU) to promote opportunities for racially and ethnically diverse nursing students in partnership with UMass Boston. More recently, her Surgical Programs Leadership team developed the Surgical Transitional Mentor Education Program, which supports early career and diverse nurses who aspire to the role of charge nurse, resource nurse or clinical educator. Other key initiatives include the Partnership Unit-Preceptorship Program and Career Mapping Program to support nurses' advancement across all surgical areas.

In 2019, Shermont received the Mary A. Manning Nurse Mentoring award from the ANA Massachusetts (ANAMASS), which cited her efforts to increase the number of diverse nurses in surgical programs. Herminia and surgical program nursing leaders embody a continuous commitment to diversity, hiring 21 diverse staff nurses, three diverse advanced practice registered nurses, and overseeing the participation of 18 diverse nurses on departmental and organizational committees. "Everyone must be held accountable for promoting and advancing diversity and inclusivity to build upon each other's strengths and respect each other's differences," Shermont said. "Changing culture occurs slowly – but brings out the best in everyone."

## Nursing and Interprofessional Diversity Recruitment Strategies Make an Impact

With RNs representing one of the largest segments of the Boston Children's workforce, nursing leaders recognized the need for intentional focus on strategies to improve diversity. This is important given the hospital's increasingly diverse patient population, but also to remedy the chronic under-representation of racially/ethnically diverse nurses relative to the general population in the greater Boston region. The need to recruit men from all backgrounds remains a priority as well.

Over the past several years, Boston Children's senior nursing operational and nurse recruitment leaders have further intensified their efforts to address these issues. Stronger relationships with nursing school program leaders, as well as earlier engagement of diverse student nurses through connections with experienced, diverse nurses not currently employed led the hospital to welcome 164 racially and ethnically diverse RNs since 2019. The process has also dramatically increased gender, socio-economic, linguistic and educational diversity.

**Tyonne Hinson, DrPH, MSN, RN, NE-BC**, director, Nursing Diversity and Nursing Career Lattice Program, consistently highlights the importance of "faces that represent a myriad of races and ethnicities, lived experiences, socio-economic backgrounds and linguistics for all families to see themselves reflected in their care providers." As the literature makes clear, this is critical to reduce health care disparities, while improving trust, communication and the patient-family experience.

Since 2020, Patient Care Operations leaders have partnered with Dr. Hinson to develop recruitment strategies to increase diversity and inclusive excellence among their teams. Expanded partnerships have created new opportunities to grow diversity advancement with pharmacy and clinical nutrition students at academic institutions in Massachusetts, New York, New Jersey, Pennsylvania and Washington, DC, while communicating Boston Children's commitment to EDI. "We look forward to the continued advancement of inclusive excellence among our workforce throughout Nursing/Patient Care Operations as a platform to promote health equity and reduce health disparities," said **Laura J. Wood, DNP, RN, NEA-BC, FAAN**. "As leaders at Boston Children's, we stand committed to this goal for our patients and families, while supporting the professional development and

advancement of the next generation of nurses, pharmacists, nutritionists and other health care professionals employed throughout the organization.”

### Family Advisory Council Journey to Advance Inclusive Voices

Boston Children’s Family Advisory Council’s (FAC) long-standing focus on EDI reflects its impact on the patient-family experience. Over the last several years, that focus has intensified. For **Katie Litterer, BA**, program manager, Family Partnerships and **Aimee Williamson, PhD**, parent co-chairperson, FAC, EDI emerged as a key organizational and societal priority in 2019 with the FAC’s Strategic Plan Refresh. Williamson, whose daughter has received care at Boston Children’s throughout her life, identified her fellow FAC members as critical voices in the continuous journey for exceptional and equitable patient experiences. “We cannot truly fulfill our mission without ensuring diverse voices are represented and welcomed to our table,” she said.

The FAC believes the journey to advance inclusion also requires fostering a healthy culture free from racism, discrimination and bias. Members have sought to increase the participation of parents who more fully reflect the hospital’s patient population. In early 2020, the FAC formed a volunteer task force to create its own EDI plan. Litterer and Williamson, in collaboration with **Marcie Brostoff, MSN, RN, NE-BC**, associate chief nurse and vice president, Patient Care and Clinical Operations, and **Sara Toomey, MD, MPH**, former chief experience officer now senior vice president, chief quality and safety officer, guided the task force through exercises to better understand gaps in processes, demographics and culture. Results were significant with several multi-year initiatives created, including:

- Formalization of FAC commitment to diversity and inclusion for both internal and external recruitment campaigns/communications
- Creation of accountability metrics focused on current demographics and diversity recruitment (i.e., patient diagnosis, age, gender, race/ethnicity, language, education)
- Creation of virtual FAC membership opportunities
- Pursuit of cultural linguistic resources for integration of non-English speaking FAC member(s) to be made possible via interpreter/translation services
- Creation of social media recruitment campaigns featuring FAC members
- Rebranding and relaunching the E-Advisors program as a deliberate funnel for future FAC candidates and opportunity to leverage patient-family voices

With implementation underway, the FAC is working to ensure the plan aligns with Boston Children’s evolving focus, including the hospital’s 2020 EDI Declaration. “Our FAC EDI plan is a tool that allows us to have uncomfortable conversations, to open up to one another, and to become better team members, collaborators and individuals,” said FAC member **Padmaja Raman**.

Despite these successes, Litterer and Williamson recognize EDI is a journey, not a project. “There is so much more work to be done, with differing voices and perspectives constantly emerging at the table,” said Litterer. In the coming years, this work will remain a top priority for the FAC, whose members are committed to continuing to advance an inclusive and respectful culture for all. ■



**“Knowing that you are contributing to something bigger that will benefit so many lives is an immeasurable sentiment.”**

*Prisnel, Boston Children’s dad, E-Advisor and Patient Family Advisory Council member*



Chantel Pearson, SPD Tech II - central processing



20+

We have more than 20 Transformer Teams comprised of local leaders, physicians, staff nurses, clinical experts and support staff all engaged to simulate and plan the transition to the Hale Family Building.



## Transforming Tomorrow: Nurses and Clinical Team Members Design Future Care Environments

Boston Children's Hospital leadership recognized nearly a decade ago that it was time to modernize existing facilities and create new spaces to help ensure high-quality care for patients and families. Clinical care delivery has evolved over the years; today, it relies more heavily on technology, data, cross-team communication and interprofessional approaches than ever before. Additionally, rising average daily census and a growing number of patients seeking care for increasingly complex conditions have presented Boston Children's

with challenges related to the hospital's capacity to meet patient, family and community needs.

To address these challenges, Boston Children's launched a series of capital projects collectively called Transforming Tomorrow. This three-fold venture is designed to enhance high-quality care; improve patient, family and caregiver experiences; increase access to care for patients and families; and create an environment where clinical teams can collaborate safely and effectively.

## The New Hale Family Building: Setting Up for Success

A vital part of planned improvements will occur as part of the construction of the Hale Family Building, an 11-story, state-of-the-art facility set to open in summer 2022. The building will enable the hospital to provide care in an environment that addresses the clinical and restorative needs of patients and families. According to **Stephanie Altavilla, MSMI, RN**, senior project director for Transforming Tomorrow Operations, clinical readiness is a critical consideration in the building plans. As such, leadership sought direction from nurses, physicians and clinical team members to learn more about how they function in their workspaces today, and how future workflows might be further optimized.

**“The physical space of Hale will allow us to provide technologically advanced care within an environment that will also help us work more efficiently with less variability.”**

**Andrew T. Smith MSN, RN-BC, CPN, director, Main Operating Room & Sterile Processing**

Nurses, physicians, and numerous interprofessional colleagues, served as design partners as the building plans evolved. Nurses were involved in every phase – from planning and design to operations. Staff nurses served on more than 20 Transformer Teams, comprised of local leaders, physicians, clinical experts and support staff. “We relied on their experience and used their expertise to validate equipment purchases, IT priorities and furniture design, and operations planning,” Altavilla said.

Similarly, **Andrew T. Smith MSN, RN-BC, CPN**, director, Main Operating Room & Sterile Processing, has shared his perspectives as plans developed. “The part of the project that’s truly awesome to me is the revolution of the way that OR cases are being scheduled and how equipment is being procured,” he said. “The physical space of Hale will allow us to provide technologically advanced care within an environment that will also help us work more efficiently with less variability.”

## Patient-family Involvement

Members of the hospital’s Family Advisory Council have also been deeply involved in the planning and design of the building. “They were part of our design sessions, participated in early cardboard fabricated simulations of the proposed environment and provided us with important insights about features and design elements that were subsequently created to improve their experience. These include family lounges, parent spaces within each child’s room and public areas such as the lobby,” Altavilla said.

The Hale building promises to improve the comfort of patients and families. One highly anticipated feature is the new, state-of-the-art NICU, which will house 30 single-bed rooms instead of open bays – a key change to promote greater privacy and quiet spaces for frail neonates. “The NICU will improve how we care for critically ill infants and how we support their families,” said **Peter Betit, MBA, RRT-NPS, FAARC**, director, Respiratory Care & ECMO Program. “The spacious design will allow for a much safer and healing-focused environment, and allow respiratory therapists to safely arrange ventilators and other life-support equipment in the single-patient rooms.”

## Design by Clinical Experts and Families

The Benderson Family Heart Center will occupy five floors with 96 single-bed rooms. The cardiac clinic will house 21 exam rooms and nine pre-op exam rooms. To help inform this design, the ambulatory cardiology transformer team has been meeting regularly. As a subject matter expert on that team, **Julia McSweeney, MSN, RN, CPNP**, advanced practice nursing director, provided a valuable real-time perspective of patient care. “As an example, the positioning of the exam table in the clinic room should facilitate the provider standing to the right side of the patient during physical examination – a detail that may be overlooked by the team designing the space, but one that is of the utmost importance for clinicians,” she said. Since the modernized space is designed for current and future needs, McSweeney said, “this will improve our team’s ability to deliver high-quality care with enhanced access, and an enriched experience for our patients and families.”

During the early design phase, the building team used simulations created largely by medical and nursing members to assess the viability, effectiveness, and patient/family and team member experience in this model space. There were two rounds of simulation. First was 'cardboard city.' The team took over one floor of the Longwood Center building and created initial room designs out of cardboard. Essential equipment, such as ventilators, ECMO machines and computers, was also crafted from cardboard and added to the rooms. The simulation reflected many of the items that would be in the future clinical spaces.

"We simulated events in clinic exam rooms, inpatient, ICU, OR, prep/recovery rooms and the clinical lab," Altavilla said. "We were able to easily move things around and show the architects what was working well, and not so well, in the proposed design." After learning from the cardboard rooms, the team repeated simulations under the guidance of direct care physicians and nurses, but this time with hard walls. The goal was to learn how clinical providers would function in the rooms. The team continued to learn from this process and is currently working with the Boston Children's Pediatric Simulator Program team to incorporate tabletop and full simulation into operations planning for important activities such as patient flow and emergency activations.

## Technology Upgrades

Technology considerations are an important part of planning for the new Hale building, as both the passage of time and the ripple effect of the COVID-19 pandemic demonstrate just how rapidly technology in health care continues to accelerate. The new multipurpose conference rooms will be Zoom-capable, and the ICU and Cardiac acute care/inpatient beds will feature Persistent Displays. Nurses will be able to observe patients more easily with state-of-the-art monitors at every nursing alcove. Integration within the surgical floors, such as the enhanced interventional radiology suite and new hybrid operating rooms, will improve clinical care.

The building will also include some fun features for family members and patients to enjoy. For example, QR codes on artwork will allow users to learn more about the curated pieces. Interactive art in patient

rooms will be visible via a smart phone or tablet. Additionally, green space will increase 25% – both indoors and out – so that patients who are able, as well as family members and staff, can enjoy the calming benefits of nature.

Ten new operating rooms (OR) will allow the hospital to increase surgical capacity while the current 12 ORs are renovated, eventually providing 22 new or refurbished operating suites. The Cardiac ORs will move onto the same floor as other cardiac procedure spaces, supporting the co-location of key services.

The opening of the Hale building will also usher in the use of bedside nurse servers, which will support the delivery of medication and breastmilk/formula directly to each patient's room. Every bedspace will have a server, which includes space to store PPE and other supplies so nurses never have to leave a critically ill patient's bedside. "The thought leadership of nurses and the entire extended care team will soon be on full display following so many years of planning," said Altavilla. ■





Colleen Kane, BSN, RN, Staff Nurse I, with Cora - Cardiology







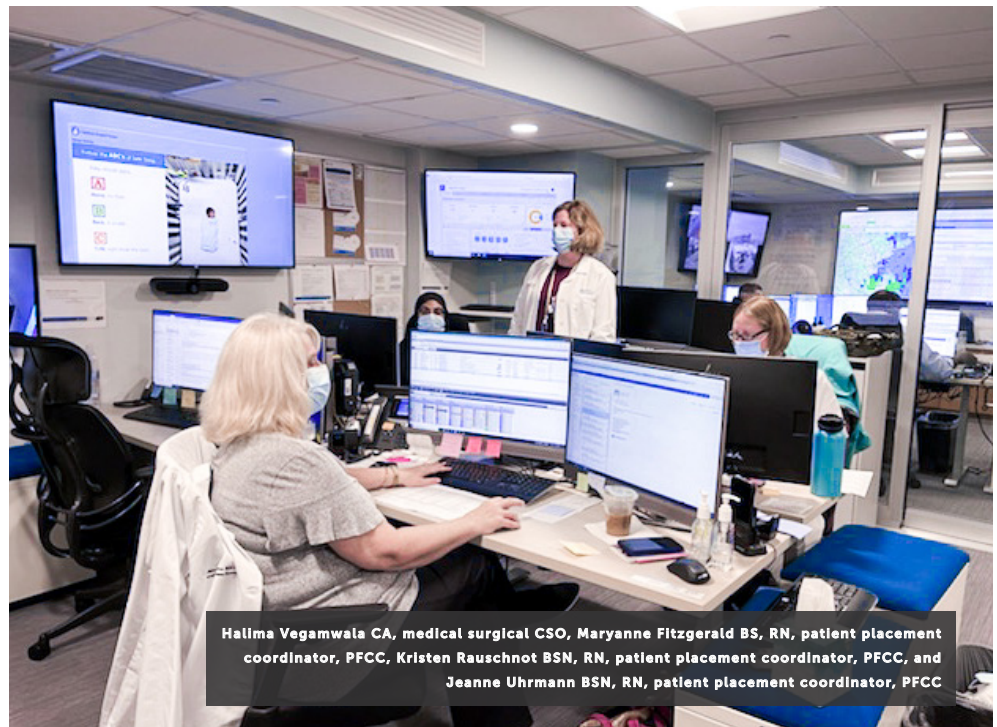
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# TRANSFORMATIONAL LEADERSHIP



1,169

Number of COVID-19 issues logged and addressed through the Hospital Incident Command Structure 2021-2022



# Enterprise-wide Collaborative Response to the COVID-19 Pandemic

On March 11, 2020, the World Health Organization (WHO) declared coronavirus disease 2019, known as COVID-19, a global pandemic.

By that date, Boston Children's Hospital's COVID-19 Command Center had been up and running for almost three weeks. While the WHO lamented a lack of urgency among some world leaders, Boston Children's stepped into a leadership role quickly through its early actions. Emergency Management (EM), a vital part of the hospital's operating structure, had expected the unexpected – and planned for it.

Command Center staff executed the emergency response plan, demonstrating collaboration, resourcefulness and critical emergency response capabilities. The plan was a dynamic, living mechanism that relied on near real-time analytics, critical thinking, flexible action, quick decisions and, most of all, exceptional interprofessional team members.

Under the direction of the hospital's executive leadership, Command Center operational leaders adapted physical spaces, varied census and locations of care, and implemented a wide range of clinical

and administrative policies all designed with one purpose in mind: to keep patients, families and staff safe. Staff were trained and re-trained as necessary. Individuals and teams were asked to do jobs other than their own, work in new clinical areas and hospital functions, and contribute to a wide range of emerging priorities.

## Response Framework

Boston Children's proactive approach began in December 2019 with orders from then Chief Executive Officer **Sandra L. Fenwick** and current President and CEO **Kevin B. Churchwell, MD**. The Command Center was activated under an already existing emergency response mechanism, known as the Hospital Incident Command System (HICS), a structure designed to help health care organizations improve emergency management planning, response and recovery capabilities. Members of HICS began meeting frequently.

**“Initiatives that take years to develop were completed in hours. We moved very quickly and used every resource available within the hospital to create solutions, policies and procedures.”**

***Marcie Brostoff, MS, RN, NE-BC, vice president and associate chief nurse, Clinical and Patient Care Operations***

No institution could have completely prepared for what the WHO called “alarming levels of spread and severity,” but quick mobilization of the HICS positioned the organization to respond effectively to the pandemic.

Led by the Administrator on Duty (AOD) and Incident Commander, **Marcie Brostoff, MS, RN, NE-BC**, vice president and associate chief nurse, Clinical and Patient Care Operations, the hospital established vital initiatives. These efforts focused on COVID-19 prevention; risk management; patient and staff safety; development of policies and procedures;

frequent communication; tailored training; and a willingness to rethink and reconfigure how the organization did just about everything. Managing the census, staffing and associated reductions in revenue after curtailing elective procedures also required thoughtful planning and decision-making in concert with senior leaders.

“We created a centralized structure to manage COVID-19, and that centralization was critical to our success,” said Brostoff. “Initiatives that take years to develop were completed in hours. We moved very quickly and used every resource available within the hospital to create solutions, policies and procedures.”

Brostoff, who retired in 2021 after nearly four decades of service, called Boston Children's COVID-19 response the highlight of her career. “I've never before experienced anything like this,” she said. “I am proud of everyone who worked diligently to keep patients and staff safe, while delivering high-quality, exceptional care.”

## New Policies and Protocols

Under the leadership of **Mary Devine, MPH**, senior director, EM played an essential role in organizing and operationalizing the pandemic response while maintaining the department's ongoing duties. “We provided consistent policies around COVID-19 and the tools needed to follow those policies,” said Devine. “It was challenging, but it paid off.”

EM worked with multiple departments across the institution to develop dashboards to track important data related to bed management, number of COVID-19 cases, supply of available personal protective equipment (PPE) and more. Dashboards served as touchstones for critical decision-making.

To provide information, guidance and ongoing communication, the Command Center sent regular COVID-19 AOD advisories. Additionally, the team addressed 1,169 staff-generated COVID-19 issues and managed daily Department of Public Health response reports. These constant, reliable updates provided critical information quickly, clearly and frequently, and helped lessen staff fears.

Across the hospital, new safety protocols were put into practice around PPE, handwashing and visitation. Care providers from behavioral health to dietary counseling conducted virtual visits whenever possible to avoid interruptions in care while following safety protocols.

**“I am most proud of our teams, whether nursing staff or administrators, that used their skills to get us through this.”**

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

The team of Infection Prevention & Control (IPC), led by director **Jennifer Ormsby, DNP, PNP, CPN, CIC**, worked around the clock to manage the ever-changing guidance and respond accordingly. IPC met with EM and **Thomas Sandora, MD, MPH**, hospital epidemiologist and medical director, IPC, on a regular basis. Starting in March 2020, Dr. Ormsby and her team staffed the Command Center, working from 7 a.m. to 7 p.m., and often responding to time-sensitive inquiries around the clock. The IPC team served as information specialists within the HICS structure, supporting COVID-19-related prevention efforts and disseminating information, policy, procedures and other guidance. The hospital hired additional infection preventionists to augment existing resources and conduct ongoing education and audits.

Dr. Ormsby is particularly proud of how the teams managed PPE at a time when shortages were commonplace among hospitals. “I know we were better prepared than many other organizations,” she said. “It’s a testament to our supply chain colleagues and emergency planners that we never ran out of PPE, and we never had to use sub-par PPE.”

In fact, the supply chain was strong enough that the hospital was able to share supplies and support neighboring facilities in dire need early on in the pandemic. One example was pharmaceutical support for ventilated patients.

## Implementing Social Distancing

Another new safety policy involved social distancing. Programs such as Child Life were paused and re-implemented virtually. Telehealth visits helped the satellites continue to serve children and families.

“At the start, being physically and social distanced seemed surreal,” said **Allison Scobie-Carroll, MSW, MBA, LICSW**, senior director, Social Work and Family Services. “But being part of a team I could rely on and whose work I trusted helped. The foundation of those relationships is what made it sustainable.”

The hospital made physical changes, too, including placing plexiglass barriers at key locations to limit the risk of COVID-19 spread. Facilities created testing and vaccination sites that could safely accommodate staff and others, including a drive-through site.

“Our facilities department and engineering were amazing,” said **Al Patterson, PharmD**, chief pharmacy officer and back-up AOD/incident commander during the pandemic. “They worked collaboratively with clinical staff to recreate environments, making them safer and still functional.”

The Hale Family Center for Families, which typically serves as a home-away-from-home for family members, was reconfigured to serve as an overflow waiting room where families could maintain social distancing. (See related story on page 21.)

## The New Virtual Reality

One of the safest, quickest and most cost-effective ways to enact social distancing was to create a virtual work environment. Patterson estimates that 70% of non-clinical staff were working remotely at the height of the pandemic. They stayed connected through Zoom town hall meetings, where attendance was so high the hospital had to increase its licensing agreement to add users.

“I am most proud of our teams, whether nursing staff or administrators, all using their skills to get us through this,” said **Courtney Cannon, MBA, AB**,



senior vice president, Executive Operations. “Everyone made a commitment and it was amazing how hard everyone worked to support care delivery from the bedside and beyond. There were no 40-hour work weeks.”

This strategic and swift mobilization produced many positive outcomes, but the overarching victory was how Boston Children’s seamlessly maintained the level of clinical excellence and patient- and family-centered care the community has come to depend on.

### Patient Flow and Capacity

The COVID-19 pandemic accelerated the need for an enterprise-wide approach to enhance patient flow, capacity and associated resources and tools. In May 2020, senior leaders **Laura Wood, DNP, RN, NEA-BC, FAAN**, executive vice president, Patient Care Operations and System Chief Nursing Officer, and **Peter Laussen, MBBS, FANZCA, FCICM**, executive vice president, Health Affairs, led the charge to develop a centralized interprofessional team to partner with local stakeholders to enhance and scale solutions related to capacity and throughput.

Operational leadership of the Patient Flow Capacity Center (PFCC) includes **Jon Whiting, DNP, RN, CCRN**, vice president and associate chief nurse, **Courtney Cannon, MBA, AB**, senior vice president, Executive Operations and **Vinny Chiang, MD**, senior vice president, chief medical officer. The PFCC guides decision-making through data transparency, teamwork and a daily huddle, implemented to communicate patient flow and staffing challenges. Having key stakeholders around the virtual table allows the team to rapidly problem solve with input from impacted areas. PFCC medical directors, **Amanda Growdon, MD, AK Kaza, MD, Jason Levy, MD**, and **Kate Madden, MD**, joined the team in December 2021.

Throughout the pandemic, the PFCC facilitated the intake of patient referrals and scheduling of monoclonal antibodies for the treatment of COVID-19. As capacity increased along with the demand for inpatient beds, the team partnered with **Jennifer Fortin, MSN, RN, NEA-BC**, nurse director, CATCR & TAU Procedure Units, and the Waltham Infusion Center to administer this therapy in Waltham.

The PFCC continues to support the approval of rapid SARS-COV-2 point-of-care testing to ensure timely admissions and procedures. “The teamwork displayed on a daily basis within the PFCC to make sure that patients have access to care at Boston Children’s in a safe and timely manner is truly impressive,” said **Kathryn Cotraro, MSN, RN, NE-BC**, nurse director, PFCC. ■

# 1,440

Hours staff served in the first activation of the Command Center from March 2020-July 1, 2020

# 183

COVID-19 Administrator on Duty (AOD) advisories written and distributed across the enterprise by the Command Center team







# Beyond the Bedside: Public Policy Advocacy by Nurse and Interprofessional Colleagues

Being a health care professional in a leading children's hospital extends beyond the essentials of delivering patient care. Frontline providers often find themselves at the intersection of science, politics and government as health care policy advocates. Issues such as access to affordable care, nutrition, substance dependency, homelessness, equity, behavioral health, care access, and care of children with medically complex needs inform the care provided to children and families.

Caregivers contribute to advocacy efforts through both insight and actionable data related to public policy issues. Their contributions elevate the voices of children and families to ensure they are heard.

## Stronger Together: An Advocacy Partnership

Successful advocacy for the mission of a free-standing children's hospital requires many skill sets, specialized training and contributions from a wide range of clinical and administrative professionals. When these groups collaborate, they learn from each other to improve the field of pediatric health care and systems through which that care is delivered.

At Boston Children's Hospital, one such group is the Legislative Action Interest Group (LAIG), a collaboration between Nursing/Patient Care Operations and the Office of Government Relations. RN and APRN members bring their expertise as front-line caregivers, clinical and administrative leaders, researchers and care system designers to the group. LAIG taps into that knowledge to advance advocacy, policy formation and external communications.

"As health care providers, we have a unique view of the challenges our patients and families encounter

when navigating the health care system," said **Julie Cronin, MBA, RN, CCRN-K, CPHQ**, senior clinical quality improvement specialist, Clinical Education & Informatics, Quality and Professional Practice, and LAIG co-chair.

Cronin has learned from her LAIG colleagues in Government Relations about problem definition, agenda-setting and the importance of clear messaging. "Through this blended staff nurse- and government relations-led forum, we have the opportunity to shape care delivery and advocate for data-driven decisions," she said.

This year, despite the challenges of COVID-19, LAIG successfully met its goal to increase membership and engagement. Now more than 40 nurse members strong, the group provides a direct link to the hospital's Government Relations team so registered nurses and advanced practice registered nurses (APRN) can share comments about pending legislation related to patient care needs, insurance issues and the value of care provided at Boston Children's.

## Nurses as Leaders

Boston Children's nursing practice is routinely recognized by a wide range of professional organizations, including the American Nurses Credentialing Center (Magnet® recognition), the American Association of Critical-Care Nurses (Beacon Award) and the Emergency Nurses Association (Lantern Award). It's not surprising to learn, therefore, that Boston Children's nurses are leaders beyond hospital and clinic walls. They use their skills to inform, improve and promote the practice of nursing and support nurses at every level of their careers.



**Lynne M. Hancock, DNP, RN, NE-BC**, Magnet program and project director, Nursing/Patient Care Operations, serves as President of American Nurses Association of Massachusetts (ANAMASS), an elected two-year position which she assumed in April 2020. ANAMASS represents the voice of all RNs in the state and plays an active role in advocacy as well as policy development of legislation that impacts professional nursing practice.

Among its important initiatives, ANAMASS sponsored legislation to have a permanent RN seat added to the Massachusetts' Health Policy Commission. The group also established a legislative agenda and provided testimony for key health care legislation, including workplace violence, nursing license compact, full practice authority for APRNs and telehealth bills.

**“As social workers, we became hyperaware of systematic barriers our clients face in the daily work we do.”**

***Mary Bogan Woodland, LICSW, lead clinical social worker, MSW II, Boston Children's Hospital at Waltham's Community Based Acute Treatment Program***

“Nurses, together with our interprofessional colleagues, understand challenges, opportunities and implications of health care decisions on many levels,” said Dr. Hancock. “We use evidence to make decisions and often serve as the ‘voice of reason.’ Stepping out of Boston Children’s and advocating externally is a natural extension of growing as a leader. Being on a professional organization board has enabled me to influence the conversation at state and national levels to help drive change.”

Satellite Clinical Operations executive director **Julee Bolg, DNP, MBA, RN, NEA-BC**, has been an active member of the Organization of Nurse Leaders (ONL) in Massachusetts, Rhode Island, New Hampshire, Connecticut and Vermont since 1996. She served on the Program Committee and as treasurer of the Board of Directors. ONL is a not-for-profit professional membership organization for current and aspiring nurse leaders. With a mission to advance a culture of health through excellence in nursing, ONL focuses on leadership development at all levels.

The pandemic strengthened ONL’s commitment to nursing by bringing together nurse leaders to address the crisis and generate ideas to meet the needs of front-line nurses. In addition, ONL partnered with the New England Regional Black Nurses Association (NERBNA) to create the Nurse’s Pledge to Champion Diversity, Equity and Inclusivity. The pledge was shared through social media and signed by nurses at the local and national levels.

### **APRNs as Advocates**

With extensive training, advanced degrees and significant clinical experience, APRNs are experts at diagnosing, treating and caring for patients and families. Many seek opportunities to enhance their skills beyond the care delivery arena.

One opportunity is the Advocacy and Public Policy fellowship, developed by an attending emergency department (ED) physician as a bridge between clinicians at Boston Children’s and the Office of Government Relations. Prior to this fellowship, Government Relations had no active clinicians on staff. **Carolyn Nightingale Riker, MSN, RN, CPNP-AC/PC, CPEN**, advanced practice registered nurse level I, ED, was only the second Boston Children’s employee to complete this fellowship and the first nurse to do so.

In addition to co-leading resident advocacy training sessions, Nightingale Riker developed a similar curriculum for nurses, which will soon be implemented. She authored a monthly newsletter for ED nurses featuring advocacy and policy updates from the state and federal level. Additionally, she encouraged colleagues to archive content and helped develop an institution-wide story bank accessible for future testimony and legislative meetings.

Nightingale Riker’s advocacy work has dealt with complex issues that can impact children’s health, such as housing security, immigration status, and a broad range of EDI considerations. The impact of her testimony during legislative hearings at the Massachusetts State House has been significant, and it’s where she feels she’s made the most substantial impact. She testified before The Committee on Children, Families and Persons with Disabilities about expanding insurance coverage for children who are not eligible for

other state-provided insurance because of immigration status, and spoke to The Joint Committee on Public Health about placing trauma kits in all public buildings after caring for patients at risk for life-threatening limb exsanguination who had improvised tourniquets applied in the field. "In each of these situations, I also provided written testimony for the record. It was inspiring to care for these patients and then take their impactful stories to the State House to fight for a solution."

## Social Work Action Group Reduces Health Care Barriers

"As social workers, we became hyperaware of systematic barriers our clients face in the daily work we do," said **Mary Bogan Woodland, LICSW**, lead clinical social worker, MSW II, Boston Children's Hospital at Waltham's Community Based Acute Treatment (CBAT) Program. "As a result, I have found policy advocacy to be a crucial component of my identity as a social worker, bringing specific experiences to legislators and other change agents involved in enacting policy."

At Boston Children's, the Social Work Action Group (SWAG) was created to shape health care by meeting with legislators, writing letters and emails, making calls and sharing information with various audiences to influence policy and affect change. The group, whose membership includes about 65 individuals from across the enterprise, collaborates with the hospital's Government Relations team and regularly shares updates, resources and suggested action items.

In 2021, SWAG's success included reducing barriers to emergency housing. One of the most basic health care rights is the ability to lay one's head on a pillow each night in a safe place, but homelessness affects more than 15,000 children in Massachusetts and 2.5 million children nationwide. Massachusetts is a "right to shelter" state, meaning eligible families cannot be denied housing, even with limited shelter availability. However, a 2012 law required families with children to provide documentation proving that they spent at least one night in a place that is "not meant for human habitation." A visit to the hospital's ED and documentation of the visit allows families to fulfill the one-night requirement. Since this law took effect, visits to the ED due to homelessness have quadrupled.

SWAG Co-Chair **Amy McCarthy, LICSW**, clinical social work director, Adolescent Substance Use and Addictions Program, in partnership with co-chair **Mary Bogan Woodland, LICSW**, and together with Government Relations and social work colleagues, led the gathering of data on homeless patients seen in the ED over the past five years. The data showed that most patients were not ill and did not require emergency-specific care in the ED.

The data was presented to Boston's community housing office. With help from community partners, written and oral testimony was provided in favor of changing the language so that children and families don't have to prove that they are homeless to qualify. The rule was repealed, so children and families no longer need to prove their housing status to obtain emergency housing.

Other SWAG advocacy efforts include a collaboration with Government Relations on story-banking, the process of collecting patient stories and clinician experiences to support advocacy efforts. Speakers have educated the group on new initiatives, such as the Massachusetts Behavioral Health Roadmap that Massachusetts Governor Charlie Baker has championed. The group has also worked to promote understanding about telehealth and educate social workers on the limitations of their licenses in other jurisdictions.

## Leadership to Protect Children

"SWAG plays an important role in Boston Children's advocacy efforts," said **Allison Scobie-Carroll, MSW, MBA, LICSW**, senior director, Social Work and Family Services. "Our social workers contribute their expertise to members of the Government Relations team, providing testimony when needed and advising on proposed legislative items."

For example, Boston Children's was asked to contribute to a revision of the 51-A policy, an existing requirement for mandated reporters to contact the Massachusetts Department of Children and Families if they suspect a child is being abused or neglected. Mandated reporters include social workers, police, doctors, medical/health workers, public safety workers, teachers and childcare workers. Representatives from Boston Children's Child Protection, Government Relations and Office of

General Counsel met with the Massachusetts Office of the Child Advocate to provide feedback about the proposed changes to the 51-A policy. Subsequently, the Commission concluded its work without recommending any specific alterations to the 51-a policy.

**“We would like to see the implementation of ongoing legislative support for telehealth services in Massachusetts for our patients with equal reimbursement for the delivery of care.”**

***Jonathan Greenwood, MS, PT, DPT, c/NDT, CEIS, PCS, FACHE, senior director, Physical Therapy, Occupational Therapy and Rehabilitation Services***

Other efforts focused on licensure. Members of the Social Work Leadership team collaborated with health care social work leaders and leaders from local schools of social work. Together with the Massachusetts National Association of Social Workers, they addressed issues around the Division of Professional Licensure's re-interpretation of licensing applications leading to the denial of LICSW applications among staff. This advocacy, in turn, led to participation in a coalition to define clinical social work practice and create codified language included in the state definition of Clinical Social Work.

### **PT and OT Advocacy Efforts**

Boston Children's Physical Therapy (PT) and Occupational Therapy (OT) departments have a strong advocacy history. Each year, a PT resident and an OT fellow travel to Washington, DC, with the Boston Children's Leadership Education in Neurodevelopmental and Related Disabilities Program, to advocate for children with special health care needs.

Last year, as telehealth became the lifeline for many children and families due to COVID-19 restrictions, PT/OT made supporting telehealth one of its

key initiatives. They worked to support ongoing telehealth services in Massachusetts and to secure recognition of interstate practice for PT and OT services. This is critical because not all patients reside in Massachusetts, and existing PT and OT licensing regulations limited services provided to these out-of-state children. Expansion of privileges in PT and OT extended into the fall of 2021. Physical and occupational therapists are permitted to deliver care in New Hampshire and Vermont into 2022, a decision that will help many children.

Since the onset of the pandemic, Boston Children's has conducted more than 5,000 PT and OT telehealth visits. “I believe telehealth should continue to be an option for all patients receiving PT or OT care,” said **Amy Pasternak, PT, DPT, PCS**, level III physical therapist. “Seeing a patient perform daily functional tasks within the home setting provides added value to the episode of care.”

Additionally, the department includes three PTs who work closely with Government Relations to support delivery and reimbursement of PT/OT telehealth services at the state level. “We would like to see the implementation of ongoing legislative support for telehealth services in Massachusetts for our patients with equal reimbursement for the delivery of care,” said **Jonathan Greenwood, MS, PT, DPT, c/NDT, CEIS, PCS, FACHE**, senior director, Physical Therapy, Occupational Therapy and Rehabilitation Services. “We have seen a great benefit to our patients and families thanks to limited travel and time missed from work and school to access the clinical expertise of our providers. The blended model, combining face-to-face and telehealth visits, allows for the greatest flexibility to our families and providers to ensure optimal care is delivered to our patients in need.” ■





Gabriella Kehaylas, BSN, RN, Staff Nurse I and Patrice Benjamin, RRT, NPS, Respiratory Therapist III - 7 South









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# QUALITY OF CARE



**15%-20%**

The increase in the volume of behavioral care patients awaiting placement each year at Boston Children's over the last five years.



# Strengthening Community-based Access to Behavioral Health Services

At the height of the COVID-19 pandemic, Boston Children's Hospital experienced a stark increase in the number of children presenting to the Emergency Department (ED) with behavioral health concerns, many of whom had significant care needs. This trend was due, in part, to isolation and decreased access to care exacerbated by COVID-19.

"Children and families were struggling," said **Patricia Pratt, MA, BSN, CPHQ, CPN**, senior vice president and associate chief nurse, Pediatric/Medical, Surgical and Behavioral

Health Nursing and Patient Care Operations. "Community-based services that had helped children and adolescents cope were increasingly unavailable during the pandemic. More children were becoming ill, and when they finally arrived at the ED for behavioral health care, they were often in crisis as school-based and community-based services grew more limited."

These trends reflect what pediatric clinical and behavioral caregivers had noted nationally and regionally in recent years – namely,

an increase in the volume and acuity of patients requiring behavioral health care services. Demand at Boston Children’s had been growing steadily. Prior to, and throughout the pandemic, the hospital expanded its behavioral health service services in both inpatient and ambulatory settings.

### Expanding Access to Resources

Several years ago, nursing leaders created a Behavioral Response Team (BRT) to support team members working with children and families with behavioral health needs. The BRT provides more than 2,000 unique consultations per year to help staff navigate acute behavior-related patient care challenges.

Since the pandemic, Boston Children’s has seen a 300% increase in patients awaiting behavioral health inpatient care. To support this round-the-clock demand, the BRT expanded. In 2019, the team was comprised of four registered nurses. Now, it has grown to 20 members, including 10 nurses, nine milieu counselors and a certified behavioral analyst.

Team members share their experience to provide care in inpatient behavioral health settings, community-based acute treatment (CBAT) units and residential programs and schools. The BRT also supports urgent and non-urgent requests 24 hours a day on the hospital’s main campus, a practice change that took effect in 2020.

“Having behavioral health staff in the hospital 24/7 gives the care teams working in non-behavioral health areas access to a resource, which is helpful when caring for patients with behavioral health needs,” said **Doug Crook, DNP, RN, PMHNP-BC**, nurse manager, BRT. There are typically six staff working during the day and evening, in addition to one nurse and milieu counselor overnight.

The BRT is one of the few standalone, nurse-led behavioral health teams that proactively supports and cares for patients with these needs, and it has a profound impact on patient outcomes and staff satisfaction. “Unlike teams that assemble only when there is an acute event, the BRT works to limit these events by frequent rounding on high-risk patients, building rapport and providing exemplary behavioral health nursing care,” said Crook.

The team frequently collaborates with staff at satellite locations. Boston Children’s at Waltham utilizes a BRT, led by Social Work supervisor **Charleen Colleran-Lombardi, MSW, LICSW**, to develop and implement appropriate behavioral precaution

### Expanding Patient Care Observer Roles to Promote Patient Safety

Security Services and Nursing/Patient Care Operations collaborate closely on training and education. Security team members are certified instructors in the Management of Aggressive Behavior (MOAB) and Crisis Prevention Institute (CPI) and work with inpatient psychiatry and the BRT to ensure consistency and competency of team members. Security officers also receive SAFE (Security Autism Focused Education) training, taught by a BRT nurse. Nurses also provide guidance to Security leaders related to restraint avoidance and de-escalation strategies.

Due to the expansion of inpatient psychiatry at Boston Children’s at Waltham, Security staffing levels have increased to support this new patient population. The Security team was provided additional preparation to work effectively support this patient population.



5 West Inpatient Psychiatry Unit at Waltham video

plans and identify the most suitable locations for care. Satellite-based team members actively participate on the Behavioral Subject Matter Expert Committee to identify new ways to optimize behavioral health staff coverage across all areas of the enterprise.

### **Increasing Access to Community-based Care**

Boston Children's already provides multispecialty care and services in satellite settings. Now, through nursing and hospital-wide advocacy efforts, the hospital secured support to add 12 inpatient behavioral health beds at Boston Children's at Waltham. Recognizing the shortage of pediatric behavioral health beds, the Massachusetts Department of Mental Health worked with Boston Children's to accelerate the opening of this setting in the fall of 2021.

"Expanding our behavioral health capacity was critical to providing care in the satellites and helping children and families access care in communities closer to home," said **Julee Bolg, DNP, MBA, RN, NEA-BC**, executive director, Satellite Clinical Operations.

Founded in 2016 and led by **Amy Alleman, MSN, CPNP-PMHS**, nurse manager, and **Mary Bogan, MSW, LICSW**, lead social worker, the Waltham CBAT unit treats approximately 220 patients per year, enabling children to receive comprehensive, 24-hour, community-based acute care for serious behavioral health conditions. "Waltham CBAT is a true collaboration between providers and families," said Dr. Bolg. "Programmatic goals include crisis stabilization and the development of a symptom management plan for use after discharge."

**"Expanding our behavioral health capacity was critical to providing care in the satellites and helping children and families access care in communities closer to home."**

***Julee Bolg, DNP, MBA, RN, NEA-BC, executive director, Satellite Clinical Operations***

The Boston Children's CBAT provides many of the elements of inpatient behavioral health care in a less restrictive setting. In addition to child psychiatrists and psychologists, the highly collaborative interdisciplinary team includes a psychiatric advanced practice registered nurse, social workers, nurses, milieu counselors, an occupational therapist, recreational therapists and a teacher.

The suburban location and program accessibility make it easier for families to participate in care and visit regularly. "Children and parents have an alternative to waiting long periods of time in an ED for a bed," Bolg said. The hope is that the success of this initiative will pave the way for additional CBAT units at other locations.

### **Comprehensive Suicide Screening**

Suicide is the second leading cause of death among adolescents aged 13 to 19, and was recognized as the leading cause of death among 13-year-olds in 2019, according to the Centers for Disease Control and Prevention.

Boston Children's nursing staff currently administers the Ask Suicide-Screening Questions (ASQ) tool to inpatients aged 10 and above admitted to a non-psychiatric inpatient unit for evaluation or treatment of a behavioral health condition. The ED screens all patients aged 10 and above, as well.

The ASQ tool can flag patients at risk for suicide or self-harm, who are then referred for a full behavioral assessment. The BRT then implements a treatment plan, which includes safety precautions for the current treatment setting. The team also helps to establish and enhance supportive relationships and provides close supervision to maintain a safe environment.

During the first half of 2021, nearly 120 patients met the screening eligibility criteria each month, and 40-50% of eligible admissions had a positive screen.

Nursing/Patient Care team members routinely caring for these patients maintain behavioral management-related certifications from programs such as Management of Aggressive Behavior (MOAB) and



## Suicide Screening for Boston Children’s Hospital Admissions

	Total Admissions	Admissions eligible for ASQ screening	Eligible admissions with positive screens	Positive acute screens	Positive non-acute screens
January, 2021	1,482	144	72 (50%)	24 (33%)	48 (67%)
February, 2021	1,374	117	62 (53%)	21 (34%)	41 (66%)
March, 2021	1,579	135	87 (64%)	37 (43%)	51 (59%)
April, 2021	1,528	104	50 (48%)	21 (42%)	29 (58%)
May, 2021	1,515	124	59 (48%)	23 (39%)	36 (61%)
June, 2021	1,579	108	46 (43%)	20 (43%)	26 (57%)

Crisis Prevention Institute (CPI). Security Services team members also collaborate closely, under the direction of registered nurses. Increasingly, team members also receive Security Autism Focused Education, taught by a BRT nurse. With the expansion of inpatient behavioral health services at Boston Children’s at Waltham, Security team members also contribute to support of this expanding patient population.

### Meeting Behavioral Health Needs in Ambulatory Settings

The important behavioral needs of children and families are actively supported during ambulatory visits. Care providers partner with parents and guardians to create Behavioral Support Plans, known as “Precautions B,” which provide help and/or special accommodations to patients. Details include situations that may make the patient upset, interventions that may minimize or prevent a patient’s distress and preferred modes of communication. The plan is accessible in the patient’s chart in the electronic health record.

“Social workers and nurses in both the satellites and Longwood main campus review Precautions B plans before each visit to ensure the plan is followed,” said Dr. Bolg. “These plans are quite frequently developed by ambulatory social workers and clinicians as many patients are never admitted as inpatients.”

Formal and informal collaborations exist between the satellites and Longwood campus in support of patients with complex Precaution B plans. Key leaders from Nursing, Social Work and Patient Relations attend periodic meetings to review all patients with complex behavioral care needs. “The goal is to identify ways patients can be seen for ambulatory visits in the satellites, as this is often more convenient for the family,” said Bolg. Informal discussion between team members from Longwood and the satellites occurs on a case-by-case basis. ■



# Adapting Family-centered Care Support Services During a Pandemic

At Boston's Children's Hospital, exceptional care includes caring for children and their families. In fact, this approach is part of what distinguishes the organization. Coupled with outstanding clinical care and world-class research, family-centered care maintains a holistic focus on the family both during an episode of care and over time. When COVID-19 disrupted procedures and programs, interprofessional team members within Nursing/Patient Care Operations knew it was time to innovate so family support and inclusion could remain strong.

"We knew service delivery had to change, and we had to pivot very quickly to new ways of communicating and working," said **Allison Scobie-Carroll, MSW, MBA, LICSW**, senior director, Social Work and Family Services. "We typically provide services by being here right next to families

during what are difficult times for them. Instead, we had to acclimate ourselves to supporting families in a different way."

## Telehealth Becomes a Lifeline

One of the biggest lifelines throughout the pandemic was telehealth. In this electronic age, where many people already attend virtual meetings, video calls to loved ones in far-away locations and hosted online watch parties became important sources of family support. Transitioning to telehealth was an expedient way to continue care and outreach to families. However, transitioning to this platform did not come without challenges. With very little time, training or previously allocated funds, staff managed the complex transition with dedication and professionalism.

Operationalizing key processes, such as the oversight of licensing and credentials, organizing team-based appointments and scheduling, and securing interpreters became important aspects of providing care.

“We had to consider safety and efforts to reduce the risk of COVID-19 transmission, but we also recognized there would be some instances when services would still need to be delivered in person or in the room with children and families,” said Scobie-Carroll. “We created a decision-tree to help us establish criteria to prioritize when it was most important to be physically present in a patient’s room.”

**“We knew service delivery had to change, and we had to pivot very quickly to new ways of communicating and working.”**

***Allison Scobie-Carroll, MSW, MBA, LICSW, senior director, Social Work and Family Services***

Social Work, in both ambulatory care and behavioral health settings, sometimes dealt with situations that developed in real time, such as specific emergencies where children were deemed at risk due to a disclosure of domestic violence, neglect or other concerns. Social workers had to create a system to identify which cases needed to be seen in person and develop emergency procedures. They also had to consider that some professional services could not be provided across state lines due to the absence of interstate professional license agreements, and therefore needed to schedule children accordingly.

### **Virtual Interpreters**

One of the key characteristics of Interpreter Services at Boston Children’s is the skill with which interpreters focus on the spoken words of patients, families and providers and relay those words with utmost precision and neutrality. When interpreters began working remotely, there was a strong preference to retain those who knew the “landscape” of the hospital and could maintain the quality of services that patients and staff had come to rely upon.

The Interpreter Services team came together and developed a system to contact patients and families in advance of providing services, delivering a concierge level of service. When possible, the team connected families with interpreters with whom they were already familiar to increase trust and address concerns, thus enhancing the effectiveness of the services provided. Team members also provided technical assistance across the enterprise for families with limited technical proficiency.

### **Adapting the Hale Family Center for Families During the Pandemic**

The Hale Family Center for Families has long been a hub for families; a welcoming place to relax, gather, work, make a phone call or simply get a cup of coffee. When social distancing reduced the number of people who could be in the Center safely, staff found other ways to connect families with niceties and necessities provided there – one family at a time.

The Center also became a waiting area for appointments, a proactive, innovative solution to avoid overcrowding in smaller waiting rooms. Families were directed to the Center upon arrival and called to their designated location when it was their turn to be seen.

In-person wellness activities, such as yoga and reiki, were suspended during the pandemic. However, the Center team was able to re-imagine these activities, scheduling private, virtual sessions with families. Services were even provided by telephone if in-person therapy was not accessible for a family requesting these services. One particular point of pride is that the Center managed to remain open during the entire pandemic, and some staff remained on site to support patients and families.

“Our mission is truly embedded within us,” said **Miranda Day, MS, MBA, CCLS**, director, Family and Volunteer Services. “This is an amazing place to work, and everyone strives to do their best. That still rang true during the pandemic. There was a commitment to caring for patients and families. And yes, at times we too were scared, but we never let families see our fear.”



## Child Life Rethinks a Special Program

The Pawprints program, which supports animal-assisted visitation, was a huge hit with children and families during COVID-19. But instead of visiting patients on the units, dogs and their owners converted to virtual visits. The dogs were prepared beforehand to ensure they were comfortable on camera and could adapt to the new format. Switching to virtual visits produced a silver lining – opening up the program to more patients, many of whom would not have been eligible for in-person dog therapy, such as children on the critical care units.

## “It has been a great opportunity and experience working with the groups that emerged during the pandemic”

*Sara Diaz, BA, parent and family partnership coordinator*

## Spanish-speaking Parent Support Group Goes Virtual

Another successful transition to virtual operations was the Spanish-speaking parent support group. For more than five years, the group had met in person at the hospital to discuss topics around health care, self-care and advocacy. However, distance, time, child care commitments and transportation issues often prevented full participation of all parents. During the pandemic, staff facilitated the creation of a virtual group. Parents were thrilled, as more families were able to join in and make the necessary connections during a critical time.

Each month, two virtual sessions were planned for Spanish-speaking families: one session for any caregiver/parent receiving care at Boston Children's, and a second session for caregivers of children receiving care in the Autism Spectrum Center. From September 2019 to September 2020, 46 different groups were held virtually, with more than 550 families participating. **Cecilia M. Matos, MA, BS**, program coordinator, Hale Family Center for Families, **Sara Diaz, BA**, parent and family partnership coordinator, and **Esterlina MacInnes, BA**, parent and family partnership coordinator, provided invaluable

support. As a result of the programming success, the virtual parent support option will likely remain in place.

“It has been a great opportunity and experience working with the groups that emerged during the pandemic,” said Diaz. “I have been on both sides – as the mother of a child with disabilities and collaborating as coordinator of the groups. In this time, we have seen mothers grow and empower themselves, they have learned to navigate the system and provide support to each other through their resilience.”

## Nursing Partnership with Spiritual Care Services

Hospitalization is difficult at any time and spiritual care ranks as a high need for many families. For decades, Boston Children's has supported this need. However, social distancing challenges made it more difficult to accomplish. Throughout the pandemic, nurses and other front-line care providers partnered creatively with Spiritual Care Services to meet the needs of patients and families. Whether finding a way to safely allow clergy to make contact with families or supporting siblings during a brother or sister's final days, Spiritual Care team members contributed. Staff also received support, including virtual prayer sessions for those who wished to participate.

## Housing Families During the Pandemic

Housing for families is critical, especially when children must undergo non-elective procedures far away from home. This important service continued during COVID-19, providing psychological security and a safe haven to families in need. Before the pandemic, Boston Children's supported up to 30 families in reduced-cost, hospital-owned housing, with shared kitchen and bathroom facilities. But COVID-19 restrictions made it necessary to reduce the census to only 11 families at any given time. Provisions were made to ensure that no need was left unmet. Boston Children's transitioned to the use of local hotels to provide significantly reduced-cost rooms for families to bridge housing needs. ■

**365+**

The number of consecutive CLABSI-free days in the Neonatal Intensive Care Unit.

**440+**

The number of days without falls with injury in the bone marrow transplant unit.



Ashley Renaud, MSN, RN, CNL, senior clinical quality improvement specialist and Lynne Hancock, DNP, RN, NE-BC, Magnet program director - Longwood Center Falls Summit January 2020

# Interprofessional Quality and Practice Improvement

Nurses at Boston Children’s Hospital are continuously working with colleagues throughout the enterprise to prevent adverse events, create and refresh clinical policies and procedures, and advance nursing and clinical informatics tools to support data-driven practice decisions. Nursing-sensitive quality measures and evidence-based data inform the practice of nursing, coupled with a commitment to patient- and family-centered care.

**The Nursing/Patient Care Operations Quality Program** is guided by the National Academy of Medicine’s framework to guide the provision of safe, effective, patient-centered, timely, efficient and equitable care.

The Nursing/Patient Care Executive Committee for Quality (NPCECQ), led by **Lee Williams**,

**PhD, MSN, RN-BC, NE-BC, NPD-BC**, vice president/ACNO, Clinical Education & Informatics, Quality and Practice/CNIO, sets safety and quality priorities, improves processes and analyzes outcomes data derived from numerous sources throughout Nursing and Patient Care Operations. Its subcommittees include Nursing Policy & Procedure, Ambulatory Nursing Patient Care Operations Clinical Practice and NPCECQ Reporting.

Despite pandemic-related challenges experienced over the past two years, nurse leaders rose to the occasion to launch a wide range of new quality- and safety-related initiatives strengthened by improvement tools and strategies. Additionally, they captured baseline metrics and shared unit-level data in concert with front-line team members.

## Nursing/Patient Care Operations Quality Program

Aligned with the Boston Children's Program for Patient Safety's vision, goals, strategies and priorities, the program is a leader in efforts to identify and execute clinical process improvement initiatives to enhance patient outcomes, as well as participate in coordinated efforts to:



Optimize data availability for quality measurement and performance improvement



Standardize and integrate clinical practice and decision support into care delivery



Develop, refine and implement processes and resources for facilitating compliance with regulatory standards



Develop, evaluate and implement the use of technology solutions and information systems across the enterprise to improve safety



CLABSI hackathon overview video

Since 2020, the NPCECQ has:

- Increased representation and participation spanning Patient Care Operations with 38 members representing all areas of the enterprise
- Established a Nursing and Patient Care Operations forum for sharing opportunities and successes, and applying new insights to build ongoing improvement processes
- Developed, collected and analyzed metrics and made unit-level data accessible to front-line staff
- Streamlined cloud computing technology on a smartphone to increase collaboration and communication through clinician- or role-based secure text messaging, alerting notification and secure nursing application
- Installed Amazon Alexa cloud-based voice service in patient rooms to promote patient/family access to entertainment and education resources and to reduce coordination of support-related tasks
- Applied physician-focused dynamic documentation tools to reduce nursing and clinical team documentation burden
- Guided Boston Children's early adoption of OpenNotes, providing adolescents and parents immediate access to the clinical EHR, and extending the hospital's national leadership role as the first pediatric provider health system to implement this transparent communication
- Optimized Zoom™ workflows for inpatient care teams to reduce entrances into patient rooms, improving clinical care and promoting communication
- Implemented an enteral nutrition workflow to integrate breastmilk and custom formula inpatient orders for clinicians and dieticians; standardized clinical documentation; and introduced a mobile application and workflow

"Serving as a member of the NPCECQ has been invaluable," said **Coleen Liscano, MS, RD, LDN, CNSC, CLE, FAND**, director, Clinical Nutrition. "We work together to ensure collaboration between a broad range of interprofessional colleagues and clinical teams to advance quality and safety."

## Clinical Quality Improvement in Action

### CLABSI Summit

Efforts to further reduce central line-associated bloodstream infections (CLABSI) remain a key priority throughout Boston Children's. Although the current rate is below the center line in comparison to peer children's hospitals, CLABSI remains an ongoing risk to patient safety. Achieving zero preventable CLABSI is the hospital's goal and a focus of continuous quality improvement efforts.



**Julie Cronin, MBA, RN, CCRN-K, CPHQ**, senior clinical quality improvement specialist, Clinical Education & Informatics, Quality and Practice, worked closely with infection preventionists to convene a nurse-led, interprofessional CLABSI Summit in March 2021. Cronin identified and invited stakeholders throughout the enterprise to review progress to date and brainstorm areas for future improvement initiatives.

Clinical team members and Family Advisory Council members participated in the virtual event, which included a knowledge, skills and attitudes assessment. “Each participant brought expertise from different clinical areas and patient experiences, which allowed us to recognize themes and opportunities for improvement,” said Cronin. The group incorporated its findings into two categories: 1) data-driven bundle elements and initiative priorities, and 2) risk factor identification and specification. Work will continue on central venous catheter and CLABSI education and related improvement initiatives over the next two years.

### Clinical Indicator Dashboards

When it comes to engaging front-line staff in improvement and monitoring activities, ensuring easy access to data is critical. **Sabrina Persaud, MPH, CPHQ, CLSSGB**, program administrative manager III, Quality and Professional Practice team, created a Nursing Quality Metric scorecard to provide a high-level, one-page overview of nursing-sensitive clinical indicators and patient experience survey questions. Each clinical indicator features a dashboard providing real-time or near real-time data with drill-down and printing capabilities.

**Kaleigh Hausser, MPH**, a quality improvement consultant on the team, created the initial dashboards within a Boston Children’s reporting tool, allowing clinical leaders to easily access and share unit-specific performance with front-line staff. Integration of dashboards and scorecards has improved communication of clinical indicators (such as CLABSI, falls and pressure injuries), and increased data transparency, a significant Boston Children’s focus over the past two years. Quality Improvement team members also work alongside clinical leaders to develop innovative ways to improve outcomes associated with these measures.

### Clinical Document Review

Managing the creation, review, refresh and approval of existing policies and procedures is a key organizational priority. Reference tools must be evidence-based, aligned with a wide range of regulatory standards and accessible

to staff. The Quality Improvement team currently oversees approximately 1,600 documents spanning all clinical and many administrative departments and key functions.

**Ashley Renaud, MSN, RN, CNL**, senior clinical quality improvement specialist, Patient Care Operations Policy and Procedure Committee co-chair, conducts a triennial review of these documents. Her committee includes interprofessional representation from clinical areas throughout Boston Children’s. Over the past year, the committee has grown to comprise nearly 40 members with clinical expertise to identify potential practice gaps and standardize care across numerous care delivery settings.

### Safety Guidance for Behavioral Health Admissions

Another success was the implementation of the Room Safety Guideline, developed to provide safety guidance for behavioral health admissions. Published internally, the guideline provides resources useful for preparing the room, including removal of potentially harmful items. The Quality Improvement team worked with content experts and key stakeholders to ensure the content was aligned with organizational patient safety efforts in the care of behavioral health patients. The Policy and Procedure Committee and the Behavioral Health Committee reviewed and approved the guideline, which served as a key tool throughout the child mental health crisis that arose during COVID-19.

### Improved Newborn Screenings

In 2020, the Quality Improvement team quickly mobilized to reduce specific risk factors related to delayed diagnoses in the newborn period. **Kathryn Gustafson, BSN, RN, CCRN**, a clinical quality improvement specialist with extensive NICU experience, led an interprofessional working group to review existing practices. Comprised of champions from clinical areas that perform newborn screenings, the task force developed a driver diagram to determine the aim, drivers and change ideas for the project. Members then updated the policy to reflect a new process and created a reference tool and Net Learning to educate staff.

The task force also standardized order sets and developed a measurement plan to monitor compliance. Within three months, completion of full-panel newborn screenings rose from 67% to 96%. “This process improvement initiative is a great example of successfully bringing together the right stakeholders and collaborating to improve an outcome using quality improvement tools and available resources,” said Gustafson. ■

# Innovations in Pharmacy, Nutrition and Enteral Feeding Management

Teams throughout Boston Children's Hospital remain vigilant, seeking new approaches to improve patient care quality through innovation and ongoing digitalization efforts. Interprofessional team members in Pharmacy, Nutrition and Lactation services have contributed in meaningful ways to introduce new technologies, workflow supports and protocols to better serve patients and strengthen team effectiveness. Those efforts have had far-reaching impacts throughout the system that continue to improve patient care delivery.

**“The future state has the capacity to further strengthen safe delivery of enteral feeding through our planned Feeding Preparation Center in the Hale clinical building to launch 2022.”**

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

## **Innovative Practices Within the Department of Pharmacy**

Boston Children's Pharmacy Department has spearheaded a variety of efforts to improve patient care and streamline operations in all care delivery settings. These efforts have led to the implementation of several major changes in how Pharmacy supports the hospital's clinical teams. Pharmacy has worked to expand that help throughout the hospital, particularly in areas where additional support has demonstrated improved patient outcomes. This includes the OR satellite Pharmacy, where staffing hours were increased to meet growing care needs.

Expanding Pharmacy involvement in the Emergency Department (ED) has helped improve both ED throughput and antimicrobial stewardship. Antibiotic prescriptions are screened for appropriateness related to current diagnosis and prior health history. Additionally, Pharmacy teams have collaborated to create a new Specialty Pharmacy on site, to reduce dependence on external sources for medications considered at higher risk for administration without pharmacist and health team consultation, subject to supply chain limitations. With an anticipated opening in early 2022, the new Specialty Pharmacy will help Boston Children's reduce delays in acquiring specific types of drugs, while also lowering the cost associated with sourcing these drugs externally. Other initiatives include the implementation of several COVID-related pharmacy services and the expansion of investigational drug services.

The Pharmacy Department has led several initiatives to improve the way technology is integrated into practice throughout the system. In an effort to decrease waste, improve safety and avoid spills within the Pyxis machines, the team has rolled out protocols to replace bulk liquid medication bottles with pre-measured, single-dose cups. Furthermore, expansion of the DoseEdge platform has improved how sterile products and high-risk liquid oral medications are documented, further reducing the need for manual documentation and calculations. The system also helps to reduce the potential for error during the repacking process of high-risk liquid medications. Other innovations include the expansion of Computerized Prescriber Order Entry for interventional drug studies, a streamlined digital prescribing process, an improved Discharge

Medication Financial Assistance Request process and streamlined implementation of Pharmacy Stars – a web application used to track staff competencies related to sterile, non-sterile and hazardous compounding.

### Crossing the Bridge to Better Enteral Feeding Management

Efforts by the Nutrition and Lactation teams culminated in the implementation of the Cerner Bridge Enteral Nutrition initiative, a computerized documentation system integrating human milk and other nutrition orders and documentation within the electronic health record (EHR). “This enhancement is the first step toward full nutrition order integration within the EHR,” said **Coleen Liscano, MS, RD, CSP, LDN, CNSC, CLE, FAND**, director, Clinical Nutrition. “The future state has the capacity to further strengthen safe delivery of enteral feeding through our planned Feeding Preparation Center in the Hale clinical building to launch 2022.”

This implementation marks a significant step toward the digitalization of enteral feeding documentation consistent with contemporary quality and regulatory standards while also improving safety and clinical documentation. “The program standardizes documentation across disciplines,” said **Danielle Perley,**

**MSN, RN-BC, CPHON**, senior clinical informatics specialist. “The documentation can also determine the calories administered per feed, allowing for easier identification of nutritional needs, which is critical to optimize care to vulnerable children.” Future goals for this initiative include the implementation of an order interface to confirm that formula/human milk orders are associated with the correct patient, “ready-to-feed” formula inclusion, formula and fortified human milk recipe calculations, lot number tracking and formula inventory management.

### Improving Outcomes Through Research

Boston Children’s Nutrition and Lactation teams continue to engage in cutting-edge research to find novel ways to improve patient care quality. Recent research efforts yielded important insights into how new techniques can be utilized to improve outcomes for infants with specific disorders requiring modifications to dietary fat intake. **Kimberly Barbas, BSN, RN, IBCLC**, director, Lactation Support, conducted research to identify methods to modify human milk to reduce fat content while maintaining macronutrients and other beneficial contents. Her research helped identify methods for skimming human milk to reduce the fat content while preserving the benefits for infants with long-chain fatty acid oxidation

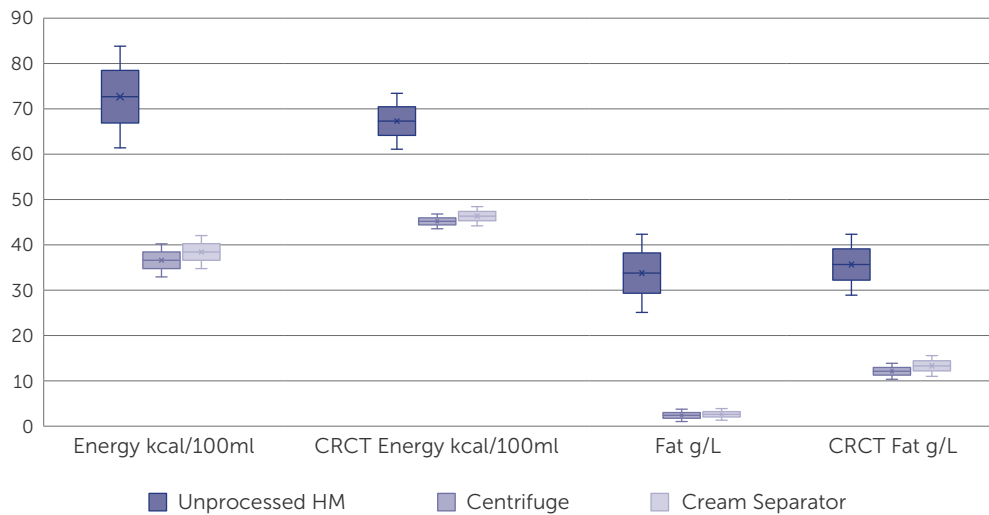
### Macronutrient Analysis of Modified-Fat Human Milk Produced by 3 Methods of Fat Removal

Macronutrients	Unprocessed Human milk	Centrifuge	Cream Separator	Manual Separation
	Mean (SD)			
Energy (kcal/100ml)	72.94 (11.21)	36.72 (3.56)	38.75 (3.48)	54.13 (8.14)
Protein (g/100ml)	1.25 (0.31)	1.26 (0.29)	1.30 (0.30)	1.29 (0.30)
Fat (g/L)	34.13 (8.62)	2.47 (1.25)	2.64 (1.33)	14.06 (4.85)
Creatocrit Energy (kcal/100ml)	67.45 (6.22)	45.44 (1.61)	46.58 (2.13)	61.63 (9.46)
Creatocrit Fat (g/L)	35.87 (6.72)	12.22 (1.74)	13.39 (2.31)	29.62 (10.21)

Macronutrient content measured by reference method and estimated by creatocrit for unprocessed human milk and human milk skimmed by three different methods: refrigerated centrifuge, portable cream separator and manual separation after refrigeration.



## Energy and Fat Content of Defatted Human Milk Measured by Creamatocrit Overestimated Values Compared to Lab Reference Method



disorders. Of particular note was the identification of cream separator technology, which can potentially provide hospitals and families with portable de-fatting methods, thereby introducing quality-of-life improvements for patients and families struggling with these kinds of ailments.

### Leading the Way to Safer Care

Coleen Liscano’s Clinical Nutrition team has collaborated closely with Food Services on several safety initiatives, including supporting patient’s with significant dietary needs. The team is working to design an innovative hospital kitchen, set to open in May 2022, to meet these needs while catering to patient safety. “Our allergen diets have grown 30% in the past few years, and trays that need accommodations for mental health patients have more than doubled in five years,” said **Shawn Goldrick, BAS**, vice president Patient Support Services. In addition, new food items will go to a nutritional council for approval before being added to the menu. “The Clinical Nutrition and Food Service relationship is vital,” said Liscano. “If I manage a patients with diabetes, for example, I have confidence that what’s coming out of the kitchen is aligned with expectations for that patient.”

Boston Children’s teams continue to work to provide the most up-to-date, safe and effective care possible using the tools available to them. Encouraging a community of collaboration helps ensure major changes are implemented effectively into clinical practice. ■



Nicole Berman, BSN, RN, Staff Nurse I, with Niall and father - Emergency Department









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# EXCELLENCE IN PRACTICE



Bina with mother during a virtual visit

# Interprofessional Teamwork Advances Health Equity in Systems of Care

Despite the tremendous emphasis on innovation, technology and continued delivery of excellent care for patient families during the COVID-19 pandemic, Nursing and Patient Care Operations leaders at Boston Children's Hospital recognized an additional opportunity. They sought to increase the provision of cultural and linguistic support to decrease barriers to access and improve the experience for diverse pediatric populations with complex health care needs. Leaders of the Interpreter Services and Social Work departments established several

key priorities in 2019 and 2020 to address Limited English Proficiency (LEP) and Social Determinants of Health (SDOH) to improve the patient-family experience during health care encounters.

"These actions are critical and transformational for our care delivery system," said **Tyonne D. Hinson, DrPH, MSN, RN, NE-BC**, director of Nursing Diversity Initiatives. "We recognize that the provision of culturally relevant, respectful care is essential in the care experience, access, education, establishment of patient-clinician relationships

and quality health care outcomes for diverse populations.”

Through several key initiatives, Boston Children’s Nursing and Patient Care Operations interdisciplinary leaders now partner with patient and families in a more comprehensive way. Together, they work to enhance cultural and linguistic support in care and grow the hospital’s organizational commitment to the principles of equity, diversity and inclusion in practice.

### **Improving Communication with Limited English Proficiency (LEP) Patients and Families**

Effective communication between patients, family members and the health care team provides the basis for equitable care.

*What happened? Where does it hurt? Where does your pain fall on a scale of 1-10?* Asking simple, yet powerful, questions such as these, and then really listening, is often the first way to connect with patients and families. When language barriers limit effective communication, quality and safety risks rise. In fact, LEP patients often experience a lower quality of care, poorer overall health care outcomes and a higher incidence of safety events resulting in harm than their English-speaking counterparts.

Boston Children’s is working to remove these barriers by seeking to empower LEP families to partner more fully with providers, make more informed decisions about care and serve as effective health care advocates for their children. Over the past year, Boston Children’s formalized a process to identify bilingual providers and clinicians throughout the organization. Another group of hospital team members, who demonstrated a solid proficiency in a second language, was also identified. Providers who have not demonstrated specific language proficiency skills are required to continue to engage a medical interpreter prior to providing care.

These refined processes are consistent with standards set forth by The Joint Commission. Boston Children’s implementation efforts to strengthen internal processes is a collaborative effort between Patient Quality and Safety, the Department of Medical

Affairs, Clinical Education and Informatics, Interpreter Services and Patient Care Operations.

With the support of hospital leaders, the team developed the methodology to identify existing bilingual providers, assess their second-language proficiency and codify this status within provider profiles. This newly refined process launched in the fall of 2020 – a successful effort despite pandemic-related challenges.

**“We recognize that the provision of culturally relevant, respectful care is essential in the care experience. Access, education, and the establishment of patient-clinician relationships are all essential to advance quality health care outcomes for diverse populations.”**

***Tyonne D. Hinson, DrPH, MSN, RN, NE-BC, director of Nursing Diversity Initiatives***

All licensed clinicians were invited to complete a “bilingual attestation,” to self-identify as bilingual and vouch to one of two qualifying paths: 1) receipt of clinical training in the second language or 2) employment within Boston Children’s for a period of 10 years or more with active use of that language in the provision of clinical care. Staff who did not meet either of these criteria, but who still wished to practice in their identified second language, were offered the opportunity to have their proficiency assessed by an external agency. Boston Children’s currently has more than 350 bilingual clinicians fully vetted to provide clinical care in a language other than English.

### **Telehealth: Making Virtual Visits Accessible to LEP Patient Families**

The use of telehealth has steadily increased in recent years, and virtual visits rose sharply during the pandemic. With this escalation came concerns that those who already lacked access to care, including



# 350

Boston Children's currently has more than 350 bilingual clinicians who have been fully vetted to provide clinical care in a language other than English.

at-risks populations without computers or internet access, as well as those with LEP, would be even less able to receive needed health care services.

That concern proved valid when Boston Children's Interpreter Services Department team noted disproportionate numbers of Spanish-speaking families were missing scheduled virtual visits during the pandemic. The team quickly implemented new systems to provide these families with a high-touch level of support.

A day or two prior to an initial virtual visit, a medical interpreter calls families to assist them in testing the telehealth platform links and to answer their questions about how the visit will work. The interpreter translates the telehealth platform instructions so that automated appointment reminders arrive in the patient's preferred language. The Interpreter Services Department also emails instructions to each provider in advance of the LEP patient's appointment. Finally, because both patients and providers have expressed a strong preference for working with Boston Children's internal medical interpreters, the Interpreter Services Department adapts the scheduling process to prioritize the hospital's interpreters as the preferred resource for telehealth encounters.

## Measuring Psychosocial Acuity

Boston Children's clinical social workers play an important role in improving health outcomes for patients, especially those most affected by SDOH, such as housing, poverty, violence, behavioral health, illness and trauma. Melding key resources to collaborate with families to reduce or remove conditions that adversely influence patient outcomes is central to

health care delivery system improvement.

To help identify patients and families who would benefit from specific services and interventions, the Social Work team incorporated an empirically validated clinician-administered tool into its practice and documented findings in the electronic health record (EHR). The Psychosocial Acuity Scale (PAS) enables social workers to better codify the social conditions impacting patients' health. The tool systematically identifies families facing the highest degree of psychosocial acuity and tracks the impact of social work interventions over time. The PAS is the only reliable and validated psychosocial acuity measurement tool successfully integrated into standard social work EHR documentation in health systems nationally.

Integrating the PAS into social work practice was the culmination of a systematic, research-informed, multiyear effort by the Social Work department's Care Coordination Committee, with support from departmental leadership. The tool was adapted specifically for a pediatric population through a pilot validation study, the results of which informed the decision to adopt the PAS as standard practice throughout Boston Children's system of care.

By mid-2021, the hospital's Care Coordination Committee trained all social workers who deliver direct patient care in PAS administration and documentation protocols. Data collected will further facilitate the examination of both individual- and population-level trends in psychosocial acuity over time and provide quantitative measures to understand the impact of social work interventions. ■



**Shelanda Balchoo-Anglin, MS,  
RN, CPNP**



**Anna Gardner, PA-C**



**Lauren M. Koup, PA**



**Maria F. McMahon, MSN,  
RN, PNP-PC/AC, TCRN**



**Julia McSweeney, MSN,  
RN, CPNP**



**Fiona Paul, DNP, RN, CPNP**



**Keri J. Sullivan, MS, RN, CPNP**

# Advanced Practice Clinician Contributions: Nurse Practitioners and Physician Assistants Shape Care Delivery

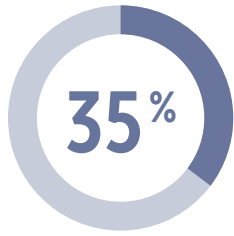
Advanced practice registered nurses (APRN) and physician assistants (PA) comprise an integral and growing part of the health care team known as advanced practice clinicians (APC) at Boston Children's Hospital. This growth is consistent with national trends. Over the past decade, APC utilization has doubled in a wide range of clinical settings. The U.S. Bureau of Labor Statistics estimates continued growth in these roles exceeding 35% over the next five years and beyond.<sup>1,2</sup> Because Boston Children's provides complex pediatric services spanning both primary care and a range of clinical specialties, APC practice serves as a consistent force to strengthen care coordination and continuity.

A member of the department of General Pediatrics (previously known as Medicine Patient Services) and the Division of Pulmonary Medicine, **Keri J. Sullivan, MS, RN, CPNP**, contributes to the treatment of patients with pulmonary disorders in a variety of ways. In addition to providing direct care as a nurse practitioner (NP), Sullivan has served as a co-investigator for research studies, led quality improvement (QI) projects, participates in the Cystic Fibrosis Learning Network, and has helped develop new tools and practice standards that have improved care quality throughout the system. "As

a nurse practitioner, I embrace the three domains of the Boston Children's APRN clinical ladder: Clinical Practice and Outcomes, Leadership and Impact," she said.

**Lauren M. Koup, PA**, Plastic & Oral Surgery, says both independence and interdependence contribute to her ability to directly evaluate and treat patients. Being a member of a collaborative team optimizes patient care delivery and quality outcomes – distinct aspects of PA professional practice at Boston Children's. Koup also helps train residents who rotate through the service. "I am able to work in the operating room in a first assist capacity, which has always been a dream of mine," she said. As the Plastic & Oral Surgery team grew from five to 13 PAs, Koup helped recruit and precept many new colleagues. "PAs are vital to the operation of the department and the hospital more broadly," she said. "We help improve care quality and patient experience in our clinics as we work with surgeon colleagues. We often spend focused time with patients to ensure they are adequately educated prior to undergoing surgery, and follow patients and families post-operatively to make sure their learning needs are met prior to discharge."

Along with other PAs in the Emergency



The U.S. Bureau of Labor Statistics estimates continued growth exceeding 35% of APRNs and PAs over the next five years and potentially beyond.

Department (ED), **Anna Gardner, PA-C**, Emergency Department Lead PA, director, physician assistant, sees patients of all acuity levels. "I meet with and examine patients, order and interpret tests, talk with consultants, perform procedures and make treatment decisions, all in close collaboration with the ED attending," she said. Gardner appreciates the close working relationship that the PAs, NPs, fellows and ED attendings share. "It really feels like every member of the team is valued," she said. "There is no greater success than seeing a team come together for a very sick patient and the family. I am so proud to be part of this exceptional team."

"APRNs are vital to the mission of Boston Children's," said **Fiona Paul, DNP, RN, CPNP**, APRN Level III, Medicine Patient Services/ Gastroenterology. We are widely accepted by our interdisciplinary colleagues, patients and families as important members of the health care team." Working in the Center for Motility and Functional Gastrointestinal Disorders, the Autism/Gastroenterology Program and the Center for Spina Bifida and Spinal Cord Conditions, Dr. Paul has been instrumental in the implementation of several advanced treatments for patients with organic defecatory disorders. Her efforts have led to the expansion of specific, evidence-based programs for these patients, as well. Studies related to the use of trans-anal irrigation (TAI), a method used to treat constipation and fecal incontinence at Boston Children's and other leading health care organizations, have demonstrated the benefits of this procedure in the care of patients with disordered defecation.

The use of TAI as part of an NP-guided program of support can have a significant impact on quality of life for patients suffering with these disorders, Dr. Paul said. She is also committed to nursing education and the professional advancement of APRNs. Recent publications, including *Competency-Based Professional*

*Advancement Model for Advanced Practice RNs* (JONA 2019) and *Cultivating Evidence-Based Practice Through Mentorship* (Applied Nursing Research, 2020), reflect this work.

As an NP working within the Department of Youth Services (DYS) Adolescent Division, **Shelanda Baichoo-Anglin, MS, RN, CPNP**, has had a significant impact on the availability and accessibility of high-quality care for patients in very vulnerable populations. "Boston Children's is an integral part of the DYS program and we provide care on site to incarcerated youth in the community," she said. This allows her to reach patients who might not otherwise have the resources to address their health care needs.

Baichoo-Anglin has contributed to research featured in the *Journal of Correctional Health Care* about the weight patterns of youth entering an urban juvenile justice facility. She also contributed to research published in the *Journal of Forensic Psychology Practice* that evaluated differences in BMI across groups of adolescents taking different classes of medication in a juvenile correctional setting. "This relates to our NP practice setting, as we serve both detained and committed youth and are involved in the prescribing and monitoring of psychotropic medications," she said.

**"There is no greater success than seeing a team come together for a very sick patient and the family. I am so proud to be part of this exceptional team."**

**Anna Gardner, PA-C, Emergency Department Lead PA, director, Physician Assistant**



**Julia McSweeney, MSN, RN, CPNP**, advanced practice registered nurse director and advanced practice registered nurse III Cardiology, provides direct patient care in the Pulmonary Hypertension clinic as part of an interprofessional clinical team. McSweeney has also led a variety of initiatives to improve patient care and safety, several of which have been published. She has been a key contributor to Cardiology Department QI initiatives, including work she led over a decade aimed at reducing medication errors for inpatients by standardizing practice guidelines for specific treatment. This initiative resulted in a marked decrease in the number of therapy errors per 1,000 patient days and was subsequently shared through publication.

**“APRNs are vital to the mission of Boston Children’s. We are widely accepted by our interdisciplinary colleagues, patients and families as important members of the health care team.”**

**Fiona Paul, DNP, RN, CPNP, APRN Level III, Medicine Patient Services/Gastroenterology**

McSweeney has also partnered with Cardiology nursing leadership to design and lead a Boston Children’s Heart Center-funded NP Fellowship Program. She is the primary author of numerous hospital policies, clinical algorithms and clinical practice guidelines impacting the care of pulmonary hypertension patients, including authorship of the Pulmonary Hypertension chapter of the “Heart Center APRN Reference Manual.”

Serving as the Trauma program manager, **Maria F. McMahon, MSN, RN, PNP-PC/AC, TCRN**, has long been influencing and guiding the ways in which Boston Children’s cares for trauma patients. “I have substantial experience as a registered nurse and later as an NP in the direct

care of injured children, which over decades has led to my being identified within Boston Children’s, regionally and nationally, as a leading nurse expert in this field,” she said.

McMahon’s work has led to the revision of trauma activation criteria to include injured patients with vascular compromise. This important change removed a long-existing barrier to care by establishing a process for further clinical evaluation and treatment. McMahon has also worked on improving safety for patients with cervical collars, authoring a guideline revision for Cervical Spine Clearance and introducing an electronic order to standardize the application and discontinuation of the collars.

While the settings may vary, the impact of Boston Children’s APC practice has expanded with the growth of these roles throughout the organization. APC contributions during the COVID-19 pandemic were also significant, most notably the efforts to ensure continuity of care while mitigating health equity risks related to access. As new care models continue to evolve, APCs will most certainly play central roles in the evolution of team-based care, population health and the creation of novel delivery methods spanning all settings within Boston Children’s system of care. ■

#### Citations

<sup>1</sup> Bureau of Labor Statistics, US Department of Labor. *Occupational Outlook Handbook: Nurse Anesthetists, Nurse Midwives, and Nurse Practitioners*. 2019. Available at: <https://www.bls.gov/ooh/healthcare/nurse-anesthetists-nurse-midwives-and-nurse-practitioners.htm>. Accessed June 6, 2019.

<sup>2</sup> Bureau of Labor Statistics, US Department of Labor. *Occupational Outlook Handbook: Physician Assistant*. 2019. Available at: <https://www.bls.gov/ooh/healthcare/physician-assistants.htm>. Accessed June 6, 2019.

# Striving for Progress Through Clinical Inquiry



**Pamela Dockx, BSN, RN, CPON, clinical coordinator, Hematology/Oncology**



**Michelle Schuster, MSN, RN, CPHON, Staff Nurse II, Inpatient Hematology/Oncology**



**Chloe Milliman BSN, RN, CPN, Staff Nurse II, Waltham Infusion/CATCR**

## Innovating to Meet the Challenges of Pediatric Nursing

In an effort to drive the evolution of nursing forward and improve the quality of care provided, it is essential to continuously evaluate and refine the process of clinical inquiry. Innovation in nursing and patient care delivery is a crucial component of Boston Children Hospital's mission to provide the best possible outcomes for patients and families. The hospital continues to encourage and support the growth of its nurses and interprofessional team members through a variety of professional development programs and resources. All are aimed to foster integration of innovative ideas in clinical practice settings.

Under the leadership of the Nurse Executive Committee for Research, co-chaired by **Patricia Hickey, PhD, MBA, RN, NEA-BC, FAAN, SVP** and associate chief nurse and **Michele DeGrazia, PhD, RN, NNP-BC, FAAN**, director of Nursing Research, Neonatal Intensive Care Unit, the Boston Children's Nursing Science Fellowship (NSF) and Evidence-Based Practice Mentorship Program (EBPMP) include both nurse scientists and patient care operations leaders. Both programs have guided some of Boston Children's brightest and most forward-thinking nurses to pioneer significant changes to patient care delivery and protocols, leading to important outcomes and care quality improvements for patients. By instituting a framework through which ideas can grow and flourish,

these programs serve as a launching pad for institution-wide improvements that pave the way for care and safety enhancements.

## The Nursing Science Fellowship

Created in 2011 by **Dr. Hickey** and **Jean Connor, PhD, RN, CPNP, FAAN**, director Nursing Research Cardiovascular & Critical Care Services, the NSF seeks to establish relationships between clinical nurses and nurse scientists with mutual interests to plan and implement research projects. Now entering its second decade, the NSF has helped to transform a multitude of ideas from potential possibility to large-scale, system-wide clinical implementation with far-reaching implications for the hospital and beyond.

Per the fellowship's requirements, each two-person team initiates and completes a scholarly project with the ultimate goal of advancing nursing practice and associated patient care outcomes. Teams provide quarterly updates on their progress, with completed work disseminated through presentations, posters and publications regionally, nationally and internationally.

## Fostering Innovation Through Collaboration

The relationships generated through the NSF shine a light on the variety of ways in which Boston Children's teams can work together toward the common goal

of improving care quality. In providing resources and structure to the research and implementation process, nurse scientists propel good ideas forward and bring important changes from conceptualization to the bedside.

In her practice, **Jenny Haley, BSN, RN, CCRN**, staff nurse III and nurse educator for the Cardiac Catheterization and Imaging Suite, identified the need for a solution to reduce the risk and prevalence of re-bleeding post-procedure for young children undergoing cardiac catheterization. Pediatric patients require four to six hours of immobilization and supine bedrest following the procedure, and routine monitoring and assessment of the insertion sight often involves the nursing team disrupting interventions put into place to support immobilization. Haley introduced the Pediatric Post-Cardiac Catheterization Wrap (PCCW), an innovative device that swaddles the patient in a supine position to support immobilization, while allowing nurses to perform frequent assessments of the insertion sight without disruption. "These opportunities have been invaluable assets to my career advancement," said Haley, adding that the EMPMP "has improved my knowledge and confidence related to informing practice through clinical inquiry."

Work done by **Katie Roy, DNP, RN, CPNP-AC, FNP-BC**, nurse practitioner, Medical-Surgical Intensive Care Unit, sought to identify patients at high risk for adverse events related to sepsis. Dr. Roy's study found that the IDO2 Index, a risk analytic algorithm that assesses the likelihood that a patient is experiencing inadequate systemic oxygen delivery, could be used to determine if a patient with sepsis was at higher risk for an adverse event. In the next phase of her project, Dr. Roy intends to disseminate

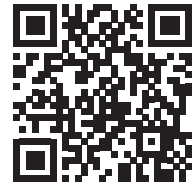
the study findings. "My hope is that this study will motivate clinicians both at Boston Children's and other pediatric institutions to consider IDO2 monitoring as a potential tool in the management of pediatric sepsis," she said.

**Pamela Dockx, BSN, RN, CPON**, clinical coordinator, Hematology/Oncology/Clinical Research, identified a need to refine the standards by which the quality of pediatric oncology care is evaluated and measured. Dockx's team interviewed a large group of pediatric oncology nurse leaders from around the country, identifying themes and trends that could be used to guide the standardization of evaluating measures for care quality. Work done for this project has led to the formation of the Consortium for the Measurement of Pediatric Oncology Excellence (CMP-ONE). "The goal for the consortium is to bring together all pediatric oncology programs from across the country to have a collective forum to look at evidence and discuss current best practice," said Dockx.

### Evidence-based Practice Mentorship Program

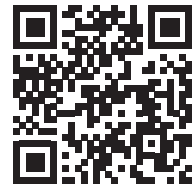
Created in 2016, the EBPMP was designed by **Dr. DeGrazia, Paul Ethan Schuler, DNP, CPNP-AC/PC, APRN** Level II, 7 South, **Carol Atkinson, MSN, RN, MS, PPCNP-BC, CNRN**, nurse practice specialist, Neuroscience Programs and **Fiona Paul, DNP, RN, CPNP, APRN** Level III, Medicine Patient Services/Gastroenterology, to connect clinical personnel with evidence-based practice expert mentors to seek solutions to clinical problems. Now entering its sixth year, the EBPMP continues to expand into the interprofessional realm, featuring projects for a variety of care areas throughout the Boston Children's system.

## OPENPediatrics videos



### Creation of the EBP Mentorship Program

featuring *Michele DeGrazia, PhD, RN, NNP-BC, FAAN*



### The Nursing Science Fellowship

featuring *Jean Connor, PhD, RN, CPNP, FAAN*



### Advancing the Science and Practice of Critical Care Nursing

featuring *Patricia Hickey, PhD, MBA, RN, NEA-BC, FAAN*



Originally participating in the EBPMP in 2017, **Chloe Milliman, BSN, RN, CPN**, staff nurse II, Waltham Infusion/CATCR, evaluated the need for more routine suicide screenings for patients above the age of 10 in the outpatient Infusion/CATCR setting. Working with both the EMPMP and NSF, she was able to disseminate and publish her findings, with the goal of rolling out a universal suicide screening protocol for patients receiving infusion services, as well as in other care settings.

**“To be able to sit in the fellowship room surrounded by nurse scientists from all specialties was such an eye-opening experience about how you can develop the science of nursing.”**

**Michelle Schuster, MSN, RN, CPHON, staff nurse II, Inpatient Hematology/Oncology**

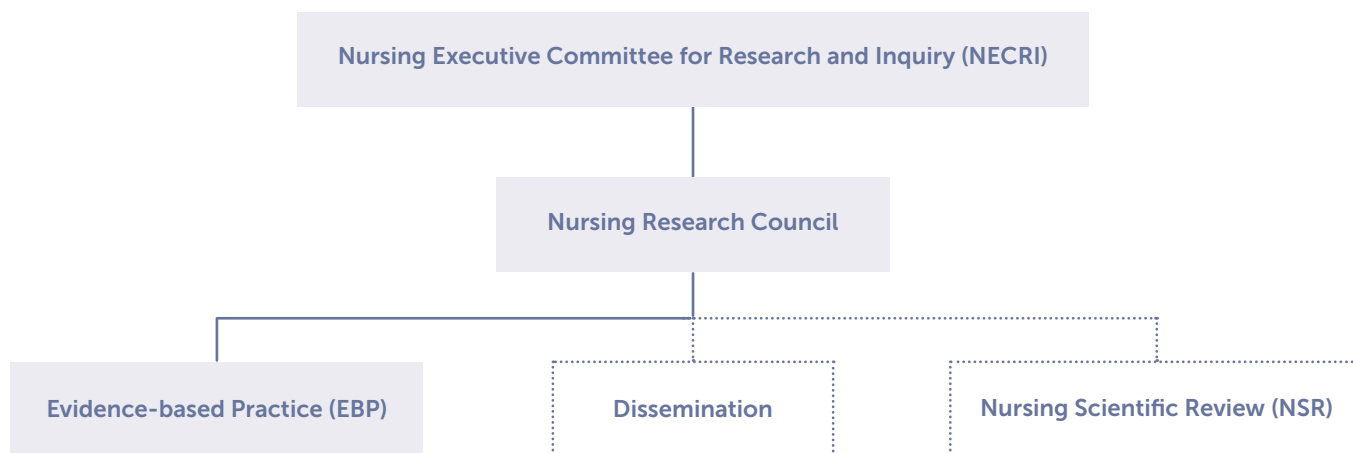
Joining the program in 2018, **Kaitlin Paine, BSN, RN, CPN**, staff nurse II, Therapeutic Apheresis Unit, studied potential solutions to improve outcomes related to the longevity of ports used in the apheresis treatment setting. Paine analyzed ways to reduce the rate in which ports needed to be replaced, thereby improving patient outcomes overall. She plans to work with other expert peers to further explore potential solutions and initiate change to clinical practices associated with apheresis port care.

Faced with the challenge of evaluating the need for change for a vulnerable subset of patients, **Kathleen Kiley, BSN, RN, CPEN**, staff nurse III and clinical educator, Emergency Department (ED), worked with the EBPMP to improve outcomes for patients experiencing behavioral emergencies in the ED setting. Her work led to the implementation of a standardized approach to the care of patients with behavioral health emergencies in the ED, including the design and implementation of the Behavioral Bundle. Her team’s results were presented at the Pediatric Academic Society and the Emergency Nurses Association 2021 Annual Conference.

Noticing a need for a protocol change in her care area, **Kristina Hone, BSN, RN, CPN**, staff nurse II, Intermediate Care Program, identified the use of the one-bag method for the treatment of diabetic ketoacidosis to be inefficient and riskier than alternative methods. Working with the EBPMP and NSF, she studied the potential benefits of transitioning from the one-bag method to a two-bag method. In the process, she determined that the two-bag method performed equally or better in all measured outcomes. Her work helped facilitate a large-scale practice change in the Boston Children’s system.

**Michelle Schuster, MSN, RN, CPHON**, staff nurse II, Inpatient Hematology/Oncology, joined Boston Children’s because of the hospital’s reputation for being supportive of nurses interested in clinical inquiry. As part of the EBPMP, she explored a question she was dealing with herself at the time: What’s the relationship between PTSD

### Evidence-based Practice Sub-committee



and nurses, especially in her field? In her year of examining the research, she found a lack of literature on best practices for supporting nurses. With an aim to prevent PTSD, she conducted her own research inquiry through the NSF.

“To be able to sit in the fellowship room surrounded by nurse scientists from all specialties was such an eye-opening experience about how you can develop the science of nursing,” she said. When her findings were published, they garnered a lot of media attention. She has been interviewed for podcasts and news articles and posted findings on Open Pediatrics, an open-access online community of health care professionals sharing best practices. Throughout the process, Schuster caught the research bug, and is now pursuing a PhD to research the antecedents of PTSD in nurses. Her goal is to target interventions that can help nurses thrive.

### Advancing a Culture of Clinical Inquiry

At Boston Children’s, creating a culture that nurtures evidence-based practice is an organizational priority. For the past six years, the hospital has hosted an Annual Evidence-Based Practice Lecture. The most recently featured keynote speaker was **Haeok Lee, PhD, RN, FAAN**, a Korean-American nurse scientist whose renowned work has influenced the future of practice guidelines and interventions for improving both health communication and health behaviors to advance health equity globally.

Boston Children’s Nursing/Patient Care senior leaders recognize the deep expertise of clinical teams and aim to support the efforts of front-line clinicians to improve patient care. Both the EBPMP and NSF have provided nursing and interprofessional teams with infrastructure and support to propel clinical care forward through innovation and clinical inquiry. Every challenge presents an opportunity for improvement, and the hospital will continue to foster a culture that encourages critical thinking and bravery to explore new ideas. ■

### EBP Mentorship Program Annual Lecture Series



2021

**Haeok Lee, PhD, RN, FAAN**, professor, College of Nursing and Health Sciences, University of Massachusetts Boston



2020

**Robin Newhouse, PhD, RN, NEA-BC, FAAN**, dean of the Indiana University School of Nursing and an Indiana University distinguished professor



2019

**Kathleen R. Stevens, EdD, MS, RN, ANEF, FAAN**, director of the Improvement Science Research Network, and a professor in the School of Nursing at the University of Texas Health Science Center at San Antonio



2018

**Lynn Gallagher-Ford, PhD, RN, EPB-C, NE-BC, DPFNAP, FAAN**, senior director, clinical core director of the Helene Fuld Health Trust National Institute for Evidence-based Practice in Nursing and Healthcare at Ohio State University College of Nursing



2017

**Kathleen White, PhD, RN, NEA-BC, FAAN**, professor, Johns Hopkins University School of Nursing and clinical nurse specialist, Johns Hopkins Hospital



2016

**Bernadette Melnyk, PhD, RN, APRN-CNP, FAANP, FNAP, FAAN**, dean and professor, vice president for Health Promotion, chief wellness officer, elected member of the National Academy of Medicine and executive director of the Helene Fuld Health Trust National Institute for Evidence-based Practice at Ohio State University College of Nursing



# The DAISY Award® for Extraordinary Nurses

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 2020 through September 2021.



**January 2020**  
Julie DiPasquale, BSN, RN  
Staff Nurse I  
8 South Cardiac Intensive Care Unit



**February 2020**  
Joanne Haley, BSN, RN  
Staff Nurse II  
Emergency Department



**March 2020**  
Mackenzie Kasle, BSN, RN  
Staff Nurse II  
8 East Inpatient Cardiology

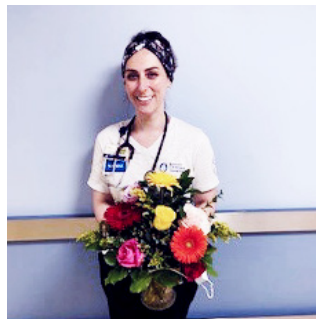


**April/June 2020**  
Michael Felber, BSN, RN  
Staff Nurse II  
10 Northwest Surgical Programs





**May 2020**  
Kelly McCloud, BSN, RN  
Staff Nurse I  
10 South



**July 2020**  
Kristine Aznavoorian, MSN, RN, CPEN,  
MA SANE  
Staff Nurse II  
Emergency Services



**August 2020**  
Brittany Sangermano, BSN, RN  
Staff Nurse I  
Central Staffing Office



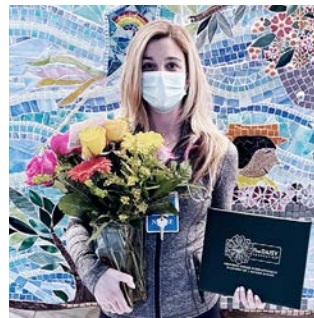
**September 2020**  
Olivia Oppel, BSN, RN, CPN, CLC  
Staff Nurse II  
Advanced Fetal Care Center



**October 2020**  
Erin Fitzpatrick, AND, RN, CCRN, TNCC  
Staff Nurse II  
6 South Cardiac Cath Lab



**November 2020**  
Kathleen Cappucci, BSN, RN, CPN  
Staff Nurse II  
Waltham Inpatient



**December 2020**  
Amanda Reilly, BSN, RN  
Staff Nurse I  
8 East- Inpatient Cardiology



**January 2021**  
Nicole Noble, BSN, RN  
Staff Nurse I  
6 West Hematopoietic Stem Cell



**February 2021**  
Amelia McDonough, BSN, RN  
Staff Nurse I  
6 Northeast



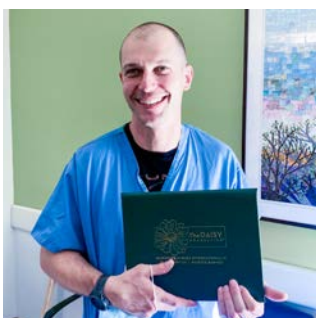
**March 2021**  
Kristin Bedard, BSN, RN, CPN  
Staff Nurse II  
9 South



**April 2021**  
Alexis Carter, RN  
Staff Nurse  
9 Northwest



**May 2021**  
Summer Cotter, BSN, RN  
Staff Nurse I  
Central Staffing Office



**June / September 2021**  
Dan Bombardier, BSN, RN  
Staff Nurse II  
7 South Medical-Surgical Intensive  
Care Unit



**July 2021**  
William Holt, RN  
Staff Nurse I  
11 South Medical Intensive Care Unit

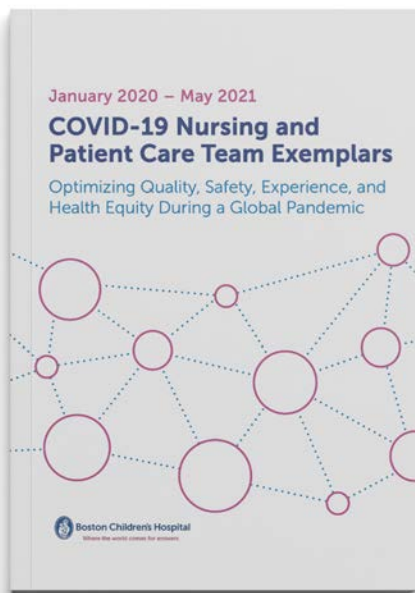


**August 2021**  
Kathleen O'Connor, RN  
Staff Nurse I  
6 South Cardiac Cath Lab

# COVID-19 Nursing and Patient Care Team Exemplars:

## Optimizing Quality, Safety, Experience, and Health Equity During a Global Pandemic

In May 2021, our nursing and patient care leadership team published a 166-page report featuring, COVID-19 Nursing and Patient Care Exemplars. This collection of more than 130 first-person and team narratives sought to capture the specifics of nursing and patient care team contributions and was intended as a supplement to this biennial report. Through photos and summaries of care delivery innovations, the book showcased how Boston Children's teams designed and implemented an array of practice changes to sustain the delivery of high quality, safe, and equitable care. This work continues as we navigate the close of 2021 with a surge marked by historic levels of children and teens requiring inpatient mental health services as well as a fivefold increase in inpatient admission and intensive care hospitalizations for children with acute manifestations of COVID-19.



Read the COVID-19 Exemplar book  
only available internally

# Nursing/Patient Care Contributions to Organizational Recognition



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

Boston Children's Hospital was ranked the nation's #1 children's hospital by *U.S. News & World Report* in 2021-2022, marking the eighth straight year the organization has appeared atop the Honor Roll of Best Children's Hospitals. Rankings are based on four 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 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 8% of hospitals across the nation have achieved this designation. Boston Children's first achieved Magnet designation in 2008, was awarded redesignation in both 2012 and 2017, and is currently pursuing its fourth redesignation in 2022.



## 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 and 8 East - Inpatient Cardiology/ICP both 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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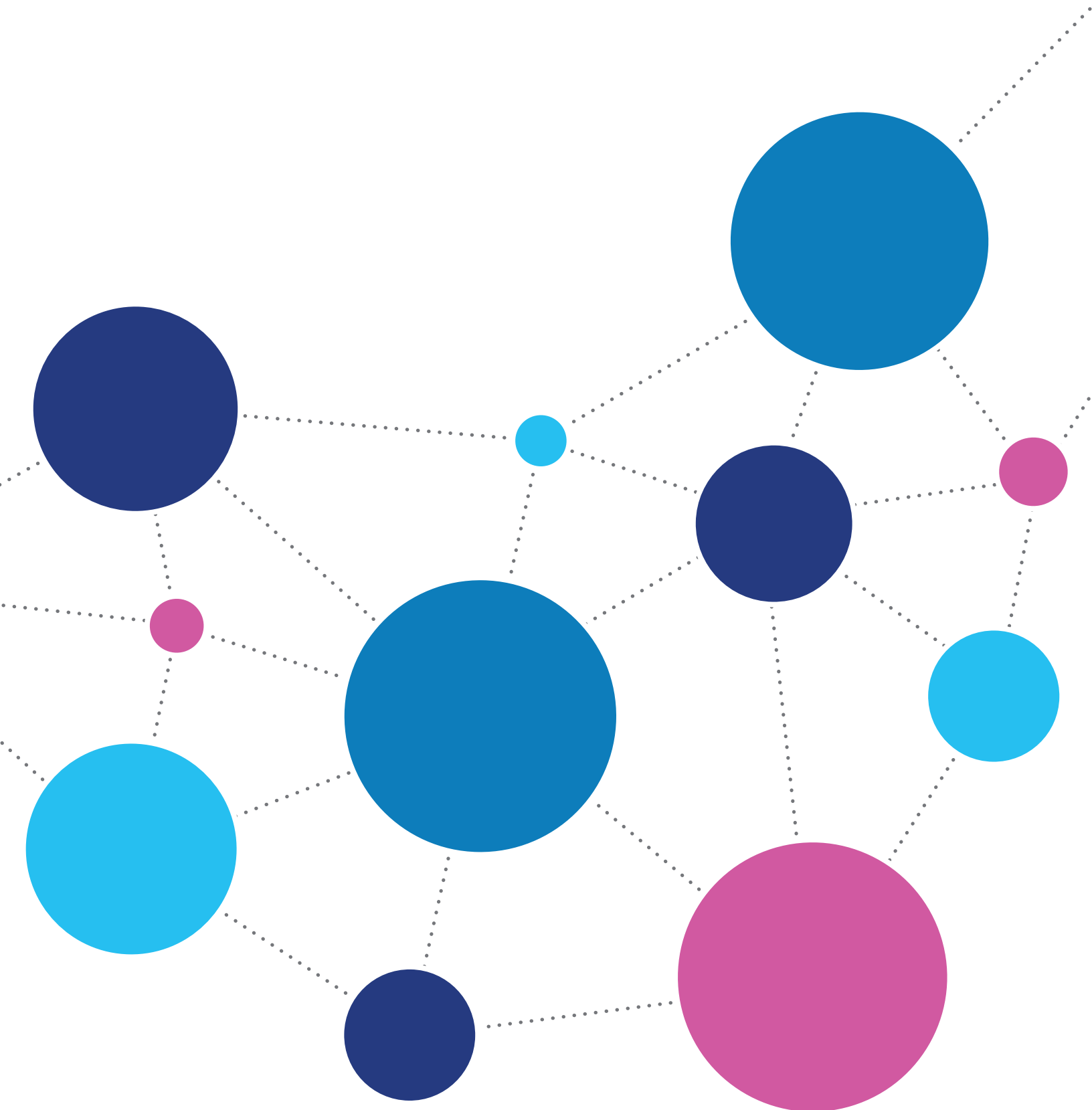
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