



2023 St. Louis Children's Hospital Annual Report



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Dear Friends, Colleagues, and Partners,

As we reflect on the remarkable journey of the past year, it's with a sense of gratitude and optimism that I share both our accomplishments of 2023 and our vision for the future in this annual report. This year has been pivotal in terms of growth, innovation, and strengthening relationships that underscore our commitment to providing extraordinary care and impacting children's health.

Growth and Strategic Development

This year, we celebrated significant strides in our quest to serve more families and enhance the quality of care they receive. Our Adjusted Voluntary Turnover saw a notable decrease, reflecting our ongoing efforts to create a supportive and fulfilling work environment for our dedicated team members. Specifically, our organization saw a remarkable 30% decrease in RN turnover, demonstrating the effectiveness of our initiatives in nurturing and retaining our nursing talent.

As we approach our 150th anniversary in 5 years, our focus remains on increasing inpatient bed capacity and modernizing our facilities to keep pace with growth. Our ambitious growth strategy includes a \$550M capital plan to expand our services across the St. Louis region, adding approximately 90 inpatient beds and upgrades to our existing infrastructure.

Our operations continue to grow as well, with our operating room minutes exceeding 1.5 million, and we proudly completed our 600th pediatric heart transplant, marking significant milestones in our journey of care and excellence. Our total patient days rose to 115,578, reflecting a 2.09% increase from 2022. Additionally, our imaging volume grew by 5.7%, and therapy volume saw a notable increase of 15.1%. Impressively, our total net patient revenue exceeded \$1 billion for the first time, underscoring our financial health and the trust placed in us by the communities we serve.

Partnership with Washington University School of Medicine

Our partnership with Washington University School of Medicine has been instrumental in our achievements. Together, we've embarked on a journey of strategic planning and operational alignment to deliver unparalleled patient outcomes. This collaboration remains a cornerstone of our vision for a future where cutting-edge research and world-class clinical care converge to transform health outcomes for children locally and globally.

Civility Training: A Foundation for Excellence

In 2023, we took significant steps to ensure our workplace embodies the principles of civility and respect. With 98% of our leaders trained in civility and plans to extend this training to all team members in 2024, we're building a culture where respect, empathy, and belonging are not just principles, but also tools for healing. This initiative is vital in engaging our team in meaningful improvement, aligning with our organizational priorities, and fostering productive relationships with the families we serve. Civil and respectful interactions are the bedrock of our thriving environment.

Commitment to Safety

Our dedication to safety remains a top priority. With an investment of \$1.7 million in advanced technology and additional personnel, we've enhanced security across all our facilities. Our initiatives, including the installation of a weapons detection system and more comprehensive visitor management system, are a testament to our unwavering commitment to providing a secure environment for our patients, families, and team members.

In response to a significant rise in firearm injuries observed in our community during the pandemic, our team sought innovative solutions to intervene in this crisis. We initiated a gun lock distribution program that exemplifies our proactive stance on community health and safety. Placing a "no questions asked" gun lock basket in a private yet conspicuous area of the hospital's emergency department, we encouraged team members, patients, and their

families to take free gun locks for use in their homes or any homes children visit. This initiative surpassed our expectations, leading to its expansion across all BJC emergency departments, as well as our Children's Specialty Care Center (CSCC) West and South locations in 2023. The success of this program is quantifiable and profound. The SLCH distribution sites alone have given away over 15,000 gun locks. This initiative not only highlights our commitment to safety but also the importance of community-focused interventions in reducing preventable harm and enhancing the well-being of the families we serve.

Looking Forward

As we look to the future, we are excited about the opportunities ahead; and as a learning organization, our journey is one of continuous improvement, driven by the belief that together, we can overcome challenges and make a lasting difference in the lives of those we serve. We remain dedicated to our mission of doing what's right for kids, and we are grateful for your support as we embark on another year of growth, innovation, and compassionate care.

Thank you for being an integral part of our journey. Together, we are making a difference.

With heartfelt thanks,



Trish Lollo
Trish Lollo
President, St. Louis Children's Hospital

2023 Statistics



4,452
Employees



1,090
Physicians



116
Residents/Interns/Fellows



\$1.07 Billion
Net Revenue



455
Staffed Beds



12,362
Inpatient Admissions



14,149
Outpatient Surgery Visits



45,549
Emergency Dept. Visits



One Children's Place • St. Louis, Missouri 63110
314-454-6000 • Physician Referral: 314-454-KIDS (5437)
stlouischildrens.org

St. Louis Children's Hospital is dedicated to improving the health and lives of children. As one of the top-ranked children's hospitals in the country, St. Louis Children's Hospital provides care in more than 50 specialty areas through a dedicated team of physicians, nurses, staff and volunteers. Along with inpatient and outpatient medical care, the hospital offers education, wellness and injury prevention programs to fulfill its mission to "do what's right for kids."

Providing comprehensive, high-quality care and serving as an advocate for children has been St. Louis Children's commitment since its inception in 1879. Today, the hospital serves patients and families across a 300-mile service area, and has seen patients from all 50 states and more than 80 countries.

St. Louis Children's consistently ranks among America's Best Children's Hospitals by U.S. News & World Report in all surveyed categories. In 2023, St. Louis Children's was in the top 12% of ranked pediatric hospitals in the nation and was number one in the St. Louis region. The hospital's academic and physician partner, Washington University School of Medicine, is one of the top-ranked medical schools in the United States. Since 2005, St. Louis Children's has been designated as a Magnet hospital for nursing excellence from the American Nurses Credentialing Center® (ANCC). The ANCC recognizes hospitals that provide quality patient care, nursing excellence and innovations in professional nursing practice. In 2020, St. Louis Children's was redesignated for a fourth consecutive term, one of only 76 other hospitals worldwide to achieve this accomplishment. Patients and families across the region have access to services and treatments found only at St. Louis Children's including an inpatient pediatric behavioral health unit, MIBG therapy suite for cancer patients and Level IV pediatric epilepsy program.

St. Louis Children's Hospital extends its services to children and families in the community through a variety of workshops and educational partnerships, including nutrition and fitness, childhood immunizations, injury prevention and car seat and helmet safety. The hospital also developed the region's first pediatric mobile health, dental, and diabetes programs as well as an interactive pedestrian safety program.

St. Louis Children's Hospital is part of BJC HealthCare, which serves the East Region of BJC Health System, one of the largest nonprofit health care organizations in the United States. BJC facilities deliver extraordinary care to urban, suburban, and rural communities in greater St. Louis, southern Illinois, and southeast Missouri, as well as to people from across the country and around the world at its academic hospitals Barnes-Jewish and St. Louis Children's Hospitals. BJC's nationally recognized academic hospitals are affiliated with Washington University School of Medicine. Services provided include inpatient and outpatient care, primary care, community health and wellness, workplace health, home health, community mental health, rehabilitation, long-term care, and hospice. To learn more, visit Facebook, Twitter, Instagram, and LinkedIn. As one of the largest employers in Missouri, BJC Health System comprises 24 hospitals and hundreds of clinics and service organizations and operates in two distinct regions, serving patients in its West Region through Saint Luke's Health System.

Dear Colleagues and Community Members,

Reflecting on my first year with St. Louis Children's Hospital as your Chief Nursing Officer and Vice President of Patient Care Services, I am filled with immense pride and gratitude. I joined this extraordinary team in March of 2023 and stepped into a community dedicated to excellence, innovation, and compassion. This annual report showcases the remarkable contributions of our nursing staff, whose dedication has been pivotal in navigating the post-pandemic landscape and advancing pediatric nursing.

Our nurses, numbering over 2,007, are at the forefront of pediatric health care, continuously earning Magnet recognition for nearly two decades. Their unwavering commitment to excellence is evident in every initiative, from developing innovative care models that set new standards in nursing to leading interdisciplinary teams focused on reducing harm to our patients. In 2023, our nurses were instrumental in training more than 3,000 team members in de-escalation techniques, enhancing safety for everyone in our care environment.

Beyond the walls of our hospital, our nurses have extended their compassionate care and advocacy through programs like Nurses in Schools and the reinforcing our commitment to community health and well-being. These efforts highlight our nurses' role as the foundation of our mission, steering us toward a brighter future for pediatric health care.

A cornerstone of our success has been the advancement and expansion of our nurse residency program, an essential strategy in attracting and retaining new graduate nurses. This year, we celebrated a record number of new graduates joining our ranks, thanks to our nationally acclaimed program. Despite the challenges of recent years, we've achieved a decrease in adjusted voluntary turnover, successfully recruited and retained nurses with BSNs or higher, increased our certified nurse numbers, and proudly watched our nurses share their expertise at national conferences and contribute to peer-reviewed journals.

These accomplishments reflect not just the skill and dedication of our nursing staff but also our collective commitment to creating an environment where nurses thrive, innovate, and lead. As we look to the future, our focus remains on enhancing practice environments, supporting the well-being of our team, and continuing to provide exceptional care to the children and families we serve.

Thank you for your relentless dedication, your passion, and your resilience. Together, we are not just caring for children; we are shaping the future of pediatric health care.

Warmest regards,



Carrie Lee

Carrie Lee, DNP, MBA/HCM, RN, NE-BC
Vice President, Patient Care Services
Chief Nursing Officer
St. Louis Children's Hospital

Providing a Safe Environment

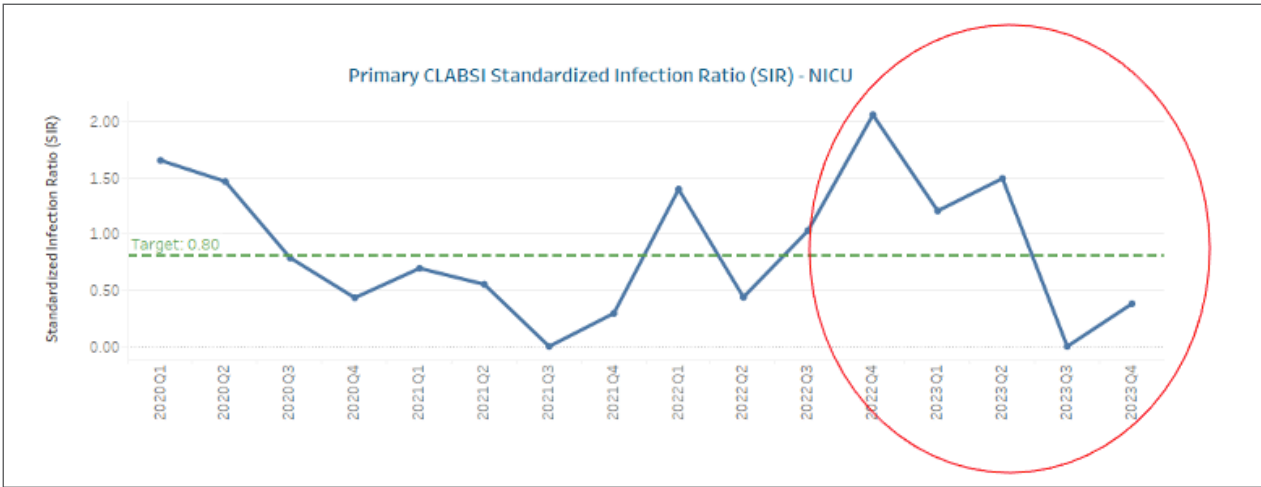
Preventable Harm: Reducing NICU CLABSIs

Central line-associated blood stream infections (CLABSIs) are preventable harm events associated with significant morbidity, mortality, and a high-cost burden. St. Louis Children’s Hospital (SLCH) has a robust hospital-wide interprofessional preventable harm infrastructure. Following an uncharacteristic spike in neonatal CLABSIs in 2022, SLCH formed an interprofessional neonatal intensive care unit (NICU) task force, including representatives from nursing, medicine, Quality Improvement/Patient Safety, Performance Measurement, Hospital Epidemiology and Infection Prevention, Environmental Services, and Parent Partners with support from hospital senior leadership.

The NICU is a large 150-bed level IV NICU with over 400 staff, approximately 120 providers, and multiple ancillary support staff. The task force conducted a special cause investigation including a review of strategies identified and implemented to mitigate harm. During this time, one identified gap included a loss of tenured nurses and support staff throughout the organization, resulting in an increase in contingency staff, novice nurses, and non-core nurses. Through the work of the task force, several systems and processes were improved, and resources implemented:

1. **A specialty team resource nurse role** was developed and implemented to provide 24-hour coverage for central line support to ensure direct observations of the central line maintenance bundle were reliably being performed, timely central line insertion and maintenance support, and availability of a subject matter expert resource to reinforce best practices and provide a second pair of hands for two-person central line dressing care.
2. **An interactive CLABSI Escape Room** training opportunity that provided real-life scenarios highlighting opportunities in bundle element compliance for staff education.
3. **A mandatory CLABSI Forum Education** for all staff focused on bundle element review, patient impact safety stories, and interactive games to reinforce bundle elements that had the most opportunity for improvement.
4. **An interdisciplinary approach to positive blood culture review** that brought together members of the care team, fostered psychological safety, and encouraged improved situational awareness, identification of risks and potential barriers, and sharing of lessons learned.

These strategies coupled with our preventable harm infrastructure of routine triad leader rounding and routine CLABSI process/outcome data review, proactive preventable harm huddles, and sharing of patient safety stories, resulted in a **50% NICU CLABSI reduction from 16 CLABSI/a standardized infection ratio 1.34 (2022) to 8 CLABSI/a standardized infection ratio 0.64 (2023)**.



Promoting Workplace Safety: Equipping Staff with Crisis Prevention Institute Training

The Problem

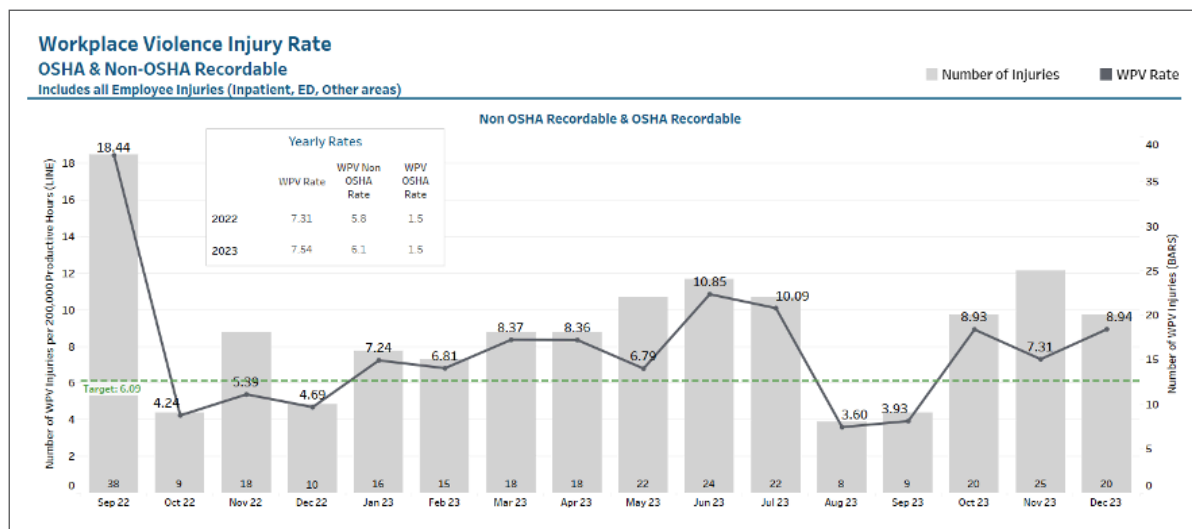
Workplace violence (WPV) continues to disproportionately impact health care workers and pediatrics is no exception. Health care workers are five times more likely to sustain a WPV injury than any other profession. Often, in pediatrics, WPV is the result of unpredictable and impulsive patient behaviors. To create a safer health care environment for patients, families, and team members, St. Louis Children’s Hospital (SLCH) adopted an evidence-based violence prevention training, the Crisis Prevention Institute (CPI), for team members. This evidence-based program features prevention as the first line intervention for crisis situations. CPI focuses on both patient and staff behaviors during an escalation. The implementation started in 2019 and continues to evolve over time, mirroring changes in the patient population. In 2023, SLCH focused on reducing injuries and increasing reporting of WPV injuries, as well as specialized training for crisis intervention for autistic children.

As part of the hospital’s preventable harm infrastructure, the interdisciplinary WPV preventable harm team uses quality improvement methods to engage key stakeholders in collectively managing WPV across the organization. Key drivers to reduce WPV are multi-faceted and do not solely rely on response during a crisis but rather a proactive approach to creating safe patient environments, reliably following the admission process for patients with behavioral health needs, and other structural support (increasing involvement from ancillary services, community resources, and family involvement).

Training remains a large part of the crisis response program. Providing nuanced training for responders to better address specific situations encountered by staff has been well received. Content specific to neurodivergent patients that are non- or less-verbal has been added specifically in late 2022 to 2023. Ongoing education is imperative to maintain safety for both staff and patients. Topics including verbal de-escalation, empathy, listening, understanding potential triggers, debriefing, and refreshers on various therapeutic holds have been included in crisis response classes for new or renewing staff, unit staff meetings and various continuing education sessions for both nursing and support staff. For reporting WPV events, specific education and resources were shared with leaders to disseminate to their units, as well as in the hospital’s learning management system. 100% of staff working in high-risk units have completed CPI training, with a formal CPI Response Team/Process in place. The program is now expanding to train staff working in moderate- and low-risk areas.

Outcome

Despite both increased acuity and volume of patients with behavioral health needs, SLCH OSHA recordable injury rate remains below the national average. **The U.S. Bureau of Labor and Statistics reports an average recordable injury rate for hospitals as 6.1. SLCH has remained consistent at a rate of 1.5 with less than 20% of total WPV injuries being OSHA recordable.** The overall WPV injury rate has slightly increased from 7.31 to 7.54, which (among other factors) may be attributed to a campaign to increase reporting of all types of injuries.



Delivering an Outstanding Patient Experience

Improve Net Promoter Scores: Concierge program and 11100 improvement

The past few years were remarkable for patient and family experience, particularly in the realm of focused improvement to support bedside nursing care. First, we focused on our Net Promoter Score (NPS), a metric that helps us understand how likely our patients and families are to recommend St. Louis Children's Hospital based on their experience with us. NPS takes into consideration not only the quality of care but the overall experience. When looking at NPS and how we have improved, two tactics stood out:

1. Bedside Nurse Leader Rounding

2. The Concierge Program

Our Bedside Nurse Leader Rounding work showed consistent gains in 2023. Intentional nurse leader rounding at the bedside refers to a systemic approach where nursing leaders purposefully visit patients and families at their bedside to assess their needs, address concerns, and ensure quality care delivery. This proactive approach has allowed our nurse leaders to engage directly with patients and families, identify opportunities for improvement, and provide support to nursing staff, ultimately enhancing quality of care and outcomes. One unit, 11100 General Medicine, moved its NPS scores from the 75th percentile (85.9% excellent) in 2022 to the 90th percentile (91.9 % excellent) in 2023, which was also our highest top box score across all inpatient units. The nurse leaders on this unit engaged consistently in intentional nurse leader rounding at the bedside in 2023. Other units embracing this practice on a consistent basis included the 12th Floor Neurosciences unit, the Neonatal Intensive Care Unit, and the Pediatric Intensive Care unit. These units increased their NPS and, like 11100, jumped a percentile ranking from 2022 to 2023.

We also directed our attention towards a proactive approach to enhance the experience and quality of care in our pediatric Emergency Department (ED) by developing and expanding our Concierge Program, thus adopting a team-based care mentality. In our Children's ED, we were relying disproportionately on nurses and other clinical team members to ensure every aspect of the experience was exceptional. To combat this, we dedicated resources into building a Concierge Program. Our Concierge Team members assist patients and families with not only accommodations and amenities, but expectation management and service recovery. Having these team members present to support patients and families to navigate unexpected and stressful ED visits has not only allowed our nurses to focus on care at the bedside but also has shown us that the overall experience improves when they are present.

On shifts when the Concierge is present, our ED Likelihood to Recommend top box scores are between 10-20% higher than the ED overall top box scores, resulting in Net Promoter Scores (NPS) that are between 13 and 26 points higher than the overall ED NPS. The results in our ED have been so exceptional that we have been able to quickly expand from having one full-time position in our ED to two, providing coverage seven days a week, and to develop a welcome concierge program on the second floor to support patients and help families navigate the experience upon their first steps into our organization.

Supporting a System of Diversity, Equity, and Inclusion

Diverse Nurse Scholarship: Investing in Diversity and the Community

The Children's Foundation Diverse Nurses Scholarship represents one of the many ways St. Louis Children's Hospital (SLCH) rewards excellence among its employees, while supporting its commitment to deliver high quality patient care. In fall of 2020, The Friends Board of the SLCH Foundation and individual donors invested philanthropic support to establish a nursing scholarship endowment fund designed to address the shortage of diverse nurses within the St. Louis Metropolitan area. The scholarship's aim is to diversify the nurse population within SLCH by financially supporting SLCH employees who are interested in pursuing a nursing career, and potentially hiring them in a nursing role upon graduation. In 2022, the Diverse Nurses Scholarship was established for SLCH employees who were enrolled in a nursing program [e.g., Associates or Bachelor of Science in Nursing (BSN)], providing up to \$7,500 for tuition, fees, and books.

The Chief Nursing Officer formed a committee to establish criteria, processes, and a selection committee for the scholarships. The committee comprises nursing leaders, clinical nurses, and representatives from Clinical Education, the SLCH Foundation, and Human Resources. Interested employees were required to complete a candidate application (including enrollment verification, good standing letter, and a personal statement), along with a St. Louis Children's manager recommendation.

The Diverse Nurses Scholarship was awarded to four SLCH employees in 2022, and three SLCH employees in 2023, who were working either PRN, part-time or full-time Patient Care Technician, Milk Technician, or Patient Access roles, and actively pursuing a nursing degree at the time. Darria Miller, Trinity Cole-Reid, and Dominique Wilford were the recipients of the 2023 Diverse Nurses Scholarship funds. Each of these employees expressed their extreme gratitude following receipt of the scholarship, noting it made a significant difference in their ability to fund their nursing education. All three continue to pursue their nursing degrees at this time.





Enhancing Employee Engagement

Heart Center Nurse Retention

The Heart Center at St. Louis Children's Hospital (SLCH) encountered a significant challenge in 2022 with an all-time high adjusted voluntary turnover rate (AVTR) of 28%, primarily due to nurses leaving for travel agency assignments. In response, the first quarter of 2023 was marked by a prioritized effort to reduce the AVTR to 13% by the end of the year. To address this, key strategies were implemented, focusing on enhancing team engagement and refining hiring practices.

To improve team engagement, the Heart Center implemented consistent one-on-one meetings between leaders and their direct reports, aiming to understand individual goals and encourage involvement in unit projects. Furthermore, the Heart Center organized six social events throughout the year, exceeding the initial goal of four, to enhance team bonding. These events varied to include book clubs, holiday parties, and kickball tournaments, allowing staff to connect over shared interests.

On the hiring front, the Heart Center collaborated with Talent Acquisition to develop aggressive recruitment strategies, successfully recruiting four agency nurses to permanent positions and realizing that 25% of new hires were facilitated through a referral bonus program. **As a result of these initiatives, the AVTR dramatically decreased to 10.6% by the end of 2023, achieving a 62% reduction.**

Going forward, the Heart Center remains committed to prioritizing retention, with plans to further expand the Clinical Mentor Program. This initiative underscores SLCH's commitment to fostering a supportive environment that values both the professional growth of its staff and the delivery of exceptional patient care.

Bridging the Experience Gap: Veteran nurses coach novices in innovative care model

Nearly half of registered nurses with more than 10 years' experience plan to leave the profession in the next five years. New nursing graduates will fill many of their positions, but children's hospitals are left to wrestle with ways to replace decades of bedside nursing experience.

"New nurses coming in have very little expertise on their side. When I began at the bedside 27 years ago, I used to look beside me and see experts who could answer my questions," says Michele Lane, MSN, RN, Nurse Manager, Neurosciences. "Now, it's a new grad asking another new grad."

Leaning on experienced nurses

To help new nurses bridge the gap, St. Louis Children's Hospital (SLCH) developed a new care delivery model based on Benner's Novice-to-Expert Clinical Practice Framework, a structure used by hospitals for decades. However, it calls on the experience of seasoned nurses to help novices gain clinical competence and practical confidence.

The program was piloted in the 46-bed neurosciences unit. Lane carefully selected expert-level nurses who wanted to serve as mentors and who had the nursing acumen required for the initiative.

Mentors' roles were more nuanced than those of preceptors in nursing school. Instead of clinical instruction, mentors were charged with creating a supportive and intellectually curious learning environment. Through one-on-one meetings and bedside support with patient care, mentors focused on setting newer nurses up for success.

"The mentor was there to really drive them to think about things like time management and critical thinking — what are they going to do and why are they going to do it," Lane says. "It was not to be a resource who does everything for them, but because they're novice level, to help them build the foundation into nursing."

Promising early results

The program launched just over a year ago, and SLCH is already seeing improvements in performance and satisfaction ratings among nurses in the unit:

- The 12-month rolling RN-adjusted voluntary turnover rate has decreased by more than half, from 39% to 17%.
- Among nurses with less than a year on the job, the 12-month rolling RN-adjusted voluntary turnover rate has fallen by 80%.
- Nurses with a year or less experience have demonstrated a 96% compliance rate with bar code medication administration (BCMA), besting the overall unit compliance rate of 94%.
- The unit's Patient Experience Net Promoter Score (NPS) has improved from 73.7 to 91.
- The employee satisfaction positivity rating has risen from 50% to 64%.

'A win all the way around'

While patients, families, and early-career nurses benefit directly from the program, veteran nurses welcome the opportunity to serve as mentors.

"We've made a strong investment in the mentors themselves. They feel excited about this program, and it's giving them an additional purpose and helping them develop professionally," says Joan Smith, PhD, RN, NNP-BC, FAAN, Director, Clinical Quality, Safety & Practice Excellence.

“It allows the mentors to grow as leaders and subject matter experts without leaving the bedside. We know people leave if they feel they are not developing professionally or have opportunities for advancement. If this can support that at the bedside, it’s a win all the way around,” she said.

Plans for expansion

The program has successfully expanded to 10 East/West with similar results, including a 70% reduction in 0–1-year AVTR. According to Kim Sauder BSN, RN, Nurse Manager, 10th Floor, Pediatric Surgery, “The clinical mentor program has been a huge success! It creates the foundation for a safe-to-speak culture and focuses on belonging, which ultimately impacts the entire team.” According to one of her novice nurses, “I do not think I would be able to be successful without having had the clinical mentors by my side when beginning on my own. Being able to go over skills from school or orientation again in a nonjudgmental setting 1-on-1 with clinical mentors has been so helpful. While other nurses on the unit have been helpful in assisting and answering questions, having a mentor without their own assignment to really sit down and get into the nitty-gritty is so beneficial.”

Further expansion to general medicine units (7100, 7400, 10100, 11100) and the Float Pool is underway. Additionally, SLCH is building a virtual platform to scale the number of mentees each mentor can advise and integrating student nurse techs into the model to develop a pipeline of future nursing candidates.



Promoting a Culture of Stewardship

Increasing Nurse Retention Rates

The Plan

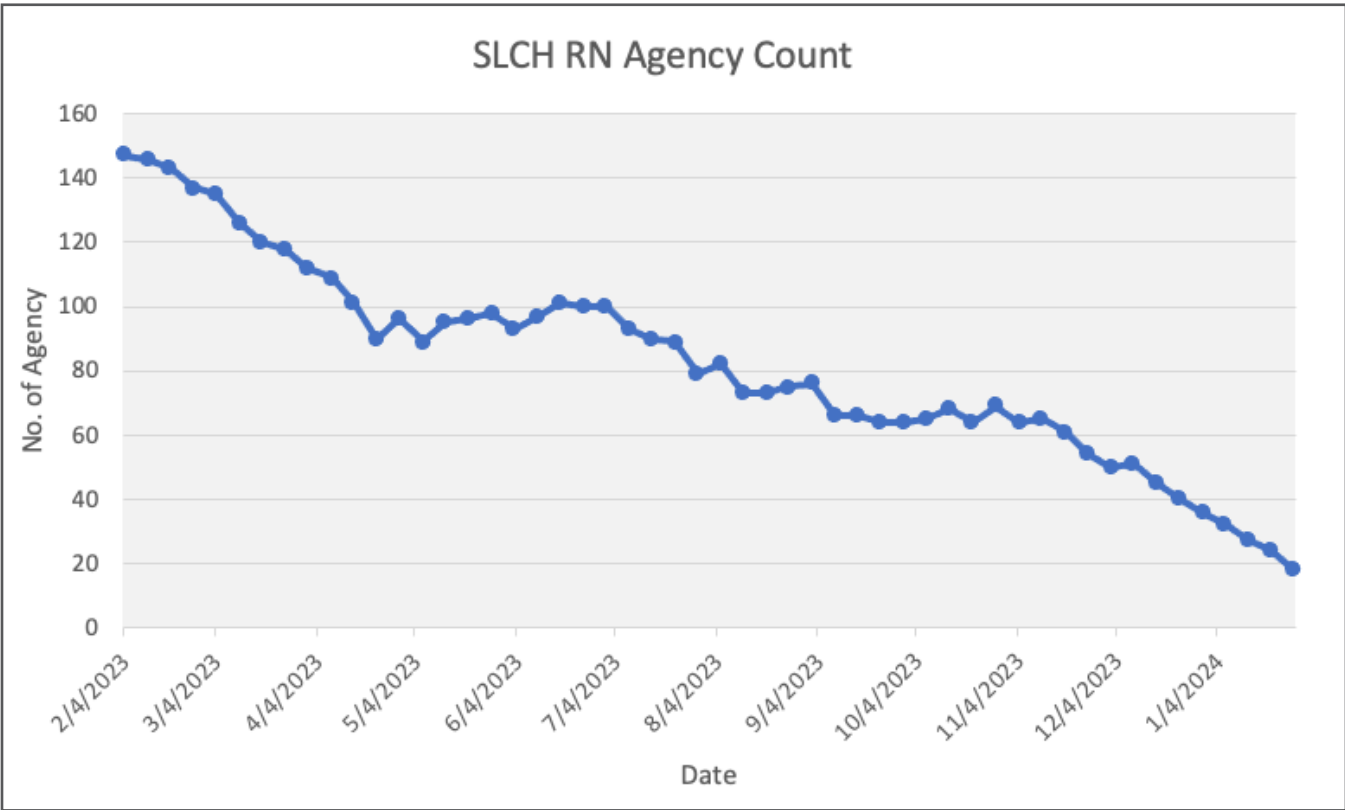
In 2022 the registered nurse (RN) staffing gap increased due to continued turnover, primarily due to nurses departing to take travel assignments. With the anticipation of a tri-demic (coronavirus, influenza, and respiratory syncytial virus) and our team members being tired after multiple waves of the pandemic, St. Louis Children’s Hospital (SLCH) decided to utilize agency contracts to bridge the gap to meet patient needs. In February 2023, SLCH peaked at a total of 147 registered nurse (RN) agency contracts. After narrowing the gap to ensure we could care for all who needed us, nursing leaders refocused to develop a 2023 strategic plan to increase core staffing and decrease agency rates. The metric most closely associated with this strategy was to reduce RN agency usage by 50%.

The Tactics

The main tactic utilized to achieve the 50% reduction in RN agency usage was proactive hiring, a practice implemented at the unit level. The intent was to not only close the RN gap at the unit level, but also apply a factor that forecasts future turnover. With this forecast, the leaders were able to hire more than a given unit’s gap so as future turnover occurred, the replacement position was already hired and/or in orientation. As each unit closed their gaps, agency contracts were not renewed.

The Outcome

Over a 52-week period between February 2023 and January 2024, the number of RN agency contracts decreased from 147 to 18, with an estimated cost savings of \$2,077,000, an 88% reduction in the number of contracts, and an 87% reduction in cost.



Optimizing Access to Health Care

Child Health Advocacy Outreach: School Nurses and Healthy Kids Asthma Mobile Unit Program

In the United States, asthma poses a significant public health concern for children, representing one of the most prevalent chronic childhood illnesses. Data from the U.S. Centers for Disease Control and Prevention (CDC) indicates that roughly six million children under the age of 18 years are diagnosed with asthma. The impact on health care utilization is substantial, with an estimated one in six children requiring emergency department visits and one in 20 requiring hospitalization each year. Schools are targeted to participate in the program from a priority ZIP code listing from the highest emergency department visits for asthma in the past three years at St. Louis Children's Hospital.

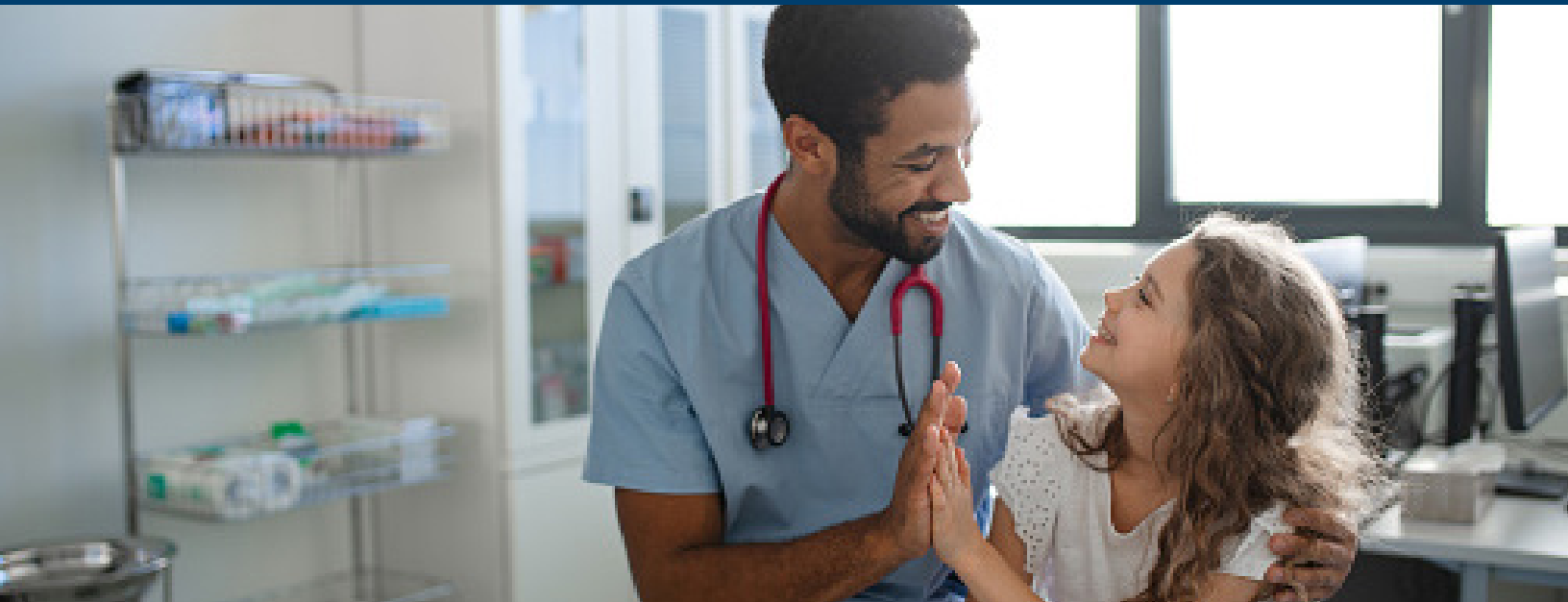
The Asthma Program is a multi-year initiative designed to equip students, parents, and school staff with the knowledge and resources necessary to effectively manage asthma. The program begins by enrolling student participants and then providing them with three years of ongoing support. A mobile unit staffed by registered nurses and pediatric advanced practice registered nurses (APRNs) visits each school participating in the program on a monthly basis. These health care professionals utilize evidence-based educational programs from the American Lung Association, such as Open Airways for Schools and Kickin' Asthma, to deliver informative sessions. The curriculum focuses on empowering participants to recognize and control asthma triggers, with the ultimate goal of keeping students healthy and minimizing disruptions to their education. To ensure coordinated care and informed decision-making, the program facilitates communication between a student's primary care physician, parents, and school nurses regarding any updates or adjustments to the student's asthma management plan. Finally, the program goes a step further in safeguarding student health by administering annual influenza vaccinations.

A student's monthly Mobile Unit visit involves completing an Asthma Control Test to assess control, review proper inhaler spacer technique with an APRN, and undergo a focused physical exam. New students receive a spirometry test to measure lung function. Based on these assessments, the APRN creates or updates a personalized Asthma Action Plan which is sent home, and the school nurse maintains a copy for proper care management during the day.

Community Health Workers help families with social determinants of health. Top activities involve: insurance coverage, medication assistance, utilities and housing assistance. Asthma coaches do follow-up education with parents and add additional support as needed. The top three activities include more asthma education, medication adherence, and appointment compliance.

During 2023 there were 709 students enrolled in the program. Healthy Kids Express exceeded two goals:

- **Goal** — 75% of patients receiving asthma coach services will attend at least 1 visit to Primary Care Provider (PCP)/Specialist
Outcome — 80% (47/59) attended at least 1 return visit to PCP/Specialist in the last 12 months
- **Goal** — 98% of children enrolled in the asthma program should have an Asthma Action Plan
Outcome — 100% of children have Asthma Action Plans



Promoting a Safe Community

St. Louis Children's Hospital Gun Lock Expansion Program

Thanks to interprofessional Emergency and Trauma Services Department team members Jessica Zurmuehlen, MHA, BSN, RN; Michele Herndon, DNP, RN; Lori Beck, MSN, RN, CPEN; and Lindsay Clukies, MD, a gun lock program that started at St. Louis Children's Hospital (SLCH) to reduce preventable firearm injuries has expanded to all hospitals in BJC HealthCare. Free gun locks are available with no questions asked at all BJC hospital emergency departments, the St. Louis Children's Specialty Care Centers in west and south St. Louis County, the St. Louis Children's Hospital Center for Families, and Safety Stop. Clukies, a Washington University Emergency Medicine physician at SLCH said, "In 2022, we had 163 children with gunshot wounds at St. Louis Children's Hospital."

Overwhelmingly, the program exceeded expectations. In October 2020, the SLCH Trauma Services department placed a basket of gun locks in the emergency room waiting area. The "No Questions Asked" basket also included an educational flyer. Following the program launch, nearly 3,000-gun locks had been taken by patients, families and staff, including 400 that were distributed at the hospital's Center for Families.

BJC Community Health Improvement stressed that it takes the entire St. Louis metropolitan community to prevent firearm injuries in children. An increasing number of children age 10 years and younger are being treated for severe injuries related to firearms and most of the unintentional firearm injuries occur in the child's home or a friend's home. Everyone — patients, families, visitors, and team members — who passes by one of our gun lock baskets is encouraged to take advantage of this free program.

Through the gun lock expansion, over 23,000-gun locks have been given away to date and team members have educated other hospitals on how to execute a similar program. This program's success has gained national recognition as a featured CNN news story.

In 2023, the number of firearm injuries treated at SLCH decreased by 34%, and the number of unintentional firearm injuries, or guns discharged accidentally, decreased by 7%. Though it is impossible to show a direct correlation between the SLCH gun lock program and the decrease in unintentional firearm injuries, the data certainly provides hope for continuing this critical program to help keep children in the community safe.

2023 Nursing Accomplishments



2,007

Nurses



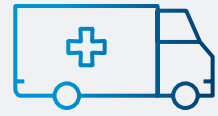
17,629

Surgeries
Performed



46

Pediatric
Specialties



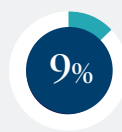
7,369

Free Mobile Health
Van Screenings



Education

Percent of RN staff
by highest level of
nursing education

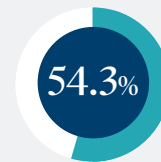


9%
ASSOCIATE
DEGREE



2%
DIPLOMA

PROFESSIONAL NURSING CERTIFICATION



54.3%

Percent of eligible nurses nationally
certified in all roles and all settings



70%
BSN



16%
MSN



3%
DOCTORATE

Sharing Knowledge

19

RNs authored/
co-authored
16 journal articles

1

RN co-authored
2 chapters
in a textbook

29

RNs presented/
co-presented 28 posters
at conferences

34

RNs gave oral
presentations at
39 conferences

RN Career Ladder

282

Clinical Nurse I

943

Clinical Nurse II

38

Team Lead/
Charge Nurse I

197

Clinical Nurse III

27

Clinical Nurse IV

17

Team Lead/
Charge Nurse II

34

NURSES ON BOARDS

RNs served on at least one board
or commission and overall had representation
on 20 boards or commissions

6

NURSING RESEARCH

Ongoing Projects

June 1, 2024



St. Louis Children's Hospital
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