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Everything Matters In

Patient Care

Injury Prevention at Nationwide Children's Hospital

At Nationwide Children's, safety is a top priority for both our patients and our staff.

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Injury Prevention at Nationwide Children's Hospital

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At Nationwide Children's Hospital, safety is our top priority. We have made a commitment to zero harm. Zero harm for our patients, but also for our most valuable asset, YOU, our team members!

The Occupational Safety and Health Administration (OSHA) was created by Congress to ensure safe and healthy working conditions by setting and enforcing workplace standards. Our Employee Safety Committee tracks employee injuries and works with departments and leadership to create interventions to mitigate harm. At Nationwide Children's, the majority of employee injuries fall into a small number of categories: lift injuries, exposures, fall injuries, needlesticks and interactions with patients.

As One Team where *Everyone Matters*, you play an important role in keeping both yourself and your team members safe. We have applied our Zero Hero and Quality Improvement Essentials to reducing employee harm over the last seven years. Like zero harm efforts for our patients - if you see something, say something! Report unsafe conditions to your supervisor. Did you experience a near miss injury? Fill out a CS STARS event report because communicating unsafe conditions can help prevent injuries to other team members.

If its snowy or rainy, wear weather appropriate shoes and be aware of potentially slippery surfaces including parking areas. We all are tempted to look at our phones as we walk throughout campus, but keeping a heads up posture ensures you see what's in front of you to prevent trips and falls. Always be situationally aware and follow posted pedestrian signage by crossing only at the crosswalk, and only when lights allow.

If you work in the clinical areas, ensure safe practices are being followed especially while using needles. Promoting safe practices with your teams such as double gloving, and sharps "landing zones," using safety needles and appropriate hold techniques during immunizations or blood draws.

Zero events of injury: Is it possible? Yes. Remember to use your *Zero Hero* tools and help us achieve zero employee injuries!

Our New Strategic Plan

Quality and safety, themes found throughout this issue, are a strong focus of the hospital's new Leading the Journey to Best Outcomes strategic plan. Learn more on ANCHOR by searching "Strategic Plan."

Protecting Children Before They Reach Our Doors

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Preventing pediatric injuries can help reduce death and disability, especially when interventions are informed by innovation and research.

As pediatric medical providers, our training emphasizes the diagnosis and treatment of sick and injured children. As a result, we are committed to improving the lives of children including preventing conditions that necessitate medical services. Pediatric injuries provide this opportunity as they are largely preventable. According to the Centers for Disease Control and Prevention, injuries are the leading cause of death in children 19 years and younger. Efforts to prevent injuries can save lives, money, and improve the health of kids and our community.

Experts have long encouraged the three "E's" of injury prevention: Education, Engineering and Enforcement.

EDUCATIONAL interventions include efforts to teach patients, families and providers. Interventions assist in the prevention of injuries and potential death to children, such as anticipatory guidance from health care providers (e.g., counseling families against co-sleeping) or larger public health campaigns around products and practices that pose a danger to children (e.g., a city-wide safe-sleep campaign).

ENGINEERING refers to physical changes made to products, facilities or vehicles to make them safer. This can include modifications to a toy to decrease the chance of unintentional choking or installing rubber surfacing on a playground to reduce injuries when children fall.

ENFORCEMENT denotes the implementation of rules, policies and laws enacted to keep children safe. This can be at both an institutional or community level, or a state and federal stage. For instance, school policies that only allow children to be picked up by designated adults or federal laws related to legal ages to drink and purchase alcohol.

Let's utilize the example of child passenger safety to further exemplify these principles. Car crashes are the primary cause of deaths among children in the United States. As a result, injury prevention techniques across all three "E's" are employed to prevent injuries and deaths. A father puts his 4-year-old in her booster seat in the backseat.

THIS SIMPLE ACT SHOWCASES SOME MAJOR INITIATIVES TOWARDS INJURY PREVENTION:

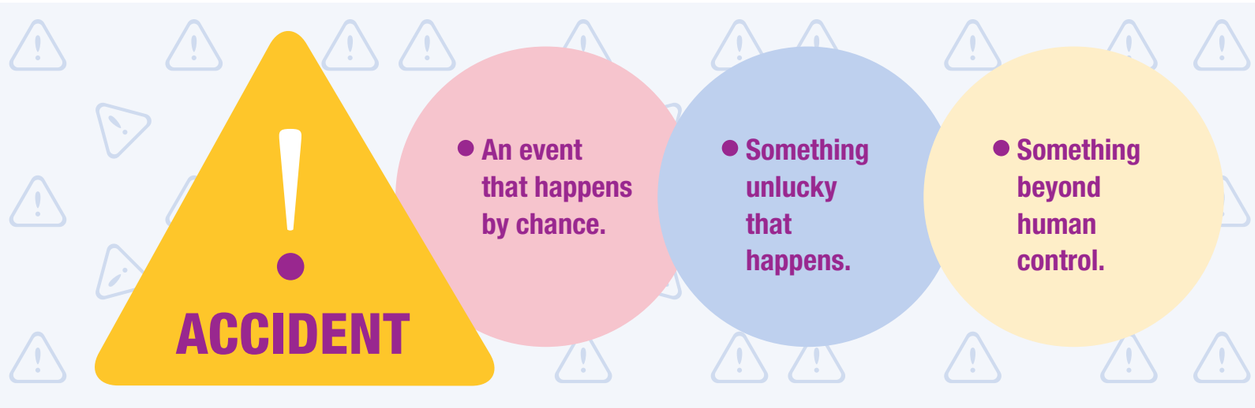
EDUCATION:	ENGINEERING:	ENFORCEMENT:
The family's primary care provider presented education at the child's last check-up regarding use of a booster seat in accordance with Ohio child passenger safety laws.	The family purchased a booster seat that meets state safety standards instead of simply using the adult seat belt.	Pediatric advocates, including researchers and providers from Nationwide Children's Hospital and the Center for Injury Research and Policy (CIRP), initiated informative efforts with lawmakers leading to the passage of the Ohio Booster Seat Law in 2009.

Nationwide Children's Hospital and CIRP continue to lead the charge on injury prevention efforts. The Ohio Booster Seat Law is just one example of those efforts. Another exemplary initiative by Lara McKenzie, PhD, a principal investigator at CIRP, tackles the important topic of home safety utilizing an innovative, research-based intervention that employs both education and engineering techniques. Her team created the free Make Safe Happen® mobile application designed to provide room-by-room, age-specific safety checklists for parents and caregivers, as well as recommendations for safety products to help meet those recommendations. The app provides resources for the development of a home fire escape plan, physical home modification such as safety gates for stairs, and parent-oriented education on home safety hazards and steps to minimize injury risk.

Preventing pediatric injuries can help reduce death and disability, especially when interventions are informed by innovation and research. Injury prevention advocates at Nationwide Children's and CIRP as well as health care providers across the country continue to address the root cause of injuries to protect children before they even reach our hospitals.

Injuries Are Not Accidents

Jackie Huffman, BSN, RN, CPEN Trauma Coordinator



As you can see, there are many definitions of the word accident, but accident and injury are not synonymous. Most injuries are not out of our control.

A 14-year-old male arrives to the emergency department in critical condition after being struck by a drunk driver while walking his dog on a main highway. The local newspaper reports it as a horrible accident.

A mother of a 2-year-old girl was boiling water over the stovetop while preparing dinner with the child in her arms. The child knocked over the pot of boiling water resulting in second and third degree burns to 10 percent of the child's body. When brought to the hospital, the mother states "it was an accident, it all happened so fast."

A group of teenagers were involved in a motor vehicle collision after striking a tree head on. The driver was found with a phone in hand and all passengers were unrestrained. Two were pronounced dead at the scene and the other one was life-flighted to the local hospital. The parents cannot believe this terrible accident.

While all these events are tragic, can they really be called accidents? Many events are often predictable, which means they are also likely preventable, so how can it be deemed a chance event? According to the National Center for Injury Prevention and Control, unintentional injury is the leading cause of death for ages 1to 24. Overall, injuries are the fourth leading cause of death in the United States and cause more than 5 million deaths per year globally. Injuries are a key factor in causes of morbidity and mortality, accounting for nearly 9 percent of global mortality and 16 percent of all disabilities. According to the American Burn Association, scald burns account for 200,000 injuries per year in children less than four years old. Roughly 15,000 children require hospitalization for their burn injuries, and 1,100 die from fire and burn injuries.

Due to these alarming statistics, how can we take a stand to change the culture of the word accident? Several public health authorities discourage the use of the word accident when referring to events leading to injuries. Additionally, in 2001 the *British Medical Journal* banned the use of the word accident in any published article. A culture of prevention needs to be established through the general public and one way to overcome this is by understanding the injury process. It is a misconception that injuries are the same as accidents. Most injuries are often preventable and rarely do they occur at random. Sure, we might not know the exact time and place that an injury will occur, but that does not mean that these events aren't avoidable. Changing how we think and the words we use can have a significant impact on injury prevention strategies worldwide thereby leading to a decrease in injury incidence and severity.

Many events are often predictable, which means they are also likely preventable...

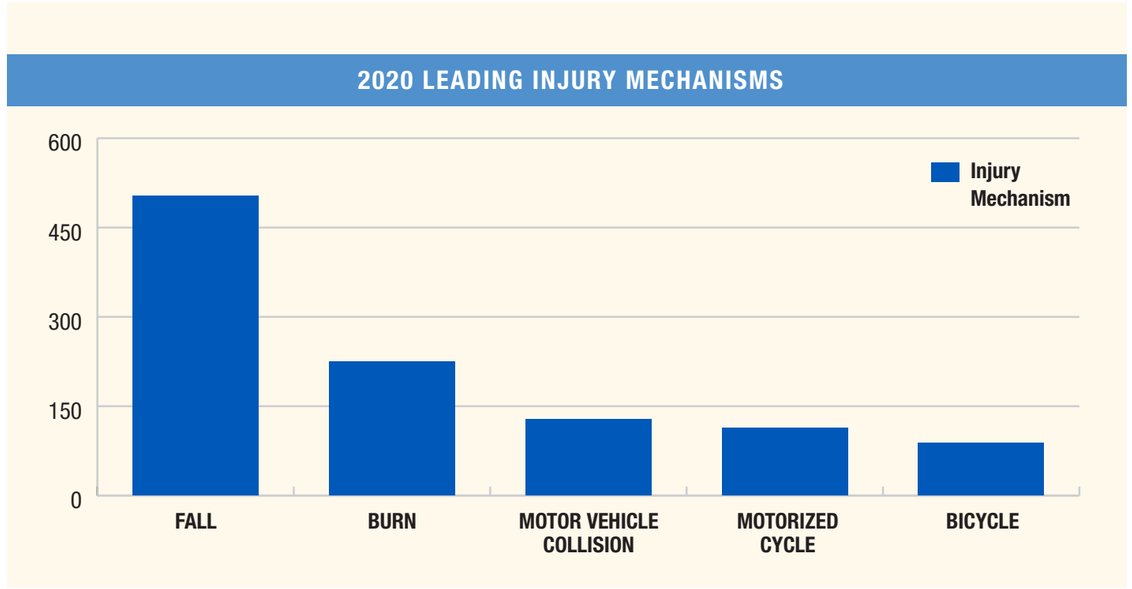
Leading Causes of Trauma Admission in 2020

Dana Noffsinger, RN, MS, CPNP-AC, Pediatric Trauma Nurse Practitioner

Injury is the leading cause of death for children ages 1 to 19 years according to Centers for Disease Control and Prevention data. Trauma survivors have a risk of disability that may temporarily or permanently affect their quality of life, both in physical and psychological conditions. The first step in trauma care is injury prevention. One prevention strategy is to identify the most common injury mechanisms and dedicate resources in the areas of education, legislation and safety control.

In 2020, there were more than 1,500 children admitted to Nationwide Children's Hospital due to an injury. Nearly two thirds of those children were admitted to the hospital for ongoing care. The leading cause of admission continues to be injury from a fall, accounting for one third of the children hospitalized. After falls, the leading injury mechanisms are burn injuries, motor vehicle collisions, motorized cycle and bicycle traumas.

Prevention for falls is complicated due to the various conditions that may lead to a fall injury. Measures such as playground design with softer surfaces and reducing tall slides and high dive boards are attempts to reduce the risk. Proper adult supervision and precautions are encouraged during times when children are more capable to climb and curious to explore their environment.



Burn injuries continue to be a leading cause of hospitalization and increased by 15 percent from 2019 to 2020. The two main mechanisms for pediatric burn injury are scald burns and flame burns. Scald burns tend to be more prevalent in toddlers and young children. Setting one's hot water heater to a maximum of 120 degrees Fahrenheit is protective for bathing. Kitchen safety is important as a common mechanism is "pull over" scald burns which occurs when a young child reaches up to a counter and pulls a pot or mug of hot liquid onto themselves. Proper supervision, keeping young children out of the kitchen during food preparation and making sure hot liquids are set back from the edge of counters and stovetops can be protective. During school age and adolescence, flame burns become a leading mechanism for burn injury. These age groups may have more unsupervised times and may engage in risky behavior such as playing with fire. Education about the risks of accelerants, fire safety and proper supervision around bonfires is important to reduce these injuries. More detailed information regarding burn prevention can be found on the hospital's Helping Hands™ site.

Motor vehicle collisions are a leading cause of injury across the life span and were the third leading mechanism for admissions at Nationwide Children's. Automotive safety design has greatly impacted survival and outcomes after a crash. For young children specifically, proper safety seat use is protective even during high velocity collisions. State law often lags behind the latest safety recommendations. Following American Academy of Pediatrics recommendations is usually the best resource for parents and providers to know the safest practice. New drivers are at risk of crashes due to inexperience and distraction. Ensuring proper driver education and providing supervised hours of experience are the first steps in prevention for teenagers. Education on distracted driving, laws on phone use while driving and smart technology for phones can help reduce distraction risks.

The injury mechanisms of motorized cycles and bicycles finish the top five causes of injury admissions in 2020. While motorized cycles have a higher risk of injury severity due to higher speeds, both often involve an element of operator error or terrain in leading to a crash. Protective gear, most importantly helmets, can help reduce severity of injury as head injury leads the cause for admission in these categories. For motorized cycles, appropriately sized machines and discussion on safe ages to be a driver are worthwhile to reduce risk of injury, as young children are often unable to control larger/faster cycles and may lack the proper decision making to keep themselves safe.

Injury prevention is multi-faceted, and efforts should be directed at the mechanisms most common to cause severe injury and death. Prevention approaches for pediatric trauma should target the community through education in schools and commonly accessed institutions. Disadvantaged communities whose citizens may have less access to resources such as helmets and car seats with the newest safety technology should be supported.

Pediatric Burn Injuries During COVID-19

Kathryn Blocher, MS, APRN, CPNP-PC

Although children are less likely to have symptoms or serious illness with COVID-19, the pandemic has greatly impacted routines for families across the nation. School-aged children began spending more time at home, following stay-at-home orders and transitions to online learning. Since the onset of the COVID-19 pandemic, the Burn Center at Nationwide Children's Hospital has noted an increase in burn injuries in the pediatric population. In 2020, the Burn Center admitted and cared for 225 children with burn injuries, a 15 percent increase from 2019. The largest increase in burn injuries were noted in children between the ages of 1 to 5 years and children 10 to 15 years. Additionally, flame injuries increased by 92 percent from 2019 to 2020.

The most common causes of burn injury requiring hospitalization in children include scald, flame and contact burns. Additionally, most thermal injuries in children occur in the home setting and are preventable. Everyday activities and objects in and around the home frequently associated with burn injuries include hot water for bathing, hot drinks or foods, hot surfaces in the kitchen or by a fireplace, outdoor campfire flames, candles, curling irons and electrical outlets.

The Burn Center has also noticed deeper and larger burn injuries since the onset of the COVID-19 pandemic. Burn injuries are described as first-, second-, or third-degree depending on the depth of the injury, with third-degree burns being the deepest. The extent of the injury is described as the Total Body Surface Area (TBSA), or the percentage of skin involving second- and third-degree burn injury. In 2020, the burn center cared for 18 patients with a TBSA greater than or equal to 20 percent. This is a significant increase from a total of five patients cared for between 2018 and 2019 with similar burns. Pediatric patients with large burn injuries require considerable resources and receive care from many multi-disciplinary teams throughout their hospital stay. Any burn injury greater than or equal to 15 percent TBSA requires an admission to the Pediatric Intensive Care Unit (PICU) and may need multiple, complex surgical procedures throughout their hospital stay.

The Burn Center has adapted throughout the pandemic to continue to provide multi-disciplinary care and to optimize patient outcomes. With the increase in large thermal injuries, burn nurses at Nationwide Children's provided dressing care on a larger scale throughout the hospital, often completing three to four hours of burn dressings each day. The burn nurses not only provide care for patients on the burn unit (H05B), but also complete dressing changes for burn patients in the Emergency Department, PICU, Procedure Center and Operating Room. The burn nurses' expertise in burn care is essential for treating, supporting, and promoting recovery of the thermally injured patient along the health care continuum. The American Nurses Association recognized burn nursing as a specialty in the nursing profession in July 2020. This recognition was largely supported by the American Burn Association, which released specific guidelines for the nursing specialty in their Burn Nursing: Scope and Standards of Practice. Sheila Giles, Burn Program Coordinator, was instrumental in the development of the burn nurse role and the creation of the Scope and Standards of Practice as an appointed member of the American Burn Association Nursing Professional Certification Committee. The acknowledgement of the burn nurse specialty is a milestone for the profession and vital to ongoing prevention and advocacy efforts for burn injuries.

The Burn Center has adapted throughout the pandemic to continue to provide multi-disciplinary care and to optimize patient outcomes.

The increase in burn injuries since the start of the pandemic has been noted in other burn centers across the country. These trends emphasize the importance of making the home environment safe for children as families continue spend more time there. Community education for burn prevention can be completed by any medical provider and guided by the American Burn Association's recommendations. Age specific Helping Hands™ for Burn Prevention can be found on Nationwide Children's website and provides safety tips for families and caregivers.

Novel Trends: During the Pandemic

Lee Ann Wurster, MS, RN, TCRN, CPNP and **Rajan Thakkar, MD**

Injury is the No. 1 cause of death for children from early childhood through adolescence. This startling statistic has not changed in decades, even in the midst of the COVID-19 pandemic. As school closings, quarantines and stay-at-home orders have shifted the types of injuries we see, injury prevention strategies have been challenged to respond.

Although early statistics showed a low risk of serious disease for children, the lack of understanding of the community-based viral transmission resulted in families staying home together. State driven stay-at-home orders in March 2020 resulted in a 50 percent decrease in the incidence of injuries associated with motor vehicle crashes. In years past motor vehicle crashes had always been the leading cause of mortality at Nationwide Children's Hospital. At the same time the abrupt halt of organized sports likely contributed to a decline in these types of injuries by 90 percent. Conversely, bike-related injuries increased 25 percent at Nationwide Children's. As the trauma program continues to analyze the evolving data, it has become evident early in the pandemic that prevention strategies must change with the current times.

Most devastating has been a three-fold increase in the incidence of firearm injuries seen at Nationwide Children's. This has resulted in firearm safety efforts escalating to the top of trauma prevention priorities. Children who would have previously been at school during the day are now part of an increased trend in firearm injuries that have occurred in the early afternoon. Education for the community directed at safe firearm storage and distribution of lock boxes and gun locks are a few of the current strategies. Ongoing conversations about virtual home visits and online schooling are a few examples of preventative measures that are needed to make any impact on these often-devastating injuries.

As children spend more time in the home environment, injury prevention strategies are being redirected to prioritize home safety. Schools shifting to virtual learning means more kids are at home. Caregivers are also challenged as they are juggling multiple duties such as working remotely, homeschooling and providing childcare all at the same time. Our burn center has seen a tremendous uptick in thermal injuries. Admitted patients with burn injuries increased by 15 percent in 2020 at Nationwide Children's. It is not only the sheer number of injuries that have increased, it is the severity. Scald injuries are on the rise, mostly from hot water. New Tik Tok challenges and unsupervised time on social media has led to an increase in adolescent fire-related injuries. These unexpected increases in burn related injuries should inform researchers to redirect injury prevention strategies to target the prevention of thermal injuries.

A decline in early identification of non-accidental trauma also became apparent during the pandemic. As families were dealing with increased stressors associated with the pandemic such as job losses, demands of working from home, childcare closures and virtual school learning environments, there were heightened concerns that a spike in child maltreatment may result. However, as less children were coming in regular contact with mandated reporters such as teachers and childcare providers, there was an initial decline in non-accidental trauma admissions. Initiatives to identify potential gaps in reporting have resulted. Broad stroke education is ongoing as incidence of non-accidental trauma remains down over 10 percent in 2020 as compared to 2019. Additional research needs done to determine if there have been delays in early identification during the pandemic, leading to the presentation

As families were dealing with increased stressors associated with the pandemic such as job losses, demands of working from home, childcare closures and virtual school learning environments, there were heightened concerns that a spike in child maltreatment may result.

of more severe injuries when maltreatment occurs. Monitoring of this potential predicament is ongoing and is another target for prevention measures.

New pressures associated with the pandemic have raised concerns in the mental health community as well. Self-harm injuries such as hangings have increased more than 80 percent in 2019 compared to 2020. As we continue to identify lessons learned throughout the pandemic, challenges children face including changes to their routine, breaks in continuity of health care and education, missed significant life events and feelings of uncertainty or security for the future must be considered. The Centers for Disease Control developed a COVID-19 Parental Resource Kit called Ensuring Children and Young People's Social, Emotional and Mental Well-Being as a tool to support children, parents and caregivers throughout the pandemic. These resources are targeted by age groups across the lifespan from early childhood to young adults. Behavioral Health Services at Nationwide Children's offer a comprehensive approach to support the growing needs of both children and their families. Our specially trained licensed professionals make up a multidisciplinary team to determine what resources and treatment options best match each individual's needs. The opening of the Big Lots Behavioral Health Pavilion in March 2020 filled a critical need in the community as a first-of-its-kind freestanding facility devoted to pediatric and behavioral health care. As the pandemic continues to impact everyday lives, breaking the stigma around mental health becomes more and more critical.

In addition to a change in injury prevention topics, social distancing mandates have led to challenges with programming. Car-seat education and distribution, which includes the special needs population, was initially put on hold. Large community events such as car seat inspections and fittings were cancelled. The distribution of educational materials, pamphlets and newsletters were delayed. Inpatient education once provided to a family and an extended support member was limited due to COVID-19 visitor restrictions. However, after the initial shift in resources to the pandemic control centers, there were innovative and resilient teams of educators that found creative ways to adapt. Swift pivots in hospital strategies included the creation of virtual learning environments and non-contact distribution of supplies. Innovative ways of getting messages out to the communities included posting ads on video gaming programs, social media platforms and popular parent blogs. As communities became more socially isolated from support systems, alternate methods to reach the masses became paramount.

Despite the slowdown, the Trauma Center at Nationwide Children's continued to care for large volumes of injured children; however, this past year was with a different set of injuries. An improved state of readiness in the event of any future pandemic for trauma centers continues to be an essential part of the lessons learned from the COVID-19 pandemic. As we continue to identify safety risks, gaps in education and what works in this challenging environment we must remain agile and innovative, never settling for what some are referring to as the new norm. The Trauma Program at Nationwide Children's is committed to continuing the One Team approach to injury prevention as we strive for continued best outcomes for our most vulnerable patient populations.

Déjà Vu - Virtual Nurses Week Part 2

Vickie Bennett, DNP, RN-BC and Kelsey Merritt, MS, RN, Professional Development

It's the year of the nurse… again! The 2021 theme for Nurses Week is the same as 2020 and for a good reason. The American Nurses Association not only acknowledged May as Nurses Month but 2021 as the Year of the Nurse. It has been a year unlike any other, and frontline health care staff have been thrown into the spotlight. As we all adapted to the everchanging scene unfolding before us, one thing remained constant - we all remained agile, innovative and worked as One Team to provide Best Outcomes for Nationwide Children's Hospital's patients and families.

With COVID-19 guidelines still in place, Nurses Week 2021 remained virtual. Fan favorites from 2020 were brought back, and a few new items were added. "Honor a Medical Professional" finished with 107 nominations! Nurses, medical assistants, PCAs, administrative support and marketing interns were among the honorees. The Edward and Sally Kosnik Scholarship provided us with a sweet treat, and Panera showed their support once again with postcards for a free coffee and bagel.

In 2020, Blessing of the Hands was postponed. However, in 2021, Pastoral Care returned and provided on-site Blessing of the Hands, following Nationwide Children' guidelines, and recorded a virtual blessing for those unable to attend the live sessions.

Another activity that was well received in 2021 was Spirit Week. We loved seeing all the creative ideas and pictures from staff all over Main Campus, Behavioral Health and off-site locations. In addition, the theme days were a great way to connect everyone at this large institution and add a little fun to the day. Some of our favorite photos remain on the ANCHOR Nurses Week page to keep the positive feelings of Spirit Week going a little longer.

Trailblazer volume 2 hit the newsstands with a focus on nursing "Firsts." The nurses who came before us paved the way for the profession and showed us how nursing grew into a diverse community. Some of the most useful everyday items on the units were invented by nurses. The magazine also recognized the nurses that we work with every day here at Nationwide Children's and their commitment to the patients, families and nursing profession. The nurses featured had been with Nationwide Children's for more than 35 years. Kathy Pollack, Sheila Schisler, Carol McGlone and Wynola Wayne held special honors as each had been in the nursing profession for more than 50 years! The original Nursing Trailblazer, Florence Nightingale, returned with her words of wisdom as a reminder of why we work to provide the best care every day. Her birthday capped off Nurses Week on May 12.

The COVID-19 guidelines are slowly fading away, and we hope to enjoy Nurses Week 2022 in person. You all make a difference in the lives of patients, families and colleagues at Nationwide Children's. Thank you to everyone who participated in making this second virtual Nurses Week even better than the first! See you next year!

Firearm Safety During the COVID-19 Pandemic: A Pediatric Trauma Surgeon's Perspective

Jonathan I. Groner, MD, Trauma Quality Medical Director, Professor of Surgery, The Ohio State University College of Medicine

Firearm trauma is one of the leading causes of injury and trauma-related deaths among children in the United States, accounting for approximately 12,000 injuries and 2,500 deaths among children age 18 or less according to information collected by the Centers for Disease Control (CDC). The Level 1 Pediatric Trauma Center at Nationwide Children's Hospital, the oldest pediatric trauma center in Ohio and the only Level 1 pediatric trauma center in central Ohio, cares for numerous children injured by guns every year. In a typical year, there are about two dozen children who are admitted to the hospital for treatment of injuries caused by bullets.

In March 2020, it became apparent that our lives here in Columbus and across the United States were going to change in fundamental ways due to the arrival of the COVID-19 pandemic. Schools closed, business shuttered, sports events were cancelled, and children began to spend much more time in and around their homes. The streets of Columbus became very quiet because there was almost no traffic. Many of us in the Trauma Program assumed that we would see far fewer injured children because everyone was spending most of their time in their own homes.

However, although the number of children injured in motor vehicle crashes and falls dropped compared to previous years, the number of children injured by firearm injuries increased dramatically. (see Table 1) In fact, by the end of 2020, the number of children treated for firearm injuries had more than doubled compared to previous years and, sadly, four children died.

TABLE 1: **CHILDHOOD INJURIES DURING THE PANDEMIC**

INJURY MECHANISM	AVERAGE NUMBER OF PATIENTS ADMITTED PER YEAR 2017-2019	NUMBER OF PATIENTS ADMITTED IN 2020
Motor vehicle crash (occupant)	152	128
Pedestrian struck by vehicle	42	42
Fall from height	585	504
Gunshot wound	24	51

Firearm deaths can be broadly divided in 3 categories: homicide, suicide and accidental. The corresponding categories for non-fatal injuries are inflicted, self-inflicted and unintentional. Whereas 60 percent of all firearm deaths (among all ages) in the United States are due to suicide, the vast majority of firearm deaths among children of color are homicides. In fact, information collected by the CDC indicates that 87 percent of firearm deaths in black males age 18 or less are due to homicides, and the firearm homicide rate for black male children is 10 times greater than the rate for white children.

At Nationwide Children's, firearm injury victims usually fall roughly into two categories based on age: In the younger age group, 50 percent 12 years old or younger and 25 percent younger than 7, children are often shot unintentionally. The shooter may be a friend or a relative (like a brother), but the gun was fired either accidentally or by someone too young to understand the consequences. However, in the older age group, these injuries are usually intentional: teens are often the victims of violence that has been inflicted by a member of a specific social group (called a "gang" or "crew"). Often the shooting is a retaliation for a previous act of hostility or insult, and the shooting victims may include innocent bystanders as well as intended targets.

This type of group firearm violence has plagued many cities, including Columbus, for years. In fact, firearm violence is not only concentrated in urban, inner city areas, but it is also concentrated among very small groups and in very small areas of these urban centers. According to the National Network for Safe Communities (NNSC), "A very small, high-risk population of people heavily involved in active groups and networks will routinely be associated as both victims and perpetrators with over half of all homicides and non-fatal shootings… gun violence is usually concentrated in a very small area of any given neighborhood—research has found that around half of all incidents of gun violence are concentrated in about 5 percent of street segments or blocks in any given city."

But if the firearm violence is concentrated among a small number of people, why are so many children getting shot? The older teens may be members of the criminal networks themselves, and thus prone to be victims or perpetrators of firearm violence. The younger children are victims of the firearm violence "halo effect": more shootings in neighborhoods means there will be more guns in homes. Some guns may belong to those involved in the violent groups, but other families may acquire guns just to feel safer in a community where the sounds of gunshots are all too common. Multiple research studies have shown that bringing a handgun into the home increases the risk of injury for children.

Why did firearm injuries increase during the pandemic and what can we do to reverse this frightening trend?

The pandemic has certainly increased multiple risk factors for stress in urban communities: job losses, food insecurity, housing insecurity, loss of ability to travel and loss of leisure activities like sports events. It is not clear if these factors are responsible for the marked increase in firearm injuries. What is clear is that there is a nationally recognized model for combatting this type of violence: the Group Violence Initiative (GVI), developed by the NNSC and the John Jay College of Criminal Justice.

GVI was developed in the 1990s and is a program that brings together community leaders, law enforcement, and social service agencies with a unified message of focused deterrence against gun violence. The message includes a promise of significant consequences for the entire group for violent criminal acts while offering an "honorable exit" and social services for those choosing to leave violence behind. This program has reduced firearm violence in several large cities in the United States including Indianapolis and Chicago. If fully implemented, the GVI could significantly reduce the number of children injured and killed by firearms in Columbus.

Many aspects of health care in 2020 were unexpected, but the dramatic rise of pediatric firearm injuries was particularly surprising. Pediatric firearm injury is a public health emergency. The GVI program is an example of a "vaccine" against firearm trauma.

Many aspects of health care in 2020 were unexpected, but the dramatic rise of pediatric firearm injuries was particularly surprising.

Nationwide Children's Passenger Safety: More Than Just Car Seats

Carrie Rhodes, CPST-I, CHES, Passenger Safety Program Coordinator

The mission of the Passenger Safety Program is to advocate for safe transportation for children both at Nationwide Children's and beyond.

Motor vehicle crashes are a leading cause of death and injury to children of all ages, both nationally and locally. Motor vehicle crashes are consistently in the top three causes of morbidity and mortality for patients of Nationwide Children's Hospital Trauma Program. While there has been a significant decline over the last several decades, with rates falling by more than half since the late 1990s when the Passenger Safety Program was founded, much work remains to be done.

The mission of the Passenger Safety Program is to advocate for safe transportation for children both at Nationwide Children's and beyond. At its core the program is simple: provide education, supply or connect families with resources and conduct advocacy work. In practice, however, the program has many complex pieces and parts. These blend the traditional "E's" of prevention – Education, Engineering and Enforcement – with the fourth "E" of road safety, Emergency Medical Services (EMS), while working towards improving systems and processes. This comprehensive view ensures program services are available to all patients – underscoring the hospital's message that Everything Matters.

Education is the cornerstone of the program. Whether it's working one-on-one with a NICU family preparing for discharge to provide teaching on how to safely secure their precious cargo or providing a short lecture for RNs of a particular unit, Passenger Safety Program staff view every interaction as an educational opportunity. Staff education can be a ten-minute program overview during a quick unit meeting to a multi-day course. Passenger Safety Program staff work with community partners to teach the four-day Child Passenger Safety Technician course several times each year and since 2019 have hosted the two-day course Safe Travel for All Children annually, focusing on transporting children with special health care needs .

Engineering is an "E" that the Passenger Safety Program has been able to contribute to in unexpected ways. In 2017, we partnered with neurosurgeon Eric Sribnick, MD, and research engineers from OSU's Injury Biomechanics Research Center to complete a pilot study on transporting children in Halo traction devices. Additionally, the Passenger Safety Program works closely with child restraint manufacturers to provide feedback regarding products and advocating for unmet transportation needs amongst our patients. As a result of these collaborations and partnerships with similar programs nationwide, one company was able to lower the minimum weight limit on one of their seats to three pounds, allowing our tiniest patients a way to safely go home to their families days sooner than had previously been possible. These open communication channels also aid in finding transportation solutions for some of our most complex patients who in some cases need customization beyond what is permitted by the car seat's manual.

The Passenger Safety Program's role in the Enforcement arena is relatively limited. However, staff are heavily involved in the Child Passenger Safety subcommittee of the Child Injury Action Group, which is a subset of the Ohio Injury Prevention Partnership. Several of the subcommittee's goals involve Ohio's occupant protection law, including creating a clarification document for Ohio's Child Passenger Safety Technicians and spearheading an education initiative for law enforcement personnel statewide.

The final "E", EMS, underscores the entirety of the Passenger Safety Program's work. The Passenger Safety Program is located within the Trauma Program, in an office shared with our EMS Educators. While the Trauma Program itself plays a key role in preventing morbidity and mortality from motor vehicle crashes, having injury prevention staff in the same space as the trauma team practitioners allows for enhanced understanding of the connection between the dynamics of a crash and patient outcomes. In turn this allows for increased efficacy in Passenger Safety Program advocacy and education as well as a clearer picture of the mechanism of injury for Trauma Program staff.

As illustrated above, the Passenger Safety Program relies heavily on Nationwide Children's One Team spirit. Program staff are experts in pediatric transportation and rely on collaboration with a variety of departments to ensure transportation solutions are safe from all angles, providing not only crash protection but ensuring appropriate respiration, proper positioning, accommodation of congenital anomalies and protection of existing injuries. Whether it's the program's strong partnership with clinical therapies, advanced notification of scheduled surgeries from orthopedics or consistent inclusion as a member of the care team by physical medicine and complex care, this multidisciplinary approach is crucial to the program's work in pursuit of *Best Outcomes* for patients.

The Role of Social Work in Injury Prevention

Becca Fredin, MSW, LISW-S
Child Protection Program Coordinator Clinical Social Work Department

As social workers we approach injury prevention through an anti-oppressive and person-centered lens. When we meet with a family, we create a strength-based plan for prevention that's unique to their needs and concerns, with consideration given to the potential inequities that they may experience daily. This goes back to our Code of Ethics which says in part, "Fundamental to social work is attention to the environmental forces that create, contribute to, and address problems in living" (National Association of Social Workers [NASW], 2008, preamble).

In the context of anti-oppressive work, we recognize how experiences of racism and oppression along with inequitable access to resources may play a factor in a family's personal injury prevention strategies. For example, a parent who is African American and has experienced discriminatory "stop and search" practices by law enforcement may be afraid of going to the local police department to pick up a free lock box for medication. Likewise, a family who is part of the LGBTQ+ community may hesitate to access a housing assistance program that discriminates against LGBTQ+ families, even when they don't have a safe place to live. People who have experienced generations of oppression may prefer informal support networks over formal resources – and yet we also don't want to make assumptions.

With that in mind, we strive to spend time getting to know our patients and families so that we can better understand their priorities and concerns related to injury prevention. We work with the patient and their family to come up with strategies that are specific to the situation rather than listing a few inapplicable resources. For example, if a family has an old cell phone that doesn't support newer apps, we don't want to recommend downloading a new injury prevention app as a blanket "prevention strategy."

In practice, we take the time to complete a thorough psychosocial assessment with each family so that we can make recommendations that are truly relevant. We cover topics like safe sleep, locking up medication, supervising children,

We work with the patient and their family to come up with strategies that are specific to the situation rather than listing a few inapplicable resources.

and managing stress. We also meet with every patient who is admitted due to a traumatic injury, to offer support and to understand how it happened. We also assess to determine whether there is concern for future events.

Over the last year with the ongoing COVID-19 pandemic, we've seen that more families have found themselves in situations without childcare, resulting in more burn injuries and home-based accidents such as accidental ingestions of medication. By being aware of these trends we've been able to focus our prevention efforts specifically on these areas and we have been able to work with families to help them identify natural supports they may already have to obtain child care while also maintaining employment.

ANTI-OPPRESSIVE INJURY PREVENTION: *An Ecological Model*

PARENT

- Knowledge about common injuries
- Attitude towards prevention
- Ability to supervise children
- Actual engagement in prevention behavior
- **Experiences with inequitable resource distribution**

FAMILY

- Emotional support for parent
- Concrete support - child care, monetary support
- Past family experience with injuries
- Family philosophy towards childrearing
- **Family experience of oppression**
- **Family trust level towards formal supports**

COMMUNITY

- Formal supports - caseworkers, community-based safety programs, county-based financial resources
- Informal supports - churches, neighorhood groups
- **Inequitable resource distribution**
- **Agency policies and protrocols reqarding equitable service**

SOCIETY

- Laws and policies regarding injury prevention - car seat requirements, child-proof medication caps,warning labels, gun control
- **Unconscious and conscious bias racism**

Safety II – Being Proactive to "Make Things Go Right" for our Patients

Jenna Merandi, Pharm D, MS, CPPS – Medication Safety Officer, Pharmacy Department
Thomas Bartman, MD, PhD – Associate Professor, Division of Neonatology

Safety II recognizes that things go right far more often than the go wrong, and that we can learn from how individuals and systems made things go right.

For more than a decade, Nationwide Children's Hospital has sought to completely eliminate patient harm. Our Zero Hero program has been highly successful and is now replicated at institutions throughout the U.S. and elsewhere. Despite these efforts, we have not eliminated harm, but instead have reached a stable (although very low) level over the past few years. Thus, we sought new methods for advancing our safety efforts.

Typically, in health care and other industries, efforts at improving safety have followed "Safety I" thinking. Safety I identifies harm events, investigates the causes (at some point almost always attributed to human "error") and redesigns processes to prevent the same errors from happening in the future. Safety I thinking includes root cause analyses (RCAs) in health care, and investigations by the National Transportation Safety Board after aircraft accidents. While we continue to learn from our mistakes, a retrospective approach has limited effectiveness because improvement cannot happen until after an error/harm occurs. Furthermore, improvements may prevent us from repeating the last problem but do not avert future problems because our situations are complex and the conditions surrounding each event are different. Solutions from the Safety I approach usually focus on what goes wrong, and restricts human actions through checklists, protocols and double-checks.

Individuals in the safety engineering and human performance fields have been calling for a new approach, known as "Safety II," to break through these limitations. Safety II recognizes that things go right far more often than they go wrong, and that we can learn from how individuals and systems made things go right. Safety II, being tied to resilience engineering, accepts that in complex and dynamic environments like ours, instead of restricting actions based on the past, we need to be more proactive and flexible in our day-to-day work, in both common and unusual situations, to create safety. The steps in enacting Safety II are Monitoring, Anticipating, Responding and Learning. These all happen continuously and simultaneously, and doing well in one step improves our ability to perform the other three steps. At Nationwide Children's, we have combined Monitoring and Anticipating into Recognizing.

Safety II happens at all levels, and has been happening instinctively. Across the organization, the morning daily safety call is an opportunity for leaders to monitor what is happening, anticipate problems, and respond with proactive measures immediately to neutralize a threat. At the microsystem level, most units have a similar morning huddle. Our team has also developed a mechanism for calling "proactive safety huddles" to bring multiple microsystems together to anticipate potential problems from unusual situations which may require unique actions. These could include a patient being cared for on a floor which doesn't usually handle their condition, or sharing learnings from how a complex situation 'went right' and prevented patient harm through proactive planning. Finally, at the bedside, unique or unanticipated conditions can lead to patient harm. We are testing tools to help providers work through Recognizing, Responding, and Learning to prevent harm.

Nationwide Children's is working with hospitals across the country and collaborating with various other high-risk industries like aviation, to take Safety II concepts from theory into practice. Our goal is to refine our program and spread it through the organization to help us achieve zero patient harm.

In Recognition

Presentations

Abrams M., Zajo K., Beeman C., O'Brien S., Chan P., Shen Y., McCorkle B., Chisolm D., Mahan J., Johnson L., Barnard-Kirk T., Christian-Rancy M., Creary S. "A Health Literate Approach to Create A Virtual Sickle Cell Trait Education Program." Health Literacy Annual Research Conference; October 2020.

Boster J., Brown K., Cummings C. "Pivot! Navigating In-Person and Virtual Pediatric Speech Therapy: Lessons from 3 Case Studies." Ohio Speech-Language Hearing Association Learning Academy; February 2021.

Casto C., O'Rourke S., Stevens M. "International Dysphagia Diet Standardization Initiative (IDDSI) vs National Dysphagia Diet (NDD) and How Making this Transition will Impact Occupational Therapy Practice." Ohio Occupational Therapy Association Virtual Conference Series; October 2020.

Christensen C., Crabtree I., Riebe K. "Diagnosis of CP: Evaluation and Treatment Strategies for the developmental Occupational and Physical Therapist." Academy of Pediatric Physical Therapy Annual Conference; November 2020.

Christensen C., Grisez L., Kremer A., Welch K., Bernstein B., Bican R. "Theory Informed Development of a Toolkit to Foster Implementation of Segmental Assessment and Intervention for Trunk Control." 13th Annual Academy Health of NIH Dissemination and Implementation Science Conference; December 2020.

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Eilerman S., Gates E., Somerville A., Walter J. "We Win When WeeMove." CSM-Combined Sections Meeting for Physical Therapy; February 2021.

Essman A. "Birth Control Prescribing in Primary Care." NCH APP Conference; January 2021.

Gates E., Eilerman S., Walter J., Lewis A., Waples A. "We Win When Weemove: Implementation of an Early Mobilization Initiative in Pediatric Intensive Care Units." Combined Sections Meeting; January 2021.

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Lundine J., Koterba C., Ciccia A. "Engaging Stakeholders to Improve Care for Children with Traumatic Brain Injury." American College of Rehabilitation Medicine; October 2020.

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Selhorst M., Hoehn J., Fernandez-Fernandez A., Schmitt L. "The Effect of Psychologically-Informed Intervention to Treat Adolescent Patellofemoral Pain: A Randomized Controlled Trial." Combined Sections Meeting; February 2021.

Selhorst M., Selhorst B., Melfi N. "Managing the Injured In-Season Youth Athlete." Combined Sections Meeting; February 2021.

Stack-Simone S. "Unpacking the COVID-19 Vaccine." Columbus Bar Association Health Care Law Committee; January 2021.

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Daisy Award

Kendra Sauter, BSN, RN

The quarterly Nationwide Children's Hospital Daisy Award was presented to Kendra Sauter, BSN, RN of Gastroenterology. The Daisy Award is given in appreciation of the important difference our nurses make in the lives of our patients and families at Nationwide Children's.

Kendra received the Daisy Award for her dedication to Best Outcomes and upholding the Nationwide Children's value of doing the right thing.

Says Kendra's nominator: "My child was scheduled for a diagnostic procedure through the GI clinic. Nurse Kendra was very kind and welcoming when we arrived and immediately put us at ease. As my child's procedure time neared, I could hear the nurses trying to locate her doctor but to no avail. Due to a scheduling problem that no one had realized, the doctor was out of state. Kendra was on her way out for the day, purse in hand, when she realized what was happening. She reassured us that they would get it figured out so that the procedure could be done that day. She located a doctor and arranged for him to do the procedure. She then came back and let us know what was happening and comforted both patient and her anxious mom. Kendra really went above and beyond to help make sure the procedure was done that day and to reassure us."

To learn more about our Daisy winners, and read their full nomination, visit **NationwideChildrens.org/Daisy-Award**

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