As part of the Health Equity and Population Health pillar of the Nationwide Children’s Hospital strategic plan, our organization focuses on the well-being of the community through Pediatric Vital Signs. Learn more on page 5.

---

**Contents**

**Features**

5  Pediatric Vital Signs: Improving Pediatric Health in Our Communities  
Deborah Grayson, RN, MSN, MPH, Project Manager, Regional Wellness, Community Wellness  
Stacy Kramer, MPH, CPHQ, Director, Regional Wellness, Community Wellness

13  Suicide: Can You Hear the Alarm?  
Avery Anderson, PhD, PMHNP-BC, APRN, former Nurse Scientist, The Center for Nursing Excellence

**Articles**

4  Achieving Best Outcomes in the Community  
Lee Ann Wallace, MBA, BSN, RN, NEA-BC, Senior Vice President, Patient Care Services, Chief Nursing Officer

9  Vaccines: A Pediatric Health Success Story  
Matthew Washam, MD, MPH

10  Unintentional Injury Reduction: A Multi-Pronged Approach  
Katie Higgins, MS, CHES and Carrie Rhodes, CPST-I, MTSA, CHES

12  Health Equity Matters  
Kierra S. Barnett, PhD, MPH and Deena J. Chisolm, Phd

17  Medications for Treating Substance Use Disorders: What’s in Our Toolkit?  
Alexander Golec, MD and Erin R. Knight, MD, MPH, FASAM

18  Home Visiting Programs to Reduce Infant Mortality  
Venita Robinson, MPHSA and Jeanne Wickliffe, MHA, BSN, RN, CPN

20  Organizational Health Literacy at the Intersection of Population Health  
Janet Berry, OM, RN, MBA, NEA-BC and Mary Ann Abrams, MD, MPH

22  Pediatric Vital Signs: Obesity  
Alexis Tindall, MHA, RD, LD

24  The Impact of Community Health Workers on Health Outcomes  
Jessica Newland, MBA, MSN, CPEN, SANE-P and LaToya Matthews, OCHM, ECE, CBC

26  High Schools Students are “Upward-Bound” in STEM at Nationwide Children’s Hospital  
Maxine B. Ignacio, MS

---

**Editorial Staff:**

Editor: Vicki von Sadovszky  |  Managing Editor: Marcie Rehmert  |  Editorial Board: Alice Baas, Margaret Carey, Jo Ann Davis, Elora Hilmas, Cindy Iseke, Marissa Larouere, Jennifer Pauken, Danielle Rehm, Paige Shalter Bruening, J.R. Sike  |  Editorial Assistant: Tameka Curry  |  Editorial Support: Heather Lofy

Photography: Brad Smith and Bill Tijerina  |  Art Direction/Design: John Ordaz
Two key areas of focus in Nationwide Children’s Hospital’s strategic plan are Health Equity and Population Health. For more than a decade, we have led the way in improving not just the health of individuals, but families and communities. We have led the way to Best Outcomes through impactful partnerships with schools and community resources.

Pediatric Vital Signs, based on the National Academy of Medicine’s Vital Signs concept, has a premise that to achieve optimal health for patients, we must ensure optimal health of the community. Nationwide Children’s Pediatric Vital Signs measure our success at achieving this optimal health through eight pediatric health measures. These indicators include population health measures for all children in the community, not just children receiving care in our facility or primary care practices, to reduce disparities and improve health. Nationwide Children’s Partners For Kids has received national recognition for our population health work. These partnerships and processes have been key to creating the momentum for achieving success in Pediatric Vital Signs measures including infant mortality, child mortality, suicide, well-child preventative care, childhood obesity, unintended teen pregnancy, kindergarten readiness and high school graduation rates.

As we build momentum and success in Franklin County, we have spread the efforts into surrounding counties and regions. These successes are based in one of our Strategic Plan foundational elements: Partnerships. It is only through these relationships and working closely together in our communities and schools that we can achieve these aspirational goals.
WHAT ARE PEDIATRIC VITAL SIGNS?

The PVS concept is modeled after the National Academy of Medicine’s Vital Signs initiative that asserts health systems are responsible for the health of their communities, not just the individual health outcomes of their patients. Applying this concept to pediatric populations, Nationwide Children’s launched PVS comprised of eight critical pediatric health measures and established organizational infrastructure to implement this work and ultimately make improvements across these metrics. PVS are indicators of population-level health for all kids in the communities served by Nationwide Children’s and our accountable care organization, Partners For Kids (PFK). This includes central, southeastern and northwest Ohio. PVS work dates back to 2019 when it launched in Franklin County to reduce health disparities and improve health outcomes for all children, not just those receiving care at Nationwide Children’s.

WHAT ARE THE EIGHT PVS?

Nationwide Children’s PVS are infant mortality, child mortality, suicide, preventive care (recommended well visits and immunizations), obesity, unintended teen pregnancy, kindergarten readiness and high school graduation.

HOW DOES NATIONWIDE CHILDREN’S APPROACH PVS WORK?

Nationwide Children’s and PFK are nationally recognized for population health work and these prior successes serve as an effective backbone for PVS. Nationwide Children’s has longstanding efforts that improve access to care and prevention programs, including our school-based health program and the Center for Family Safety and Healing. Improvement in pediatric health outcomes cannot be achieved without also addressing the social determinants of health (SDOH). Nationwide Children’s has several successful SDOH initiatives to improve access to housing, education and economic mobility opportunities that have a significant impact on the health of children and families. PFK is financially accountable for kids with Medicaid coverage in 47 Ohio counties, providing a unique opportunity to reach and improve the health of approximately 425,000 children. The success of PVS builds upon these longstanding initiatives and offers a way to measure the impact of our population health work.

The work of each PVS is implemented by individual steering teams of clinical and content experts working with project management, quality improvement and data support. Steering teams set goals for each vital sign and identify strategies needed to impact these goals. While the interventions differ among each PVS, all teams use a quality improvement framework that includes measurement of the vital sign and related process metrics, key driver diagrams or strategic plans and tests of change to evaluate interventions on a small scale. Overall and individual PVS scorecards have been developed to track progress toward our goals (see diagram on page 8). Critical to the success of PVS are community partners who represent their communities and share their expertise in the design and implementation of interventions. Finally, PVS are focused on population-level change and emphasize the identification of health disparities and targeted interventions to reduce the barriers that prevent some groups of children from having equal access to care or improved health outcomes.
WHERE IS PVS WORK OCCURRING?

There are three PVS goals in Nationwide Children’s current strategic plan. First, for the PVS work that launched in Franklin County in 2019, our goal is to see improvement in all eight PVS. Second, we aim to reduce racial disparities in infant mortality by reducing Black infant mortality by 50% in Franklin County. Finally, as we build strong regional partnerships, our goal is to launch PVS initiatives in 50% of the 47 Ohio counties served by PF. This will help create a community-owned partnership that addresses a specific mortality or suicide, for example. Where local coalitions exist, we partner to support and accelerate the existing work. In interested communities where local coalitions do not exist, Nationwide Children’s collaborates with local stakeholders to build a community-owned partnership that addresses a specific PVS. While partners bring their local expertise, Nationwide Children’s supports both existing and new community coalitions with clinical expertise, project management, quality improvement and data support. PVS work is unique from one county or community to the next because of differences in local capacity, priorities, stakeholders and differing local strengths and challenges. By co-creating PVS projects with community partners, we create sustainable initiatives that are founded in evidence-based practice but are informed by community partners and incorporate each community’s unique set of strengths and needs.

WHAT PROGRESS HAS BEEN MADE TO EXPAND PVS WORK OUTSIDE OF FRANKLIN COUNTY?

An early example of regional PVS expansion is the spread of the Ohio Better Birth Outcomes (OBBO) collaborative to Montgomery and 10 other counties in the Dayton, Ohio region. Nationwide Children’s provides ongoing technical assistance to Dayton Children’s Hospital and the Greater Dayton Area Hospital Association (GDAHA) to convene health care partners from all 11 counties to identify and implement interventions that reduce infant mortality. While this work in the Dayton region is modeled after OBBO work that originated in Franklin County, colleagues at Dayton Children’s and GDAHA are working with their partners to understand local infant mortality trends and identify evidence-based interventions that fit their local infant mortality priorities, health partners and community.

As we continue to build partnerships outside of Franklin County, we are actively collaborating with several communities in central and southeast Ohio to launch activities for infant mortality, unintended teen pregnancy prevention and the kindergarten readiness outcomes. PVS is the first effort of its kind in the United States to measure and improve the health of every child, regardless of where or how children receive health care. Through PVS and other successful longstanding programs, Nationwide Children’s and PF continue to be leaders in population health and demonstrate commitment to the communities we serve.

Vaccines: A Pediatric Health Success Story

Matthew Wasman, MD, MPH, Chief of Epidemiology and Infection Prevention, Division of Infectious Diseases

Vaccines have been one of the greatest achievements in public health over the last century. Smallpox, once the world’s deadliest disease which altered the course of human history, is now eradicated due to vaccination. Measles once infected nearly every child in the United States, resulting in severe complications in thousands of young children each year including blindness, encephalitis (swelling of the brain) and death. The MMR vaccine successfully led to the elimination of endemic measles in the United States in 2000. Polio epidemics once killed iron lung wards and left other survivors with lifelong paralysis of their limbs. The polo vaccine has now eliminated wild-type poliovirus in the United States and most of the world. The list of vaccine successes goes on with prevention against COVID-19, seasonal influenza, viral hepatitis, bacterial meningitis, rotavirus, tetanus, whooping cough, cancers due to HPV and many others. In total, billions of infections have been prevented and millions of lives have been saved.

But there is still work to be done. Many vaccine-preventable diseases that are rare in the United States continue to circulate regularly in many parts of the world due to inequities in global public health resources. The COVID-19 pandemic disrupted childhood vaccination on a global scale and reversed more than a decade of progress. As a direct result of this disruption, many vaccine-preventable diseases are resurging. Multiple large measles outbreaks are now threatening to spread to other parts of the world where under-vaccinated populations exist. Poliovirus, near the brink of eradication, continues to circulate in both wild-type and vaccine-derived variants in areas where not enough children are vaccinated against polo. The very success of vaccines has removed these diseases from public view, allowing disinformation to fuel a rise in vaccine hesitancy. These same deadly diseases can be reintroduced back into a community at any time with today’s global interconnectedness.

These challenges can be overcome. Global vaccination campaigns are mobilizing to catch the world’s children back up on routine immunizations. Medical and public health officials are working to dispel myths and disinformation to ensure everyone in the community remains up to date on immunizations. Researchers continue to develop new vaccines and innovations, recently including the RSV and expanded pneumococcal vaccines. As in the past century, vaccines will continue to be cornerstone of public health and protect us against shared infectious disease threats.
Unintentional Injury Reduction: A Multi-Pronged Approach

Katie Higgins, MS, CHES, Project Manager, Infant & Child Wellness
Carrie Rhodes, CPST-I, MTSA, CHES, Passenger Safety Program Coordinator

Unintentional injury is the leading cause of death for children on both a local and national level. The work of Nationwide Children’s Hospital’s Child Mortality Pediatric Vital Sign strives to reduce all causes of mortality in Franklin County children ages 1 to 19 by 2030. In Franklin County, there are five leading causes of death among this age group: motor vehicle, drug poisoning, fire and flame, drowning and firearms (which is the most prevalent in 5- to 19-year-olds).

The wide range of factors involved in these deaths requires a multi-pronged approach to ensure the interventions have a measurable impact. Given the complexity of the issue, the Child Mortality leadership and steering committees have representation from Community Wellness, Trauma, Passenger Safety, Education, Research, the Center for Clinical Excellence, multiple clinical departments and external partners to utilize a multi-disciplinary team approach.

As the Child Mortality team began this work, the team surveyed internal and external injury prevention initiatives and identified gaps for injuries that occurred in and near the home. The team implemented targeted initiatives, including Safety City Columbus, the distribution of home safety bundles and lock box distribution. The remaining two strategies involve systems-level approaches that include working to inventory and address gaps in evidence-based strategies and programming. Additionally, work is beginning to assess risk and protective factors through a chart review of the most prevalent injuries and deaths.

SAFETY CITY COLUMBUS

Safety City Columbus was modeled after the Safety Town curriculum, implemented nationwide as a way to increase safety knowledge and reduce preventable injuries among 5- to 7-year-old children. While early literature suggests that the curriculum was not evidence-based, further research and analysis of the program has shown positive and credible results. Safety City was piloted at three locations during the summer of 2022, which was the first time in more than 30 years that this type of programming was taught within the City of Columbus. The four-day program included fire safety, traffic and pedestrian safety, firearm safety, water safety, tricky behavior and many other topics. Pre- and post-survey results showed an increase in knowledge among all participants.

Safety City expanded this summer, offering six locations across four neighborhoods in Columbus, three of which were implemented into the Columbus City Schools Summer Experience program. This effort is implemented in partnership with the City of Columbus Department of Neighborhoods, Columbus Public Health, Columbus City Schools, Columbus Fire Department, Franklin County Sheriff’s Office, Ohio State Highway Patrol, Goldfish Swim School, I Know I Can and various departments across Nationwide Children’s. All programming is free to participants.

HOME SAFETY BUNDLES

Home safety bundles were designed to address leading causes of injury in the home, particularly for those ages 5 and under. Potential injuries cover a wide spectrum, including falls, electrical or stove burns, drownings and unintentional poisonings. Risk factors that predispose children to sustain home injuries mirror the Social Determinants of Health including low socioeconomic status, poor quality housing (older homes not up to building codes) and low maternal self-efficacy. Multiple studies have demonstrated that home safety interventions in high-risk settings have led to lower incidences of emergency department visits and sustained these effects over time. The home safety bundles provided by our prenatal home visiting programs, Healthy Families America and Nurse Family Partnership, focus on providing the home safety education and equipment needed to reduce some of the most common in-home injuries. Our goal is to continue to provide bundles to families in Franklin County and expand regionally as our home-visiting programs broaden their reach.

LOCK BOXES

Lock box distribution offers the opportunity for an intervention that addresses both firearm and poisoning injuries. The Franklin County Child Fatality Review Board has reported an upward trend in the number of children who died by a firearm-related injury over the past six years. In 2020, the Ohio Department of Health reported that Franklin County saw a 207% increase over 2019 in the number of children ages 1 to 19 who died by firearm. In addition, poisonings are another leading cause of unintentional injury seen in the Nationwide Children’s Emergency Department. Safe storage is a key element of prevention for both causes of injury. A pilot program for lock box distribution began in October 2020 in Nationwide Children’s Primary Care Centers in conjunction with the Ohio Academy of Pediatrics and has continued to expand. Lock boxes are currently distributed by the social work department on main campus, at the Big Lots Behavioral Health Pavilion, as well as in primary care, mobile units, school-based health clinics and at community events.

The Child Mortality team’s work is constantly evolving and will be assessed annually as the team works to achieve our 2030 goal. To learn more or obtain resources for your patients, email Carrie Rhodes or Katherine Higgins.
Minoritized and economically disadvantaged communities often experience disparities across a range of health outcomes throughout their life span. Many of these health disparities are largely driven by inequities in the social and physical environments where children and families live, work, age and play. Achieving Nationwide Children’s Hospital’s mission to lead the nation in the best outcomes for children everywhere requires that we focus on equity that extends beyond the clinical care we provide to address the social factors that affect health. The Center for Child Health Equity and Outcomes Research (CCHEOR) aims to advance child health and well-being through research in and across clinical care, health services, health policy and community initiatives. Our research identifies existing disparities but more importantly, identifies and assesses potential solutions that can improve outcomes.

CCHEOR faculty and staff study a variety of health topics including disparities in sleep, adolescent mental health, rural health outcomes, maternal and infant health, and COVID-19. Our faculty also assesses interventions to improve health inequities including innovations in screening for disease, housing for at-risk and housing unstable youth, and promoting access to financial and legal supports. Integral to the work that we do, CCHEOR values our collaborations with community partners throughout the region to assess the root causes of health inequities and develop needed solutions.

In alignment with the Pediatric Vital Signs, CCHEOR has expanded our research related to maternal and infant health outcomes to address the persistent racial inequities in infant mortality rates (IMR). In 2021, the Black IMR in Franklin County was 14.5 deaths per 1,000 live births compared to 4.7 among White infants. The disparity in IMR is even greater in historically segregated neighborhoods where known risk factors for poor infant outcomes, such as unstable housing, poverty, and lack of healthy food options, are often concentrated. The inequities in social determinants of health that communities experience are ingrained in historical and contemporary discriminatory policies that are rooted in racism. Led by Deena Chisolm, PhD, The Targeted Investment and Meaningful Engagement (TIME) Study focuses on understanding the impact of structural racism and discrimination on maternal and child health in the Linden community, where IMR is over 20 deaths per 1,000 live births. This project aims to use the knowledge acquired from interviews with Black birthing people and examine the history of policies that have impacted the Linden neighborhood to inform community reinvestment strategies.

CCHEOR is committed to improving the health and well-being of all children and families everywhere. We do this with the help of our many community partners and through collaboration with a variety of faculty and staff at Nationwide Children’s. When it comes to health, everything matters.
Suicide is the second leading cause of death among all youth aged 5 to 24 years old in the United States. More youth are dying by suicide than those from the fourth to 13th leading causes of death combined (cancer, COVID-19, heart disease, congenital abnormalities, etc.) and it is preventable! Suicide rates have been steadily increasing since 2007 with only two years, 2019 and 2020, that recorded decreasing rates. Data from 2021, however, shows suicide rates are on the rise again. Further, the rates of completed suicide among adolescents have been increasing over the past 20 years. Often, youth suicide research focuses on adolescents, but evidence identifies increasing suicide rates over the past 10 years for children as young as 5 to 11 years old.

If suicide could signal an alarm to go off, we would have been hearing this alarm for two decades now. Do we have alarm fatigue? I hope not. I hope that you hear the alarm and point it out to your colleague so that they can point it out to the next provider - and not just behavioral health providers. And if nothing else, I hope you realize you have the power to save lives, literally. Maybe you won’t see that outcome directly every day, but you certainly can have that effect on the children and adolescents who come through our doors.

Among the general population of U.S. adolescents, recent data tells us that 22% have seriously considered suicide, 18% made a plan and 10% had one or more attempts within the past year. We also know that youth have higher rates of emergency department visits related to self-injurious behaviors than older age cohorts. The percentage of youth experiencing persistent sadness or hopelessness has also increased over the past 10 years with data in 2021 showing it affects 42% of the general U.S. adolescent population. Given this data, nearly half of the teens we care for have been struggling with their mental health and that number does not account for all the youth who are somehow affected by mental health, whether their journey or that of a loved one. Mental health matters!

Ensuring the health and well-being of our patients requires our attention to mental health. The American Academy of Pediatrics recommends universal suicide screening for all youth ages 12 and older, clinically indicated screening for youth ages 8 to 11, and screening in the presence of warning signs for youth under age 8. Asking about suicide gives us the ability to recognize when a child needs help and intervene appropriately. Some warning signs for suicide include talking about wanting to die, giving personal items away, impulsive behavior, loss of interest in normal activities, feeling like a burden and/or trapped among other signs.

Most individuals who die by suicide have had contact with health care services within the weeks or months before their death. We also know that youth able to access and engage in health care services outside of mental health concerns are at lower risk for suicide. Thus, all pediatric health providers must be aware of the risk in youth and the importance of screening for suicide. Being prepared to do this requires being informed. The information above provides a summary of the suicide risk among the general population of youth in the U.S.

While being informed about the evidence is paramount, in many cases it only provides us with broad strokes. We must also remember to approach each patient and family individually without assumptions or judgments.

The crisis is further escalated, however, when we assess marginalized populations and see a pronounced proportion of youth experiencing suicidality – a stark health disparity. When a group of people is marginalized or minoritized it means that group is pushed to the social margins of society and in this way “deprived of mobility; control over self-will, and/or critical resources; in dignified and humiliated; exposed to toxic environments; and/or exploited physically or mentally, such that they are at increased safety, health, social, and political risk” (Hall & Carlson, 2016). Marginalized groups are often exposed to stigma, discrimination, rejection, victimization and other harmful experiences – some of these concepts are referred to as minority stress. Overwhelming research demonstrates associations between exposure to stigma and minority stress and increased suicide risk, so it is not surprising that research also demonstrates higher rates of suicide among marginalized groups.
Of note, suicide is a complex phenomenon not caused by any one thing and having a minority identity does not inherently make an individual suicidal. Rather, the experiences associated with marginalization increase the risk for psychological distress and worse mental health outcomes related to that marginalization. Three groups of marginalized youth, not mutually exclusive, who experience a heightened risk of suicide include black, indigenous and people of color (BIPOC); lesbian, gay, bisexual, transgender, queer/questioning+ (LGBTQ+) individuals; and those who experience homelessness. One essential piece of information, before we look at the research for these groups, is that referring to each group collectively does not imply uniformity within the groups. In actuality, there is vast diversity within each group, and individuals do not all have the same experiences even when it comes to marginalization and minority stress. This diversity cannot and should not be ignored. While being informed about the evidence is paramount, in many cases it only provides us with broad strokes. We must also remember to approach each patient and family individually without assumptions or judgments.

LGBTQ+ YOUTH: Youth who identify as lesbian, gay or bisexual (sexual minority identities) experience significantly higher rates of suicidal ideation, suicide plans and attempts than their heterosexual peers. Evidence demonstrates that transgender and gender diverse (gender minority identities) youth have significantly higher rates of suicide outcomes even when compared to their sexual minority peers. We also know that when youths’ chosen names are in use in more environments, for example by health providers, depressive symptoms significantly decrease as does their risk for suicide. Again, what we do and how we care for our kids matters!

YOUTH EXPERIENCING HOMELESSNESS: Homelessness includes lacking a fixed, regular and adequate nighttime residence which may involve living with other families, in hotels/motels, and/or in cars, campgrounds, etc. Homelessness in youth is associated with an increased risk of being a victim to violence, substance use, survival sex and mental distress. Youth experiencing homelessness are three times more likely than their stably housed peers to report attempting suicide. Importantly, there is a significant association between decreased suicide risk for homeless youth and a prior 90-day health care encounter for any reason outside of mental health concerns. This points to the potential of seeing a health care provider as being a protective factor and reiterates the importance of engaging our patients and their families; and those who experience homelessness.

With that, I hope the alarm is audible. And I hope you screen for suicide.

Medications for Treating Substance Use Disorders: What’s in Our Toolkit?

Alexander Golec, MD, Fellow, Division of Adolescent Medicine
Erin R. McKnight, MD, MPH, FASAM, Attending Physician, Division of Adolescent Medicine, Medical Director, Substance Use Treatment and Recovery Program, Associate Professor of Clinical Pediatrics, The Ohio State University

Naltrexone is an opioid receptor antagonist approved for the treatment of opioid use disorders as well as alcohol use disorders, gambling disorders and as a potential component of stimulant use disorder treatment. Available as a pill and intramuscular injection, it is typically prescribed through addiction treatment programs for adolescent patients.

Buprenorphine is often a cornerstone for the treatment of opioid use disorders. In addition to oral sublingual films and tablets and intramuscular injection forms of this medication, a subcutaneous injection (Brixa®) was approved by the FDA in May 2023.

Treatment of substance use disorders in adolescents and young adults comes with many challenges. Understanding the current treatments and engaging with patients to link to care will yield positive outcomes. One resource for adolescents available at Nationwide Children’s Hospital is The Substance Use Treatment and Recovery Program, within the Division of Adolescent Medicine. This program cares for youth ages 12 to 25 with a variety of substance use disorders with a multidisciplinary approach and is a wonderful resource for these patients.
Premature birth has been the primary preventable cause of infant mortality for many years. This has not changed and since the COVID-19 pandemic, sleep-related deaths have increased and are now one of the top preventable causes of death. CelebrateOne is Franklin County’s public-private partnership to reduce infant mortality. Ohio Better Birth Outcomes (OBBO) is a critical lead organization of the cross-sector partnership with responsibility for health care system-based interventions across the prenatal and perinatal periods. Together, these groups are implementing key strategies of our community’s CelebrateOne infant mortality Action Plan for 2021-2026 to drive structural change in the prenatal care experience. Nationwide Children’s Hospital provides staff that serve as facilitators and convenors of the OBBO partners. This collective effort resulted in decreased infant mortality from 2014-2019, though that decrease was unfortunately not sustained through the pandemic.

One intervention to reduce premature births focuses on getting families into perinatal support services, including home visiting programs. The overall goal of maternal infant home visiting programs is to support moms through a safe pregnancy to deliver a healthy, full-term baby. The Maternal Infant Home Visiting (MIHV) Program at the Center for Family Safety and Healing implements two evidenced-based maternal infant home visiting models: Healthy Families America (HFA) and Nurse Family Partnership (NFP). In 2022 these programs enrolled a total of 278 families. Pregnant women engaged with MIHV programs were more likely to breastfeed their babies, complete postpartum follow-up appointments, maintain well-care appointments for their children and receive mental health support.

NFP is designed for first-time, low-income mothers and their children. It includes one-on-one home visits by a trained registered nurse. The visits begin with program enrollment no later than the 28th week of gestation and conclude when the child turns 2 years old. NFP is designed to improve prenatal and maternal health, birth outcomes, child health and development and families’ economic self-sufficiency.

HFA seeks to enroll families during pregnancy but will also enroll families with a child up to 3 months of age. Typically, the home visitor is a licensed social worker but there is an opportunity for other professionals with expertise in child development to implement the HFA model. For the family to receive the full benefit of HFA they should stay engaged with their home visitor through the child’s third birthday. HFA supports parents with the development of personal resources to improve family functioning, strengthen the parent-child relationship, promote child well-being and prevent adverse childhood experiences.

When implementing NFP, the focus client is the pregnant mom. When implementing HFA, the focus client is the child.

In 2022, there were 30 sleep-related infant deaths in Franklin County, more than any one year for the past 10 years. Sleep-related deaths are when an infant dies due to a preventable sleep-related event. As a part of OBBO, Nationwide Children’s is working to update the safe sleep video shown to each family before discharge from their birth hospital. One of the internal efforts focused on reducing sleep-related deaths includes the development of the Nationwide Children’s Safe Sleep Consortium. This is a multi-department group that evaluates data related to potential sleep deaths.

Both HFA and NFP home visitors are trained to educate parents and the community on safe sleep. This includes showing the safe sleep video, assessing the home for a safe sleep environment and providing education on breastfeeding as breastfed babies are less likely to die in their first year of life. MIHV partners with Nationwide Children’s Community Wellness to provide a “Baby Safety Bundle” to families who need a safe sleep environment for their infant. The bundle includes a pack-n-play, swaddle, pacifier and safe sleep board book.

Infant mortality is a multifaceted public health issue. It is difficult to target one or two aspects of the problem and expect infant mortality to decrease.
For more than two decades, an abundance of empirical evidence links health literacy with effective self-care, appropriate use of health services and recommended prevention behaviors such as health screenings and vaccination. But what is health literacy? The Centers for Disease Control and Prevention defines personal health literacy as “the degree to which individuals have the ability to find, understand and use information and services to inform health-related decisions and actions for themselves and others.” Nearly 90% of U.S. adults struggle with health literacy; for example, many would find it difficult to calculate their portion of health insurance costs using a table that shows how cost varies depending on income and family size. Lower health literacy is associated with several undesirable health outcomes, including poor overall health status and increased hospitalizations, mortality and health care costs.

Personal health literacy is impacted by organizational health literacy, or “the degree to which organizations equitably enable individuals to find, understand and use information and services to inform health-related decisions and actions for themselves and others.” Improvement of health literacy advances health equity and is crucial to developing a new type of relationship between individuals and the health care system. Health literacy principles make information clearer. Health equity principles make it more inclusive. Organizations that carefully consider both when designing and developing communication of all kinds (verbal, written, signage, electronic) will be more likely to realize success in their clinical and population health interventions.

AdvanSing Health Literacy Franklin County (AHLFC) is a multi-year project funded by the Office of Minority Health beginning in June 2021 and focuses on organizational HL improvement, networks and community engagement within Franklin County, Ohio to build a health-literate community. In fall 2022, Nationwide Children’s Hospital, under the leadership of Mary Ann Abrams, MD, MPH, sponsored a Health Literacy Learning Collaborative (HLLC) for organizations providing health-related care, services and education for Franklin County residents, with a special focus on communities at higher risk for health disparities. The HLLC purpose aligns with a Healthy People 2030 foundational principle: achieving health and well-being requires eliminating health disparities, achieving health equity and attaining health literacy; and, it is the responsibility of the health system to provide clear, understandable information and to make sure it is understood by those who need that information. The HLLC is built upon collaborative work and partnerships that began more than a decade ago in Columbus between the hospital, the Columbus Mayor’s office, city and county health departments and other community health care providers to improve health outcomes for all children in Franklin County. Known as the Pediatric Vital Signs (PVS) project, the population health focus of PVS resulted in the meaningful health outcomes for all Franklin County children in eight domains including infant mortality, kindergarten readiness and others.

So, where does Nationwide Children’s stand when it comes to health literacy, and where are we headed? The vision is to continue to address all attributes that contribute to a health literate health care organization, integrating the work within the framework of our quality and safety programs, and the Stand Against Racism, Stand for Health Equity initiatives. What can you do to lessen the burden of low health literacy? First, use the Universal Precautions approach to health literacy, which assumes that all patients/family members — or anyone — may have difficulty comprehending and remembering health information. We should simplify communication with and confirm understanding for all. A perfect tool to confirm comprehension is teach-back. After explaining information using plain language, teach-back is a way of checking understanding by asking people to explain in their own words what they need to know or do about their own or loved one’s health. As part of the HLLC, Taise Young, BSN, RNC, CLC Health Equity clinical program coordinator, created a badge buddy and other supports for using teach-back effectively. We encourage you to add this badge buddy to your safety tools! Recently, a discharged patient had a five-times medication overdose in the home setting, resulting in overnight hospitalization, when the caregiver was confused with numbers on the prescription bottle label that read: take 4 ml (20 mg) every morning by mouth. Would use of teach-back have avoided this confusion for the caregiver?

This is just one example of how limited health literacy can impact safety, quality and equity. It also provides an example of how implementing health literacy-informed practices at the organizational level could help prevent harm and promote best outcomes. Watch for opportunities to learn more about, and be involved in, health literacy at Nationwide Children’s Hospital.

**HEALTH LITERATE**

The 10 Attributes of a Health Literate Health Care Organization*

1. Has leadership that makes health literacy integral to its mission, structure and operations.
2. Integrates health literacy into planning, evaluation measures, patient safety and quality improvement.
3. Prepares the workforce to be health literate and monitors progress.
4. Includes populations served in the design, implementation and evaluation of health information and services.
5. Meets the needs of populations with a range of health literacy skills while avoiding stigmatization.
6. Uses health literacy strategies in interprofessional communications and confirms understanding at all points of contact.
7. Provides easy access to health information and services and navigation assistance.
8. Designs and distributes print, audiovisual and social media content that is easy to understand and act on.
9. Addresses health literacy in high-risk situations, including care transitions and communications about medicines.
10. Communicates clearly what health plans cover and what individuals will have to pay for services.

---

**THE 5 Ts OF TEACH BACK**

**TRIAGE**

Focus on the most important topic for Teach Back.

Use written materials, models, diagrams or video. Make sure this information is accessible to people with disabilities, or language needs.

**TOOLS**

Take responsibility for how well you explained the information. “I want to make sure I did a good job explaining…”

Ask patients to tell you in their own words what they understood. Listen for gaps in understanding.

**TAKE RESPONSIBILITY**

If needed, explain again; change your approach to make the information more accessible to the patient.

---


---

**USING TEACH BACK EFFECTIVELY**

1. Use a caring tone of voice and attitude.
2. Display comfortable body language and make eye contact.
3. Use plain language. No medical jargon.
4. Ask the patient to explain what they understand, using their own words.
5. Use non-shaming, open-ended questions.
6. Avoid asking questions that can be answered with a yes or no.
7. Take responsibility for making sure you delivered the information clearly.
8. If the patient is not able to teach back correctly, explain again and re-check.
Pediatric Vital Signs: Obesity
Alexis Tindall, MHA, RD, LD, Program Manager, Center for Healthy Weight and Nutrition

Childhood obesity, a serious public health threat, affects 16.9% of children (2 to 17 years) in the United States with a disproportionate burden on ethnic minority and low-socioeconomic populations. Treatment of obesity can decrease the rate of weight gain and prevalence of overweight and obesity. Emerging consensus indicates urgency for effective interventions alongside community and prevention efforts.

The Center for Healthy Weight and Nutrition is a comprehensive tertiary care obesity center, nationally and internationally, recognized as a leader in improving health outcomes for children living with obesity. Nationwide Children’s Hospital has leaned on the center to drive the pediatric vital signs-obesity initiatives. The approach for vital signs-obesity is centered on clinic-community integration to build synergy in outcomes, targeting disparity and inequities in interventions. Integration strategies include partnering with a public health insurer using the Extension for Community Healthcare Outcomes (ECHO) platform to train and support primary care practices; developing and disseminating videos to address bias and stigma with obesity care; partnership with non-profit organizations to address food access, advocacy, nutrition education; and coalition building. The vital sign-obesity framework is outlined in Figure 1.

CLINIC AND INDIVIDUAL LEVEL PROGRAMMING
The center developed a key partnership with a public health insurer to provide a sustainable, evidence-based program that trains and supports primary care practices to adequately address childhood obesity. Each ECHO obesity session focuses on evidence-based topics which include starting the conversation around weight, addressing bias and stigma with obesity care; motivational interviewing, screening and assessing for obesity and comorbidities, implementing lifestyle interventions in a primary care setting, medication management and bariatric surgery in the pediatric population, and coding and billing for obesity-related visits. Since 2021, the center has delivered 31 ECHO obesity sessions, reaching more than 80 physicians and health care professionals. The center plans to continue to support and expand this program to adequately address childhood obesity.

COMMUNITY AND SYSTEM LEVEL PROGRAMMING
A critical component of vital signs-obesity is developing partnerships with community organizations within Franklin County around common goals of wanting to improve the health and well-being of those in our community. Our programming focuses on healthy eating, active living, education and outreach that promotes healthy habits. Local Matters has been an invaluable community partner. Local Matters’ programs directly benefit the health, education and quality of life for low- and moderate-income families and provide services for those individuals and families. By providing both access to and education around healthy foods, Local Matters and Nationwide Children’s are meeting an immediate need for fresh food access and empowering people to access the skills and knowledge they need to feed themselves and their families. The following community-level programming has been developed via our partnership: free cooking classes at a local community center; distributing produce boxes and meal kits via The Veggie Van within several Primary Care Clinics; offering nutrition education, cooking demonstrations and support via several community events; delivering lunch and learn nutrition education classes within several Columbus City Schools; and delivering a pilot program focused reducing food insecurity within the Linden neighborhood. In 2022, our programming impacted more than 2,100 individuals within the community.

ADVOCACY AND POLICY LEVEL PROGRAMMING
Nationwide Children’s convenes a multi-sector coalition, Healthy Kids of Central Ohio Coalition, to address, develop and influence policy recommendations and community-level practices that affect the overall health and well-being of children living in central Ohio, ages 0 to 18 years old. Healthy Kids Coalition is comprised of representatives from more than 45 community-based organizations and aims to achieve the following vision: Central Ohio is a community in which all children have daily opportunities to be physically active and have access to nutritious foods, so they are ready to live, learn and play at their best.

One viral intervention led by the coalition that has achieved success is the Water First for Thirst campaign. The campaign promoted policy and environmental changes to make water easily and readily available within organizations and throughout the community. Additionally, the coalition partnered with the American Heart Association to support a healthy default drinks policy on kids’ menus in the city of Columbus. This ordinance, passed by the Columbus City Council in December 2020, aligns with the public policy recommendations released by the American Academy of Pediatrics to reduce sugary drink consumption in children. The ordinance encourages restaurants to offer healthy drinks as the default option for kids’ meals.

COVID-19 did have an impact on the percentage of children (2 to 17 years of age) with overweight and obesity (body mass index ≥ 85% tile) peak rates of 46.1%; however, there has been a positive decline in rates to 40%, in the last six quarters. Vital signs-obesity will continue efforts on using an integrated clinic-community approach to maximize the synergy of interventions to address obesity and improve the quality of life for children in our community.

FIGURE 1:

APPROACH FOR PEDIATRIC VITAL SIGNS – OBESITY

Obesity has a complex multifactorial etiology and requires multicomponent treatment.
Community Health Workers (CHW) are a pillar of the primary care team, serving as a bridge between health care providers, patients and their community. Their role is essential in improving access to health care and reducing health disparities, particularly among underserved racial and ethnic populations. Social determinants of health (SDOH) are widely recognized major contributors to health and health outcomes with impact at individual and societal levels. CHWs advocate for patients by addressing SDOH needs and identifying barriers to care. They cultivate relationships with patients and families, empowering them to take control of their health and well-being holistically.

The Primary Care Network (PCN) implemented their first CHW in the fall of 2021 at our Linden location. There was an instant transformation of the health care team and a positive impact on the patient experience. The goal was an immediate response to reported SDOH needs; however, the role quickly expanded. As a frontline member of the health care team, the CHWs have a close understanding of health resources, assisting with appointment scheduling, arranging transportation, completing follow-up calls and reducing the number of missed health care visits. This makes their contributions imperative to primary care health maintenance. Using a trauma-informed and culturally sensitive approach, CHWs provide emotional support to patients and their families, creating a welcoming and inclusive health care environment that fosters trust and enhances the overall patient experience.

Integrating CHWs into maternal-child health is pivotal in achieving a wide range of goals and objectives that positively impact the health and well-being of expectant mothers and their babies. They provide comprehensive prenatal education on topics such as nutrition, exercise and breastfeeding support as well as offering assistance for common pregnancy complications. CHWs can also reduce disparities in prenatal care access and outcomes by providing culturally sensitive and linguistically appropriate care and serving as a link between health care providers, patients and their community.

CHWs are an invaluable asset in promoting and maintaining holistic care for our patients and their families. Overall, CHWs have a profound impact on both the community and in clinic settings while improving access to access, and promoting a stronger sense of well-being within the community.

their respective communities and integrate with patients and families utilizing a culturally sensitive and trauma-informed approach that promotes positive relationship-building across the care team. CHWs have a broad scope of practice that includes administering health screenings, advocating for adherence to preventive care standards and offering support for managing chronic conditions more optimally. According to the Ohio Board of Nursing, the top five health conditions addressed by CHWs include mental health, diabetes, high blood pressure, asthma and obesity. CHWs support the care team, patients and their families by linking them to needed prenatal clinic services and community resources. CHWs also assist expectant mothers in developing birth plans, promoting healthy behaviors during pregnancy and providing emotional support to expectant families. By identifying barriers to prenatal care access and empowering families to advocate for themselves, CHWs help to ensure that families receive timely and consistent prenatal care, improving the health and well-being of expectant mothers and their babies.

It is crucial to integrate CHWs into the community as they serve as trusted advocates, educators and resources for individuals and families. They play a significant role in connecting decision-makers, stakeholders, leaders and community members. Literature suggests that CHWs can also advocate for policy and systems changes at the organizational and community levels, improving community conditions and helping individuals connect with their community. CHWs work alongside families to improve health and well-being by providing informative education on preventive measures, healthy lifestyle choices, informal counseling in disease management and educating individuals on community resources available in their neighborhoods. By equipping people with knowledge and skills to manage their physical and mental health, CHWs facilitate informed decision-making and foster stronger social connections and increased civic engagement, leading to improved neighborhood health. CHWs create organizational partnerships that enable more efficient resource utilization and a multi-sector continuum of care for families and individuals. This bridge-building enhances the community’s capacity to influence health outcomes, leading to reduced emergency room and hospital visits, reducing disparities in health care, and improving overall health outcomes. CHWs are an invaluable asset in promoting and maintaining holistic care for our patients and their families. Overall, CHWs have a profound impact on both the community and in clinic settings while improving access to access, and promoting a stronger sense of well-being within the community.
High Schools Students are “Upward-Bound” in STEM at Nationwide Children’s Hospital

Maxine B. Ignacio, MS, Upward Bound Math & Science Project Director, Community Wellness

Upward Bound Math and Science (UBMS) is one of eight federally funded TRIO programs that are designed to assist students in progressing through the academic pipeline from middle school to post-baccalaureate programs. UBMS serves and assists individuals living in low-income households, those who will be first-generation college students and individuals with disabilities. It is one of three high school student support programs that align with the Pediatric Vital Signs initiative at Nationwide Children’s Hospital. UBMS focuses on improving high school graduation rates by providing program participants with the skills and motivation needed to complete their secondary education. Nationwide Children’s embraced UBMS as part of the Community Wellness Department in 2017, and it has served more than 90 Columbus City School students in grades 9 to 12. With a Science, Technology, Engineering and Math (STEM) foundation and curriculum, Nationwide Children’s UBMS aims to increase the number of students who pursue postsecondary career opportunities in those fields. Nationwide Children’s UBMS is part of the Healthy Neighborhood Healthy Families initiative to improve education efforts that determine health outcomes in the South Side and Linden neighborhoods. The program enhances the academic and personal skills of students attending Linden-McKinley STEM Academy, South and Marion-Franklin high schools. It provides additional educational opportunities while also preparing them for college admission, retention and graduation.

Students at these target schools tend to perform poorly on math and science standardized testing and the schools experience significant absenteeism. UBMS participants have benefitted from the motivation, support and additional targeted resources provided by the program. During the academic year, UBMS offers workshops and hands-on activities that engage the students in ways that pique and continue their interests in high school academics, and college- and career-readiness. During the summer, UBMS offers a six-week Summer Learning Academy that requires participants to take a rigorous academic curriculum that includes classes in English, math, science and foreign language. Additionally, participants engage in workshops focused on mental health and wellness, and other activities that enhance the intellectual, social and cultural development of participants.

Since 2018 when the program began, students in good standing and who have remained active in the program through 12th grade graduate high school, with 71.5% of them enrolling in some form of postsecondary education. Post-pandemic, some students have needed to extend their senior year, but overall, Nationwide Children’s UBMS has had a 100% high school graduation rate. When students realize the value in themselves and the positive outcomes that can result from their choices, they acquire a better perspective on their future successes. One UBMS student, who joined as a rising 9th grader and is about to embark on their junior year of high school, shared that they learned a lot about themselves and that UBMS opened doors that they never knew were accessible. They stated that UBMS is not just “a program,” but “a program that expands your network to other programs who can provide additional opportunities.”
Daisy Award

Ruthy (Qingjun) Schumacher, RN

The quarterly Nationwide Children’s Hospital Daisy Award was presented to Ruthy (Qingjun) Schumacher, RN, of C4A NICU. 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.

Says Ruthy’s nominator, a parent of a patient: “Our son was a patient in C4A for a long period of time. We met Ruthy just a few days into our stay there after transitioning from a different hospital. I was very overwhelmed as a mom of a fragile baby and in a new environment and Ruthy went above and beyond to ensure me that our son would be well taken care of and loved while there. … Even when she wasn’t his nurse for the day, she always made time to come say hi to us. She was always a great advocate for our son and family and ensuring we had exceptional care. She is truly so special and deserves all of the recognition for how incredible of a nurse she is.”

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