



**2017
Community
Health Needs
Assessment
Progress Report**

Your child. Our promise.

Nemours® Children's Hospital

Nemours Children's Hospital

Community Health Needs Assessment 2017 Progress Report

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About Nemours



About Nemours

Nemours Children’s Health System is one of the largest integrated pediatric health systems in the United States, serving children in the Delaware Valley, Florida and Georgia, and for select specialties, serving children from across the nation and around the world. Nemours is dedicated to our promise of treating all children as if they were our own by doing everything within our power to help children grow up to be healthy and reach their full potential.

At Nemours Children’s Hospital (NCH), treating kids is all we do. Our physicians take a coordinated approach to help families care for children with all kinds of needs and conditions — from simple to the most complex.

Located in Orlando’s Lake Nona Medical City, NCH combines a healing environment with state-of-the-art technology to empower patients and families.

Other highlights include:

- Since opening its doors in 2012, Nemours Children’s Hospital in Orlando in 2012 was twice named a “Top Children’s Hospital” by the Leapfrog Group, which measures health-care quality and safety.
- For the fifth time since NCH opened, the Florida Hospital Association (FHA) has honored Nemours with an Innovation of the Year award and the sixth year the FHA has honored the hospital.
- Patient rooms large enough for the entire family.
- Technology that fosters better patient and provider communication.
- The Clinical Logistics Center (CLC): our command center has specially trained emergency medical technicians who monitor patients around the clock.
- Critical care that includes a Level III NICU (we also have PICU and CICU care).
- A 24/7 kids-only Emergency Department equipped to handle all kinds of pediatric emergencies — big or small.

The mission of Nemours is to provide leadership, institutions and services to restore and improve the health of children through care and programs not readily available, with one high standard of quality and distinction, regardless of the recipient’s financial status. Nemours is committed to providing patient- and family-centered health care; educating the next generation of health care providers through a variety of education affiliations; offering extensive online and in-person continuing medical education; providing health and wellness information for kids, teens, parents and educators via KidsHealth.org; and offering families 24/7 access to virtual consults with Nemours pediatricians via mobile or computer devices.

Nemours has been recognized as a model of, and an advocate for, transforming the pediatric health care system from a focus on sickness to a focus on wellness, often in collaboration with community and health care partners. Nemours leaders and Associates serve on numerous boards of organizations addressing health and children’s issues, and a wide range of community organizations also receive sponsorship support from Nemours as part of our commitment to support those who support children. Nemours is also focused on bringing our standard of care — and better health — into local communities, and does so not only by providing both primary and specialty care in sites throughout the region, but also by continuously seeking answers to the most vexing problems in children’s health.

Our researchers look for and find novel treatments for complex childhood conditions, and our population health and prevention specialists work to reverse long-standing patterns of unhealthy behavior across our communities. Our Community Health Needs Assessment (CHNA), conducted every three years, provides us an opportunity to survey community members and systematically address their concerns. This report details the strategies we employed in 2017 to address the top concerns identified, as well as the ongoing work conducted in these areas.

This process yielded the following top priorities for Nemours Children's Hospital to address in improving the health of the community's children:

- access to health services
- prenatal and infant health
- injury and safety

Our immediate focus will be on these top three priorities identified through the evaluation process. However, Nemours believes that we have a responsibility to our communities to address all health concerns identified by this study. Through direct services, or through partnerships with other health care or community leaders in the area, we are committed to addressing the health and wellness needs identified for children in Central Florida.

Access to Health Services



Access to Health Services

According to the needs assessment, 6.9 percent of children in the total service area (TSA) lack health care insurance coverage, comparable to the national benchmark. However, this percentage increases significantly among children living just above the federal poverty level (11.4 percent). Of those parents with children who have health care coverage, 12.2 percent report that their child was without coverage at some point in the past year.

In addition to insurance instability, the three greatest barriers to health care access reported in the study were **lack of appointment availability**, **inconvenient office hours** and **finding a physician**. More than one-third of parents in the TSA reported difficulty or delay in obtaining health care services for their child (36.3 percent), less favorable than the national benchmark (29.4 percent). Families in Osceola County reported the most difficulty getting an appointment and finding a physician. In addition, in Orange County, families reported the highest prevalence of difficulties due to culture or language difficulties.

Approximately 37.2 percent of parents in the TSA reported that their child needed to see a specialist at some point in the past year. Among these respondents, 45 percent of these parents had “major” or “moderate” problems obtaining the necessary care for their child. In addition, 17.5 percent reported that it took 30 or more days to get an appointment.

A total of 13.7 percent of parents in the TSA reported taking their child to a hospital emergency room more than once in the past year. Of those respondents, nearly half reported that the visit was for something that could have been treated in a doctor’s office.

In addition, 13.6 percent in the TSA perceived that mental health (depression, suicide) is the number one health issue affecting adolescents ages 12 to 17. Of those respondents who perceived mental health as the number one issue, 70 percent believe that mental health resources and services are insufficient in their communities.

Initiative

To provide coordinated, comprehensive and culturally appropriate care to children and families of Central Florida in a way they can understand.

Goals

- A. Create programs and initiatives to **increase access to specialty care**.
- B. Expand and maintain satellite operations to **extend specialty care** into the community.
- C. Provide and expand **unique service offerings and subspecialty care** not otherwise accessible in the Central Florida community.

Metrics

1. # of patients seen at Nemours primary care locations
2. # of patients seen at Nemours urgent care locations
3. # of patients seen at Nemours satellite operations
4. # of patients enrolled and seen with Nemours CareConnect
5. # of schools using Nemours CareConnect

2017 Progress Metrics

- More than 34,000 patients were seen at Nemours primary care locations.**
- More than 27,000 patients were seen at Nemours urgent care locations.**
- More than 28,000 patients were seen at Nemours satellite operations (excluding NCH).**
- 10,693 patients enrolled with Nemours CareConnect and there were 1,446 on-demand visits.**
- Four schools in Central Florida partner with Nemours CareConnect in their school clinics.**

Nemours Children’s Hospital (NCH) is dedicated to providing and improving pediatric health care at all levels of care — from minor injuries to the most complex conditions — through coordinated patient-centered medical services, biomedical research, education, prevention and advocacy, ensuring that patients experience care that is safer, more reliable, more responsive, more integrated and more available. NCH has earned The Joint Commission’s Gold Seal of Approval for accreditation by demonstrating compliance with their national standards for health care quality and safety in hospitals. As we continue to fulfill our mission and vision in Central Florida, we are proud to bring the highest quality of care to the community we serve by offering a large number of pediatric specialties and subspecialties, including:

- allergy
- anesthesiology
- audiology
- behavioral health
- cardiac surgery
- cardiology
- endocrinology
- gastroenterology
- general surgery
- genetics
- hematology/oncology
- immunology
- infectious disease
- interventional radiology
- neonatology
- nephrology
- neurology
- neurosurgery
- ophthalmology
- orthopedics
- otolaryngology
- pain management
- physical medicine and rehabilitation
- pulmonology
- radiology
- rheumatology
- urology

New Models of Care and New Technology

In response to the evolving health care landscape, Nemours recognizes the need for improving health care quality, as well as increasing access and equality for all children in Central Florida. One method of improving access is through application of innovative models or technologies that better coordinate care and information sharing for all patients. Within the TSA, Nemours is involved in a number of efforts to address these issues and expand access throughout that area, including:

Patient-Centered Medical Homes

As of 2017, all Nemours Children’s Primary Care practices are nationally certified as Patient-Centered Medical Homes (PCMH). The PCMH is a model of primary care that combines patient-centered access, team-based care, population health management, care coordination and quality improvement to enhance care delivery. Research shows that medical homes can lead to higher quality and lower costs and can improve experiences of care for both patients and providers. Recent PCMH success stories show reduced emergency department use, decreased hospital admission rates and improved quality outcomes in their patients. This model provides patients with enhanced access to care and the ability to develop and sustain quality relationships with their provider and health care team, as well as opportunities to build relationships with specialists who expand care in the community. The PCMH model also allows Nemours practices to be proactive in the care of patients, and to shift the focus from treatment and emergency care to prevention and health promotion.

Nemours CareConnect

In November 2015, Nemours launched CareConnect, a direct-to-consumer telemedicine program that allows families to hold a video visit with a Nemours pediatrician through a smartphone, tablet or home computer. The service is available 24/7, anywhere in Florida. Nemours is available when families need answers. Whether it’s the middle of the night or during regular office hours, Nemours board-certified specialists are available at the push of a button.

Nemours also uses CareConnect in collaboration with 31 provider organizations, including six hospital affiliates in Florida. When working with a partner hospital, Nemours pediatric subspecialists are able to remotely assess patients' medical records and directly consult with their providers to determine the safest, most necessary care. Using this model, Nemours pediatric experts are able to influence delivery of children's health care outside of our system, ensuring that all children have access to the best pediatric expertise, and allowing families to remain in their local communities for treatment.

Nemours is also exploring the use of CareConnect to consult with school nurses in Central Florida. School nurses provide essential care to children, many of whom have complex medical conditions that require careful management and care coordination. The service allows the school nurse to directly connect with a Nemours board-certified pediatrician through video technology. The video visits are intended for minor injuries and acute health issues, such as fevers, vomiting and rashes, as well as for chronic disease management. Families are contacted by the school prior to a video visit and are welcome to join the appointment via their mobile devices, tablets or computers.

During Hurricane Irma, the CareConnect app was downloaded 2,100 times and CareConnect carts were deployed to three special needs shelters, so parents could receive expert pediatric care to manage critical issues for their children leaving emergency departments. Since Puerto Rico's power infrastructure was devastated by Hurricane Maria, Nemours CareConnect carts were set up in Orlando's airport to quickly assist evacuees and provide needed medical interventions. During Hurricane Harvey, Texas lifted restrictions that prevented out-of-state health care providers from offering assistance. Nemours provided free access to pediatricians through CareConnect to help Texans in need.

Growing to Increase Access

In the TSA, 9.4 percent of families surveyed reported lack of transportation as a barrier to health care access. In response to this challenge, Nemours continues to expand a robust distribution network by opening new primary care, urgent care and specialty care offices throughout the region.

Nemours Children's Primary Care

To meet the need for primary and preventive care in the community, Nemours has established an ever-growing network of pediatric primary care practices in Central Florida called Nemours Children's Primary Care. To date, Nemours has expanded to 17 pediatric practices that range from Sanford in the north to Vero Beach in the south. New locations added in the last year include Celebration, Downtown Orlando and Winter Garden, as well as a second practice in Vero Beach. Our highly qualified primary care pediatricians and staff provide general pediatric and preventive health services in a Patient-Centered Medical Home setting. Services provided include care for routine illnesses and everyday bumps and bruises, vaccinations and well checkups. Nemours is helping children — from the tiniest newborns through age 18 — reach their full potential.

In addition to primary care, Nemours also offers special expertise and services, including:

- asthma/allergy care and education
- behavioral evaluations (ADD/ADHD)
- obesity prevention and healthy choices

To ensure access to care when parents need it, each Nemours Children's Primary Care office offers walk-in sick care for established patients between 8 a.m. and 9 a.m. every weekday. Sick care is also available on Saturdays between 8 a.m. and noon at four designated locations.

A Unique Partnership Moves Care on Campus

Nemours and Orange Blossom Family Health teamed up to provide a novel care delivery solution for children and families in Orlando's underserved Parramore community. The satellite practice, operated by Orange Blossom with pediatric physician services from Nemours Children's Primary Care, is located on the campus of Orange County Public Schools' Academic Center for Excellence. The practice includes primary care, preventive health screenings, immunizations and dental health. Acting as a community center and resource, the facility is open to serve local children of all ages whether or not they attend the school.

Nemours Children's Urgent Care

Of the Community Health Needs Assessment respondents who took their child to the Emergency Department in the last year, more than half reported that the visit was for something that could have been treated in a physician's office. For this reason, Nemours has expanded our urgent care hours throughout the TSA. Nemours Children's Urgent Care offers immediate, advanced pediatric care to patients who range from newborn through 18 years of age. Care is provided as early as noon at two of our four locations and is available until 10 p.m. every day, including holidays. The pediatricians who practice at Nemours Children's Urgent Care are board-certified in pediatrics, with specialized experience in emergency medicine and urgent care. Their passion is caring for children, and their commitment is to support primary care physicians by providing urgent medical services outside regular office hours. Nemours Children's Urgent Care brings Nemours expertise closer to home for Central Florida kids in Kissimmee, Lake Nona, Sanford and Waterford Lakes (East Orlando).

Nemours Satellite Operations

To meet access needs of children and families in our community, Nemours operates outpatient pediatric clinics providing specialized pediatric care for families in Central Florida in Kissimmee, Lake Mary, Lakeland, Melbourne, Orlando–Downtown, Orlando–Lake Nona and Titusville. Nemours rotates a multitude of specialists throughout our specialty care network, offering appointments in cardiology, pulmonology, gastroenterology, urology, endocrinology, orthopedics, general surgery and many others.

Nemours Hospital Partners

To further demonstrate Nemours' organizational commitment to provide access to world-class pediatric health care for all children and families in Central Florida, Nemours partners with community hospitals throughout the region and beyond to provide pediatric subspecialty care close to home. Nemours provides support for these partners, including hospital-based services, subspecialty consults and in some cases, outpatient clinics. Partners include:

- Heart of Florida Regional Medical Center in Davenport, Florida
- Indian River Medical Center in Vero Beach, Florida
- Osceola Regional Medical Center in Kissimmee, Florida
- Oviedo Medical Center in Oviedo, Florida
- Rockledge Regional Medical Center in Rockledge, Florida
- Parrish Medical Center in Titusville, Florida
- Lakeland Regional Health in Lakeland, Florida

Nemours Programs

Pediatric Critical Care Transport

Nemours Children’s Hospital offers 24/7 neonatal and pediatric intensive care transport. Nemours transport program plays a vital role in getting infants and children to and from NCH, providing a mobile intensive care unit environment so critical care can begin immediately. Our ground transport includes a fully equipped pediatric intensive care ambulance plus a Nemours-owned, custom-designed mobile intensive care unit (the size of a fire truck) that features space to care for two newborn or pediatric patients at once. The Nemours transport vehicle allows us to be there for children and families throughout the region, at moments when they need us the most.

Ronald McDonald House

Because of the complex nature of pediatric services, children and families come from throughout the region, across the country, and around the world to receive services at Nemours Children’s Hospital. Since 2012, NCH has provided families from all 50 states and 61 countries with medical care for children with rare and unique conditions. For families to have access to these relatively rare medical resources, they require a place to stay while their child is receiving care. Ronald McDonald House Charities of Central Florida (RMHCCF) provides a “home away from home” for families of seriously or chronically ill or injured children receiving treatment at area hospitals by offering nurturing and supportive environments where families can stay together and find comfort.

Through Nemours’ partnership with RMHCCF, families have access to a location to rest and regroup, allowing parents and guardians to stay near their children. Facilities at Ronald McDonald House include 15 guest rooms, laundry rooms, showers and kitchenettes with free coffee and vending machines, computers with high-speed Internet, and many other amenities. A statement from the American Academy of Pediatrics (AAP) emphasized the positive effects of family presence during a child’s hospital stay. Both children and parents experienced decreased levels of stress, children were discharged earlier, and recovery time was reduced.

Financial Assistance Plan and Uninsured Discount Program

Since opening our doors, Nemours has remained committed to providing our patients and families with the care that they need and want, when they need and want it. This includes a commitment to those without financial resources.

In 2017, Nemours provided more than \$2.3 million in charity care services in Florida so that children needing care could receive it without financial barriers. Through our commitment to our patients, Nemours will continue to provide this assistance to those in need each year.

Inpatient Rehabilitation Unit

Nemours Children’s Hospital’s Inpatient Rehab Unit is currently a nine-bed unit. It is the first pediatric inpatient rehab unit at a free-standing children’s hospital in Florida. The unit admits patients ages 3 months through 17 years. The Rehab Unit offers intensive physical, speech and occupational therapy, as well as 24-hour inpatient medical and nursing care.

Language/Interpreter Services

One of the primary barriers to access reported in Orange County is health literacy and cultural competence. Nemours believes that one of the most important aspects of delivering family-centered care is making sure families are informed, in a way they can understand, about what is happening with their child's health at every step.

To help families be the very best advocates for their child's care, Nemours provides a variety of language and interpreter services, including:

- **Video remote interpretation service:** Nemours has iPad carts throughout the hospital that can be used to call up a live interpreter in almost every language via live video stream.
- **Phone interpreter service:** Nemours' phone interpreter service is available in almost every language — 24 hours a day, seven days per week, for both inpatients (staying at the hospital) and outpatients (coming in for an appointment or procedure then going home).
- **American Sign Language (ASL):** Nemours also meets the communication needs for deaf children and families, providing an American Sign Language interpreter when needed.

Community Initiatives

Shepherd's Hope

Nemours partners with Shepherd's Hope, a not-for-profit in Central Florida that operates free medical clinics for low-income families, to provide volunteer providers for back-to-school physicals in the summer. In 2017, more than 25 Nemours providers volunteered, completing more than 350 physicals. During the clinics, patients are seen at no charge by the doctors, nurses and other volunteers who donate their time to serve uninsured, low-income families who need medical care. Additionally, Nemours Florida Prevention Initiative conducted free vision and hearing screenings during the physicals. Through this work, many Nemours physicians have been inspired and continue to volunteer at the medical clinics regularly.

Central Florida School Districts — School Nurse Training

In addition to partnering with Central Florida schools for CareConnect consult services, Nemours providers offer specialized training classes for school nurses, health aides and clinic assistants throughout the TSA. Nemours believes that school nurses play an integral role in a child's care team and require ongoing training to facilitate care for their students. Nemours providers have conducted training seminars on many topics including diabetes, sickle cell, infectious diseases, trach care, asthma, allergies, injuries, common cardiac diseases and rheumatology.



Prenatal, Infant
& Child Health

Prenatal, Infant & Child Health

The infant mortality rate in the TSA is 6.3 per 1,000 live births, slightly higher than both the Florida average (6.1) and the national average (5.9); Orange County has the highest rate, at 6.7 per 1,000 live births. In the non-Hispanic black population, the rate increases to 11.5 per 1,000 live births. The predominant cause of death between 2005 and 2014 for children under 1 year of age was perinatal conditions (certain conditions occurring in the perinatal period, usually low birth weight, preterm birth, and complications of pregnancy, labor and delivery).

Between 2012 and 2014, the TSA reported an annual average of 31.6 child deaths (ages 1 to 4) per 100,000. Among these children ages 1 to 4, accidents and congenital conditions are the number one and two leading causes of death, respectively.

Initiative

Increase education and awareness of prenatal and infant health issues among families and health care providers in Central Florida.

Goals

A. Provide **prenatal education** to moms, families and providers that promotes healthy pregnancies and safe deliveries.

B. Create **infant health programs and outreach** that provide services, education and support to families and providers.

Metrics

1. # of patients seen at Nemours Center for Fetal Care

2. # of families attending the Baby Basics classes

3. # of attendees at the NAS Summit

2017 Progress Metrics

800 patients were seen at Nemours Center for Fetal Care.

Nemours Primary Care has discontinued its Baby Basics classes.

Around 100 attendees participated in the NAS Summit in Brevard County.

Prenatal Education

KidsHealth.org — Pregnancy and Newborn Center

Nemours provides online resources to help families better understand how to stay healthy and safe during pregnancy, prepare for parenthood, childbirth, newborn care and health conditions. All content is reviewed regularly for accuracy and balance by Nemours pediatricians and experts in subject matter. The site is free to use, requires no registration and contains no advertising.

NICU Discharge Education

Nemours focuses on practices that allow children and families to live healthier lives. Our goal is to provide health information and encourage wellness development, including child safety, for all children. Before families are discharged from the NICU, Nemours providers educate them on safe sleep practices, car seat safety, shaken baby syndrome and infant CPR. Nemours providers teach parents proper CPR technique and provide hands-on training with simulation mannequins. For more training, parents are provided an infant CPR kit, which contains video instruction and an inflatable mannequin so the family can practice at home. The infant CPR kits were donated to NCH by the American Heart Association.

Improving Outcomes and Safety for Mothers and Infants

Nemours Center for Fetal Care

Nemours is dedicated to serving children and their families at every stage of life. The Center for Fetal Care at NCH provides expert maternal-fetal and perinatal care to Central Florida mothers-to-be facing high-risk pregnancies or problems with their unborn child. Although Nemours doesn't deliver babies, we co-manage care with obstetricians and coordinate services focused on babies' health, before during and after birth. The Center for Fetal Care is designed with the health of pregnant patients in mind. It provides a dedicated clinic space, prompt scheduling and referrals to pediatric specialists arranged and tracked by the Center for Fetal Care.

Milk Bank of Florida

Breast milk is the preferred feeding for all infants and offers benefits not found in any substitute. It provides "passive immunity" for the baby, protecting the baby from a wide variety of bacterial and viral illnesses. Breastfeeding also can lead to better cognitive development, as well as physical and emotional benefits due to skin-to-skin contact. Because early nutrition is a significant contributor to healthy child development, Nemours Children's Hospital provides a storage location to support milk banks, as well as a neonatal nurse practitioner and International Board Certified Lactation Consultant. To support breastfeeding and infant health, Nemours hosts a weeklong Certified Lactation Counselor training course once a year, providing education, certification and resources to 65 providers and breastfeeding advocates.

Neonatal Resuscitation Program

Nemours Children's Hospital provides classroom instruction in the Neonatal Resuscitation Program (NRP®). NRP is an educational program based on American Academy of Pediatrics and American Heart Association guidelines for cardiopulmonary resuscitation and emergency cardiovascular care for newborns at the time of delivery. NRP introduces concepts and basic skills of neonatal resuscitation. Successful completion of the online written course is required before participants attend the classroom portion of the NRP course. The course is open to all health care providers in the Central Florida community for a nominal fee.

S.T.A.B.L.E. (Sugar, Temperature, Airway, Blood pressure, Lab work, and Emotional support)

Nemours Children's Hospital offers classroom instruction for the modular instructional program known as S.T.A.B.L.E. This neonatal education program for health care providers focuses on the post-resuscitation and pre-transport stabilization care of sick infants. The course is available through NCH and is available to all health care providers and ancillary personnel for a nominal fee.

March of Dimes of Central Florida

The March of Dimes of Central Florida is a longtime partner of Nemours Children's Hospital, supporting the hospital through generous donations and support. Throughout the years, Nemours Associates have become heavily involved in March of Dimes events and fundraisers. The collaborative effort has resulted in significant dollars raised to support research, educational opportunities and support services for parents, caregivers and families. Donations from the March of Dimes also support the education of medical and nursing staff in the latest developments and findings regarding neonatal and perinatal diagnosis, treatments and plans of care for high-risk newborns.

NICU Cuddler Program

Nemours understands the importance of bonding and skin-to-skin contact with any newborn, especially those in the NICU. However, we also understand that not all parents are able to stay at the hospital for extended periods, whether a parent needs to leave for work or other obligations. For this reason, volunteers with the Nemours NICU Cuddler Program are specially trained to provide love and affection to babies and families in the NICU at Nemours Children's Hospital. These volunteers are trained on the proper techniques for holding and rocking in order to soothe and comfort our tiniest patients. Nemours NICU Cuddler program is especially important for babies with neonatal abstinence syndrome (NAS), who may be experiencing elevated stress and discomfort.

Neonatal Abstinence Syndrome (NAS) Summit

Neonatal abstinence syndrome (NAS) is a group of problems that occur in a newborn who was exposed to addictive opiate drugs while in the womb. Babies with NAS are more likely than other babies to be born with low birth weight, and to have breathing and feeding problems and seizures. Nemours Children's Health System, the Department of Health in Brevard County and the Space Coast Health Foundation are working together to improve care for this issue both in the health care setting and at home. The NAS Summit is designed to enable various disciplines and centers to come together for education and networking, and for brainstorming ways to improve care for infants with NAS and their families.

Injury & Safety



Injury & Safety

While the majority of children in the TSA were not seriously injured in the last year, 13.3 percent sustained injuries serious enough to require medical treatment. Of the respondents, more than two-thirds (67.3 percent) reported that their child was seriously injured just once in the past year; 22.9 percent of respondents reported two incidents and 9.8 percent said their child needed medical treatment for an injury three or more times in the past 12 months. When asked what the child was doing when the injury occurred, parents mentioned activities such as organized sports, playing, and falling or tripping. The prevalence of serious injury among children in the TSA is highest among boys, teens, and white and Hispanic children.

The number one leading cause of death among children ages 1 to 19 years is accidents, primarily drowning in children ages 1 to 4 and motor vehicle accidents in children ages 15 to 19. Approximately 91.8 percent of respondents reported that their child “always” wears a seatbelt (or appropriate car seat for younger children), a significant decrease in seatbelt usage from 2013. The lowest usage was reported among children under 4 years of age at just 84.4 percent.

Initiative

Increase awareness of and participation in community safety and injury initiatives and programs.

Goals

- A. Provide **safety/injury education** to patients and families.
- B. Create targeted **safety/injury initiatives** to serve the needs of the community.

Metrics

- 1. # of attendees at our school nurse health conference
- 2. # of players served through USTA Player Development Program

2017 Metrics

- 112 school nurses attended our school nurse health conference.
- 40 players were served through USTA Player Development Program.

Education and Training Initiatives

Hands-Only™ CPR Training Initiative and World Heart Day

Hands-Only™ CPR is cardiopulmonary resuscitation without mouth-to-mouth breaths. It is recommended for use by people who see a teen or adult suddenly collapse in an out-of-hospital setting, such as at home, at work or in a park. In the event of a cardiac emergency, people are more likely to perform Hands-Only CPR and ultimately save a life. Nemours Cardiac Center is working together with the American Heart Association, Central Florida school districts, fire departments and other community organizations to promote and conduct Hands-Only CPR Training throughout Central Florida.

On World Heart Day on September 29, 2017, around 25,000 high school students across Orange and Osceola counties took advantage of free Hands-Only CPR training. World Heart Day was founded in 2000 to inform people around the globe that heart disease and stroke are the world’s leading causes of death, claiming 17.3 million lives each year.

School Nurse Health Conference

In August 2017, Nemours hosted an annual school nurse health conference dedicated to school nurses and other school health professionals from across Central Florida. The program included training for typical pediatric care in a school setting such as management of injuries, allergies, asthma, diabetes, substance abuse, mental health, and response to medical emergencies. The conference included hands-on training through Nemours Children's Hospital's simulation lab, and small group discussions on topics relevant to school health.

YMCA Safety Around Water Program

Nemours Children's Hospital supports the YMCA's Annual Safety Around Water event, a four-day introductory swim program for youths ages 4 through 12. During 2017's event, more than 1,600 children received water safety education and character development lessons in a safe, structured environment. YMCA Swim Academy instructors instill a love of the water while helping kids and parents build safety skills and knowledge. The program is free and open to the public. It is offered at 20 YMCA locations across Central Florida. Nemours collaborated with the YMCA for Florida's Healthy Kids Day on Saturday, April 29, 2017.

Sports Medicine — Prevention and Treatment

United States Tennis Association (USTA) Collaboration for Sports and Injury

In the spring of 2016, Nemours and the Andrews Institute partnered to become the official medical services provider for USTA National Campus. Nemours and Andrews Institute will provide a team physician, program director, sports nutritionist and athletic trainers for the USTA National Campus in Orlando's Lake Nona Medical City. These specialists will offer pediatric-focused injury prevention, rehabilitation and therapy along with athletic performance programs focused on optimizing a young athlete's performance.

The following has been accomplished jointly by the three organizations:

- USTA National Campus has significantly grown in size, scope and credibility within the local and national community.
- The USTA Athletic Medicine Department has been successfully established.
- Most of the clinical team have been recruited, including an athletic trainer program director, four sports medicine athletic trainers and a sports nutritionist.
- Led by the Nemours Orthopedic & Sports Medicine team, a pre-season health and wellness diagnostic program has been established, supporting all Player Development (PD) players/athletes as they enter the competitive season.
- A medical network has been established within Nemours and across the community to provide subspecialty consultative services to PD players/athletes.

Since the inception of the Player Development Program, Nemours has cared for approximately 40 elite players/athletes in the ambulatory setting for preventative, diagnostic, sports medicine and acute care clinical needs. These elite athletes come to the USTA National Campus to train for competitive tennis nationally and internationally.

Additionally, Nemours Health System and the USTA National Campus have partnered to provide child and family education around sports nutrition, care of the growing athlete, and other pediatric health promotion. Together, we have supported multiple summer camps and special events for the children and families of the Orlando community.

Concussion Treatment and Prevention Program

Concussion is a public health concern that affects at least 10 percent of children who participate in youth and school athletics. Nemours' chief of neurosurgery created a comprehensive concussion program that is saturating the Central Florida catchment area. The program includes partnerships with the Central Florida Youth Football & Cheer League and the Amateur Athletic Union (AAU) to provide concussion education to children, parents, coaches and providers across Orange, Osceola, and Seminole counties. Additional outreach and education through various media outlets includes appearances on local NBC, CBS and ABC news affiliates, presentations at the AAU National Conference, speeches to the National Association of Nurse Practitioners, and CME talks for community physicians around concussion prevention and treatment. Our team has also created a Concussion Tool Kit for primary care providers, including information about concussion, how to detect signs and symptoms, and flow sheets with strategies for clinical management, as well as tear sheets for providers to disseminate information to parents (Parent Guide, Academic Accommodations, and Return to Play).

School Partnerships

Nemours Children's Hospital provides sports physicals and a sports medicine physician for football games for Lake Nona High School and is looking to expand this service to additional schools in Central Florida. In addition, Nemours providers support education training for teachers, coaches and school staff for sports-related topics such as common cardiac conditions.

Special Olympics Young Athletes Program

Nemours Children's Hospital sponsors the Young Athletes program for groups in Orange, Osceola, Polk, Lake, Brevard and Seminole counties. The Young Athletes program offers children with special needs an opportunity to learn the basic skills needed for sport activities. Provided at no cost, this program is offered at schools and play groups, or for any group of at least six children with special needs. The goal of the Young Athletes program is to increase awareness and educate the community about the benefits of early physical activity for children with special needs.

Nemours is an avid supporter of this program and of the Special Olympics Organization. In collaboration with these groups, Nemours hosted the Special Olympics Young Athletes program, a free play program for children with disabilities between the ages of 2 and 7. These children, along with their siblings, were invited to participate in developmentally appropriate play activities designed to foster physical, cognitive and social development, as well as to introduce them to the world of sports.

Educational Resources for Young Athletes

At Nemours, our team of experts understands that young athletes are not simply smaller versions of adult athletes. We also understand the importance of preventing sports injuries before they happen. For this reason, Nemours provides free printable resources for coaching staff, parents and athletes on many topics, including:

- concussion prevention and detection
- female athlete triad
- heat-related illness
- knee safety: preventing ACL injuries
- overuse injuries
- preventing dehydration
- preventing sports injuries

Leveraging Technology To Improve Safety

Key technologies employed by Nemours are helping maximize safety and improve the overall experience for patients and families.

Anesthesiology: Nemours Children’s Hospital pediatric anesthesiologists are all board-certified in anesthesiology with specialty certification in pediatric anesthesiology. Our anesthesiologists are engaged in research aimed at reducing short-term and long-term effects while improving postoperative pain relief, minimizing narcotic-based medications and improving safety. We encourage parents to accompany children all the way into the operating room and to stay until the anesthetic takes effect. This family-centered approach helps everyone feel better, because when families are involved, children have less anxiety and we can use less medication. We also provide expert pediatric pain management for children, not only following surgical procedures but also for management of chronic pain.

Medical Imaging: Nemours Children’s Hospital provides 24/7 pediatric imaging coverage with 35 board-certified, fellowship-trained pediatric radiologists with additional subspecialization in pediatric neuroradiology, pediatric nuclear medicine, pediatric musculoskeletal radiology, pediatric cardiac imaging, pediatric ultrasonography, fetal imaging and pediatric vascular imaging. Nemours radiologists are leaders in the field with many publications, presentations and invited lectures, as well as national leadership positions on committees. We also provide 24/7 medical imaging coverage for NICU, with dedicated pediatric ultrasonographers in house, and advanced technologies, such as ultrasound contrast imaging and both ultrasound and MR elastography. We also use the latest dose-reduction techniques providing the highest-quality images at the lowest X-ray dose for our patients.

Several Nemours locations use Nobel Prize–winning EOS imaging because of its benefits to children. The EOS machine takes only seconds to produce higher-quality images from a seated or standing position, meaning a faster and more comfortable experience for children. EOS also enables clinicians treating complex conditions, such as spinal deformities, to get 3-D images. EOS offers patients, parents and clinicians more information and options with a fraction of the radiation exposure of conventional X-rays.

The Clinical Logistics Center (CLC) at Nemours Children’s Hospital is a centralized monitoring facility where data from all monitored patients is consolidated and displayed in real time. The CLC, a patient safety tool unparalleled in health care, is staffed by close to 40 paramedics in four-hour rotations, which helps prevent alarm fatigue. Data shows that constant monitoring helps prevent infections, reduces medication errors, and decreases the chances of unexpected serious medical events.

Sepsis, a potentially life-threatening response to infection, is a leading cause of death in children. Nemours leveraged the CLC to work proactively against sepsis. Information from the electronic health record and the patient’s bedside monitors feeds into an electronic scoring system that alerts clinicians to pre-sepsis conditions. If the risk score increases, a rapid-response team is deployed. The scoring system and process has received awards from the Florida Hospital Association and has been highlighted by the Children’s Hospital Association for its work in preventing pediatric sepsis.

Interventional Radiology: Nemours Children’s Hospital offers the only 24/7 comprehensive, pediatric interventional radiology program for neonatal vascular and nonvascular intervention in Central Florida. Using three fellowship-trained pediatric interventional radiologists with highly specialized equipment and techniques, to offer safer minimally invasive care for the sickest babies in the region. Our interventional radiology program provides techniques and care not available in other locations, which has led to many national presentations and publications as well as regional collaboration with other hospital NICUs for oversight of vascular protocol development. Nemours Children’s Hospital physicians offer vascular anomaly expertise through the first multidisciplinary interventional radiology program in Florida — the only regional multidisciplinary program that has accepted neonatal transfer patients with life-threatening conditions from all corners of the state and from other larger NICUs with exceptional outcomes. We operate an in-house 3-D medical printing program overseen by dedicated 3-D lab techs and in-house pediatric radiologists. Nemours Children’s Hospital uses the best and only FDA-approved software with models used for both family and physician education as well as multidisciplinary treatment planning, such as complex congenital heart disease and pediatric surgical oncology.

Progress reports will be posted annually. We welcome your questions, comments and feedback. Please address your questions to Nemours Children’s Hospital at CommunityNeedsCFL@nemours.org.