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About Nemours Children's Health

Nemours Children's 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, children from across the nation and around the world. We are redefining children's health by working to improve where children's health starts -- at home, in the community and anywhere you find children.

In the Delaware Valley, Nemours Children's provides comprehensive pediatric care at nationally ranked Nemours Children's Hospital, Delaware. We also offer families access to primary and specialty care in Delaware, Pennsylvania and New Jersey. In 2019, we provided more than 500,000 outpatient visits in these locations. As Delaware's only Level 1 Pediatric Trauma Center, we have reduced child deaths from injuries and contributed to statewide injury prevention initiatives.

The mission of Nemours Children's 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 Children's 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 Children's pediatricians via computers or mobile devices.

Nemours Children's 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. Our leaders and associates serve on numerous boards of organizations addressing health and children's issues. A wide range of community organizations receive our support as part of our commitment to support those who support children. We are also focused on bringing our standard of care — and better health—into local communities, and do so not only by providing both primary and specialty care in sites throughout the region, but 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 2019 to address the top concerns identified, as well as the ongoing work conducted in these areas.



Community Health Needs Assessment (CHNA)

Once every three years, Nemours Children's conducts a CHNA in order to comply with requirements in the Affordable Care Act. The CHNA allows us to obtain a comprehensive data set on the health status, behaviors and needs of children in our community, which for the purposes of this assessment includes the three counties in the state of Delaware (New Castle, Kent and Sussex). This data set allows us to develop a focused plan to address community health needs. We began this process in 2012–2013 and continued with a new CHNA in 2016 and most recently in 2019, which identified the needs we will be addressing from 2020–2022.

In 2019, our associates analyzed secondary data sources to assess the health needs of the community while taking into account input from the community and public health professionals. The 2019 CHNA is linked here: https://www.nemours.org/content/dam/nemours/wwwv2/filebox/about/DV-2019-CHNAassessment-report.pdf

To assist in prioritizing the data, our associates engaged key Nemours Childrens' stakeholders, key external organization stakeholders, community members and patient families reflective of medically underserved, low-income and minority populations in the community, or individuals or organizations serving or representing the interests of such populations.

We then asked members of our community to prioritize the identified health needs. Participants were asked to select the three greatest needs of their community related to health care access, behavior, outcomes and social determinants of health. Participants were also able to add any additional needs that were not on the list to be included in their prioritization.

Participants were asked to consider the following criteria when selecting the greatest needs:

- Magnitude: How many children or families are impacted?
- Equity/disparities: Is the data much worse for one group (race/ethnicity/geography) over another?
- Seriousness: Does the issue lead to death, disability or poor quality of life?
- Impact: Does this issue cause other problems or make other problems worse?
- Feasibility: How likely is it that we can change the situation related to this issue?
- · Consequences of inaction: Will the problem get a lot worse if we don't address it?

Participants were also asked to consider the following questions

- Is the issue important enough to the community that they would likely work to address it?
- Is the issue important enough to a broad range of community members
- Will this issue help move you toward your goals for healthy and thriving community?

Feedback from all participating organizations/coalitions was aggregated to compile the prioritization list for Delaware. We chose to have community members rank health behaviors, access and outcomes separately from social determinants of health (SDoH), as SDoH are the root causes of unhealthy behaviors, poor health care access and poor health outcomes. The goal in having the two different categories of need was to focus on a more comprehensive model — treating symptoms and diseases as well as upstream strategies.

Ranking	Health Care Access, Behaviors, Outcomes	Totals (n=481)	Social Determinants of Health	Totals (n=481)
1	Access to mental health care	208	Housing	226
2	Substance use/misuse	191	Youth activities and opportunities	180
3	Weight/healthy eating/physical activity	189	Transportation	174
4	Mental health/trauma	181	Community safety/violence	163
5	Access to primary health care	140	Healthy food	154
6	Access to dentists	136	Economic development/jobs	151
7	Asthma/other respiratory conditions	64	Education	122
8	Sexual/reproductive health	46	Environment/air quality	105
9	Unintentional/accidental injury	45	-	-
10	Infant death or premature birth	41	-	-

Senior leaders at now Nemours Children's Hospital, Delaware examined this information in conjunction with primary and secondary data to identify the top two focus areas to be incorporated into the 2020–2022 implementation plan. Leadership considered the magnitude and severity of issues, the impact of these issues on the most vulnerable populations, resources available, areas of opportunity for partnership and collaboration, and the feasibility of addressing these issues from 2020–2022.

The final top two areas chosen were:

- 1. Mental health
- 2. Social determinants of health

Given the high ranking of mental health (including access) among community members and supporting data, this area was again chosen as a top priority. While many of the SDoH focus areas were discussed, leadership decided to focus on operationalizing an SDoH screener to dig deeper and better understand these root concerns.

As explained below, Nemours Children's convened two work groups to develop this CHNA Implementation Plan to address these top priority areas. The remaining issue areas (those not chosen to be addressed here) continue to be important to us, and we will work to improve these aspects of children's health through our patient care, research and population health management efforts. Our commitment — in communities we have physical presence and beyond — is to be an important leader in designing the future of caring for children. To create and sustain a future of systematic value, We are digging even deeper into work to improve health outcomes, advance quality of care, increase accessibility of care, address social determinants of health, enhance quality of life, and reduce health care costs.

Conceptualized in 2017 and finalized in 2018, infrastructure has been solidified to support this move toward value-based care. The Value-Based Services Organization (VBSO) combines both new and existing competencies for the medical home, analytics, medical management, population health and clinically integrated networks. The VBSO is built on successful practices. This includes mastery of the medical home throughout our primary care network; the extensive data capabilities of our fully integrated electronic health record system; and more than a decade of promising practices in population health. These efforts are combined in a collaborative spirit with pediatric and adult providers, community health workers, school districts and other partners. The state of Delaware is a unique environment with increasing readiness to move more progressively toward value-based care. With 200,000 children, half of whom are covered by Medicare, Delaware is similar to U.S. states.



Mental Health

Emotional and behavioral health are critical components of a child's development. Addressing these concerns as early as possible results in better adjustment and long-term outcomes. The 2019 CHNA revealed that Delaware children ages 3–17 are more likely to receive mental/behavioral health treatment when they need it than children nationwide. However, Delaware and the United States do not meet the Healthy People 2020 goal of 24.2 percent. In fact, the national average is more than two times higher (51.4 percent) than HP2020's target. Additionally, nearly one in 10 percent high school students in Delaware reported experiencing physical dating violence in the past 12 months. This is compared to 8 percent nationwide. Trauma across the life span, including violence, can have negative effects on physical and mental health, including depression, eating disorders and suicidal thoughts.1 Therefore, it is not surprising that community members ranked mental health as one of the top priorities for us to address in the implementation plan.

The Nemours Children's CHNA mental health work group, composed of experts in the field, focused on how to address the increased needs of children in the community in the most meaningful way. The following five points surfaced during meetings and subsequent research and shaped our CHNA interventions in this area:

- Both the CHNA and national surveys identify a gap between the number of children in need of mental/ behavioral health care and the number who actually receive treatment.
- It is evident that not only are behavioral health care services lacking, but also culturally and linguistically appropriate services.
- Transportation for patients who require immediate transport to an acute psychiatric facility is lacking.
- Caregivers are often not aware of and lack knowledge about post-traumatic stress disorder (PTSD) and childhood trauma.
- CHNA participants and survey data show that mental health resources are lacking in our downstate community, particularly Sussex County.

These five points reflect a systemic problem not unique to our community. The nationwide shortage of mental health professionals is well-documented, and pediatric specialists are in especially short supply. To reverse this trend will require a long-term solution, and the rising numbers of children who need care cannot wait. To address the needs of children in our community rapidly and effectively, we must increase access to these services and educate caregivers on childhood trauma.

^{1 &}quot;Dating Violence and Adolescents," U.S. Department of Health and Human Services, accessed August 30, 2019, https://www.hhs.gov/ash/oah/adolescent-development/healthy-relationships/dating-violence/index.html

I. Access To Appropriate And Effective Behavioral Health Care

Initiative

• Enhance workforce development by increasing provider knowledge of evidence-based diagnosis and treatment, including medication protocols.

Goals

 Increase patient and family awareness of telehealth services as an option for behavioral health by developing and implementing at least two new avenues to disseminate the information by the end of Y3 (December 31, 2022).

Metrics

- # of behavioral health encounters that use telehealth by county (to be used for informational purposes only no target)
 - In 2020, there were 24,365 behavioral health encounters via telehealth. County data became available in Q4 and includes the following: 5,787 behavioral health encounters in New Castle County, 1,214 in Kent County, 1,163 in Sussex County, for a total of 8,164 behavioral health encounters in Q4 2020.
- · # of new avenues for information dissemination of telehealth options for behavioral health care
 - Given the increase in the delivery of telehealth visits due to the COVID-19 pandemic, this metric has become irrelevant and will be removed going forward.

Initiative

• Increase access to appropriate and effective behavioral health care by providing culturally and linguistically appropriate services (CLAS) to all patients and families.

Goals

- Increase the occurrence of behavioral health visits that offer a live interpreter to families who report English as a second language by the end of Y3 (December 31, 2022)
- Increase the occurrence of behavioral health visits that offer a bilingual provider to Spanish-speaking families by the end of Y3 (December 31, 2022).

Initiative

• Standardize the transport tracking system to effectively identify disparities in cases that require timely transport to an acute psychiatric facility.

Goals

- Develop a reliable method for standardized transport tracking to critical behavioral health care by the end of Y1 (December 31, 2020).
- Roll out the reliable method by the end of Y2, Q1 (March 31, 2021).
- Collect one year of transport tracking data from Y2, Q2 through Y3, Q2. (April 1, 2021-March 31, 2022).
- Develop and finalize recommendations for improvement of the transport system for patients who require timely transport to acute psychiatric care by the end of Y3 (December 31, 2022).

Metrics

- Final approval of reliable method for standardized transport tracking
 - In 2020, we received final approval of the reliable method for standardizing transport tracking. The
 ambulatory tracking tool was implemented in Q4, and the emergency department tracking tool will
 go live in Q1 2021. Five ambulatory transports were documented in Q4 2020.
- # of quarterly transport tracking reports (n=4)
 - In Q4 2020, the first quarterly tracking report was generated.
- Final draft of recommendation report for the improvement of the transport system for patients who require timely transport to acute psychiatric care
 - This metric will be reported on in Y3.

II. Knowledge And Awareness Of Childhood Trauma

Initiative

Increase knowledge and awareness of post-traumatic stress disorder (PTSD) to improve outcomes in
patients with PTSD symptomatology through the development and implementation of a psychoeducation
program for caregivers.

Goals

- Finalize a psychoeducation program for caregivers by the end of Q3 Y2 (September 30, 2021). This goal was extended from the end of Y1 (December 31, 2020).
- Increase caregiver enrollment in psychoeducation groups by the end of Y3 (December 31, 2022).
- Increase assessment scores of program cohorts from pre to post.

Metrics

- · Final approval from behavioral health leadership of psychoeducation program plan and documentation
 - This metric will be reported on in Y2.
- # of participating caregivers pre/post in each cohort
 - This metric will be reported on in Y3.
- # of psychoeducation program cohorts who had a statistically significant increase in pre/post assessment scores
 - This metric will be reported on in Y2.

Initiative

Increase caregiver access to and consumption of education related to childhood trauma through the
development and dissemination of an educational video on evidence-based practices (EBPs) on the KidsCope
webpage on Nemours.org.

Goals

- Produce and publish at least one educational video that includes content on EBPs for caregivers of children who
 experience/experienced trauma on the KidsCope webpage on Nemours.org by the end of Y2, Q2 (June 30, 2021).
- Increase caregiver access to education related to childhood trauma from Y2 to Y3.
- Increase caregiver consumption of educational information related to childhood trauma from Y2 to Y3.

Metrics

- Final published video on KidsCope webpage
 - Scripts for the KidsCope webpage video have been developed and reviewed, and feedback has been submitted for the development of videos.
- # of hits to the KidsCope webpage that houses the education video(s) on childhood trauma via Nemours.org
 - This metric will be reported on in Y2 and Y3.
- # of views of the educational video(s) on childhood trauma accessed via the KidsCope webpage on Nemours.org
 - This metric will be reported on in Y2 and Y3.

Additional Investments In Mental Health And Trauma-Informed Care

As part of our commitment to children with behavioral health needs in the region, we offer or plan to offer:

- An embedded **social work** team at the Nemours Children's Hospital, Delaware to provide professional support, intervention and referral for patients and families in a variety of situations, including children who are newly diagnosed with a serious health condition (autism, cancer, CF, CP, sickle cell, transplant, etc.) or living with these conditions on a chronic basis; children with an acute mental health crisis (suicidal, aggressive behavior, substance abuse, overdose); children suffering from trauma/critical injury; and children and families facing death.
- The Department of Child Life **creative arts therapy and school programs** to help patients and their families cope with medical experiences. Our team of certified Child Life specialists promotes the use of play, preparation, education and self-expression activities as a way to normalize the hospital experience.
- Adolescent (ages 12+) depression screening at all well-visits. Patients with a positive screen who are
 referred to psychology services are placed on a registry and receive follow-up from a care coordinator to
 ensure access to services.
- Behavioral health services in primary care settings in Pennsylvania and Delaware. This model, in which a psychologist is embedded in the primary care clinic, is termed "integrated care".
- Psychologists with a specialty in trauma on the Behavioral Health team. To date, four trauma-focused psychologists have joined since 2018.
- Expansion of behavioral health services in Delaware, focusing on evidence-based care for children and adolescents with trauma, depression, anxiety and ADHD, as well as other issues.
- The **Swank Autism Center**, a dedicated space for behavioral and developmental health services. Designed in partnership with families, the center houses clinical specialists and features special therapy areas for eating and toileting, a family resources room, a variety of sensory-friendly waiting areas, observation galleries, a conference room for community collaboration, and an education suite for residents and fellows training in these specialties.
- Integrated trauma approaches into forensic work with victims of child abuse and violence seen in the Emergency Department.
- Under the Healthy Tomorrows grant, the Nemours Children's **Value-Based Services Organization** will educate 20 primary care practices (Nemours Childen's and community-based providers) across the Delaware Valley to become trauma-informed medical homes, address mental health in adult caregivers, and establish connections with community-based resource providers. The training for primary care sites has been developed/piloted and implementation is slated for later this year.
- The development and pilot of an **employee-based trauma-informed de-escalation principles training** across Nemours Children's Health, Delaware Valley. Plans are underway to expand implementation of the staff training more broadly in 2020.
- Expansion of the Healthy Steps program to southern Delaware. This evidence-based program is a team-based pediatric primary care model that promotes health, well-being and school readiness of babies and toddlers ages 0–3, with an emphasis on families living in low-income communities. Our goal is to increase awareness of and access to critical early intervention and/or mental health services to improve youth development and resiliency. We currently offer the Healthy Steps program at the Jessup St. practice in New Castle County. Expansion efforts will increase access to patients/families seen at the Seaford practice in Sussex County.



Social Determinants of Health

The 2011 National Healthcare Quality Report, released by the Agency for Healthcare Research and Quality Healthy People 2020 defines social determinants of health (SDoH) as "conditions in the environments in which people are born, live, learn, work, play, worship, and age that affect a wide range of health, functioning, and quality-of-life outcomes and risks" (https://www.healthypeople.gov/2020/topics-objectives/topic/social-determinants-of-health).

Understanding the relationship between how populations experience conditions (e.g., social, economic and physical) in differing environments and settings (e.g., school, church, workplace and neighborhood) and the impact those conditions have on health is fundamental to the SDoH framework — including both social and physical determinants. Healthy People 2020 developed five key areas of SDoH as a guiding framework (Figure 1). Each of these five areas represents a number of factors that impact a range of health risks and outcomes including, but not limited to:

- Socioeconomic conditions
- Food insecurity
- Transportation
- Air quality and exposure to toxins
- Housing and community design
- Quality of education and job training
- Access to educational, economic and occupational opportunities
- Availability of community-based resources
- Social support and relationships
- Access to mass media and emerging technologies
- Language/literacy
- Exposure to crime, violence and social disorder
- Public safety and stability
- Access to services

VBSO team members, along with collaborators from the Office of Health Equity and Inclusion and operations areas across the enterprise, are focused on developing and operationalizing a standardized SDoH screening tool that could be used to gather information on nonmedical patient needs across our enterprise and ultimately inform potential interventions that address them. The goal of the tool is to assess areas known to be critical to patient success and healthy living but often overlooked in the health care visit. The pilot project consisted of identifying those currently engaged in addressing patients' social needs; identifying the domains of interest for a screening tool; selecting the questions; administering 400 screenings (in English or Spanish) to patients in a variety of settings (emergency, specialty clinic, primary care and PICU); and conducting analysis on the results.

III. Social Determinants Of Health Screening

Initiative

• Develop, operationalize and implement a systemwide social determinants of health (SDoH) screener to inform strategy and intervention.

Goals

- Complete the pilot of the SDoH assessment tool in a minimum of five new pilot sites (combination of primary and specialty care) throughout the enterprise by the end of Y1 (December 31, 2020).
- Use information gathered from the pilot sites to finalize a timeline, standardized workflow and optimal staffing levels by the end of Y2, Q2 (June 30, 2021).
- Finalize plan that defines scale for the implementation of the SDoH screener enterprise-wide by the end of Y2, Q4 (December 31, 2021).
- Analyze the data and identify at least three potential interventions to address findings by the end of Y3 (December 31, 2022).

Metrics

- # of sites that have completed the SDoH screening pilot (count to include primary care and specialty care in one sum)
 - In 2020, twelve sites completed the SDOH screening pilot.
- Final approval from VBSO leadership of documentation detailing a timeline, standardized workflow and optimal staffing levels
 - In 2020, final approval from Delaware Valley primary care leadership (VBSO) of documentation detailing a timeline, standardized workflow and optimal staffing was received. In Q4, staff developed a comprehensive training on the SDoH screening process and standardized workflows and delivered it to 20 pediatric primary care sites throughout Nemours Children's Health, Delaware Valley. Supplemental materials to support the effort were finalized and included updates to the edited screening tool. The tool was translated into six different languages, and additional system enhancements were made to improve efficiency. A focus was placed on the Care Coordination role, as this role has been identified to address patient/family social determinant needs.
- Final approval from VBSO leadership of proposed plan for scaling the SDoH screener across the entire enterprise
 - In 2020, the SDoH screener was deployed to all Delaware Valley primary care sites. The next phase of deployment is under development, and several ambulatory departments have expressed interest in participating in the process. The goal is to begin working with those locations to identify workflows and escalation tiers into Q2 2021 and to begin implementation prior to the end of 2021 pending VBSO leadership approval.
- # of potential interventions to address findings
 - As data becomes available in 2021, it will be used to identify top needs and assist leadership in
 making informed decisions about appropriate interventions. We will continue to solidify partnerships
 with external community service agencies in an effort to enhance staff knowledge of local resources
 and define streamlined pathways to services.

Other Social Determinants Of Health Initiatives

As part of our commitment to the health and well-being of children and the social determinants that impact their quality of life beyond the doors of our health system, we offer:

• The Nemours Children's Medical Neighborhood initiative, designed to develop consistently documented profiles of each practice, its structure, and patient and neighborhood population demographics — ultimately integrating both assets and needs. Members of the VBSO, primary care practices and data analytics teams designed and completed data collection for all 12 primary care practices in Delaware. These and other data sources will help inform decision-making to help us hyper-localize efforts to improve total health.

As part of promoting optimal health and well-being for all children nationally, **Nemours Children's National Office of Policy and Prevention** acts as a catalyst for accelerating pediatric population health improvement and health system transformation. As such, the National Office offers or plans to offer:

- Advocacy for federal policy change. Together with stakeholders across our enterprise and the country, we identify, promote and grow innovative solutions to advance pediatric clinical care, research and community-based prevention interventions. Examples include:
 - Working with Congress and the administration on policy and legislation related to social determinants of health, research and telehealth — with a focus on improving access to care, advancing medical innovation, and addressing the health and social needs of children and families.
 - Leveraging the National Office's Medicaid expertise to support state Medicaid agencies in developing and implementing strategies for investing in prevention (addressing social determinants of health) to improve population health outcomes for children.
- Increase the spread, scale and sustainability of effective evidence-based or science-informed population health strategies to impact larger numbers of children nationally. Examples include:
 - Better Together; Healthy Kids, Healthy Future technical assistance project; and Physical Activity Learning Session initiatives. We provide technical assistance to states and stakeholders within state systems for early care and education (e.g., child care centers, state training and technical assistance systems) to support developing and implementing program, policy and system changes to improve healthy eating and physical activity among infants and children.
 - Collaboration with VBSO and other departments to spread and scale use of Navigating the Health Care System, a Nemours Children's-developed adolescent health literacy curriculum available at no cost to teachers, parents and other presenters nationwide.
- Assistance to our enterprise with the anticipation, interpretation and adaptation of changes in health care
 delivery, payment and pursuit of the Triple Aim (lower costs, improved health and better care). Strategies
 related to social needs, social determinants of health, population health, value-based care and payment
 reform are major components of work in this area. Specific examples include:
 - Facilitation of learning communities, inclusive of Nemours Children's, that support health systems in identifying, learning and testing new strategies related to changes in health care delivery, such as the Nemours Children's 2020 Integrator Learning Lab.
 - Convening pediatric experts, providers, payers and policymakers to identify pediatric value-based payment (VBP) and integrated care delivery models that address social determinants of health in order to develop policy recommendations to further promote transformative value-based payment and integrated care models for children.

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