

Table of Contents

About Nemours Children's Health		
Community Health Needs Assessment	4	
Mental Health	7	
Social Determinants of Health	16	



About Nemours Children's Health

Nemours Children's is one of the nation's largest multistate pediatric health systems, which includes two free-standing children's hospitals and a network of nearly 75 primary and specialty care practices. Nemours Children's seeks to transform the health of children by adopting a holistic health model that utilizes innovative, safe and high quality care, while also caring for the health of the whole child beyond medicine. We also power the world's most-visited website for information on the health of children and teens, KidsHealth.org — from Nemours KidsHealth.

In the Delaware Valley, we provide 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 2021, we provided more than 500,000 outpatient visits at 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.

Our mission is to provide leadership, institutions and services to restore and improve the health of children through education 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 our pediatricians via computers and 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 — to local communities. We do this not only by providing both primary and specialty care at various locations 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 progress report details the strategies we employed to address the top concerns identified in 2019, as well as the ongoing work conducted in these areas.



Community Health Needs Assessment

Once every three years, Nemours Children's conducts a CHNA in compliance 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*.

To assist in prioritizing the data, our associates engaged key Nemours Children's 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 (SDOH). 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 a 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 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 Nemours Children's, 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 using 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 where we have a 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 SDOH, 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. other 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%. In fact, the national average is more than two times higher (51.4%) than HP2020's target. Additionally, nearly one in 10 high school students in Delaware reported experiencing physical dating violence in the past 12 months. This is compared to 8% 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)
 - 2021: There were 3,515 behavioral health encounters via telehealth. County data includes the following: 2,182 behavioral health encounters in New Castle County, 593 in Kent County, 740 in Sussex County. There are a total of 48,036 behavioral health encounters via telehealth in Y1 and Y2.
 - 2022: There were 3,393 behavioral health encounters via telehealth, increasing the total to 65,419 encounters at the end of Y3. County data includes the following total encounters: 29,888 behavioral health encounters in New Castle County, 7,692 in Kent County, and 8,163 in Sussex County.
- # 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.

Summary

As the COVID-19 pandemic spread, health systems became more reliant on telehealth services than ever before. Due to this unforeseen and rapid expansion into the telehealth domain, these services became a permanent component of effective care delivery in the months and years that followed. The number of telehealth visits continued to rise even in Y3 Q4, after clinic visits had been established and deemed standard for a substantial amount of time. The popularity of telehealth inadvertently increased familial awareness, and therefore, efforts to increase awareness of these platforms became obsolete. While a significant increase in telehealth visits can be observed in 2020, the decrease in the years following represents a return to shared in-person/telehealth services post-pandemic. When looking at pre-pandemic numbers, telehealth usage in 2021, and 2022 are still exponentially higher than baseline and are on target with the goals of these efforts.

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).

- # of patient encounters with Spanish-speaking families
 - 2021: There were 1,837 new encounters with Spanish-speaking families (3,355 total encounters in Y1 and Y2).
 - 2022: The total count of encounters with Spanish-speaking families was 5,140. This is an increase of 1,785 since Y2.
- # of patient encounters that use a live interpreter
 - 2021: O new encounters used a live interpreter (42 total live interpreter encounters in Y1 and Y2)
 - 2021: 5 encounters used a live interpreter (1 encounter in Q3 and 4 in Q4), bringing the total count of live interpreter encounters to 47.
- # of patient encounters that use an iPad interpreter
 - 2021: 1,752 encounters used an iPad interpreter (2,065 total iPad interpreter encounters in Y1 and Y2).
 - 2022: 850 encounters used an iPad interpreter, increasing the total encounters to 2,915 by the end of Y3.
- # of patient encounters that use a bilingual provider
 - 2021: 849 encounters used a bilingual provider. Of note, Q4 of Y2 is the first quarter to demonstrate more visits with a bilingual provider than iPad interpreter (with 306 total and 219 total, respectively).
 Total bilingual provider use in Y1 and Y2 is 1,644.
 - 2022: 1,046 encounters used a bilingual provider increasing the total to 2,690 encounters at the end of Y3. This number also reflects more encounters with a bilingual provider than those with an iPad in Y3.
- # of patients who report English as a second language
 - 2020: Tthere were 1,736 patients who reported English as a second language. This was derived from the number of visits requiring an interpreter.
 - 2022: There were 1,901 patients who reported English as a second language, increasing the total to 5,652 patients who report English as a second language.

Increasing access to culturally and linguistically appropriate services provides needed resources and care to broader, and often, underserved populations. During the implementation period, we saw an increase in total encounters with Spanish-speaking families overall. However, encounters with in-person interpreters dropped drastically from 2021 to 2022 with 42 interactions by the end of Y2 Q4 and 5 interactions by the end of Y3 Q4. This decrease is attributed to challenges related to COVID-19, low workforce retention, and burnout. We are continuously monitoring these shifts and working to hire a strong workforce with opportunities for professional advancement to address other gaps, such as training for bilingual providers to increase the number of live encounters we see in the future.

We've also seen a large increase in the number of patients who report English as a second language. However, this number is based on the number of patients treated that need an interpreter, which is the only way practitioners were able to capture this information at this time. Additionally, interpretation with an iPad and providing care with a bilingual provider has risen. Care given with a bilingual provider has even surpassed the number of encounters seen with an iPad interpretation system. These increases prove promising in our efforts to increase access to behavioral health care, especially for underserved populations.

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).

- 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 room tracking tool will go live
 in Q1 2021. Five ambulatory transports were documented in Q4 2020. This goal has been met.
- # of quarterly transport tracking reports (n=4)
 - 2020: The first quarterly tracking report was generated.
 - 2021: Quarterly tracking reports were produced in all 4 quarters, meeting the target total of 4. Those reports detailed 96 inpatient transports, and 7 outpatient transports for the year.
 - 2022: 294 transports documented from inpatient and 3 from outpatient for the year based on all four quarterly reports collected. This goal has been met.

- Final draft of recommendation report for the improvement of the transport system for patients who require timely transport to acute psychiatric care
 - 2021/2022: The transportation needs of the patients increased from 20 patients needing transport in Y2 to 70 in Y3 according to the available data. Implementing a Best Practice Alert allowed us to capture needs-based, actionable information for the first time. Recommendations have been made to include a commitment to a dedicated transport system specific to acute psychiatric care needs, as well as better resourced ED and treatment rooms that ensure they are better equipped to deliver high-quality, timely care to a patient in crisis without contributing to increased waiting times when volumes are high.

In order to understand needs around acute psychiatric transports, CHNA efforts centered around creating a way to track relevant data in a reliable and consistent way. In 2020, final approval was met for tracking systems and by Q4, the ambulatory tracking tool was implemented with the ED tracking tool on its way to standardization. In 2020, we saw five ambulatory transports documented which met and completed our first goal. In 2021, tracking reports were standardized and collected in all four quarters, which documented numbers from both inpatient and outpatient transports. However, we faced technological problems, which caused incomplete data capture. Because of this barrier, we do not have all the information we need to track transports and are therefore missing data for some of the transports. Despite these challenges, we were able to determine and identify specific changes that need to be made to meet the needs of our patients, both in provider rooms, as well as the emergency department waiting facilities. Patient needs are growing faster than our current capacity supports, therefore, updating our crisis transport system is recommended, in addition to an investment in: 1) our own transportation system, or 2) a partnership with an outside transportation vendor to address these gaps in care.

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). We continue to monitor adjustments to progress as we navigate the COVID-19 landscape.
- Increase caregiver enrollment in psychoeducation groups by the end of Y3 (December 31, 2022).
- Increase assessment scores of program cohorts from pre to post.

- Final approval from behavioral health leadership of psychoeducation program plan and documentation
 - 2021: There continue to be challenges with this goal due to the nature of the roll out and COVID-19 delaying the process. Despite barriers, there has been significant process in 2021. In Q1, a focus group was identified, including professionals from a wide range of specialties that serve youth and families who have experienced trauma. In Q2, a final draft of the psychoeducation program was shared with the focus group. By Q4, 75% of the curriculum was finalized and a meeting with the focus group has been scheduled to review remaining content. Anticipated to be complete by Q1 Y3.
 - 2022: Content was reviewed with other trauma education stakeholders and psychoeducation group content was created. A psychoeducational video was published and delivered in April 2023 to train caregivers in place of a live training session.

- # of participating caregivers pre/post in each cohort
 - 2022: Video has been recorded and delivered to increase psychoeducation in caregivers, however a live training session with various cohorts was not possible due unforeseen circumstances related to the COVID-19 pandemic and staff turnover. Therefore, the number of participating caregivers cannot be measured.
- # of psychoeducation program cohorts who had a statistically significant increase in pre/post assessment scores
 - 2022: A live session to educate caregiver cohorts was no longer plausible due to aforementioned barriers. To address these challenges in a way that preserved the intent of this goal, an instructorled psychoeducation module was prerecorded and the video was published in April 2023. Due to changing modalities of delivery, measurement/scoring of pre- and post-assessment knowledge was no longer possible.

Psychoeducation is an evidence-based method that has shown success in equipping caregivers with knowledge around the significance of a PTSD diagnosis, as well as warning signs prior to diagnosis. Our initial goal was to develop an in-person instructor-led training module. Parents and caregivers were going to be placed into various cohorts with pre- and post-assessment of knowledge and awareness in areas related to signs and symptoms of trauma and PTSD. Due to the unforeseen limitations of the COVID-19 pandemic, as well as the aftermath of staff and faculty turnover, our vision evolved. Our trauma certified child psychologist completed months of research and development on training content. This content went through several rounds of peer review before being finalized. Shortly thereafter, staff changes made it impossible to preserve the modality as planned, however, we were able to adapt the training tool into an online learning module featuring a prerecorded instructor session. Therefore, live training cohorts and group sessions were not held making it hard to measure metrics that included caregiver enrollment and pre- and post-assessment scores. Despite this, we have taken this opportunity to utilize the benefits that come with the flexibility of a mobile online learning format. Providers can be creative and prescriptive with their sharing of this tool and reach has greatly expanded outside of small cohorts and into the hands of parents and families no matter where they are centrally located.

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
 - 2020: Scripts for the KidsCope webpage video have been developed and reviewed, and feedback has been submitted for the development of videos.
 - 2021: The video was completed in Q2, and posted on the KidsCope webpage in Q4. A QR code was generated for promotional/educational material and included in the smartphrase for new trauma consult referrals. This goal has been met.
- # of hits to the KidsCope webpage that houses the education video(s) on childhood trauma via Nemours.org
 - 2022: 1,413 hits were reported on the website in Y3.
- # of views of the educational video(s) on childhood trauma accessed via the KidsCope webpage on Nemours.org
 - 2022: 30 hits were reported on the video content in Y3. Tracking needed to correctly capture # of views was removed in 2022 after routine website changes but is being added back in after it was raised as a need for programs like this. With the data captured, we could see visits to the website increased, however views on videos decreased..

Summary

Another gap in mental health services related to the empowerment of families to support their child who has experienced trauma. We aimed to expand access to and consumption of evidence-based practices and tools for parents/guardians to utilize in their everyday lives to bolster wrap-around support where children live, learn and play. Development was a joint effort by behavioral health experts, medical editors, and the consumer-digital health team at Nemours Children's. Publishing the video on the Nemours Children's KidsCope webpage was our first step, which was completed in Year 2. After monitoring views for one quarter, it was decided to publish the video in a second location, the behavioral health's home page. This expanded views significantly. However, the website underwent changes in Y3, Q2 that impacted the way data is monitored on the backend, which impacted our tracking efforts. Specifically, we can see webpage hits, but are no longer able to track specific video views. Website hits did increase in 2022, however future monitoring will be needed to determine additional forums to convey educational information as well as a communication plan to increase awareness of these resources.

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 Nemours Children's, 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 offers **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 room.
- Under the Healthy Tomorrows grant, the Nemours Children's **VBSO** is educating 20 primary care practices (Nemours Children's and community-based providers) across the Delaware Valley to become traumainformed medical homes, addressing mental health in adult caregivers, and establishing connections with community-based resource providers. Training was developed and deployed to select Primary Care sites in 2022. In 2023, course content is being reviewed and adapted for online use through Nemours University as part of a system-wide Violence Program that is currently in development.
- 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.
- 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 from newborns to age 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 our Jessup Street location in New Castle County. Expansion efforts will increase access to patients/families seen at our Seaford location in Sussex County.



Social Determinants of Health

Since 1980, the U.S. Department of Health and Human Services (HHS) has released at the beginning of each decade a new set of science-based, national health objectives with 10-year targets to achieve by the end of the decade. Healthy People 2020 defines 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 Nemours Children's are focused on developing and implementing a standardized SDOH screening tool to gather information on nonmedical patient needs across our system 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 and implement a systemwide (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 system 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 systemwide 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).

- # of sites that have completed the SDoH screening pilot (count to include primary care and specialty care in one sum)
 - 2020: 12 sites completed the SDOH screening pilot. This goal has been met.
- Final approval from VBSO leadership of documentation detailing a timeline, standardized workflow and optimal staffing levels
 - 2020: Final approval from Delaware Valley primary care leadership (VBSO) of documentationdetailing a timeline, standardized workflow and optimal staffing was received. This goal has beenmet.
- Final approval from VBSO leadership of proposed plan for scaling the SDOH screener across the entire system
 - 2020: The SDOH screener was deployed to all 20 of its Delaware Valley primary care sites
 - 2021: The SDOH implementation team moved forward toward implementation in other areas of Nemours Children's. In Q1, informational sessions were held with leadership from Florida primary care plus ambulatory and inpatient units in both Delaware and Florida. Staff determined that the next phase of implementation would be in Florida primary care sites. In Q2, steps to begin implementation in Delaware inpatient units were underway. Key stakeholders were engaged to identify the appropriate workflows and build requirements necessary to move forward. In Q3, planning began on workflow development and protocols necessary to begin implementation in an inpatient setting, with the goal to use the information to guide the electronic medical records build required to support the project
 - 2022: Nemours Children's officially expanded screening efforts into Florida adding two new primary care sites. In Q1, Nemours Children's engaged an inpatient team in Florida to finalize workflows and inform the epic build. Implementation was being supported by primary care in Florida building its infrastructure to prepare for next steps. In Q2, Nemours Children's continued expanding efforts to start inpatient screening in the general pediatric department. In Q3, engagement of leadership teams in Florida primary care identified a path to begin implementation and two sites were selected for testing workflow utilizing interns as support for next level intervention. Currently, the sites mentioned are testing the workflow and informing the final build for expanded implementation in spring 2023. This shows promising effect across the system as expansion to Florida is a big step in scaling the SDOH screener across Nemours Children's as a whole. This goal has been met.

- # of potential interventions to address findings
 - 2023: At the close of Y3 Q4, over 100,000 screens have been completed with over 14 different efforts identified based on recommendations to mitigate needs. Interventions included Cares Closets implementation and expansion, Project HEAL support program, violence prevention programs like gun lock education/distribution programs, accessible high-speed internet/cable grants, and Stand by Me financial literacy programs. This goal has been met.

In 2020, 12 sites, including both specialty and primary care, completed the testing of the screening pilot. In Q4, the team developed a training process and rolled out the SDOH screening tool to 20 different primary care sites in the Delaware valley. After tweaking the tool and optimizing its ability to be used by care providers, we updated it and added supplemental materials to enhance its efforts. We also translated the tool into six different languages and placed a focus on the role of care coordination because of their ability to identify and address patient and family's social needs.

By the end of Year 1, all Delaware valley primary care sites had implemented the screening tool. New ambulatory sites also expressed interest and approval was granted via VBSO to roll out screeners in these departments. In Q1 2021 after a successful launch in Delaware valley, focus shifted to Florida's primary care sites. Leadership conferences were held, and staff agreed the next steps were going to be launching in Florida primary care units. Inpatient care centers in the Delaware Valley were taking steps towards implementation in Q2 2021 and stakeholders were identified to weigh in on workflow and timelines. In 2022, the team identified two additional sites in Florida to implement the screening tool. Currently these sites are testing workflow and cross testing with patient needs to show a promising increase in SDOH screeners systemwide by spring 2023. To date, over 100,000 patients and families have been screened. This invaluable and robust information collected is not only being used for the first time to inform current and future CHNA implementation planning, but it is key in the identification and prioritization of systemwide strategic development and restructure.

By the conclusion of the implementation period, over 14 different strategies/programs have been identified to address needs identified in the SDOH screening results. From housing and food insecurity to violence prevention and financial literacy, efforts only continue to grow as we mobilize for action.

Other SDOH 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 our doors, 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 our decision making to help us fine tune local efforts to improve whole 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 system 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 SDOH, 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 SDOH) 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, SDOH, 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 SDOH 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.**