



Nemours/Alfred I. duPont Hospital for Children
2016 Progress Report

Nemours[®] Alfred I. duPont
Hospital for Children

Your child. Our promise.

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Introduction

In 2013, Nemours conducted Community Health Needs Assessments for communities we serve in the Delaware Valley (Delaware and Pennsylvania) and Florida. The assessment for the Delaware Valley included New Castle, Kent and Sussex counties in Delaware and Chester and Delaware counties in Pennsylvania. The assessment was comprised of both qualitative and quantitative data including a customized local child and adolescent health survey, focus groups, public health data, vital statistical data and other benchmark data on children’s health in the

Delaware Valley. The report that follows reflects the progress made on priorities set forth in the Nemours/Delaware Valley Community Health Needs Assessment Work Plan.

Based on information gathered through the study, the following seven areas of opportunity were identified as significant health needs of children and adolescents in the community.

Areas of Opportunity

- Access to Health Services
- Alcohol, Tobacco and Other Drugs
- Health Education
- Mental and Emotional Health
- Nutrition, Physical Activity and Weight
- Prenatal and Infant Health
- Sexual Activity

After reviewing this information, Nemours evaluated and prioritized the top health needs of children in the Delaware Valley using the following criteria:

- **Magnitude** – the number of children affected and the differences from state/national health data and Healthy People 2020 objectives
- **Seriousness** – the degree to which a health issue leads to death, disability or loss of the quality of life
- **Impact** – the degree to which the health issues affect/exacerbate other health issues
- **Feasibility** – the ability to reasonably impact the issue, given available resources
- **Consequences of inaction** – the risk of exacerbating the problem by not addressing at the earliest opportunity

As the result of evaluating data and feedback from community stakeholders, three health priorities rose to the top for Nemours/Delaware Valley; they are Nutrition, Physical Activity and Weight; Access to Health Services; and Mental and Emotional Health. However, Nemours believes that we have a responsibility to work with others in our communities to address all seven health concerns identified.

This document identifies the activities and programs developed and executed during 2016 as a result of the implementation plan objectives and strategies developed from the 2013 Community Health Needs Assessment.

Nutrition, Physical Activity & Weight

Obesity and nutrition were identified by families surveyed in our total service area (TSA), as well as by focus group participants, as the number one perceived health issue for children and teens. More than 50 percent of those surveyed believe community resources are insufficient and/or not available to address childhood obesity and nutrition issues. While the prevalence of overweight and obese children in the TSA is less than the national average, it is significantly higher in Sussex County at 38.2 percent. The prevalence of overweight and obesity is notably higher among boys (29.1 percent) ages 5 through 12 (30.6 percent) and ethnic minorities (Hispanic: 42.7 percent and African-American: 38.2 percent).

The assessment also shows that consumption of fruits and vegetables and daily physical activity for the TSA is less than the national average. This data is similar to the findings from the 2011 Delaware Survey of Children’s Health (DSCH), a survey sponsored by Nemours. It is administered by telephone to more than 3,000 Delaware households with children from birth through age 17. Administered in 2006, 2008, 2011 and 2014, the DSCH provides data on various health trends including weight status, consumption of healthy foods, activity levels, use of screen media and parental understanding of a child’s weight. Though the DSCH sample size is much larger than the sample size of the CHNA, findings from the DSCH suggest that 40 percent of Delaware children, ages 2-17, were overweight or obese in 2011, a figure that is unchanged in terms of statistical significance since the first sampling of the population in 2006. (Additional findings from the DSCH can be found at <http://datacenter.nemours.org>).

Given that Sussex and Kent counties noted the highest percentage of overweight or obese children (38.2 percent and 28.6 percent respectively) and the highest percentage of obese children (21.6 percent and 15.4 percent respectively) among the five counties surveyed, Nemours is currently focusing its efforts within the state of Delaware with regards to obesity. Through Nemours Health & Prevention Services (NHPS) and other divisions of Nemours, programs aimed at healthy behaviors and healthy weight among children are being piloted in Delaware for future spread and scale outside of the state.

Objective:
1. Increase the percentage of Delaware children in a healthy weight range.
2. Increase the percentage of Delaware children reporting targeted healthy behaviors including healthy eating, active living and positive relationships.
3. Increase education and awareness around targeted healthy behaviors that positively impact a child’s healthy weight.
Implementation Strategies:
A. Build Wide Dissemination and Targeted Saturation of Community Health Promotion and Disease Prevention Programs that target childhood obesity prevention.
B. Leverage Community Partnerships to disseminate messaging around healthy eating and active living.
Evaluation:
1. Monitor self-reported BMI (height and weight) and targeted health behaviors among 5th, 8th and 11th grade public school students in the three-county area in Delaware through the Delaware School Survey (DSS), conducted annually by the University of Delaware, and statewide through the middle and high school Youth Risk Behavior Survey (YRBS), conducted biennially by the University of Delaware.
2. Monitor the number of children reached through Nemours’ community health promotion and disease prevention programs that target childhood obesity prevention.

Wide Dissemination and Targeted Saturation of Community Health and Promotion and Disease Prevention Programs

In Schools and Child Care Centers

- 1,393: the number of early childhood education courses taken by Delaware early care and education (ECE) providers through DEP Now!, a professional development and continuing education website hosted by the Delaware Institute for Excellence in Early Education. Three new courses were developed, reaching a potential of 4,227 providers.
- 1,500: the number of potential children and families reached as a result of the 12 child care centers and 22 family child care providers that participated in **\$1305**. \$1305 is a project to assess ECE providers within the City of Wilmington to identify the need and readiness for developing and/or improving a comprehensive nutrition and physical activity program; provide training and technical assistance to ECE providers within the City of Wilmington, creating and supporting improved nutrition and physical activity environments; and collect and measure data.
- 34,000: the number of children impacted by the courses that are part of Nemours Health & Prevention Services (NHPS) **Healthy Beginnings in Early Childhood Education** initiative.

In the Community

- Delaware Coalition for Healthy Eating and Active Living (DE HEAL): Nemours served on the board of directors for DE HEAL and continued to provide leadership for the Coalition's Environment and Policy Committee. In 2016, the committee continued its engagement in the update process for the New Castle County Unified Development Code, which includes regulations that guide development in the county. Since the launch of the update process in early 2015, committee members have participated in focus groups, submitted memos with recommendations, and presented to the Planning Board. The committee has educated on and advanced concepts that support healthy and complete communities, such as pedestrian, bicycle and transit improvements and interconnectivity between neighborhoods and compatible retail, service and institutional uses.
- 1,100: community residents who participated in community dinners and family fun nights through the coalition work of NHPS. The community dinners provided a healthy meal, health-related information from exhibitors, healthy food demonstrations, and promoted healthy eating and a sense of community spirit among local residents.
- More than 1,500: children and families that received fresh produce from the 27 community gardens in Kent County. Foods harvested from the gardens are being given to community residents and are also being used for the community dinners, teaching families how to prepare the fruits and vegetables that are being grown in the gardens.
- 71,000: people living in Wilmington who have increased access to healthy food options and active living opportunities through the Partnerships to Improve Community Health (PICH) award. Through this initiative, four farms operated from May through October and an additional three operated indoors from October through December. Additionally, 20 stores were enrolled in the Healthy Corner Store program at year's end working to increase their stock of healthy products. To promote a healthier environment where residents can be safely active, partners utilized the partnership with Nemours to engage the community in design of new park spaces to include trail designs, equipment for all ages and space for community socializing. Three of six parks were completed in 2016, with the remaining three to be completed in 2017.

- The PICH initiative uses a social marketing campaign, “This is Our NeighborGood,” aimed to increase awareness and use of community-based resources for health. Over 1,000 people have “liked” us on Facebook to learn about what is happening in the City of Wilmington to transform the places where Delawareans live, learn, work and play into healthy, connected and thriving communities.
- 30,000: the number of potential people reached through **SNAP/Healthy Corner Stores**.
- Follow us on Facebook, Twitter and Instagram at **OurNeighborGood!**

In Our Hospital

- 92,208 healthier meals were offered to patients this year. *Nemours Healthy Hospital* is a partnership between the hospital’s Food and Nutrition Services departments, the hospital café, and NHPS to promote healthier food options for children and families spending time at the hospital. On average, 7,684 inpatient meals are served on a monthly basis. Based on dietary needs of all of our patients, the hospital’s food service provider, Sodexo, has been able to adjust and enhance menus to include more fruits and vegetables, provide healthier meal choices, and decrease sugary beverage options creating a platform for a healthier food environment in a pediatric health care setting.
- For patients, families and hospital staff, the *Nemours Healthy Hospital* team continues to support a healthier hospital café and vending services by strategic marketing of healthier food items to increase their accessibility and increasing healthier food options. Nutritional information is readily available for all menu items and healthier options are highlighted with the Mindful Wellness symbol. To encourage healthy beverage consumption, flavored water dispensing stations are now offered in the café. The vending machines hospital-wide continue to carry healthier options, with 85 percent meeting nutritional guidelines for wellness. As a result of these efforts, the healthy choice is now the easy choice for our patients, families and hospital Associates at the café and vending machines.



Access to Health Services

According to the CHNA, our communities experience higher than the national average levels of children who went without health insurance at some point in the last year. In addition to intermittent insurance coverage, families said they had difficulty accessing care. The greatest barriers reported to accessing health care were inconvenient office hours, getting a doctor's appointment and the cost of prescriptions.

Objective:
1. Provide coordinated, comprehensive and culturally sensitive care to children and families in the Delaware Valley.
2. Increase access to primary, specialty and subspecialty health care for children and families in the Delaware Valley.
Implementation Strategies:
A. Implement New Models of Care and New Technology to support coordination of care.
B. Create Programs and Initiatives to increase access to primary and specialty care.
C. Conduct Screenings and Community Events to bring children's health specialists into the community.
D. Provide Resources and Space for Community Partners dedicated to children's health.
Evaluation:
1. Monitor access to and usage of Nemours satellite operations and specialty programs.

- **Nontraditional Office Hours.** 100 percent of the Nemours primary and specialty care sites in the Delaware Valley continue to provide nontraditional office hours.
- Our nurse-led **Patient Navigation Department** remains a valuable resource for patients and providers alike. Many providers use the Patient Navigation resource for:
 - streamlining multiple appointments for their patients
 - scheduling expedited appointments that are clinically necessary
 - staying informed about new clinical services at Nemours/Alfred I. duPont Hospital for Children
 - guidance to gain correct services for their patients



In 2016, the Patient Navigation Team created 3,373 encounters from referrals received from all sources (outpatient, family-initiated, inpatient, community outpatient, community inpatient). Through these encounters the Patient Navigators scheduled 7,754 appointments for patients. At the time of scheduling, every patient is screened for transportation and lodging needs. If transportation is a barrier, the navigators arrange transportation to ensure compliance with the appointments and to decrease no show rates. If lodging is a barrier, families are provided information on the Ronald McDonald House of Delaware

In 2016, 369 patients were assisted by Nurse Navigators at the time of discharge from our hospital. These nurses arrange the post-discharge appointments for families prior to discharge, visit the families at the hospital bedside, discuss the importance of completing the appointments and screen all families for transportation. Nurses meet face to face with families giving them the opportunity to ask questions and discuss barriers to successfully transitioning home. In 2016, the Patient Navigation Team, in conjunction with the Nemours Pharmacy, was awarded a Cardinal Health Grant to ensure proper education and discharge planning for patients being discharged home with prescription medication. Not only does a Nurse Navigator meet the patient and their family at the bedside at the time of discharge, but so does a pharmacist to review the medications and the need for compliance.

- **Patient-Centered Medical Home (PCMH) is designed to implement new processes and workflow standards for improving patient care.** Nemours submitted applications for Becks Woods, Peoples Plaza and Middletown primary care practices and are anticipating scores from the National Committee on Quality Assurance by February 2017. As a result of the PCMH-recognized practices, more than 32,000 patients can expect increased access with higher satisfaction.
- **The Nemours Student Health Collaboration** is making it easier for school nurses who work in Delaware public schools to be a part of the child's care team. School nurses can log onto NemoursLink®, a web-based portal, to see a child's plan of care and information about almost every visit to Nemours/Alfred I. duPont Hospital for Children or a Nemours primary care office in Delaware. School nurses can only view a child's records if a parent or guardian has signed a patient authorization form in advance. This program promotes a partnership between Nemours' primary and specialty care providers, school nurses and Nemours' patients and families. The goal is to better serve Nemours' patients through enhanced continuity of care across the care team members. By the end of the 2015/16 school year, 1,636 students were enrolled.
- **The Integrated Pain and Wellness Program** has continued to grow this year. The program received approximately 270 referrals in the calendar year. Of those referred, 219 youth received multidisciplinary evaluations with a medical provider, psychologist, and physical or occupational therapist. The program now has four trained occupational therapists and seven trained physical therapists, leading to over 800 physical therapy encounters and over 350 occupational therapy encounters for evaluation and treatment.
- **The Pediatric Transition of Care Program** helps make a smooth transition from pediatric care to adult care. The comprehensive pediatric transition of care program covers all chronic and complex medical specialties, including cerebral palsy, spina bifida, cystic fibrosis, autism, congenital heart disease, diabetes, cancer, genetic anomalies and more. The Pediatric Transition of Care Program provided 211 consultations to help young adolescents plan for their transition. These consultations are now being offered virtually via CareConnect, Nemours' pediatric telemedicine service.
- **Pediatric palliative and supportive care** at duPont Hospital for Children is more than just treatment – our pediatric palliative care team provides a compassionate and organized approach to care that's geared toward helping the whole child – body, mind and spirit – as well as providing support for the entire family. We continue to provide palliative care and support virtually via CareConnect to patients who live over an hour away from the hospital. Our physician hospice and palliative medicine fellowship was expanded to include two fellows – one pediatrician and one adult practitioner. These fellows train to become board-certified in hospice and palliative medicine. The fellowship is in conjunction with Christiana Care Health System and includes partnerships with Compassionate Care Hospice, Seasons Hospice and the Wilmington Veterans Association.
- **Telehealth** services are being provided in 23 different locations, increasing access to 26 different specialties including behavioral health, weight management, GI, urology and audiology. Satisfaction with these services is overwhelmingly positive; our Press Ganey overall likely to recommend score is 87.7 percent, which is in the 95th percentile.
- In July 2012, Nemours received a three-year, \$3.7 million cooperative agreement from the **Center for Medicare and Medicaid Innovation for the Optimizing Health Outcomes for Delaware's Children Project** to improve outcomes for children with asthma. Through this Health Care Innovation Award, Nemours was able to expand its population-based strategy to explicitly link primary care and community level, population health improvement initiatives.

Goals of the Optimizing Health Outcomes for Delaware’s Children Project:

- Innovation and accelerated transformation
- Integration of clinical and community interventions to achieve population health improvement
- Integration of quality improvement – rapid cycle improvement
- Achievement of the Triple Aim (plus one)
 - » The Triple Aim (plus one) focuses on increasing patient and provider satisfaction through better health quality and outcomes, better care and better value while increasing provider satisfaction.

Children Reached by Policy, Systems and Environmental (PSE) Change Strategies:

- Potential reach of PSE: **42,334 children** living in six target zip codes
- Changes to Delaware Medicaid drug formulary – access to metered dose inhaler: **11,805 children**
- Smoke-Free Wilmington Ordinance — impacts smoking in public spaces: **19,224 children** in the City of Wilmington
- 100 percent of Telamon Head Start childcare centers in Delaware are asthma-friendly: **852 children** annually
- School Health Collaboration: **1,302 patients** enrolled in 2015-2016 school year
- Healthy Homes and Integrated Pest Management: **651 children**
- Asthma education at outreach events: **464 children**

Screenings and Community Events

■ Health Screenings

- **Primary Eye Care and Screening.** We continue to have an optometrist who provides primary eye care and low vision services. Nemours participated in a statewide vision forum concerning improving vision care in the state.
- **Blood Drives.** Nemours held four blood drives in 2016 and had 194 blood donations. The drives not only help children in our hospital, but help the Blood Bank of Delmarva supply blood and blood products to the other 17 hospitals on the Delmarva Peninsula.
- **8th Annual “Hear We Go 5k” and Family Fun Day.** More than 400 participants ran, walked or volunteered to make this community event, held on the grounds of the Nemours Estate, a huge success. The event raises awareness about the importance of proper and timely diagnosis and management of hearing loss in children in order to facilitate language development and improve the quality of their lives. Despite inclement weather, the event raised more than \$25,000 for:
 - audio/visual equipment used to improve therapy services for cochlear implant patients at our hospital as well as patients treated remotely via the Audiology Telemedicine Program
 - the sponsorship of the 2016 *Translational Genomic Medicine in Plain Populations Conference*

Resources and Space for Community Partners

- **Office Space**

- **Child Advocacy Center.** Nemours/Alfred I. duPont Hospital for Children provides free office space, security, welcome center staff, dining services, utilities and other support services to this organization, allowing all direct operational dollars to go directly to the delivery of services for abused children. The physician in charge receives no subsidy or salary offset for his work and offers expert testimony for the State Attorney General's Office at no cost. In addition, the salary of the social worker who provides case management services for all victims of child abuse who present at our hospital is partially subsidized by our Emergency Department.

- **Nemours Cares Volunteers:**

- 4,444 food items were placed where families need it and seek it out.
- 91 Nemours Associates plus 78 Nemours' family/friends offered 522 hours of service while having fun together outside traditional work teams meeting community needs completing projects such as:
 - hosting a dinner and family fun night for mothers and children at the Center for Families in Wawa, Pa.
 - beautifying the tri-park area in New Castle County
 - cleaning up Slaughter Beach
 - volunteering to fill and deliver 200 Food to Go Meal Kits

Mental & Emotional Health

The majority of our respondents ranked mental health “Excellent/Very Good” for children ages 5 through 17, with only 5.6 percent of parents believing that their child’s mental health is Fair or Poor compared to the national average of 10.28 percent. However, parents’ awareness of mental health services in our service area is lower than the national average of 68.8 percent. Therefore, one objective was set, “To positively impact the mental health status of children in Nemours’ total service area.” Strategies implemented to meet this objective include conducting parenting seminars and delivering effective resources aimed at promoting positive relationships between parents and children; and conducting relevant health screenings for children throughout the state.



Objectives:
1. Positively impact the mental health status of children in Nemours’ total service area.
Implementation Strategies:
A. Conduct Parenting Seminars and Deliver Effective Resources aimed at promoting positive relationships between parents and children.
B. Conduct Relevant Health Screenings for children throughout the state.
Evaluation:
1. Monitor mental and emotional health indicators, including self-reported strength of family relationships among 5th, 8th and 11th grade public school students in the three-county area in Delaware through the Delaware School Survey (DSS), conducted annually by the University of Delaware, and statewide through the middle and high school Youth Risk Behavior Survey (YRBS), conducted biennially by the University of Delaware.

Parenting Seminars and Delivery of Effective Resources

Nemours provides parenting seminars and resources to assist parents in the community with developing stronger relationships with their children. The goal of these parent engagement strategies not only improves the strength of the parent-child relationship, but increases the opportunities for communication between children and their families on a variety of health-related issues, including mental and emotional well-being.

- **Nemours Reading BrightStart!** is the first program of its kind in the nation that researches, develops and offers evidence-based tools targeting young children at risk for reading failure and helps parents, educators, health care professionals and community leaders understand the key concepts and actions needed to promote reading success for all children. In 2016, Nemours Reading BrightStart! implemented a digital strategy to increase access for parents; as a result 13,973 parents completed the free Preschool Reading Screener (www.ReadingBrightStart.org) to determine their child’s early literacy skill level. One hundred ninety-six of those parents reside in Delaware.
- **Pediatric Developmental Screenings.** More than 7,151 developmental screenings were completed in the Nemours duPont Pediatrics primary care practices this year with nine percent of screened patients requiring referral to community intervention agencies.

- **Adolescent Depression Screening.** Our Nemours duPont Pediatrics primary care practices screened 7,735 patients with the adolescent depression screening tool, an 82 percent screening rate for all eligible patients. The adolescent depression screening tool helps providers to screen and assess depression and suicide risk in adolescent patients.
- **Nemours Psychology** has demonstrated continued growth, hiring four new psychologists, one neuropsychologist and one licensed clinical social worker in 2016. These providers have extended services provided in the main hospital as well as primary care settings. The neuropsychologist and one of the psychologists are based at Nemours/Alfred I. duPont Hospital for Children and the other three psychologists and licensed clinical social worker are based in primary care. The Delaware Department of Services for Children, Youth and Families received a five-year Project LAUNCH grant, aimed at promoting holistic child health for young children in targeted zip codes in Wilmington. The Department of Psychology continues to support this work through a contract to enhance integrated primary care services at the Jessup St. and St. Francis clinics in several ways. Psychology is providing preventive care as part of well-child care, will provide parenting groups for common early childhood concerns, and has enhanced screening efforts in primary care related to behavior, development and trauma.



Secondary Health Concerns

Alcohol, Tobacco & Other Drugs

Delaware is on par with national averages for teen smoking with 18.3 percent reporting smoking at least one cigarette a day in the last 30 days, and 40.4 percent reporting having at least one alcoholic beverage in the same time period. 46 percent of Delaware high school students reported they have tried marijuana at least once and 27.6 percent said they have used marijuana one or more times in the last month, which is significantly higher than the national average. Nemours Delaware Valley has been working toward our goal of decreasing the number of high school students using alcohol or other drugs.

Objective:	
1.	Decrease the number of high school students using alcohol, tobacco or other drugs.
Implementation Strategies:	
A	Partner With Community and Health Care Organizations to provide education, treatment and services related to alcohol, tobacco and other drugs.
B	Provide Health Education for Patients and Families in our community.
Evaluation:	
1.	Monitor self-reported alcohol, tobacco and drug use among 8th and 11th grade public school students in the three-county area in Delaware through the Delaware School Survey (DSS), conducted annually by the University of Delaware, and statewide through the middle and high school Youth Risk Behavior Survey (YRBS), conducted biennially by the University of Delaware.

- **KidsHealth.org**, Nemours' publicly accessible website provides doctor-reviewed information on a wide array of topics around parenting and children's health in *English and Spanish*. The website contains information for three distinct audiences: parents, kids and teens, and each section has age-appropriate content about alcohol, tobacco and other drugs including:

For Kids: 16 articles and videos including *7 Reasons to be Smoke-Free*; *What You Need to Know About Drugs; Drugs, Alcohol, & Smoking*; and *Smoking & Asthma*.

For Teens: nine articles on tobacco and 25 on drugs including *Smokeless Tobacco; E-Cigarettes; Smoking and Asthma; Prescription Drug Abuse; Crack*; and *Are Steroids Worth the Risk?*

For Parents: 19 articles including *Amphetamines: What Parents Need to Know; Neonatal Abstinence Syndrome; Cocaine and Crack; Kids and Alcohol; Kids and Smoking; Cough and Cold Medicine Abuse; Secondhand Smoke*; and *Thirdhand Smoke*.

- **KidsHealth in the Classroom** is Nemours' website providing teacher's guides, lesson plans and classroom activities to educators at no cost. The site has teacher's guides on alcohol, drugs, and smoking for all age groups: PreK to Grade 2, Grades 3 to 5, Grades 6 to 8, and Grades 9 to 12. Each teacher's guide includes quizzes, handouts and answer keys. There are 36 pieces of content in all.
- **KidsHealth Patient Instructions** are assigned by Nemours clinicians through the electronic health record after patient visits and inpatient discharges. A printed copy is provided at the point of care, and an electronic version is available from within the patient-accessible MyNemours online record.

We have the following KidsHealth Patient Instructions:

- Alcohol Intoxication, Acute (English, Spanish)
- Ingestion of Cold Medicine (English, Spanish)
- Ingestion of Dextromethorphan (English, Spanish)
- Ingestion of Dextromethorphan, Inpatient (English, Spanish)
- Opioid Analgesics, Safe Use of (English, *Spanish in production*)
- Secondhand Smoke (English, Spanish)
- Secondhand Smoke in Asthma (English, Spanish)
- Smoking, How to Quit, for Teen (English, Spanish)

Secondary Health Concerns

Health Education

Nationally, 8.6 percent of parents use the internet as their primary source of health care information for children; in Delaware 8.8 percent say they do. However, parents in Delaware were significantly less aware of parent education programs in their community than the national average of 40.3 percent, with parents in New Castle County reporting the least awareness of these programs (38.5 percent). Further, 13.3 percent versus the national average of 18.8 percent reported using a local parenting education program. Therefore, Nemours Delaware Valley has pledged to increase the amount of available health information and resources for children, families and community health care providers both within our walls and in the community.

Objectives:
1. Increase the amount of available health information and resources for children, families and community health care providers for various health needs.
Implementation Strategies:
A. Provide Health Education for Patients and Families both within our walls and in the community.
B. Foster the Education of Future Health Care Leaders .
Evaluation:
1. Monitor hits on KidsHealth.org and related Nemours' health education sites.

- **KidsHealth .org** is a no-cost, advertisement-free website operated by the Nemours Center for Children's Health Media. The website provides more than 10,000 articles, animations, movies, fact sheets, recipes and more, in both English and Spanish. In 2016, KidsHealth.org received over 725,000 visits from the Delaware Valley. Nemours also maintains a website dedicated to educators, called KidsHealth in the Classroom, which was visited over 20,000 times by Delaware teachers in 2016.
- Our **KidsHealth Video Library** offers a wide range of medical, behavioral, safety and development videos to help families understand health issues that require hospitalization and often require lifelong management (e.g., asthma, diabetes); intensive home management (e.g., tracheotomies, g-tubes); or acute episodic care (e.g., cancer, scoliosis). In 2016, there were almost 7,000 inpatient views of the KidsHealth videos in the Delaware Valley.
- **KidsHealth** also creates family-friendly patient care instructions for use at the end of a health care visit or hospital stay. Using easy-to-understand language, these illustrated instructions advise families about how to care for their children at home. In 2016, Nemours distributed over 340,000 instructions to parents and caregivers in the Delaware Valley through the Nemours/Alfred I. duPont Hospital for Children. These patient instructions are also available to families through their child's MyNemours patient portal.
- **Nemours** also provided expertise and content for the *Michael Phelps im Program*, which was co-created by KidsHealth, and is administered by the Boys & Girls Clubs of America and the Special Olympics worldwide. Lesson plans for *im Healthy* teach about nutrition and physical activity, and *im Successful* helps youth with setting and achieving goals. In 2016, over 300 kids at the Milford, Delaware Boys & Girls Club completed the *im Program*.

- **Nemours/Alfred I. duPont Hospital for Children’s Injury Prevention Program** attended 172 events reaching 37,343 children and adults. Events included health fairs as well as programs that educate on fire prevention, ATV safety, dog-bite prevention, child passenger safety, fall prevention, distracted driving, bike and school bus safety, and concussion prevention. The Child Passenger Safety Station checked 233 car seats. The Kohl’s Cares grant helps support *The Kohl’s Healthy Kids Injury Prevention Program* which educates the community on preventing unintentional injuries. The Nemours Safety Store continues to sell low-cost safety, health and wellness products and provides education on the use of the products. The Nemours Safety Store has partnered with numerous schools to provide low-cost helmets to families.
- **Comprehensive Baseline Concussion Testing.** With concussions a growing concern among parents, coaches and health care providers of children and youth, Nemours adopted a comprehensive concussion awareness and baseline concussion testing program in the community. Parent education materials and information about concussion testing have been pushed out into the community, and *Concussion in the Classroom* materials are being distributed by physician liaisons in schools, community organizations and pediatric practices throughout the region. In addition, 328 children and youth received comprehensive baseline concussion testing this year.
- **Navigating the Health Care System: Health Literacy for Adolescents** addresses the skills necessary for adolescents to become self-advocates for their health, and helps to improve their knowledge of the health care system. The health literacy curriculum was taught in 36 Health and Health Sciences classes in 13 high schools (eight public, four charter/technical, one private). Overall, 922 students participated and their knowledge of health care terminology and the health care system improved from a score of 62.5 percent on the pretest to 80 percent on the posttest. Nearly 95 percent of the students either agreed or strongly agreed that the lessons on health care were helpful and more than 90 percent of the students agreed or strongly agreed that they would know what to do better at their next doctor’s visit.
- **All-Terrain Vehicle (ATV) Safety Initiative.** Upon successful passage of strengthened regulations for recreational use of ATVs by children and adolescents in 2015, Nemours and other members of the ATV Safety Coalition shifted their attention to efforts to support enforcement of the new regulations, while also continuing to educate on the risks of children riding ATVs and promote safe riding behaviors. Nemours revised and reprinted the tip cards used during the advocacy phase to incorporate language on the new regulations. These are being distributed by Coalition members, including law enforcement agencies. Additionally, Nemours and the ATV Safety Coalition have supported the establishment of an in-state ATV Safety Institute-sponsored hands-on ATV safety training program for child and adult ATV riders. One training session was offered in 2016, with more planned in 2017.
 - Nemours participated in and moderated a panel discussion on ATV safety at the 2016 *Safe Kids Conference*. Other panelists were ATV Safety Coalition members.
 - For the second year in a row, the ATV Safety Coalition provided an educational exhibit at the Delaware State Fair complete with trivia questions and giveaways to educate on the risks associated with child and adolescent use of ATVs and promote safe riding behaviors.
 - Nemours developed an evaluation plan to assess the impact of the new regulations. We will utilize ATV sales data, state trauma data, and Nemours/Alfred I. duPont Hospital for Children Emergency Department data to assess the impact on number of injuries, injury severity and rate of helmet use.
- **Concussion Legislation.** Nemours supported the expansion of Delaware’s “return to play” legislation. The statute, enacted in 2011, required that students and their parents or guardians sign an information sheet about concussions and sets forth specific return-to-play protocols. However, the Delaware law applied only to young people participating in sports in middle and high schools. Preschool and elementary school-aged children, as well as young people of any age playing in non-school recreational leagues (like community or travel leagues), were not covered by the statute. With the passing of House Bill 404, all children are now protected equally.

Medical Education (Graduate, EMT, PICU, Interns)

- **Pediatric Practice Program.** Medical students and resident physicians from Sidney Kimmel Medical College at Thomas Jefferson University participate in an advocacy component as part of their rotation. Some components of this program include:
 - visits to community organizations to learn about programs and resources for patients
 - hosting an annual Asthma Day to provide education for children and families about treatment and control of asthma
 - pediatric outpatient block rotation with experiential assignments to promote health literacy
 - tour of the First State School for chronically ill children located in Wilmington Hospital, including discussion of quality of life for students living with chronic conditions
 - Babies R Us® Tour incorporating consumer advocacy and anticipatory guidance
 - homelessness simulation online activity to promote understanding of challenges to parents facing poverty and homelessness
 - **community engagement and advocacy** through Jefferson Service Training in Advocacy for Residents and Students (JeffSTARS) projects
 - **oral health** campaign at Wilmington Hospital Health Center with training in integration of dental caries prevention through oral health risk assessment, oral examination, anticipatory guidance, fluoride varnish and dental referral for children ages 1-5 years
 - **performance improvement** – developmental screening using standardized Parents Evaluation of Developmental Screening (PEDS) (The additional Modified Checklist for Autism in Toddlers (MCHAT)) has been widely incorporated into the preventive care protocol, initially focusing on the nine-month well-child visit)
 - **national immunization partnership (wave 2) with the American Pediatric Association (NIPA)** implementing a large-scale practice-based quality improvement program to prioritize HPV vaccination at every adolescent visit
- **Emergency Medical Services (EMS) Education.** Currently all continuing education is conducted in-house by our Critical Care Transport Team. Following assessment, evaluation and possible revision, these training courses will be opened up to surrounding EMS agencies. Monthly educational lectures, competency training on equipment, medications and other topics are held; as well as quarterly simulations in the ambulance that include participation from the flight vendor. These continuing education credits are provided to each state (Delaware, New Jersey, Pennsylvania and Maryland) and can go toward recertification for personnel.
- **Fellowship Training for Research Professionals.** Nemours Biomedical Research offers robust fellowship training through affiliations with the University of Delaware and the Sidney Kimmel Medical College at Thomas Jefferson University. The Nemours Graduate Education and Research Program is affiliated with the University of Delaware Department of Biological Sciences as part of a Human Health Initiative. Although the majority of our MS and PhD students enter through this initiative, the program is also affiliated with other departments at the University of Delaware and other institutions. Students accepted for study in the Department of Biological Sciences have the opportunity to perform thesis/dissertation research in laboratories of research scientists at Nemours/Alfred I. duPont Hospital for Children. Students entering the program follow course work at their educational institution and their research work is conducted at Nemours. Video conferencing is available to facilitate interactions between Nemours and the educational institutions. All graduate students are supported as either a research assistant or teaching assistant. Masters students typically graduate in two years, PhD students in five years

- **Educational Programs in Biomedical Research.**

Summer Research at Nemours: Each summer, college undergraduates participate in a 10-week research program guided by faculty through the process of formulating and testing hypotheses, interpreting data, and communicating results. Scholars matriculate into this program through various avenues and partnerships such as the *Delaware Institutional Development Award (IDeA) Network of Biomedical Research Excellence Summer Scholar Program*, the *Summer Undergraduate Neuroscience Research Program*, the *Nemours Summer Undergraduate Research Program*, and the *Nemours Health Equities Summer Scholar Program*. Scholars are matched with mentors who are leading researchers and pediatric specialists at Nemours.

In addition to the research, the Summer Scholars participate in pediatric seminars, student-led activities, such as a journal club, and have the opportunity to shadow physicians. On the final days of the program, a series of poster sessions and oral presentations give students opportunities to present their research activities to the Nemours professional community, family and friends.

Year-Round Students: Throughout the year, Nemours hosts both college graduate and undergraduate students who are mentored closely by either research faculty and/or physician researchers. Some of these students are conducting research as partial fulfillment of their degree requirements. Others are working as paid or volunteer research team members. Students participate in pediatric seminars, rounds, lab meetings and journal club.

Every year, many students engage in public presentation of scientific research findings by attending and presenting at local, regional and national symposia, national and international meetings, and through publication of peer-reviewed papers.



Secondary Health Concerns

Prenatal & Infant Health

Infant mortality in our region is 7.2 per 1,000 live births – higher than the national average of 6.5 per 1,000 live births. In addition, incidence of low birth weight babies (nine percent) is higher than the national average (8.2 percent.) Thus Nemours has been implementing a number of programs to reduce the incidence of infant mortality and improve infant health, especially within our Hispanic and black populations in the Delaware Valley.

Objectives:

1. Positively impact the infant mortality rate in the Delaware Valley area and among the non-Hispanic African-American population.

Implementation Strategies:

- A. Increase **Education and Awareness** of prenatal and infant health issues among health care providers in the Delaware Valley.

Evaluation:

1. Monitor the infant mortality rate using annual data from the Delaware Department of Health and the Pennsylvania Department of Health.

- **Healthy Beginnings – Early Feeding.** To extend breastfeeding support across the continuum of health care, Nemours Health & Prevention Services collaborates with the DE Division of Public Health in implementing an evidence-based breastfeeding promotion and support training in OBGYN, family practice and pediatric practices across the state of Delaware. The *Educating Practices in their Communities-Breastfeeding Education and Support Training* (EPIC-BEST) trains all office staff to promote and support breastfeeding in their own setting. All of Nemours pediatric primary care practices in Delaware were trained in EPIC-BEST.



- To improve breastfeeding among low-income populations in which disparities exist, Nemours hosts WIC breastfeeding peer counselors in three of our primary care practices. The trained breastfeeding peer counselors are part of the care team, see patients in the office and make phone calls to ensure that new mothers have accurate breastfeeding information, social support and are referred to specialty supports when needed.
- To increase breastfeeding support in child care, Nemours participates in the rolling updates to state child care licensing regulations for center and home-based child care programs. The regulations are owned and enforced by the Delaware Office of Child Care Licensing and impact all licensed child care programs in Delaware, serving up to 44,000 children. All child care programs are required to have a policy on breastfeeding support, to allow mothers to breastfeed at the center in public or in private, and to have a clean and comfortable space (other than a bathroom) for mothers to breastfeed in private, if they desire to do so.

- **Safe to Sleep.** Nemours/Alfred I. duPont Hospital for Children implemented Delaware's *Safe to Sleep Program* in January of 2014. Nemours has achieved a Hospital Gold Certification Designation for its *Safe to Sleep Program*. All nurses have completed the *SIDS (Sudden Infant Death Syndrome) Risk Reduction Curriculum for Nurses*; these education modules are now included in orientation for all new nurses. Safe sleep practices education is initiated on admission for all families with infants under age one.

Secondary Health Concerns

Sexual Activity

Delaware has a higher percentage of teen parents than the national average with Sussex and Kent counties having the highest rates at 15.5 and 12.2 percent respectively, versus the national average of 10 percent. Moreover, 43 percent of Delaware high school students reported having sexual intercourse in the past three months; with an alarming 41 percent who said they did not use a condom during their last sexual encounter, and 16 percent said they used no method of birth control.

To address teenage pregnancy and sexual activity, Nemours partners with community and health care organizations to provide education, treatment and services. Nemours/Alfred I. duPont Hospital for Children has hired a social worker to help meet the psychosocial needs of our adolescent patients. She discusses issues related to sexuality, reproduction options, safe sex, etc. In addition, a second adolescent medicine physician was hired who, among other things, provides gynecologic care for our adolescent girls.

Objectives:

1. Increase education around treatment and services related to teenage pregnancy and sexual activity.

Implementation Strategies:

- A. **Partner With Community and Health Care Organizations** to provide education, treatment and services related to teenage pregnancy and sexual activity.

Evaluation:

1. Monitor self-reported sexual activity indicators among 8th and 11th grade public school students in the three-county area in Delaware through the Delaware School Survey (DSS), conducted annually by the University of Delaware, and statewide through the middle and high school Youth Risk Behavior Survey (YRBS), conducted biennially by the University of Delaware.

- **KidsHealth.** Through the KidsHealth.org website, children and adolescents can access more than 100 articles, fact sheets and modules to listen to which provide information about sexual health, puberty, menstruation and infections impacting teen girls and guys.
- **Reducing Teen Pregnancy.** Nemours partnered with Upstream USA/Delaware Contraceptive Access Now (CAN), a public/private partnership designed to reduce unintended pregnancy in the state of Delaware. Our goal, which draws from and parallels the goals of Upstream/Delaware CAN, is to ensure that young women become pregnant only when they want to, and that the adolescent patients presenting in the Nemours Adolescent Medicine & Pediatric Gynecology Division are offered the full range of contraceptive methods and provided the method of their choice in a single appointment. Nemours primary care practices are committed to eliminating barriers and providing same-day access to the most effective contraceptives for adolescents. In 2016, Nemours primary care practices placed over 200 intrauterine devices/implants.
- **Partnering With Other Organizations.** Within Nemours, members of our social work departments provide adolescents with information and education about risks, safe sex practices, birth control and other issues related to sexual activity. In cases where patients require additional services or information, referrals are made on the patient's behalf to the adolescent medicine department, local health care providers such as OB/GYNs and community agencies such as Planned Parenthood. In the event a patient has experienced previous sexual abuse, Nemours also makes referrals to Survivors of Abuse in Recovery (SOAR), an agency that specializes in those issues. Additionally, Nemours works with school wellness centers to provide information for teens.

Additional Efforts to Benefit and Support the Health of Our Communities

- **Office of Health Equity and Inclusion (OHEI)** was formed in 2012 at Nemours and engages with internal and external partners to promote equity and inclusion in the delivery of health care. OHEI monitors the diversity of community populations and collaborates with Nemours leadership and the human resources department to recruit, hire, mentor and retain a diverse workforce reflective of the communities we serve. It also supports Patient Services by monitoring and evaluating the delivery of culturally appropriate language and health literacy proficient services to the families we serve. Last year, a team of doctors and staff from our social work department reviewed patient/family materials to assure “reader friendliness” and that materials were written at no more than a fifth grade reading level. This year, these materials were translated into Spanish. To date OHEI has provided cultural competence training to 70 percent of all hospital and NHPS staff and continues to provide this training to all new Nemours Associates, as part of Nemours’ standard hiring practices. Cultural competence training is now mandatory for all Associates. We trained two predoctoral fellows and five undergraduates in health equity research and brought on 10 high school volunteers who also were exposed to health equity research.
 - **Associate Resource Groups.** We launched Associate Resource Groups (ARGs) and have five active groups: African Heritage, Nemours Pride (LGBTQ), GenNEXT (Millennials and younger), Latino/Hispanic and Women Leaders. These groups have organized many events, such as a women leaders panel discussion, celebration of achieving the Human Rights Campaign’s health care equity leader status, clothing drives for women re-entering the workforce, food drive for our Jessup Street office community outreach groups, interviewing skills and career development workshops, mentoring programs, etc. The groups are designed to help Associates connect with others like themselves, help the organization attract and retain Associates, improve their engagement level and help us improve quality of care and patient satisfaction with their group level perspectives.
 - **Summer Scholars.** Eight summer scholars (two graduate and six undergraduate) were hired in the summer of 2016 and were mentored and trained in health care disparities and workforce diversity. The Summer Lecture Series included 20 students from research summer schools.
 - **STEM Grant.** The U.S. Department of Health and Human Services has awarded a five-year grant, *STEM UP-Delaware!*, to Delaware Tech and its partners – Nemours Office of Health Equity and Inclusion and the Sidney Kimmel Medical College at Thomas Jefferson University. *STEM UP-Delaware!* is a program that inspires high school minority students to go into the science, technology, engineering and math fields to prepare them for careers in health care. The Nemours Office of Health Equity and Inclusion will use the funds to expand the *Summer Scholars Program*, broadening the program to reach middle school students as well as high school students interested in pursuing STEM careers. We finished the second year of the grant with great success with 60 students participating (20 rising 9th graders, 20 rising 10th graders and 20 rising 11th graders).
- **Clinical Translational Research.** Nemours leads the Mentoring core and co-leads the Community Engagement and Outreach core of the Delaware CTR-ACCEL (Accelerating Clinical and Translational Research). The Mentoring core focuses on connecting junior investigators with mentors, training junior investigators in research methods, and training faculty in mentoring expertise. The goals of the Community Engagement and Outreach core have been:
 - to actively involve the community in setting clinical and translational research priorities
 - to develop new community-institutional partnerships in clinical and translational science
 - to identify, educate and prepare community leaders, health care providers and institutional trainees, researchers and scholars in the principles and practices of community-engaged and community-based participatory research

To achieve these aims, a Community Advisory Council participates in review of junior investigator research proposals and contributes to the decisions about funding. ACCEL has also held an annual community research exchange (four held to date), where community members and academicians discuss ongoing research and next directions. A Community Forum on the ACCEL website offers the opportunity for researchers or community members to post discussion topics, to propose research ideas/needs, or to recruit staff or participants for ongoing research. To date, ACCEL has funded 10 community-engaged research pilots (ACE Awards), led by academic and community partners. The ACE Curriculum teaches community and academic investigators about the principles of community-engaged research.