



Nemours/Alfred I. duPont Hospital for Children
2015 Progress Report

Nemours[®] Alfred I. duPont
Hospital for Children

Wilmington, Delaware

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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 2015 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 biennial survey sponsored by Nemours. It is administered by telephone to more than 3,000 Delaware households with children ages birth through age 17. Administered in 2006, 2008 and 2011, 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 www.nemours.org/dsch.)

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

- 2,500: the number of early childhood education courses taken by Delaware early care and education providers through DEPD Now!, a professional development and continuing education website hosted by the Delaware Institute for Excellence in Early Education.
- 34,000: the number of children impacted by these courses that are part of Nemours Health & Prevention Services (NHPS) **Healthy Beginning in Early Childhood Education** initiative.
- 70,950: the number of school children who are making healthier food choices at school, because their schools are implementing marketing and behavioral economics strategies, **Smarter Lunchrooms and/or Food of the Month**, which has changed the way school cafeteria personnel are displaying, presenting and organizing foods differently on food service lines, making them more appetizing and influencing kids' food choices, purchases and consumption.

In the Community

- Nemours is an active partner with the Children in Nature Coalition, helping to guide and direct the work. The Coalition was formed to address the challenge of reconnecting children with nature through school-based education and community-based programs. Support from Nemours helped make it possible for the Department of Natural Resources and Environmental Control to hire a full-time coordinator to staff the initiative and broaden the network.
- 1,085: community residents who participated in community dinners and family fun nights through the coalition work of NHPS. The community dinners provide a healthy meal, health-related information from exhibitors, healthy food demonstrations, and promote healthy eating and a sense of community spirit among local residents.
- More than 1,000: children and families that received fresh produce from the 23 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 that have increased access to healthy food options and active living opportunities through the **Partnerships to Improve Community Health (PICH)** award. Through this initiative, four farm stands and nine corner stores are operating in the target area. To promote a healthier environment where residents can be safely active in their community, six parks are being revitalized throughout New Castle and Wilmington. Revitalization efforts are expected to be completed by September 2017.
- The **PICH** team launched a social marketing campaign aimed to increase awareness and use of community-based resources for health. Based on feedback from community members, who wanted to focus on community assets rather than challenges, "**This is Our NeighborGood**" was born. Check out the campaign website at www.ourneighborgood.org and follow us on Facebook, Twitter and Instagram at **OurNeighborGood!**

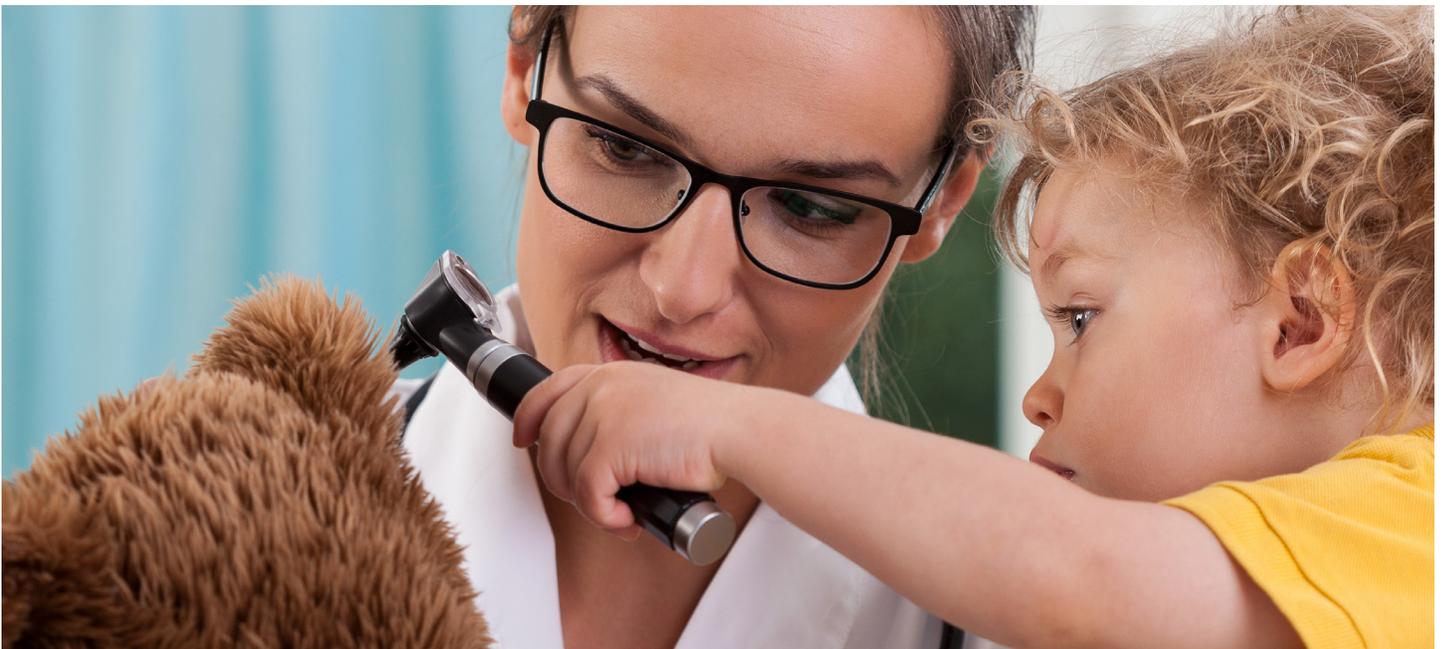
Our advocacy with the Department of Services for Children, Youth and their Families influenced updates to the Delaware Child Care Center Regulations. The updated regulations promote optimal physical, social, emotional and developmental health of children in early care and education settings by requiring quality child care licensing standards for services offered including nutrition, curriculum, physical activity, emotional and environmental supports.

Our advocacy with New Castle County and the City of Wilmington is influencing the inclusion of healthy eating, physical activity and complete communities as part of the planning process for land use. By supporting a healthier built environment, Nemours is helping to make the healthy choice the easy choice.

Our advocacy with Bond Bill committee members supported funding for recommendations from the Governor's Council on Health Promotion and Disease Prevention, including infrastructure for walking and biking in Delaware.

In Our Hospital

- 79,507 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, 6,625 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.** Increased to 100 percent the number of Nemours primary and specialty care sites in the Delaware Valley with nontraditional 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 2015, a total of 4,254 referrals to our Navigation Department were received from all sources (outpatient, family initiated, inpatient, community outpatient, community inpatient). This is a racially and culturally diverse patient population with over eight percent speaking a primary language other than English. These patients also have a high level of medical complexity with an average of 12 comorbidities or codiagnoses per patient.

Along with facilitating access for specialty appointments for patients in our community, our hospital recognized the need to improve the transition from hospital to home. In 2015, 422 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 to successfully transition home.

- **Supporting Family-Centered Medical Home.** Three of our primary care practices received Level III certification as Patient-Centered Medical Homes by the National Committee on Quality Assurance (NCQA), bringing the total to six. An additional practice received Level II certification prior to joining Nemours. Three other practices expect to receive certification in 2016. As a result, more than 41,000 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. In 2015, all Delaware public school districts, 67 percent of charter schools, 62 percent of Diocesan schools, and 31 percent of private/independent schools had agreements in place with Nemours. By the end of the 2014/15 school year, 1,348 students were enrolled.
- **The Integrated Pain and Wellness Program** has grown exponentially this year. The program received approximately 260 referrals in the calendar year. All new referrals receive multidisciplinary evaluations with a medical provider, psychologist, and physical or occupation therapist. Treatment recommendations are provided based on the intake. Currently, there are more than 50 active patients within the program receiving a combination of psychological support, medical management, physical and occupational therapy, healing touch, and massage. The program continues to expand with research initiatives and access to 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 216 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. Palliative care and support is now being offered virtually via CareConnect to patients who live over an hour away from the hospital. Nemours held their first weekend-long camp for children and teens that have experienced the death of a sibling. The weekend sleepover camp provides a fun and safe place where children and teens can participate in normal camp activities while also connecting with others who have experienced a loss.
- **Telehealth** services are being provided in 13 different locations, conveniently increasing access to 25 different specialties including behavioral health, weight management, GI, urology and audiology. Satisfaction with these services is overwhelmingly positive, with 83 percent saying they’re very satisfied with their service and 17 percent saying they’re satisfied.

Screenings and Community Events

Health Screenings

- **Primary Eye Care and Screening.** I We have an optometrist to provide primary eye care and assess for low vision.
- **Blood Drives.** Nemours held four blood drives in 2015 and had 166 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.
- **7th Annual “Hear We Go 5k” and Family Fun Day.** More than 600 participants ran, walked or volunteered to make this community event, held on the grounds of the Nemours Estate, a huge success. The event raised more than \$45,000 for:
 - hearing aid testing equipment for use with our Amish and Mennonite families seen at the Clinic for Special Children
 - research funding for support of an ongoing study of medication effects on hearing in kids with ADHD, as well as for the purchase of a video visual reinforcement system used for testing young children with hearing disorders
 - Annual Audiology Collaboration Conference geared toward multidisciplinary professionals and families to learn more about how hearing loss affects the child on a global level

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 is heavily subsidized by the hospital and is an expert witness for the State Attorney General’s Office and the Division of Family Services in Delaware’s Children’s Department. 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 subsidized by our Emergency Department.
- **Community Meetings Held at Nemours Locations in 2015**

- | | | |
|--|---|--|
| ▪ Association of Pediatric Hematology | ▪ Day of Remembrance | ▪ Oncology Sibling Bereavement Group |
| ▪ Oncology Nurses (APHON) Chapter Meeting | ▪ American Academy of Pediatrics (Delaware) Board Meeting | ▪ Ortho SWANK Family Conference |
| ▪ Autism Spectrum Disorder (ASD) Social Skills | ▪ Diabetes Family Conference | ▪ Ortho Swank Family Meeting |
| ▪ Asperger Support Group | ▪ Down Syndrome Support Group | ▪ Physician Assistant (PA) Council Meeting |
| ▪ Audiology Parent Group | ▪ Grief Support Group | ▪ Parent Child Conduct Clinic |
| ▪ Bariatric Info Night | ▪ Hospital Awareness Program | ▪ Peer Support Group |
| ▪ Bereavement Support Group | ▪ Inflammatory Bowel Disease (IBD) Awareness Day | ▪ Sickle Cell Art Speaks Event |
| ▪ Brain Injury Support Group | ▪ Junior League of Wilmington | ▪ Spine Marketing Meeting for Families |
| ▪ Candlelighters Support Group | ▪ Lung Force Breakfast | ▪ Siblings That Are Really Special (STARS)Spring Forward Program |
| ▪ Chronically Cool Families Support Group | ▪ Oncology Pro | |

- **Nemours Cares Volunteers:**

- More than three tons of food was placed where families need it and seek it out
- 50 pints of blood for use by area blood bank
- 192 Nemours Associates plus 44 Nemours family members having fun together outside traditional work teams meeting community needs completing projects such as:
 - walking in the March of Dimes walk
 - walking in the Ronald McDonald House of Delaware 5k
 - beautifying Lums Pond State Park
 - serving food, washing dishes and interacting with attendees of the Kings Table Events at Christina Park
 - beautifying Rockwood Museum and Park
 - cleaning up Slaughter Beach
 - preparing and serving meals to homeless single men and women at Safe Harbor
 - volunteering to fill 400 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, parent’s 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. In 2015, 331 children were screened for reading challenges and 114 parents completed the Pre-Reading Screener on the Reading BrightStart! website. In addition to direct services for young children, Nemours Reading BrightStart! helps parents, educators, health care professionals and community leaders understand the key concepts and actions needed to promote reading success for all children through a variety of specific tools, services and resources.
- **Pediatric Developmental Screenings.** More than 8,150 developmental screenings were completed in the Nemours duPont Pediatrics primary care practices this year with 9.6 percent of screened patients requiring referral to community intervention agencies.

- **Adolescent Depression Screening.** Our Nemours duPont Pediatrics primary care practices screened 4,857 patients with the adolescent depression screening tool, a 52 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, particularly in the integrated primary care setting with four new hires in 2015 (supporting Foulk Rd., Jessup St., Becks Woods, Middletown, Dover and Milford) and several others intended for 2016 and beyond. The Delaware Department of Services for Children, Youth and Families has 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 has been contracted 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.

- **Electronic Cigarette Legislation.** Nemours worked with a coalition of stakeholders focused on reducing tobacco-related morbidity and mortality by expanding policy protections of Delaware's Clean Indoor Air Act to include e-cigarettes. With the passing of House Bill 5, the use of e-cigarettes is prohibited in any area previously protected by Delaware's Clean Indoor Air Act.



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, animation, movies, fact sheets, recipes and more, in both English and Spanish. In 2015, KidsHealth.org received over 580,000 visits from the Delaware Valley. Nemours also provides a website dedicated to educators, called KidsHealth in the Classroom, which was visited 7,239 times by Delaware teachers in 2015.
- 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 2015, there were 7,759 inpatient views of the KidsHealth videos in the Delaware Valley.
- **KidsHealth** also creates family-friendly patient 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 2015, Nemours distributed close to 215,000 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 2015, 161 kids at the Milford, Delaware Boys & Girls Club completed the im Program.
- **Nemours/Alfred I duPont Hospital for Children's Injury Prevention Program** attended 158 events reaching 15,565 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 226 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, 282 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 39 Health and Health Sciences classes in 14 high schools (five public, five vocational/technical, one charter and three nontraditional schools for pregnant and parenting teens). Overall, 949 students participated and their knowledge of healthcare terminology and the health care system improved from a score of 64 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 Legislation.** A diverse group of stakeholders, convened by Nemours, successfully advocated for the passage of Senate Bill 69. Senate Bill 69 requires ATV operators under age 18 to wear helmets, prohibits ATV operators under age 18 from operating an ATV with passengers, and prohibits persons under 18 from being passengers on an ATV unless it is designed by the manufacturer for multiple riders and the driver is age 18 or older. Nemours is now helping to educate children and families about the new regulations and supporting the establishment of a hands-on training program in Delaware.
- **Young Marines.** A leadership building program for children of deployed service men and women. This year, 20 youth were engaged in an eight-hour program that taught them the skills of basic life support and first aid.

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 annual Asthma Day to provide education for children and families about treatment and control of asthma
 - Christiana Care Wilmington Clinic Resident Orientation Community Advocacy Bus Tour, including discussions of homelessness, food deserts, health literacy, federally qualified health centers, oral health, drugs and the I-95 corridor, barriers to health care access, health disparities, Delaware consent laws, histories of Christiana Care Health System and Nemours Children’s Health System, Delaware demographics, and local cultural attractions
 - 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.
 - **Nemours Summer Undergraduate Research Scholars Program.** Each summer college undergraduates participate in a 10-week scholars program guided by faculty through the process of formulating and testing hypotheses, interpreting data and communicating results. 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 lectures, pediatric seminars and student-led activities such as a journal club as well as job shadowing opportunities. On the final day of the program, a mandatory symposium gives students opportunities to present their research activities to the Nemours professional community, family and friends.



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 among 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.** Annually, about 12,000 babies are born in Delaware’s labor and delivery hospitals. Nemours Health & Prevention Services provided technical assistance to four out of six hospitals which pursued and received Baby Friendly Hospital designation between 2013 and 2015. The four Baby Friendly Hospitals provide improved maternity care, breastfeeding support and mother-baby bonding practices, improving birth experiences and health outcomes for 80 percent of babies born in Delaware each year.



- To extend breastfeeding support across the continuum of health care, Nemours Health & Prevention Services supports the DE Division of Public Health in implementing an evidence-based breastfeeding promotion and support training in OBGYN, family practice and pediatric primary care practices across the state of Delaware. The “Educating Practices in their Communities-Breastfeeding Education and Support Training (EPIC-BEST)” complements the Baby Friendly Hospital Initiative by improving breastfeeding support in outpatient settings prenatally and during the beginning of life. 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 two 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.
- **Safe to Sleep.** Nemours/Alfred I. duPont Hospital for Children implemented Delaware’s Safe to Sleep program in January of 2014. All departments who impact the care of infants under the age of one have eliminated blankets in the infants’ sleep environment and are now using Sleep Sacs and Swaddle Sacs for all infants under age one. 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.

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 received an Institutional Development Award (IDeA) from the National Institute of General Medical Sciences of the National Institutes of Health to work with the Adolescent Resource Center on a project to explore parents' knowledge, attitudes and beliefs about Long-Acting Reversible Contraception (LARC) in efforts to better understand knowledge gaps, barriers to community acceptance of LARC for teens, and parental preference for the provision of these methods to teens. This research will help health care providers to better understand parental preferences for LARC use. This will allow providers to craft culturally competent programs that can increase teen LARC rates. Ultimately these programs will decrease teen pregnancy in Delaware.
- **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 85 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.
 - **Summer Scholars.** Eight summer scholars (two graduate and six undergraduate) were hired in the summer of 2015 and were mentored and trained in health care disparities and workforce diversity. The Summer Lecture Series included 20 students from research summer schools and four interns from Nemours Health & Prevention Services.
 - **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 partner – 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.
- **Clinical Translational Research.** Nemours leads both the Mentoring and Community Engagement and Outreach cores of the Delaware CTR-ACCEL. 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, where community members and academicians discuss ongoing research and discuss 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. A research retreat held at Nemours in 2015 engaged community participants and researchers in a day-long discussion around the social determinants of health and inequities in infant mortality. To date, ACCEL has funded eight 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.

Representatives from Nemours served on various community boards in 2015.

American Heart Association – Delaware

American Lung Association – Delaware

Board of the West Chester YMCA

Breastfeeding Coalition of Delaware

Children & Family First

Delaware ACCEL

Delaware Association for the Education of Young Children

Delaware Center for Health Innovation

Delaware Early Childhood Council

Delaware Public Health Association

Delaware Readiness Advisory Council

Girls on the Run

Health Care Innovation Leadership Council

Help Me Grow

Junior Achievement

Kids Count of Delaware

Make-a-Wish Advisory Council

New Castle County Department of Community Services

Oral Health Coalition

Ronald McDonald House of Delaware

Statewide Health Improvement Plan

United Way of Delaware

Wilmington Education Improvement Commission

Nemours organized, supported or participated in a variety of events and provided various sponsorships in 2015.

Adopt-a-Pig	Delaware State Chamber of Commerce	PA Dutch Chapter of Little People of America
AIDS Delaware	Delaware State Troopers Association	Peter Powerhouse Foundation
American Academy for Cerebral Palsy and Developmental Medicine	Deptford High School Jazz Band	Potentials Foundation
American Heart Association	Deptford Township	Pramere Events, Inc.
American Physical Therapy Association	Duffy's Hope	Prenatal Diagnosis Institute
American Trauma Society Delaware Division	Elementary Connections, LLC	Ronald McDonald House of Delaware
Autism Society of Delaware	Epilepsy Foundation of Delaware	Rotary Club of West Chester
Autism Speaks	Exceptional Care for Children	Rotary Club of Wilmington Del.
AXYS	First State Community Action Agency	St. Francis Foundation
B+ Foundation	Gift of Life Foundation	Sambulance Safety Squad
Boys & Girls Club of Delaware	Girl Scouts of the Chesapeake Bay	Samuel N Lombardo Foundation
Brain Injury Association of Delaware	Girls on the Run	Shadow Equestrian
Caitlin Robb Foundation	Healthy Women Program	State of Delaware
Camp Molly	Hearing Loss Association of America	Sussex County Council
Catholic Charities of Delaware	Helen Graham Cancer Center	Talleyville Fire Company
Cen Del Foundation	Henrietta Johnson Medical Center	The Baldwin School
Chadds Ford Historical Society	Hockessin Soccer Club	The Get Well Gabby Foundation
Cherry Hill Soccer Tournament	Hydrocephalus Foundation	The Grand
Children's Heart Foundation	Inspira Health Network	The Seaford & Laurel Stars
Citizens' Hose Fire Company No. 1	Juvenile Diabetes Research Foundation	Tova Community Health
City of Dover	La Comunidad Hispana American	Unionville Recreation Association
City of Newark	La Esperanza	United Cerebral Palsy of Delaware
Clinic for Special Children	Leukemia Research Foundation	Valley Forge Educational Services
Concord Community Day	Leukemia & Lymphoma Society	Westside Health
Cooper University Hospital	Main Line Chamber of Commerce	Widener University
Crohns & Colitis Foundation	Main Line Health System	William E. Proudfoot Sickle Cell Fund
Crozer Keystone Health System	March of Dimes	Wilmington Flower Market
Delaware Academy of Medicine	Michael's Way	Wishes & Dreams for Cystic Fibrosis
Delaware Association for the Education of Young Children	Middletown Historical Society	YMCA Greater Brandywine Valley
Delaware Community Foundation	Nanticoke Memorial Hospital	YMCA Delaware
Delaware Hispano	Narberth Business Association	
Delaware Psychological Association	National Kidney Foundation	
Delaware Public Health Institute	National MPS Society	
	New Castle County	
	NEXT GEN Soccer	