



2016-2018 Community Health Needs Assessment Implementation Strategy



Nationwide Children's Hospital is pleased to have participated in the development and adoption of the Franklin County *HealthMap2016* as its Community Health Needs Assessment. Nationwide Children's had several representatives actively participate in the needs assessment with other members of the Central Ohio Hospital Council and community partners.

Our Mission

Nationwide Children's Hospital is committed to providing the highest quality of care to all children and their families regardless of ability to pay.

Our Vision

Best Outcomes Through Best People and Programs

Our Values

As one team we:

Do the right thing

We always act with integrity and honesty
We are inclusive and respectful of everyone

Create a safe day every day

We make safety our personal commitment
We communicate clearly and completely
We routinely seek input from others and always support our colleagues

Promote health and well-being

We balance work and life demands
We generate optimism and energy in one another
We advance our health, and the health of our community

Are agile and innovative

We embrace and manage change
We foster a streamlined and entrepreneurial environment
We generate and share new knowledge and ideas

Get results

We're accountable (we do what we say we'll do)
We're determined (we get the desired result)
We're committed to constant improvement
We leverage our diverse strengths

Nationwide Children's Hospital is located at 700 Children's Dr., Columbus, OH, 43215. The main hospital is based in Franklin County. In developing its Community Health Needs Assessment, Nationwide Children's has defined the community it serves as the residents of Franklin County. Almost 50 percent of the hospital's inpatient discharges and gross charges are from residents of Franklin County. More than 45 percent of the Medicaid Managed Care patients served are from Franklin County. In addition, of the 79 clinical off-site facilities that Nationwide Children's operates, 49 are in Franklin County.

Community input for this report was obtained through a series of meetings with community representatives on the Franklin County Community Health Needs Assessment Steering Committee, led by the Central Ohio Hospital Council. Individuals representing the broad interests of the community served by our organization participated on the steering committee. Refer to pages 3 through 5 of the Franklin County *HealthMap2016* for names of those who participated.

In response to the health needs assessment, Nationwide Children's has created an Implementation Strategy by which to improve the health of those we serve. In this Implementation Strategy, Nationwide Children's is addressing the health needs of the pediatric population identified in its Community Health Needs Assessment.

Executive Summary

To address the needs of its community, Nationwide Children's Hospital has collaborated with dozens of community partners to create a roadmap to better health for all children in Franklin County. Although Nationwide Children's has already made significant progress toward providing high-quality, accessible and appropriate care for the children in its service area, it will continue to address the needs identified by community representatives and the Franklin County *HealthMap2016* through the methods discussed in this Community Health Needs Implementation Strategy.

Primary targets for Nationwide Children's efforts fall into the categories identified by the Franklin County *HealthMap2016*. General strategies for addressing these needs are as follows:

- **Obesity:** Nationwide Children's will continue striving to reduce the incidence of obesity and its complications by increasing patient treatment contact and community educational outreach. Additionally, Nationwide Children's will offer specialty sessions for specific obese populations and develop evidence-based interventions to reduce disparities in the care of the high-risk, vulnerable populations.
- **Infant Mortality:** By participating in the endeavors of Ohio Better Birth Outcomes and providing care for infants in need through the Ohio Fetal Medicine Collaborative, Nationwide Children's will aim to increase the availability of birth control, prenatal care and immunizations to reduce prematurity and to prevent infant morbidity and mortality.
- **Access to Care:** Nationwide Children's will expand its presence in the communities it serves, work to advance patient-centered medical home models, and improve coordination of care to ensure community members have access to high-quality primary, dental, specialized, urgent and emergency care in appropriate settings.
- **Behavioral Health:** Nationwide Children's will maintain and expand inpatient, outpatient and community-based efforts to innovatively prevent, treat and minimize the impact of behavioral health problems in its target population by providing care in the most appropriate setting.
- **Chronic Conditions:** Nationwide Children's will continue to reduce asthma and diabetes incidence and complications by optimizing treatment given through primary care visits, school-based programs and, when necessary, through hospitalizations.
- **Infectious Diseases:** Nationwide Children's will continue to raise standards for hand hygiene, infection prevention, community and staff vaccination efforts, antibiotic stewardship and research to prevent, manage and treat infectious diseases. In addition, the hospital will expand testing and education associated with sexually transmitted infections.

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1. Obesity

Description

In comparing Franklin County's *HealthMap2013* and *2016*, fewer Franklin County youths are overweight, and slightly fewer are obese. However, 19.8 percent of Franklin County's children are considered obese compared to the 13.7 percent national average. Obese children and adolescents are at increased risk of serious illnesses, including Type 2 diabetes, high blood pressure, coronary heart disease and mental illness. Nationally, childhood obesity is responsible for \$14 billion a year in direct medical costs.

Nationwide Children's Programs and Partners

Center for Healthy Weight and Nutrition

Nationwide Children's Center for Healthy Weight and Nutrition offers a comprehensive approach to weight management in children, including programs for both prevention and treatment. Medical weight management programs help children 2 years and older make lifestyle changes if they struggle with their weight. The program includes nutrition counseling, fun and safe physical activity and psychological support. A comprehensive team, including a physician or nurse practitioner, dietitian, physical therapist and social worker or psychologist, provides support along the way.

The Center also provides free online information sessions about bariatric surgery where patients can learn about the bariatric surgery process, including the three types of weight loss surgery available to combat obesity, and the risks, advantages and disadvantages of each. Nationwide Children's has consistently increased patient engagement each year at the Center for Healthy Weight and Nutrition. For the first three months of 2016, more patient visits were made than during that same time frame over the last two years (see chart on page 2).

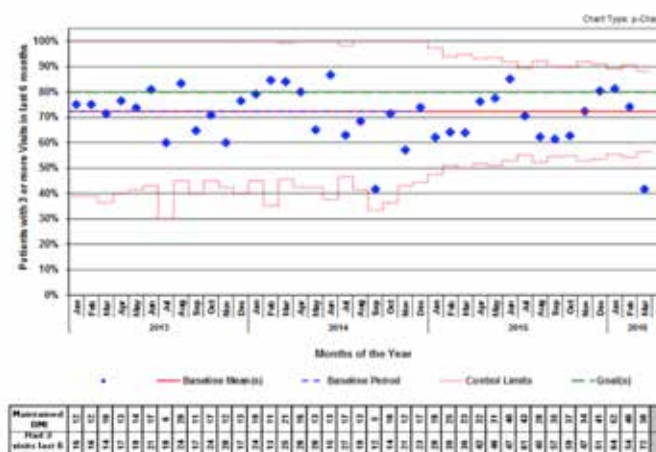
Outreach and education are also provided in the community. In 2015, 15 outreach programs were offered, 10 of which targeted at-risk children in economically challenged neighborhoods near Nationwide Children's. Notable programs included the MyHealth Family Fit Series, monthly walks held around the hospital; a health fair at South High School, located near the hospital; and the Kids on the Move 5K at the Groveport Recreation Center.

Another community initiative of the Center that continues growing is Fitness and Nutrition (F.A.N.) Club. This afterschool program encourages school age children to develop healthy eating and physical activity behaviors in a fun and interactive environment.

Community engagement will be expanded due to a grant received this year. The grant enables the Center for Healthy Weight and Nutrition to provide community and education outreach to Latino children and adolescents at risk of obesity.

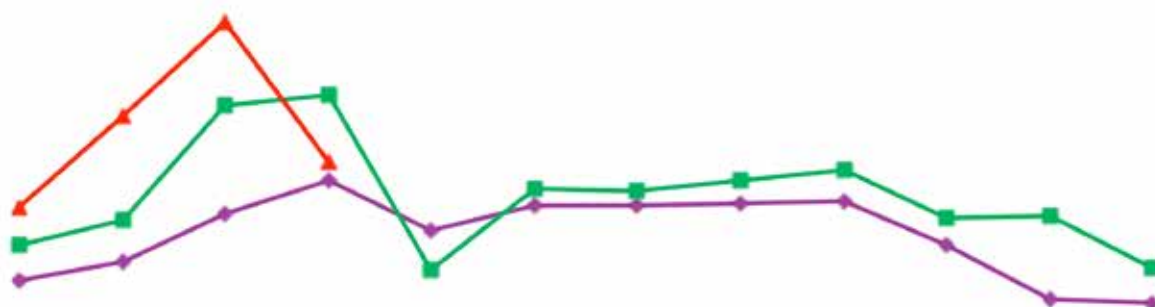
Patients Who Maintained or Lowered BMI Last 3 Visits

Desired Direction = ↑



Center for Healthy Weight and Nutrition Completed Visits Comparison

Desired Direction = ↑



	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
2014	381	398	444	475	428	452	452	453	455	415	363	360
2015	415	437	546	555	391	467	465	474	485	439	441	393
2016	450	536	623	493								

Primary Care Obesity Network (PCON)

The Primary Care Obesity Network (PCON) is a network of primary care providers in central Ohio linked to the Center for Healthy Weight and Nutrition. Its goal is to implement evidence-based obesity care by establishing a sustainable multi-sector collaboration between primary care practices, a tertiary care obesity center and community organizations to address childhood obesity in central Ohio. PCON members are educated on nutrition; increasing physical activity; implementing strategies for changing behavior; parenting and lifestyle intervention; and more. The network is the first of its kind in Ohio.

Depending on need, each of the participating primary care offices functions as either a Level 1 PCON clinic (physician only) or a Level 2 PCON clinic (registered dietitian working with the physicians). The Center for Healthy Weight and Nutrition provides education and training, as well as administrative support to all participating clinics.

To reduce or prevent pediatric obesity and to help children already facing this chronic condition, Nationwide Children's will:

- Maintain adolescent bariatric surgery center accreditation with the Metabolic and Bariatric Surgery Accreditation and Quality Improvement Program
- Create new specialty sessions for specific obese populations
- Improve patient engagement and outcomes by increasing average treatment contacts to 4 or more visits in 6 months
- Expand the Primary Care Obesity Network
- Develop evidence-based interventions that will reduce disparities in the care of high-risk, vulnerable populations
- Increase community education and advocacy programs, initiatives and events

Community Partners

Boys and Girls Clubs
Children's Hunger Alliance
City Year
Columbus City Schools
Columbus Metro Parks
Columbus Public Health
Columbus Recreation and Parks
Community Development for all People
Franklin Park Conservatory
City of Groveport
Junior League of Columbus Inc.
Kroger
Local Matters
Mid-Ohio Foodbank
Ohio Hispanic Coalition
Philip Heit Center for Healthy New Albany
Primary Care Practices
The Salvation Army
YMCA of Central Ohio

2. Infant Mortality

Description

Franklin County has one of the highest infant mortality rates in the country, according to the *HealthMap2016*. Black babies in Franklin County die at twice the rate of white babies. The *HealthMap2016* also states that 13 percent of all babies are born prematurely in Franklin County. Preterm birth is the largest contributor to infant mortality. Of the premature babies that survive, many suffer disorders that result in ongoing challenges. The infant mortality rate has remained relatively constant over the past few years. However, this rate remains higher than the statewide rate and significantly higher than the national rate.

Nationwide Children's Programs and Partners

Nationwide Children's aims to decrease the infant mortality rate in the central Ohio area through offering many programs and services. The hospital also collaborates with several local and state organizations, in an effort to address issues related to infant mortality.

BC4Teens

One way to ensure teens do not get pregnant before they intend to is by providing education and access to birth control. Nationwide Children's BC4Teens does that. BC4Teens is a place where young women up to age 22 can learn about birth control and get the best method for them, including implants and IUDs. The majority of patients are low income, minority patients between 15 and 22 years old.

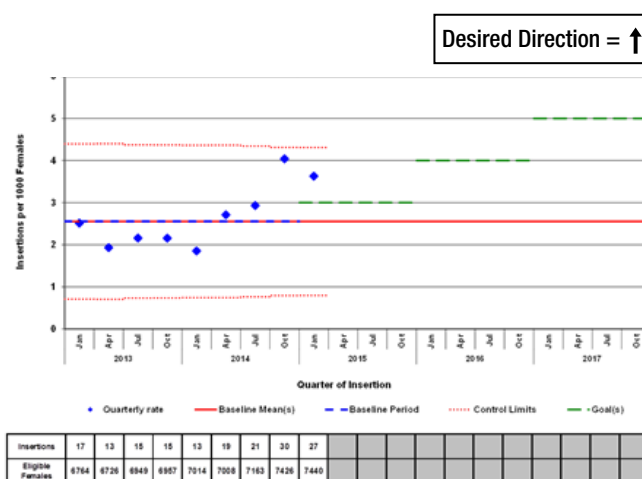
BC4Teens' main focus is on performing long-acting, reversible contraceptive (LARC) insertions. LARCs provide protection against pregnancy for 3 years and are more than 99.9 percent effective. The total performed at Nationwide Children's in 2015 was 933, a 44 percent increase from the 650 inserted in 2013.

Teen and Pregnant Clinic

When teens find themselves pregnant, Nationwide Children's also offers assistance so they have a healthy pregnancy through Nationwide Children's Teen and Pregnant (TaP) clinic. Nationwide Children's has seen steady growth in the number of women treated annually through this program, offered in collaboration with The Ohio State University Wexner Medical Center. Care is

provided by two nurse practitioners, and Nationwide Children's also contracts with The Ohio State University Wexner Medical Center to provide access to two obstetricians, one of whom was added in 2015 to increase the access women have to medical providers.

Long-Acting Reversible Contraceptive (LARC) Insertion Amongst PFK Females ≤19 Years Living in the HNHF Zone*



* HNHF Zone = Zip codes 43205, 43206 and 43207, an economically challenged area around Nationwide Children's

CenteringPregnancy

In addition, CenteringPregnancy programs help moms-to-be interact with other women who are at similar stages of pregnancy learn care skills and participate in group discussions. This program has been shown to decrease preterm births and increase healthy habits. The program, provided by PrimaryOne Health, the community's largest network of health centers, had 428 patient visits in 2015.

Ohio Fetal Medicine Collaborative

Along with the aforementioned partnerships, Nationwide Children's also works with the Ohio Fetal Medicine Collaborative. Ohio Fetal Medicine Collaborative is a collaboration of six hospital systems, including Nationwide Children's, Dayton Children's Hospital, Miami Valley Hospital, Mount Carmel, OhioHealth and The Ohio State University Wexner Medical Center, that provides care to high-risk expectant mothers and their babies with suspected fetal diagnoses. Nationwide Children's provides 100 percent of the care for the babies born with a wide range of disorders.

Ohio Better Birth Outcomes

In 2014, a task force of city and county leaders, the business community, residents, elected officials, non-profits, hospitals and public health systems came together to develop a comprehensive plan to address the unacceptable infant mortality rate in Columbus and Franklin County. This plan seeks to reduce the local infant mortality rate by 40 percent and cut the racial disparity gap in half.

The Ohio Better Birth Outcomes (OBBO) was named as one of the leading organizations to implement the plan's recommendations. OBBO is a clinical and quality-based prevention collaborative designed to reduce preterm birth and infant mortality in Franklin County and in Ohio. OBBO unites Franklin County's four hospital systems – the Central Ohio Hospital Council, Columbus Public Health, and PrimaryOne Health. Nationwide Children's staff provides strategic and operational leadership to this collaboration.

OBBO's implementation activities are focused on making improvements in prenatal care and reproductive health planning, and starting a clinical quality improvement initiative to increase the use of progesterone in certain high-risk pregnancies.

OBBO focuses on specific interventions for high-risk pregnant women and new mothers to help reduce prematurity-related morbidity and mortality. OBBO works to ensure that all women in the community have access to safe and effective ways of preventing pregnancy, including abstinence, natural family planning and contraceptive use. Its goal is to promote reproductive health planning to ensure safe spacing between pregnancies.

In addition, OBBO recently commissioned The Ohio Colleges of Medicine Government Resource Center to conduct a prenatal capacity study. The study, to be completed in 2016, will identify the providers that serve a majority of women on Medicaid. In addition, the study will identify the community's capacity for prenatal care, barriers and challenges in accessing care, and qualitative data on women's experiences in finding and receiving prenatal care.

A tool has been developed for OBBO partners to assist in screening pregnant women for high-risk conditions. The implementation of the tool and the results of the capacity study will significantly advance access to prenatal care and coordinated case management of pregnant women.

Safe Sleep

On average, more than three Ohio infants die each week due to sleep-related causes, which is why Nationwide Children's follows the current safe sleep standards and actively educates its young patient mothers, parents and caregivers on their importance. The standards include the "ABCs of Sleep," reminding parents and caregivers that babies should sleep alone, on their backs and in a crib, among other important facts. Nationwide Children's is joining forces with hospitals and organizations around the city to educate on safe sleep practices. Within the hospital, four separate teams are working on sharing safe

sleep information with inpatients, with Intensive Care Unit patients, in the Emergency Department and Urgent Care locations, as well as with outpatient centers. The hospital also endorses the Safe Sleep Media Guidelines, developed by the First Candle organization, which cover the proper use of photos and videos of infants in external media and social media campaigns. The guidelines outline what is permissive when featuring photos of sleeping infants to promote safe sleep practices.

To reduce the rate of premature births and the infant mortality rate, Nationwide Children's will:

- Expand BC4Teens and Teen and Pregnant services
- Increase long-acting reversible contraceptive (LARC) insertions among females 15-22 years of age in Franklin County who receive Medicaid
- Increase access to high quality, comprehensive prenatal and postpartum care for teen mothers
- Increase the amount of adolescent well-care visits through collaborative efforts with primary care and adolescent medicine
- Increase education on safe sleep within Nationwide Children's

Community Partners

CelebrateOne
Central Ohio Hospital Council
Columbus Public Health
Mount Carmel Health Systems
OhioHealth
The Ohio State University Wexner Medical Center
PrimaryOne Health

3. Access to Care

Description

The number of Emergency Department visits a hospital receives is an indicator of how much access the community has to health care. In Franklin County, Emergency Department visits per every 1,000 people tops the statewide rate by 4 percent – a rate that has increased slightly since *HealthMap2013*. This suggests a need for improved access to care outside of the hospital to primary care providers, dental providers or community health services.

Access to quality dental care and preventive services for Franklin County children continues to be a matter of great concern, particularly for those affected by racial and economic disparities, according to *HealthMap2016*. Ohio ranks lower than the national average on all pediatric dental measurements, except for water fluoridation. Only 20 percent of dentists participate in Medicaid for child dental services compared to 42 percent nationally. This creates a huge barrier for Ohio children in receiving quality oral health care that needs to be addressed. Looking at other health factors among Franklin County youth, the percentage diagnosed with asthma is down from *HealthMap2013*, from 16.5 percent to 15.3 percent.

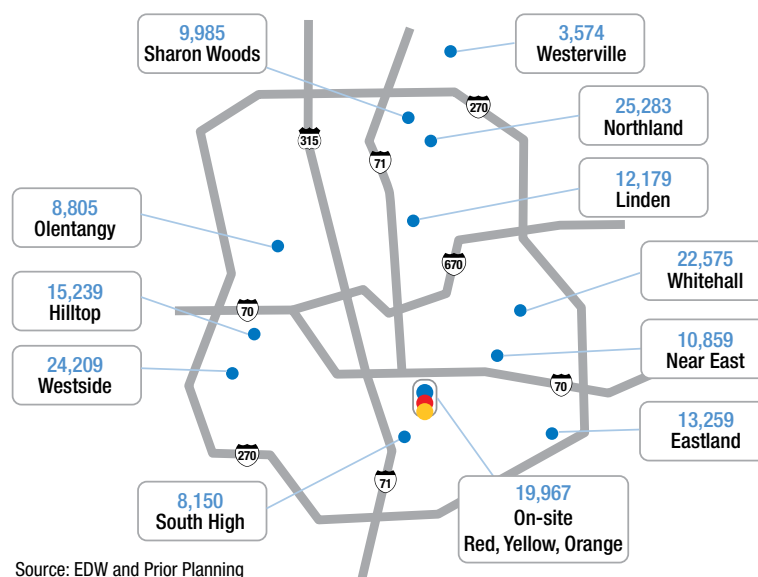
Nationwide Children's Programs and Partners

In response to the need for more appropriate, accessible care, Nationwide Children's Hospital has committed to providing additional primary and subspecialty health care to Franklin County residents. Nationwide Children's enhances access to care through its primary care, oral care and emergency and urgent care services.

Primary Care

Children and adolescents are increasingly using the preventative care offered through Nationwide Children's 12 Primary Care Centers.

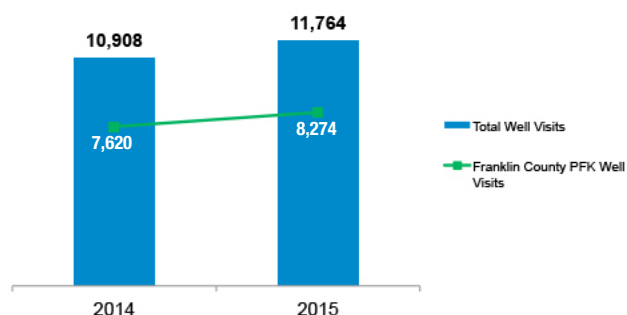
Primary Care Network Locations and Number of Visits 2015



Nationwide Children's increased primary care patient visits by 4 percent between 2015 and 2016, and improved asthma management through primary care visits. Improved access to asthma treatment at the primary care level can provide better outcomes and significantly decrease unnecessary pediatric Emergency Department visits. The additional access is reflected, at least in part, in the 11 percent reduction in the number of primary care patients using the Emergency Department and Urgent Care Centers between 2015 and 2016. During that same time, the number of teen clinic sessions offered within Primary Care doubled at many sites. The hospital also expanded usage of its mobile care centers in conjunction with School Health Services and community partners.

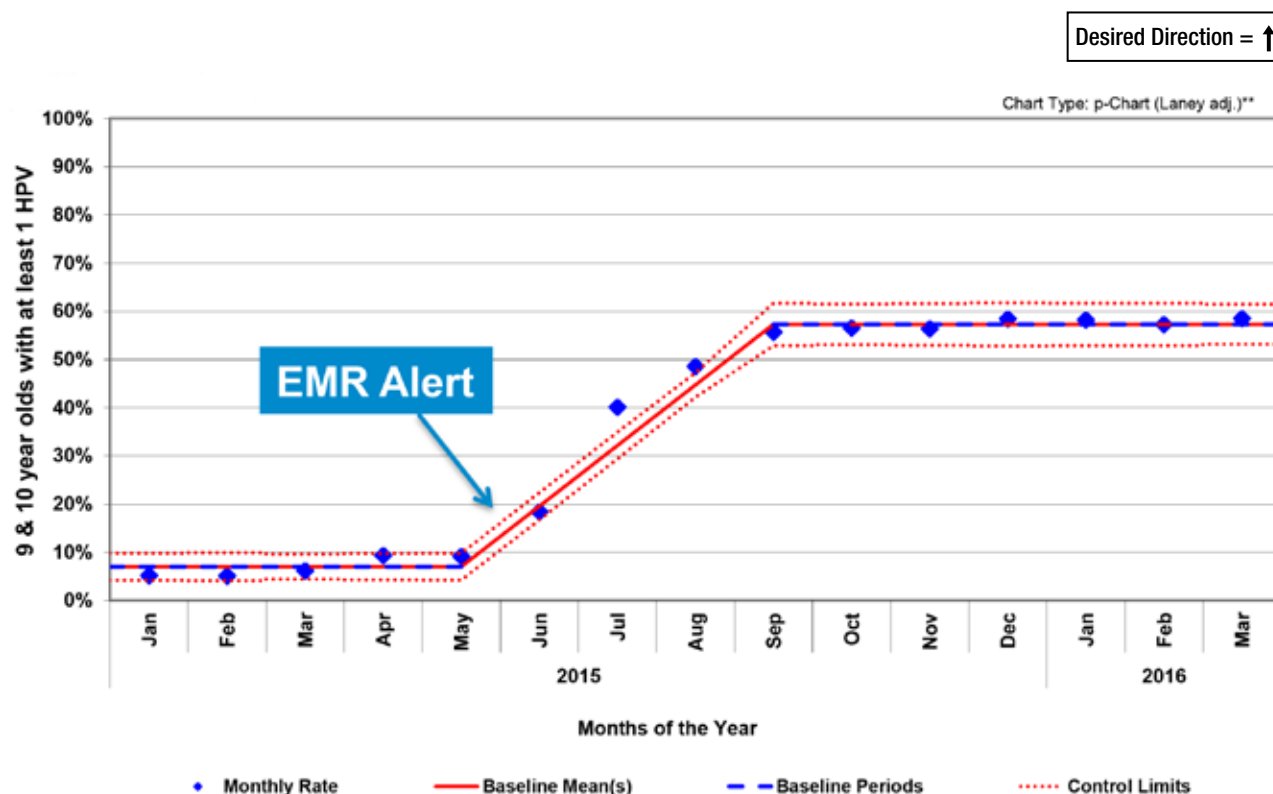
Well child visits are an important component of preventative care in children and adolescents. A specific focus has been placed on efforts to increase well visits in the 3-6 age group and the 12-18 age group. Over the course of 2014 and 2015, more than 31,000 well child checks were completed on children aged 3-6 in Franklin County.

Primary Care Adolescent Well Visits



For adolescents throughout the county and beyond, well child checks are on the rise. Between 2014 and 2015, total adolescent well visits increased 8 percent and visits for higher risk adolescents increased by 9 percent within the population served by Partners for Kids (PFK). PFK is the physician hospital organization that serves more than 300,000 children in central and southeastern Ohio who are covered by Medicaid Managed Care programs. Nationwide Children's is the sole hospital member of PFK.

Primary Care HPV Vaccination Rates - Ages 9-10



At the heart of preventing illness and disease is immunization. Nationwide Children's has succeeded in attaining high immunization rates among patients at its Primary Care Centers. In 2014, immunization rates at the Primary Care Centers were high with few, if any, missed immunizations at each of the sites.

A focus in the coming years will be to increase the number of 9 to 12 year olds receiving the human papillomavirus or HPV shot. HPV is a sexually transmitted infection responsible for most cases of genital warts and cervical cancers.

To improve access to pediatric primary care services, Nationwide Children's will:

- Promote growth and development of the Primary Care Centers, including relocating the Olentangy Primary Care Center and the Main Campus Primary Care Centers to new, more accessible locations, which are expected to increase capacity at those centers
- Develop a comprehensive patient education program by increasing the availability of online and print materials conveying preventative health messages, as well as increasing the time that clinicians spend with patients to ensure they understand the nature of their illnesses and ways to prevent future illnesses
- Increase clinical research activity and initiate an increasing number of interdepartmental research collaborations to improve primary care outcomes
- Improve patient and family experience and engagement

Community Partners

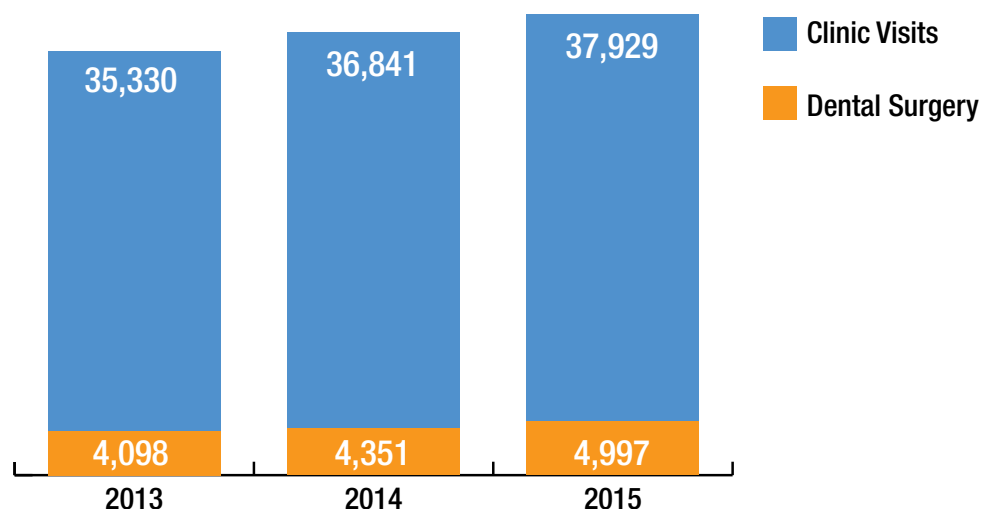
Access Columbus
 Columbus City Schools
 Columbus Health Department
 Cristo Rey Columbus High School
 KIPP Academy
 The Ohio State University's Early Childhood Head Start
 Southwestern City Schools
 United Way of Central Ohio
 Village Network
 Women Infants and Children (WIC)
 YWCA Family Shelters

Oral Health Care

Nationwide Children's is committed to meeting the community need for oral health care by offering a safety net dental clinic. More than 80 percent of the 21,000 unique patients seen annually at the Dental Clinic are covered by Medicaid, with the majority from Franklin County. Most of the clinical care is provided by pediatric dental residents selected through a highly competitive match program. A team of more than 40 community pediatric dentists and other specialty dentists serve as attending dentists, faculty and care providers. An evening Dental Clinic operates Monday through Thursday and has Saturday hours to help working families.

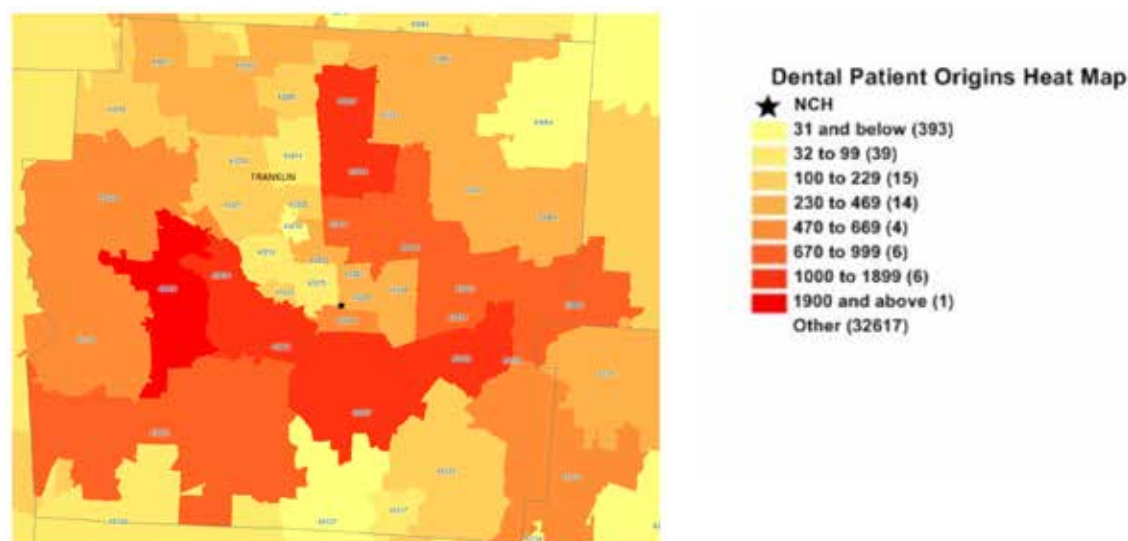
Nationwide Children's Dental Visits

2013 – 2015



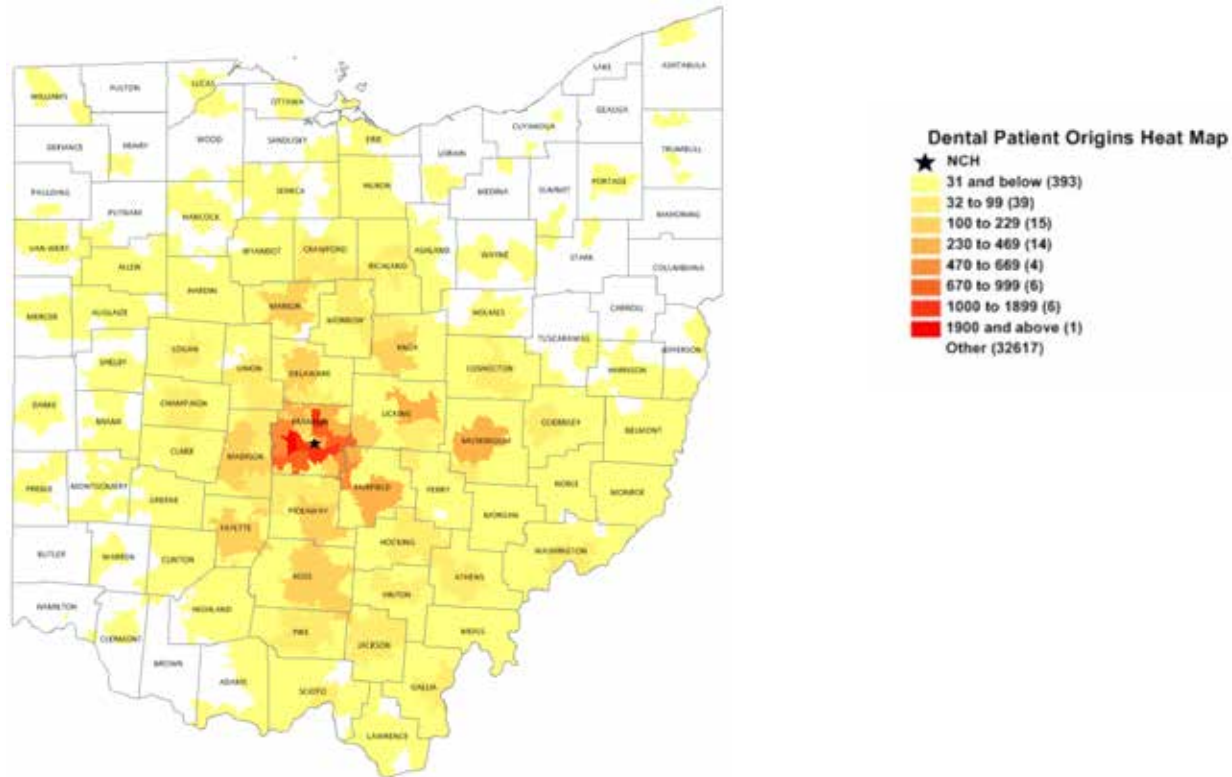
Dental Clinic Visits - Patient Origin Franklin County By Zip Code

2015



Dental Clinic Visits - Patient Origin

2015



Dental Specialty Services

In addition to offering primary oral health care for infants and children, Nationwide Children's offers specialty dental services such as orthodontics, periodontics, endodontics, sedation and dental trauma management. Clinical oral pathology was added in 2015 under the new chief of Dentistry who is a dual-trained pediatric dentist and oral and maxillofacial pathologist. This new service focuses on abnormal changes or damages to the inside of the mouth, lips, gums, teeth and jaw bones due to disease or injury. The Dental Clinic

also provides a Baby Dental Clinic for children under age 3 ½ years, a Dental Trauma Center for managing trauma to young permanent teeth and a Dental Surgery Center dedicated to dental treatment under general anesthesia. The hospital's other surgery centers and main operating rooms serve more than 4,600 patients each year with dental and medical needs.

First-come, first-served, emergency walk in clinic hours are also available at the Dental Clinic, along with 24-hour on call service through the Emergency Department.

Chronic Disease Management

According to the American Academy of Pediatric Dentistry, a rapid form of tooth decay, known as early childhood caries (ECC), is the most common disease faced by young children. Tooth decay is also four times more common than asthma among adolescents aged 14 to 17 years. Nationwide Children's is committed to chronic disease management of tooth decay. The hospital's approach emphasizes early identification of high risk children, prevention strategies, motivational interviewing to change dietary and other risk factors, as well as risk-based recall scheduling instead of the traditional approach of restoring or extracting teeth without controlling the disease.

Priorities for Nationwide Children's include educating the community about tooth decay, particularly in early childhood, and combatting dental fatalism, which is an attitude of inevitability of poor oral health. This attitude may be due to previous family history of poor oral health and a lack of understanding and motivation in improving diet or oral hygiene practices among adult caregivers which, in turn, affects young children. Creating culturally sensitive and appropriate patient education materials about oral hygiene and nutritional guidelines is one way to improve awareness and impact community health at large.

Primary Care Dental Home

Most young children do not visit the dentist at an early age despite the recommendations from the American Academy of Pediatric Dentistry and the American Association of Pediatrics. To combat this, a new initiative at Nationwide Children's will add a dental hygienist to the Primary Care team to provide prevention, education and early intervention during well child visits up to age 3. This change is in line with Nationwide Children's commitment to provide patient-centered medical homes. The goal is to provide a dental home within the Nationwide Children's medical homes and refer them to the Dental Clinic only for restorative care, if needed. This initiative is possible due to House Bill 463, effective March 2015, which allows dental hygienists to provide preventive services without the presence of a dentist in high need areas in Ohio.

Another factor that will improve this initiative's success is the integration of electronic dental records with medical records at the hospital. This approach will allow for prevention-based training for both medical and dental students and providers, thereby impacting access for the community.

Community Outreach

Additionally, a new faculty member is now dedicated to coordinating and expanding community outreach. A pilot program with Nationwide Children's mobile care centers will offer preventive services for children up to age 5.

To improve access to pediatric preventative and restorative dental care, Nationwide Children's will:

- Relocate the main campus dental clinic to a larger space in the Livingston Ambulatory Center and expand access to patient services by adding 11 chairs to the new clinic
- Expand access to community dental care by adding mobile dental services and exploring teledentistry capabilities
- Enhance services for medically compromised and special needs patients
- Improve early identification, non-surgical intervention and disease management for children with early childhood tooth decay
- Begin integrating preventive dental services within Primary Care to provide dental homes within medical homes for up to age 3
- Expand medical-dental and inter-professional collaborations for joint research and quality improvement initiatives such as dental behavior management with pediatric psychology
- Increase capacity to meet the dental needs of adolescent patients in the evening Dental Clinic
- Increase capacity in the community for infant oral health care by providing expert training to general dentists and creating a network of community providers
- Develop patient and community education materials to improve oral health literacy

Community Partners

Children's Oral Health Action Team

Community Kitchen Incorporated - Columbus

Fairfield Association for the Education of Young Children

Huckleberry House

Moms 2B

Ohio Association of Community Health Centers

Ohio Department of Health

The Ohio State University College of Dentistry

The Ohio State University Dental Health Outreach
Mobile Experience (H.O.M.E. Coach)

The Ohio State University Nisonger Center

The Ohio State University Star House

St. John's Episcopal Church – HIS Place

Voices for Ohio's Children

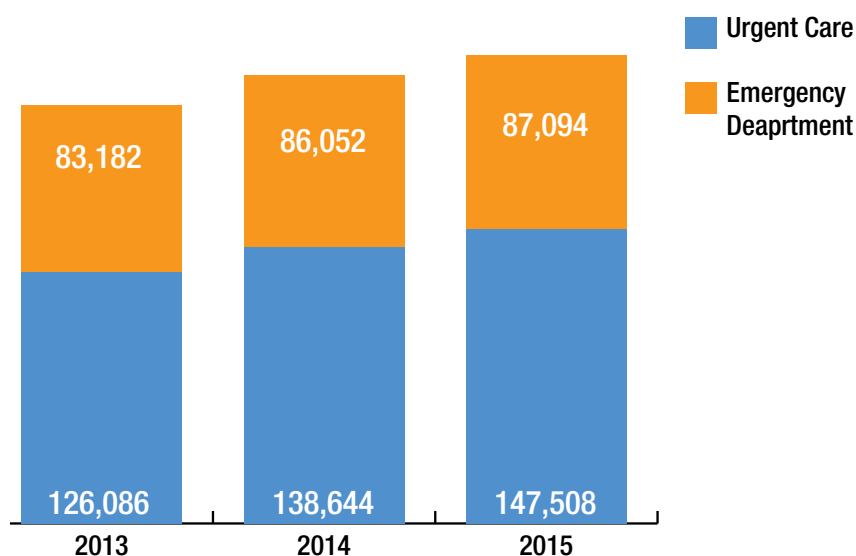
YMCA of Central Ohio Head Start

Emergency and Urgent Care Services

Nationwide Children's features a Level I Pediatric Trauma Center and Pediatric Emergency Department staffed by board-certified/board-eligible pediatric emergency subspecialists 24 hours per day. The hospital also operates seven urgent cares in the greater Franklin County region and is serving more patients in these centers, thus freeing up beds in the hospital's Emergency Department.

Nationwide Children's Emergency Department and Urgent Care Visits

2013 - 2015



Since asthma is a top reason for pediatric emergency room visits, the hospital has continued to provide asthma education programs to help patients and their families best manage their symptoms. In addition to education programming, the Emergency Department team at Nationwide Children's has developed protocols to allow for immediate steroid administration in asthma patients meeting specific criteria. Studies have shown that the early administration of steroids in asthmatic patients helps decrease rates of admission. Additionally, during certain hours, the Emergency Department team has initiated a trial collaboration with the pharmacy to deliver medicine to a patient's bedside before the patient goes home. By year end 2015, asthma-related emergency room visits among the highest risk populations had declined by 14 percent relative to the preceding three-year average — nearly five times the original goal.

To improve access to emergency and/or urgent pediatric care, Nationwide Children's will:

- Add a new free-standing Emergency Department in southern Delaware County
- Continue asthma education programs to reduce unnecessary Emergency Department utilization by asthmatic patients
- Continue working with other central Ohio Emergency Departments to ensure all hospitals are using best practices in caring for medical, trauma and behavioral health patients, to reduce the chance that the patients will return for treatment for the same illnesses.

Community Partners

Air Evac

Alcohol Drug and Mental Health Board of Franklin County

Center for Family Safety and Healing

Central Ohio Poison Center

Central Ohio Trauma System

Columbus and Local Fire Departments,
Law Enforcement, and EMS

Columbus and Metropolitan Medical Response System

Columbus Public Health

Delaware County EMS

Department of Homeland Security

Emergency Medical Services for Children

Local and Regional Hospitals and Health Systems

Local School Systems

Medical Reserve Corps

MedFlight

Ohio Chapter of the American College of Emergency
Physicians

Ohio Chapter of the Emergency Nurses Association

Ohio Committee on Trauma

Ohio Department of Health

Ohio Department of Public Safety, Division of EMS

Ohio Environmental Protection Agency

Ohio Fire Chiefs' Association

Pediatric Trauma Society

Regional Hospital Emergency Preparedness Committee

State of Ohio Trauma Committee

4. Behavioral Health

Description

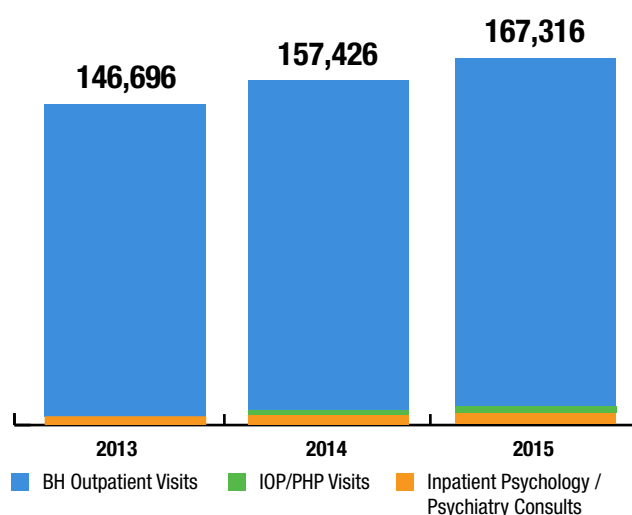
The need for inpatient and outpatient services for children and adolescents with mental health and/or substance abuse problems in Franklin County continues to grow. Psychiatric admissions and hospitalizations for suicide attempts have both increased since the *HealthMap2013* was released. According to the *HealthMap2016*, the rate of psychiatric admissions among the county's young people tops the statewide rate. Nationwide Children's is investigating ways to decrease these numbers.

Nationwide Children's Programs and Partners

Nationwide Children's Behavioral Health is dedicated to the care of children and adolescents suffering from problems of emotion, behavior, development, thought and adaptation-to-life challenges, including those associated with physical illness and trauma. Nationwide Children's offers treatment options including inpatient and outpatient services, and outreach and community programs to serve children in Franklin County and beyond in the most appropriate setting.

Behavioral Health Total Visits

2013 - 2015



Nationwide Children's approach to behavioral health is multidisciplinary and collaborative. Professionals from disciplines such as child and adolescent psychiatry, counseling, developmental behavioral pediatrics, psychology, social work and nursing together determine the best treatment options for children and adolescents.

Nationwide Children's alone cannot meet the soaring need for mental health and substance abuse treatment for children and adolescents. Therefore, the hospital works with many community partners to identify opportunities for service integration across the community.

Crisis Care

In recent years, Nationwide Children's has significantly expanded its ability to treat young people facing a psychiatric crisis. In 2014, Nationwide Children's Behavioral Health initiated a 24/7 presence in the Emergency Department. Safer emergency room beds for pediatric and adolescent patients seeking crisis emergency services were also created. Nationwide Children's and The Ohio State University Wexner Medical Center offer 24-hour mental health crisis and assessment care. This collaborative care allows the two hospitals to assess each child's need and provide the best behavioral and mental health care. Both hospitals can stabilize patients over a few days and can provide longer-term inpatient hospitalization if necessary. Nationwide Children's provides crisis care to children 14 and under, while Ohio State serves patients 15 and older.

Acute Care

Inpatient care is another important element of providing comprehensive access to behavioral health resources. In 2014, Nationwide Children's opened its first psychiatric unit. The goal of this unit is to improve access to high

quality mental health programs in central Ohio. As demand continues to rise, this program will expand.

Education and Research Initiatives

In early 2016, Nationwide Children's received approval from the Accreditation Council for Graduate Medical Education (ACGME) for a psychiatry fellowship. The fellowship will launch in fall 2017. In the future, these education and research initiatives will continue to grow.

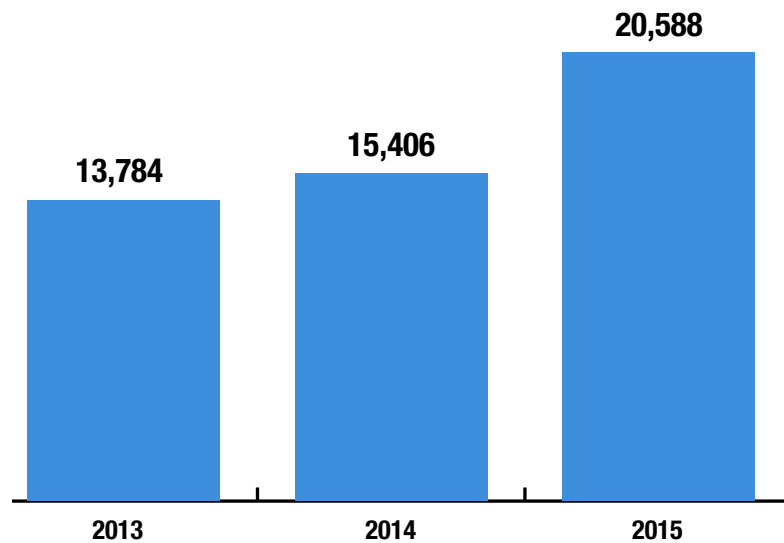
Community-Based Programs

To address the growing problem of suicide among youth in central Ohio, The Center for Suicide Prevention and Research at Nationwide Children's was launched in 2015. The Center is a central place where youth, parents, schools, clinicians and community partners can access information related to care for individuals at-risk for suicide. The Center's staff also works with school districts throughout central and southeast Ohio to train school employees, parents and students to recognize symptoms of depression and the warning signs of someone who might be suicidal and to know how to respond. This is done through the Signs of Suicide (SOS) curriculum, now provided in 54 classrooms.

School-based initiatives have continued to expand over the past few years. Nationwide Children's Behavioral Health now has a presence in 27 Columbus City Schools and also provides services to Bexley and Canal Winchester schools. Another program offered in the schools is the PAX Good Behavior Game, which allows teachers to spend less time on classroom management while increasing overall productivity by teaching children self-regulation strategies and promoting positive interactions.

Behavioral Health Outpatient Psychiatry Visits

2013 - 2015



Outpatient Programs

Outpatient assessment and treatment services are offered at five locations throughout Franklin County. Psychiatry outpatient visits in 2015 exceeded the volume of 2013 by 49.4 percent. Recognizing the need for more outpatient services in the community, a new psychiatry outpatient clinic opened in 2015, along with the Mood and Anxiety Program.

To reduce and manage the prevalence of behavioral health disorders, Nationwide Children's will:

- Build a behavioral health pavilion, adding 40 new inpatient psychiatric beds
- Add at least one new outpatient clinic
- Continue to expand school based programs and services
- Increase prevention efforts at high-need/at-risk early learning centers
- Increase research and education efforts
- Continue to engage the community through partnerships
- Expand integration of therapy and psychiatry services within primary care

Community Partners

Columbus Public Schools	Ohio Department of Jobs and Family Services
Delaware-Morrow Mental Health & Recovery Services Board	Ohio Department of Mental Health
Franklin County Alcohol Drug and Mental Health Board (ADAMH)	Ohio Department of Youth Services
Franklin County Children Services	Ohio Medicaid
Franklin County Juvenile Court	Paint Valley ADAMH Board (Fayette, Highland, Pickaway, Pike and Ross counties)
Licking-Knox Mental Health & Recovery Services Board	The Buckeye Ranch
Logan-Champaign Counties MHDAS Board	The Center for Family Safety and Healing
Mental Health & Recovery Board of Clark, Greene, Madison and Union Counties	The Center for Innovative Practices, Case Western Reserve University
Netcare Access	The Ohio State University Emergency Department
North Central Mental Health Services	The Ohio State University/Harding Inpatient Psychiatric Unit
Ohio Colleges of Medicine Government Resource Center	Wright State University

5. Chronic Conditions

Description

Chronic diseases are the leading causes of death and disability in the United States. The most common reason youth were admitted to a hospital in Franklin County, apart from birth-related reasons, was asthma, according to the Franklin County *HealthMap2016*. Both asthma and diabetes can require significant medical treatment and education on how to live with the symptoms.

Nationwide Children's Programs and Partners

Nationwide Children's has several programs in place to address asthma and diabetes, which also empower patients and their families to best contend with their illnesses. In turn, this reduces the risk of future Emergency Department visits and inpatient hospital treatment.

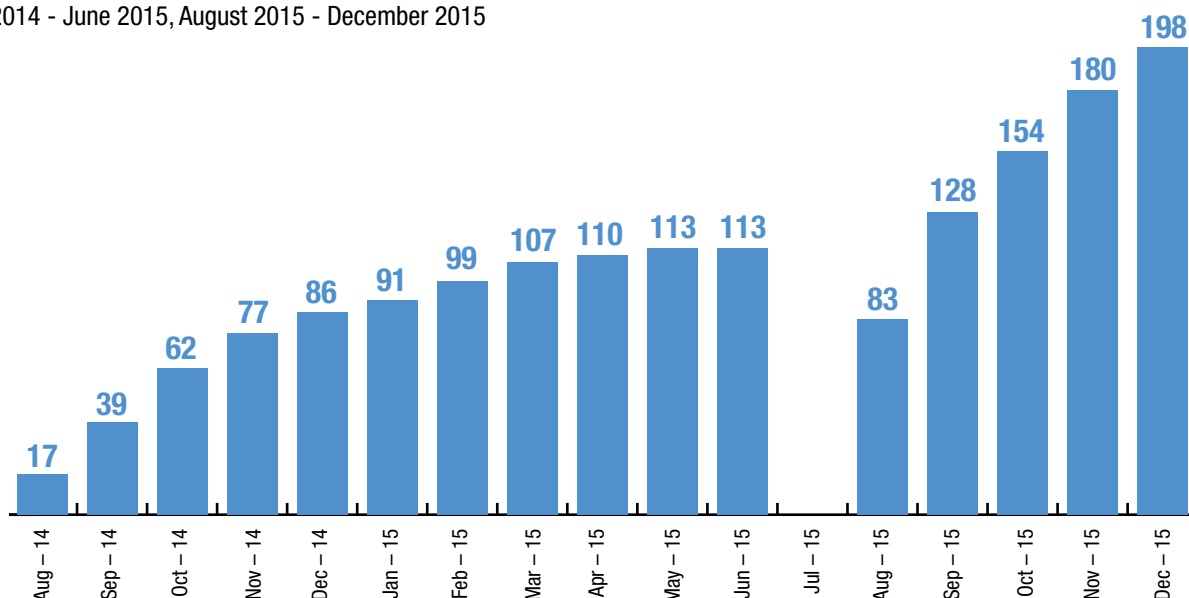
Asthma

Asthma is the leading chronic disorder in children nationally. The cost of asthma to society in the U.S. results in more than \$50 billion per year in health care expenses, missed school and work days, and early death. The 15.3 percent of Franklin County youth diagnosed with asthma is down slightly from the *HealthMap2013* total of 16.5 percent. That 15.3 percent matches the statewide rate, but is lower than the national rate of 21 percent.

Nationwide Children's School-Based Asthma Therapy program (SBAT) works as a liaison between schools and the asthma care provider to design a plan for students with high-risk asthma to receive asthma prevention medications at school. Nationwide Children's goal is to keep the student's asthma care with their asthma care provider while helping improve compliance of the student's asthma controller medications.

SBAT Student Enrollment

August 2014 - June 2015, August 2015 - December 2015



Multiple efforts to improve care in the Primary Care Centers have led to a reduction of Nationwide Children's Primary Care patients asthma-related Emergency Department visits. The number of Emergency Department visits decreased because patients' needs are being taken care of and the education provided at the primary care level. The rate of asthma related emergency room visits dropped by 18 percent between 2010 and 2015.

A crucial step in decreasing Emergency Department visits is education. Opportunities for asthma education have expanded from primarily bedside teaching to include

educational videos and multiple asthma classes offered over the course of the stay during inpatient admissions.

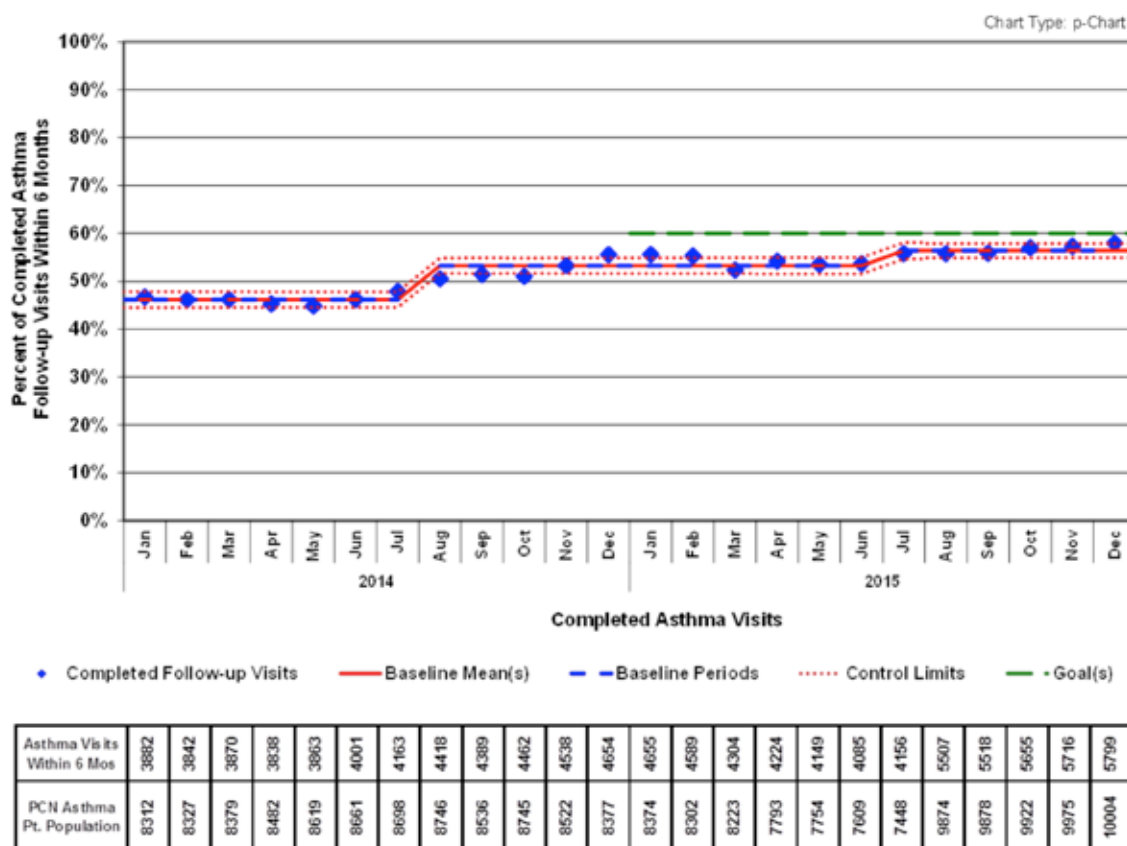
Lowering the number of inpatient stays for children and adolescents with asthma is crucial in improving their quality of life. Nationwide Children's has been successful in reducing the number of asthma patients who return to the emergency room. Between 2010 and 2015, 30-day emergency department re-utilization rates dropped from 5.2 percent to 3.1 percent due to inpatient care interventions focused on helping hospitalized families learn how to maintain asthma control.

Primary Care Network

Asthma Patients with an Asthma Visit within the Last 6 Months

Desired Direction = ↑

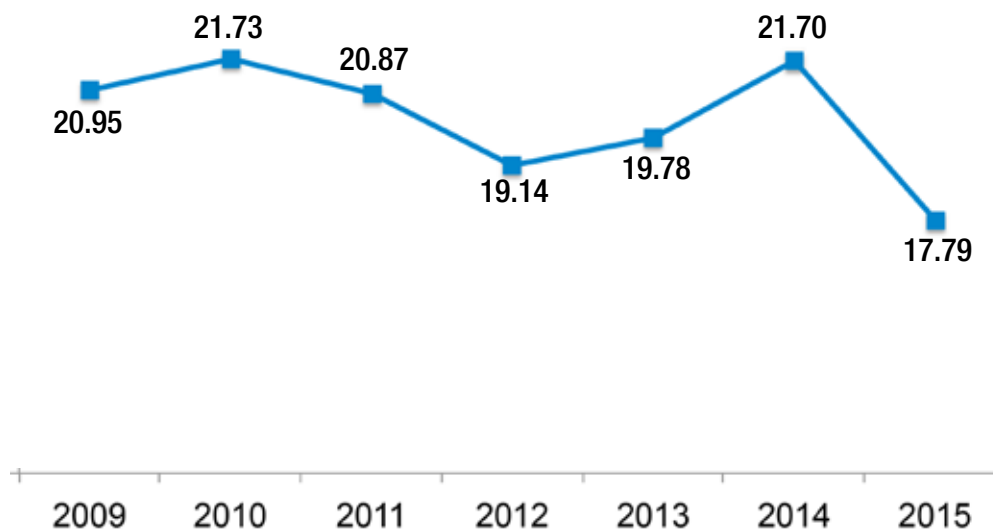
January 2014 - December 2015



The Primary Care Network (PCN) is composed of 11 pediatric primary care centers in Columbus, serving children and adolescents from birth to age 21

Primary Care Network Asthma ED Visits per 1,000 Primary Care Network Patients

Desired Direction = ↓

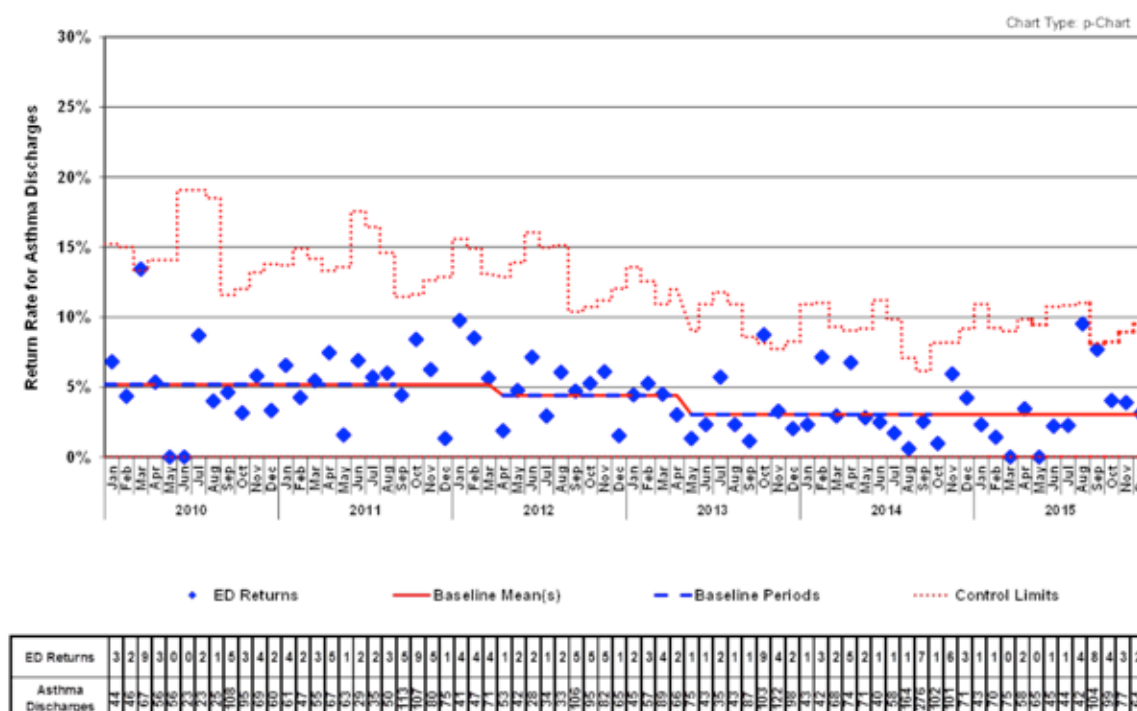


The Primary Care Network (PCN) is composed of 11 pediatric primary care centers in Columbus, serving children and adolescents from birth to age 21

Return Visits to ED within 30 Days of Asthma Discharge

January 2010 - December 2015

Desired Direction = ↓



To keep children out of the hospital and minimize the impact of asthma on children's well-being, Nationwide Children's will:

- Reduce asthma-related Emergency Department visits for Franklin County patients who receive Medicaid by optimizing treatment within the Nationwide Children's Primary Care Centers
- Expand the School-Based Asthma Therapy program
- Support community pediatricians with programs to improve asthma care
- Provide caregivers of children with severe, frequently symptomatic asthma in-home education and assistance with care coordination
- Reduce asthma-related inpatient stays for Franklin County patients by continuing to improve processes

Community Partners

Columbus City Schools
 Community pediatricians
 Ohio Association of School Nurses
 Ohio Department of Health
 The Ohio State University School of Nursing
 South-Western City Schools

Diabetes

Nationwide Children's offers comprehensive outpatient care for children with diabetes to significantly reduce Emergency Department visits and enable them to live healthy and active lives.

In 2015, a school nurse education program was implemented. Nationwide Children's staff members visit schools in the central Ohio area once per quarter to provide additional diabetes education to school nurses. Additionally, in an effort to increase the capacity of the Endocrinology Clinic, Nationwide Children's hired more endocrinologists.

A young adult diabetes transition program was launched at the end of 2014 to help teens and young adults with diabetes move from pediatric to adult diabetes care. The transition team includes a social worker, diabetes care coordinator, pediatric diabetes provider, transition diabetes provider, nurse diabetes educator and registered dietitian. A physician from The Ohio State University Wexner Medical Center sees patients from Nationwide Children's who will be moving to adult care and assists with referrals for care as needed.

Along with adding staff and the new transition program, community education programs have expanded to target all ages. Monthly support groups are offered for teens, pre-teens and parents, as well as an Annual Family Fun Day to engage all audiences together. Nationwide Children's Center for Healthy Weight and Nutrition continues to encourage patients to seek proactive diabetes care through scheduling outpatient clinic appointments. More than 70 percent of diabetes patients are seen within 105 days of their previous endocrinology appointment.

The hospital also implemented a physician consult-transfer triage center system where diabetes patients can call and reach a nurse. They are guaranteed interaction within 24 hours. This system helps reduce sick days and improve overall diabetes management skills.

6. Infectious Diseases

Description

The incidence of infectious diseases in Franklin County continues to be significantly higher than in Ohio and the nation. According to the Franklin County *HealthMap2016*, the rate for gonorrhea among 15 to 19 year olds in Franklin County is 64 percent higher than the state rate - and more than double the national rate. For that same age group in Franklin County, the rate of chlamydia also exceeds the state and national rates. Besides sexually transmitted diseases, other infectious diseases, including hepatitis, pneumonia, otitis media and cytomegalovirus, continue to have an impact on the community.

Nationwide Children's Programs and Partners

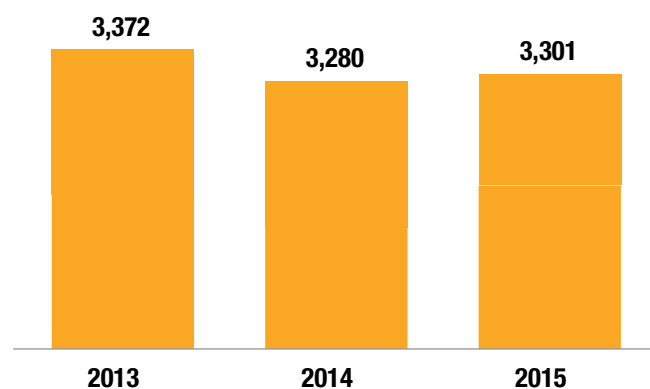
Clinical Programs

Infectious Diseases Unit

Nationwide Children's is unique among children's hospitals in the United States in offering a dedicated 26-bed Infectious Diseases Unit. This unit specializes in the care of children with a range of infections from skin infections, pneumonia and bronchiolitis, bone/joint infections, infections of the central nervous system, including meningitis and encephalitis, to unexplained febrile diseases such as Kawasaki Disease. The children receive direct care from board certified pediatric infectious disease physicians assisted by Nationwide Children's Hospital residents, and a knowledgeable nursing staff.

Infectious Diseases Inpatient Volume

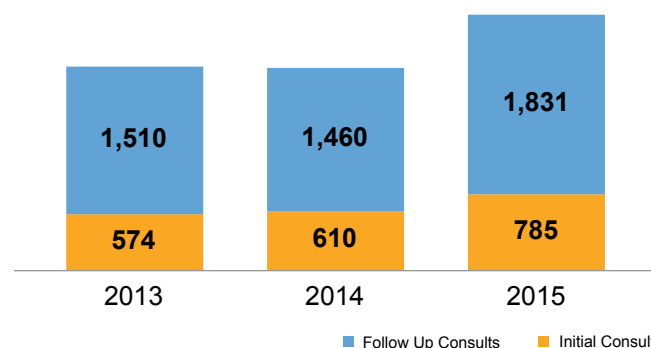
2013 - 2015



Another important function of the Infectious Diseases division is to act in a consultative role to other physicians in the hospital whose patients may have an unexplained fever or identified infection. During 2015, Infectious

Diseases saw 785 new consult patients, which required an additional 1,831 follow-up visits. Approximately a third of these patients were children with underlying malignancies or those undergoing immunosuppressive therapy for bone marrow or solid organ (heart, lung, kidney, liver) transplantation.

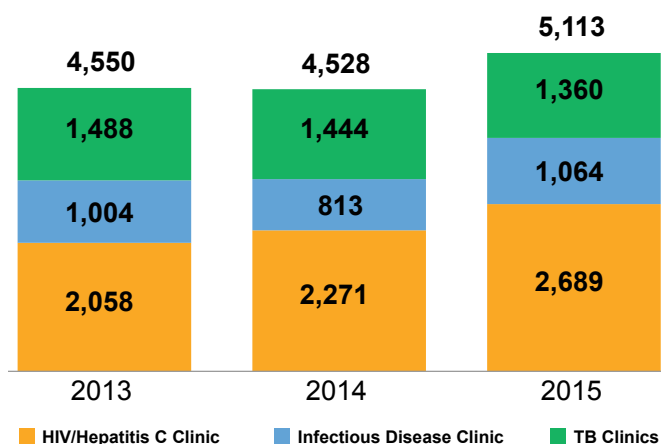
Infectious Diseases Initial and Follow-up Consults



The Infectious Diseases team also provides specialized services in the outpatient setting. The Infectious Diseases Clinic sees patients referred to Nationwide Children's by community physicians and from follow-ups from hospitalization. Based on their condition, patients can be seen in the Infectious Disease Clinic, HIV/Hepatitis C Clinic, Tuberculosis Clinic or the recently established Congenital Infections Clinic. The HIV/Hepatitis C Clinic has seen the most growth since 2013, with 600 more patients being seen annually.

Infectious Diseases Outpatient Clinic Volume

2013 - 2015



A fourth key role of the Infectious Diseases division at Nationwide Children's is to screen patients throughout the hospital for infections and ensure proper treatment. Early screening interventions are especially important because there are serious, long term consequences for a patient if his or her infection is left untreated. Nationwide Children's continues to expand its screening clinic for Hepatitis C exposed infants, which began in 2014. Additionally, a business plan is in progress to develop a comprehensive screening program for babies born with congenital infections. A main goal of this plan is to develop a universal screening program for all babies born in the region with congenital cytomegalovirus infection so that all infected babies receive appropriate treatment and follow up services.

Infection Control Programs

Along with the Infectious Diseases team, Nationwide Children's has a dedicated Epidemiology Department that plays a role in detecting and preventing infections through appropriate screening, placement and infection control principles. The department consists of six infection control prevention specialists, a data analyst and an infectious disease physician. While the group assists in treating infections, its primary focus is prevention.

Sexually Transmitted Infections Testing and Treatment

Patients in Adolescent Medicine who are sexually active are regularly screened for sexually transmitted infections (STIs) such as gonorrhea, chlamydia and trichomonas. All patients are re-tested three months after an infection, and anyone with a positive test result is also tested for HIV and syphilis. Adolescent Medicine also performs screenings at several high school based clinics and a youth homeless center.

Annually, 500 youth are screened at the Franklin County Juvenile Detention Center, where 25 percent, on average, test positive for one or more sexually transmitted infections. Youth who test positive and who are still detained in the facility when the test comes back are treated and given an additional test for HIV and syphilis.

The Family AIDS Clinic and Education Services (FACES) program provides HIV/AIDS medical services including primary care, tertiary HIV care, gynecologic, counseling/testing, nutrition, and psychological support and social support services for women, including those pregnant and of child-bearing age, adolescents, children, infants and families.

The outreach program offers education, free STI testing and treatment for HIV as well as chlamydia, gonorrhea and syphilis. By providing STI testing for free, FACES is reaching high-risk individuals before they contract HIV. In an effort to end the HIV epidemic, FACES also provides pre-exposure prophylaxis (PrEP) and post-exposure prophylaxis (PEP), medication strategies to prevent patients from contracting HIV.

Nationwide Children's trains its staff in HIV/STI information and updates staff on testing and counseling guidelines. HIV testing is now offered in the Emergency Department. Additional training has been provided to the Social Work department; dental and primary care will also train on HIV risk.

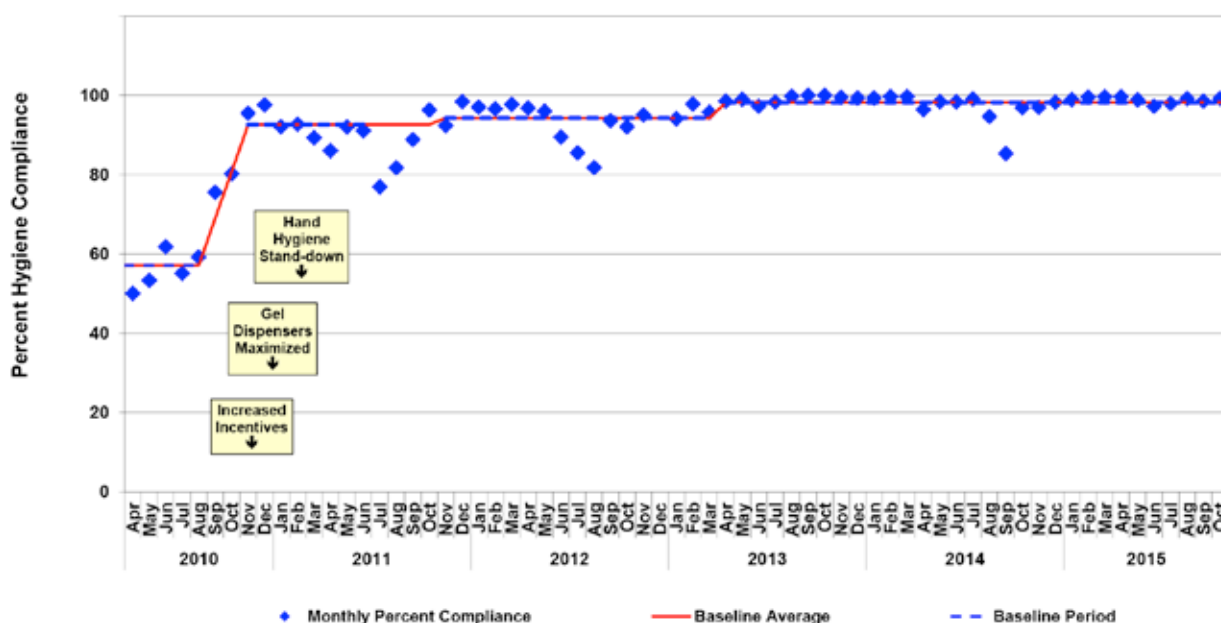
FACES Program Patient Volume

	CLINIC PATIENTS	PATIENTS TESTED FOR HIV THROUGH OUTREACH TEAM	TOTAL SERVED
2013	361	269	630
2014	404	392	796
2015	464	389	853

Hand Hygiene

Nationwide Children's goal is to make each patient's stay as safe as possible. Hand hygiene is essential to patient safety in preventing the spread of infection. Nationwide Children's employee hand hygiene program continues to maintain a compliance rate of 98 percent and above. Rates are monitored and reviewed on a monthly basis to ensure continued compliance.

NCH Overall Hand Hygiene Compliance



In/Out Hygiene Performed	26	13	75	40	89	55	78	43	98	68	184	139	288	231	691	660	755	737	101	83	25	61	189	142	172	148	115	104	124	113	324	634	507	496	458	407	270	260	444	410	320	315	404	392	350	338	221	216	249	241	226	217	181	182	188	189	203	188	140	131	616	567	647	615	423	398	465	455	374	358	208	205	404	400	290	282	361	355	417	416	409	409	350	388	323	321	308	308	315	314	308	307	305	294	316	311	305	300	327	324	225	213	360	266	289	280	300	294	353	347	282	279	228	225	255	284	272	271	265	262	365	365	149	146	373	370	208	206	130	129
Gel-In / Gel-Out Observations	26	13	75	40	89	55	78	43	98	68	184	139	288	231	691	660	755	737	101	83	25	61	189	142	172	148	115	104	124	113	324	634	507	496	458	407	270	260	444	410	320	315	404	392	350	338	221	216	249	241	226	217	181	182	188	189	203	188	140	131	616	567	647	615	423	398	465	455	374	358	208	205	404	400	290	282	361	355	417	416	409	409	350	388	323	321	308	308	315	314	308	307	305	294	316	311	305	300	327	324	225	213	360	266	289	280	300	294	353	347	282	279	228	225	255	284	272	271	265	262	365	365	149	146	373	370	208	206	130	129

Staff and Patient Vaccinations

Nationwide Children's recognizes the importance of vaccination to prevent disease and maintain optimal health. The hospital's requirement that employees receive an influenza vaccine has led to an annual compliance rate of approximately 98 percent. For patients, the hospital has collaborated across departments to increase vaccination rates from 70 percent to nearly 77 percent in recent years.

The Infectious Diseases division and the Epidemiology department together lead a hospital wide, multidisciplinary effort to improve influenza vaccination rates. During influenza season, the hospital uses a best practice alert in the electronic health record to notify nurses and physicians that a child has not received an influenza vaccine.

A licensed professional initiated protocol allows a clinic nurse to administer an influenza vaccine without a physician order. The alert includes mandatory questions to ensure that the patient can safely receive an influenza vaccine. Weekly reports are sent to all department leaders and senior leadership showing the percentage of children vaccinated in each area of the hospital.

For the 2015-2016 influenza season, children seen in Primary Care Centers had an 88 to 93 percent vaccination rate. The inpatient rate was 78 percent, and 71 percent of patients in the outpatient medical subspecialty clinic were immunized.

To help those children who might not otherwise be vaccinated because of inability to pay, the hospital participates in Vaccines for Children (VFC). This federally funded program provides vaccines at no cost to children. The hospital's success with the program led to recognition from the Centers for Disease Control and Prevention. The nurse leading the VFC program received a national immunization champion award from the Centers for Disease Control and Prevention.

In an effort to further increase vaccination rates, Nationwide Children's partners with other immunization advocacy organizations. The medical director of Nationwide Children's Epidemiology Department is a

member of the Advisory Board for the Ohio Chapter, American Academy of Pediatrics (Ohio AAP). He has testified at Ohio legislative hearings on vaccinations on behalf of the hospital and the Ohio AAP.

Antimicrobial Stewardship Program

The Antimicrobial Stewardship Program at Nationwide Children's has continued to evolve over the last three years. The program's primary focus is to address the inappropriate use of antibiotics in an effort to lower rates of antimicrobial resistance and adverse drug events in children. To date, Nationwide Children's initiatives to reduce the over prescription of antibiotics in young people has led to hospital-wide declines in the use and prescription of several specific antibiotics, focusing first on those required to treat resistant infections, such as Meropenem and Linezolid.

Research Programs

Hepatitis research

Increased rates of intravenous drug use have resulted in higher rates of the Hepatitis C virus (HCV) infection among women of child-bearing age in Ohio. This puts an increasing number of infants at risk for being born with the virus. Two Nationwide Children's researchers have received National Institute of Health funding to study the unique effects of pregnancy on immunity to HCV and transmission of HCV to newborns. Their intent is to use insights gained from these studies to find new ways to modulate the immune system and permit better control of HCV and other persistent viral infections. Birth to an HCV-positive mother carries an approximate 5 percent risk of transmission to the infant. HCV-associated liver disease usually progresses more slowly in children than adults, but, if left untreated, infected children remain at risk for eventual cirrhosis or liver cancer.

Otitis Media Vaccine Research

Ongoing ear infection and biofilm research is expected to help Nationwide Children's design both novel therapeutic approaches and better vaccines to combat ear infections that are chronic and recurrent in nature. Researchers in the Center for Microbial Pathogenesis have been funded by the National Institutes of Health to study the molecular mechanisms by which upper respiratory tract viruses and several bacteria that commonly inhabit the back of the throat work together to cause ear infections.

Pneumonia Research

Researchers are studying ways to improve the etiologic diagnosis and assessment of severity in children with pneumonia. They are leveraging the clinical and research expertise of children's hospitals throughout Ohio to develop novel management strategies for pneumonia that can be implemented across the state.

Thus far, 143 patients have been enrolled in this pneumonia study from Nationwide Children's and five other children's hospitals in Ohio: Akron Children's Hospital, Cincinnati Children's Hospital Medical Center, University Hospitals Rainbow Babies & Children's Hospital, Dayton Children's Hospital and ProMedica Toledo Hospital. The overall enrollment goal of the study is 500 patients.

To reduce infectious diseases in central Ohio, Nationwide Children's will:

- Continue to expand screening and treatment of sexually transmitted infections, particularly in local schools
- Expand testing for HIV, syphilis and hepatitis C, particularly among youth and pregnant women
- Improve diagnosis of vertically acquired HCV infections by partnering with community physicians and Partners for Kids
- Continue to maintain > 98 percent hand hygiene compliance by Nationwide Children's staff

- Continue to lower the rate of hospital acquired infections throughout the institution
- Maintain > 75 percent influenza vaccination rates in the Nationwide Children's patient population
- Monitor and decrease use of broad spectrum antimicrobial agents and initiate retrospective analysis of prescribing patterns of antimicrobials in partnership with the Partners for Kids program
- Offer a separate consult service specific to infections in the immunocompromised host population which will be staffed by Infectious Disease physicians with special expertise
- Further develop the Congenital/Perinatal Infectious Diseases program, including creating a business plan for a comprehensive screening program for babies with congenital cytomegalovirus infection
- Decrease preventable readmissions following discharge from the Infectious Disease Unit to <1%
- Continue to develop and advance infectious disease research initiatives through The Research Institute at Nationwide Children's

Community Partners

Akron Children's Hospital
Cincinnati Children's Hospital Medical Center
Dayton Children's Hospital
Ohio Chapter, American Academy of Pediatrics
Ohio Department of Health
The Ohio State University
Partners for Kids
ProMedica Toledo Hospital
University Hospitals Rainbow Babies & Children's Hospital

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In order to address the community needs identified by community representatives and the Franklin County *HealthMap2016*, Nationwide Children's Hospital will commit to the Implementation Strategies identified in this document. In addition, the mission of the hospital will continue to guide Nationwide Children's in its daily efforts to create best outcomes and provide the highest quality of care to every child and family with which it comes in contact.

Nationwide Children's will maintain its inclusive endeavors for improving care and serving the community by taking a considered and detailed approach to addressing obesity, infant mortality, access to care, behavioral health, chronic conditions and infectious diseases among the population it serves.

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