



Community Health Needs Assessment

And

Community Health Strategic Plan

June 30, 2013

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EXECUTIVE SUMMARY

Children's Hospital of Pittsburgh of UPMC Plays a Major Role in its Community:

Children's Hospital of Pittsburgh of UPMC is a nonprofit, 296-bed acute-care teaching hospital located in Pittsburgh, Pennsylvania. The state-of-the-art facility — newly opened in 2009 — is a unique resource that provides compassionate medical care to the youngest and most vulnerable patients in Allegheny County and the region. Children's Hospital of Pittsburgh of UPMC is renowned for its outstanding clinical services, research programs, and medical education, and for helping to establish standards of excellence in pediatric care. The hospital is nationally ranked in the top-10 children's hospitals by *U.S. News & World Report*.

As a primary source of care for children and adolescents in western Pennsylvania, Children's Hospital of Pittsburgh of UPMC maintains a historically strong connection with its community, and offers an array of community oriented programs and services to improve the health of local residents. One notable example is the hospital's network of community-based family support facilities, the Family Care Connection Centers. All five centers operate in the low-income neighborhoods of Braddock, Rankin, Turtle Creek, Mt. Oliver, and Lawrenceville. Family Care Connection Centers are a primary source of pediatric care, and provide general and specialized social services to over 700 families and 1,500 children each year.

Children's Hospital of Pittsburgh of UPMC in the Community

Providing nearly \$25 million in uncompensated care per year

More than 140,000 people were served through community benefit programs in Fiscal Year 2012.

UPMC cares for 88 percent of children from low-income families in Allegheny County — most of them at Children's Hospital of Pittsburgh of UPMC.



Children's Hospital of Pittsburgh of UPMC is part of UPMC, a leading Integrated Delivery and Finance System (IDFS) headquartered in Pittsburgh, Pennsylvania.

Identifying the Community’s Significant Health Needs:

In Fiscal Year 2013, Children’s Hospital of Pittsburgh of UPMC conducted a Community Health Needs Assessment (CHNA) in keeping with requirements described in section 501(R)(3) of the Internal Revenue Code. The CHNA provided an opportunity for the hospital to engage public health experts and community stakeholders in a formal process to ensure that community benefit programs and resources are focused on significant health needs.

UPMC partnered with experts at University of Pittsburgh Graduate School of Public Health (Pitt Public Health) to conduct the CHNA using a best-practice methodology. The assessment blended rigorous analysis of documented health and socioeconomic factors with an interactive, structured community input process, known as “Concept Mapping.”

The CHNA process effectively engaged the community of Children’s Hospital of Pittsburgh of UPMC in a broad, systematic way. The process included face-to-face meetings with the Community Advisory Council, as well as use of an online survey tool.

Through the CHNA process, Children’s Hospital of Pittsburgh of UPMC identified significant health needs for its particular community. They are:

Topic	Importance to the Community
Childhood Obesity	Obesity is a risk factor for many chronic diseases, including heart disease, diabetes, and cancer. Overweight and obesity are prevalent among children both nationally and locally – almost one-third of students attending schools in Allegheny County are overweight or obese.
Immunizations and Vaccinations	Immunization of infants and children are important in fighting off vaccine preventable diseases, such as whooping cough, measles, and polio. Some vaccination percentages for children in Allegheny County were lower than national benchmarks.
Preventive Health and Wellness	The foundations for good decision-making are being developed when children and adolescents are in their formative years — especially as it relates to distinguishing between healthy and risk-taking behaviors.

Children's Hospital of Pittsburgh of UPMC is Responding to the Community's Input:

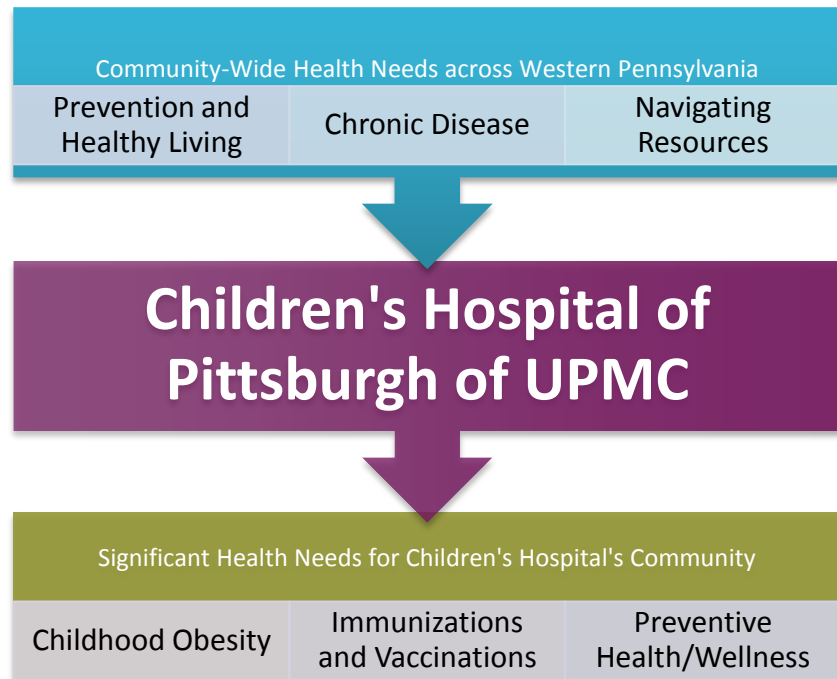
Western Pennsylvania has a diverse range of health needs. Key themes that emerged from the Children's Hospital of Pittsburgh of UPMC's CHNA process were consistent with those found through CHNAs conducted at other UPMC hospitals throughout western Pennsylvania. In addition to being relevant to the CHNA, these themes are increasingly important in the rapidly changing landscape of health care reform:

- Focus on a Few High-Urgency Issues and Follow-Through:** The hospital is concentrating on a limited number of significant community health needs, and has developed concrete plans to chart measurable improvements.
- Chronic Disease Prevention and Care:** Nearly two-thirds of deaths in the community are attributable to chronic disease. Children's Hospital of Pittsburgh of UPMC is planning a wide range of initiatives to support prevention of chronic disease early in life.
- Navigating Available Resources:** Many established health care programs in Children's Hospital of Pittsburgh of UPMC's community are often untapped due, in part, to social and logistical challenges faced among populations and individuals lacking social support systems.
- Community Partnerships:** Children's Hospital of Pittsburgh of UPMC is collaborating successfully with local organizations on improving community health. The hospital will also leverage resources and synergies within the UPMC system, which includes population-focused health insurance products and comprehensive programs and resources targeted at areas including behavioral health and children.

Children's Hospital of Pittsburgh of UPMC Is Improving Community Health in Measurable Ways:

On June 4, 2013, the Children's Hospital of Pittsburgh of UPMC Board of Directors adopted an implementation plan to address the identified significant health needs and set measurable targets for improvement over the next three years. The plan draws support from an array of active and engaged community partners as well as from the larger UPMC system. Highlights of programs and goals contained in this plan are summarized below.

Identifying Significant Health Needs Relevant for the Hospital Community



Childhood Obesity

Goal: Increase the number of children and families participating in physical activity and healthy dietary choices.

Collaborating Partners: Allegheny Intermediate Unit, Children's Community Pediatrics, Allegheny County Department of Human Services, service providers, YMCA, Children's Hospital Community Education, Children's Hospital-Family Care Connection Centers, Children's Hospital Weight Management

- **Children's Hospital of Pittsburgh of UPMC will institute new efforts to prevent childhood obesity in the community — with a primary focus on children ages 2 to 5 — to instill healthy behaviors early in life.**
 - » Patients at the hospital's Family Care Connection Centers and Allegheny County's Family Support Centers will be key recipients of new obesity prevention activities, in order to reach children, adolescents, and mothers in low-income neighborhoods.

Immunizations and Vaccinations

Goal: Increase the number of children receiving immunizations and vaccinations.

Collaborating Partners: Allegheny County Health Department, Children's Community Pediatrics, Department of Human Services, school districts, Children's Hospital CareMobile, Children's Hospital Family Care Connection Centers

- **Children's Hospital of Pittsburgh of UPMC will continue to administer immunizations and vaccinations through its many providers, including those at the Family Care Connection Centers and through Children's Community Pediatric practices.**
 - » To present a consistent message about immunizations and vaccinations – and to counter misinformation in the media – Children's Hospital of Pittsburgh of UPMC is developing a public awareness campaign to reinforce the importance of having children immunized and vaccinated.

Preventive Health and Wellness

Goal: Partner with school district and other community partners to enhance preventive health and wellness efforts and increase education and awareness regarding healthy lifestyle choices.

Collaborating Partners: Department of Human Services, Schools, YMCA, Head Start, Children's Hospital CareMobile, Children's Hospital Child Advocacy Center, Children's Hospital Community Education, Children's Hospital Dental Department, Family Care Connection Centers, Children's Hospital Injury Prevention Department, Children's Hospital Nursing Triage, Children's Hospital Nutrition, and Weight Management Department

- **Children's Hospital of Pittsburgh of UPMC provides extensive preventive health and wellness programs, ranging from dental care, to home visits, to injury prevention. The hospital's Ronald McDonald CareMobile provides easy access to preventive care for children and adolescents in low income neighborhoods.**
 - » To enhance health and wellness programs in a local school district, a new partnership will be undertaken with the district to provide expertise on health and wellness topics that complement and enhance existing programming. Parents will be engaged through a provider-led speaker series, and messages will be reinforced to children and families at community partner-sponsored events.

COMMUNITY HEALTH NEEDS ASSESSMENT (CHNA) REPORT

I. Objectives of a Community Health Needs Assessment

CHNA Goals and Purpose:

In Fiscal Year 2013, Children's Hospital of Pittsburgh of UPMC conducted a Community Health Needs Assessment (CHNA). In keeping with IRS 501(r) guidelines, the CHNA incorporated input from community stakeholders and public health experts, and established action plans to address identified significant community health needs.

Children's Hospital of Pittsburgh of UPMC has many long-standing initiatives focused on improving the health of its community. UPMC approached this CHNA process as an opportunity to evaluate and assess needs through a formalized, rigorous, and structured process to ensure that health improvement efforts and resources are aligned with community health priorities. Goals of the CHNA were to:

- **Better understand community health care needs**
- **Develop a roadmap to direct resources where services are most needed and impact is most beneficial**
- **Collaborate with community partners where, together, positive impact can be achieved**
- **Improve the community's health and achieve measurable results**

The overall health of the community is a shared responsibility among many stakeholders and entities, including government agencies, health care providers, nongovernmental organizations, and community members themselves. While the new IRS CHNA requirements apply specifically to nonprofit hospital organizations, collaboration with community partners is essential for implementing and achieving effective community health improvement.

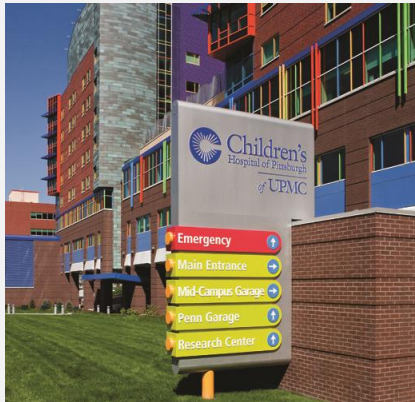
Description of Children's Hospital of Pittsburgh of UPMC:

Children's Hospital of Pittsburgh of UPMC is a nonprofit, 296-bed acute-care children's hospital in Allegheny County, Pennsylvania. It offers a full range of quality pediatric and adolescent medical services to the people of the western Pennsylvania region. The hospital provides area residents with access to medical, surgical, behavioral health, and transitional care, as well as specialized services such as CT imaging and minimally invasive surgery. During the Fiscal Year ended June 30, 2012, Children's Hospital of Pittsburgh of UPMC had a total of 19,046 admissions and observations, 77,031 emergency room visits, and 21,670 surgeries.

Children's Hospital of Pittsburgh of UPMC also provides the Family Care Connection Centers with general and specialized social services, as well as community benefit programs, such as educational programs, that reached more than 140,000 individuals in Fiscal Year 2012.

Children's Hospital of Pittsburgh of UPMC is a teaching hospital, with residency programs in specialized pediatric areas. It is also part of UPMC, one of the country's leading Integrated Delivery and Finance Systems (IDFS), which positions the hospital to share their expertise within the larger organization.

Children's Hospital of Pittsburgh of UPMC in Your Community



Children's Hospital of Pittsburgh of UPMC is a unique resource providing compassion and medical excellence for the youngest, most vulnerable patients in the region.

Caring for the Community

- The hospital's Family Care Connection Centers provided more than 1,500 children under 17 with general and specialized social services.
- More than 140,000 people were served through community benefit programs in Fiscal Year 2012.

Healthy Developments for the Region's Children

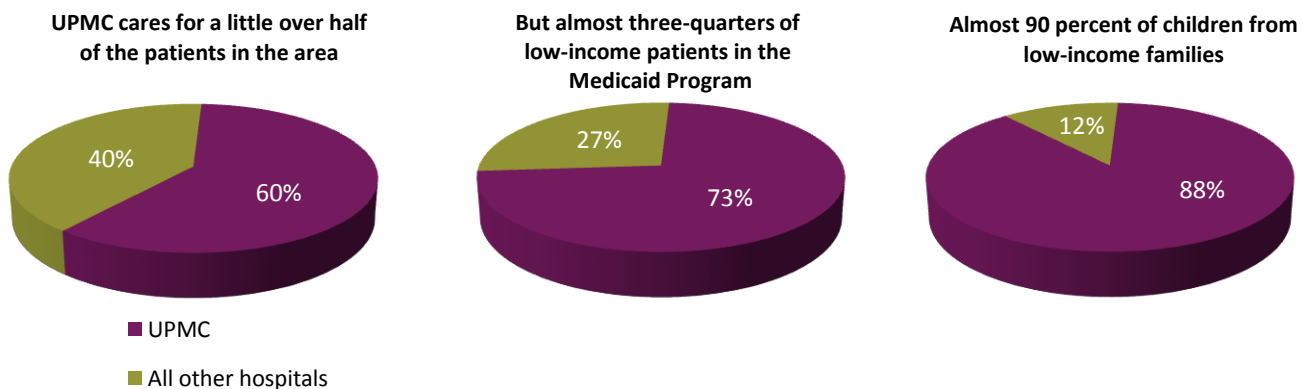
- Children's Hospital of Pittsburgh of UPMC earned a place in the 2012-2013 U.S. News & World Report honor roll of pediatric hospitals, ranking among the best in 9 of 10 specialty areas, and was ranked nationally in the top 10 for all children's hospitals.
- Children's Hospital of Pittsburgh of UPMC provides \$1 billion in economic impact to the region.

Children's Hospital of Pittsburgh of UPMC's Community Service and Community Benefit Initiatives:

Children's Hospital of Pittsburgh of UPMC provides a broad array of benefits to the community.

- **Subsidizing Care through Charity Care and Shortfalls in Payments from Government Programs for the Poor:** In keeping with Children's Hospital of Pittsburgh of UPMC's commitment to serve all members of its community, the hospital provides certain care regardless of an individual's ability to pay. Avenues for offering care to those who can't afford it include free or subsidized care, care provided to persons covered by governmental programs when those programs don't cover the full cost.
- **Providing Care for Low Income Populations:** Recognizing its mission to the community, Children's Hospital of Pittsburgh of UPMC is committed to serving Medicaid and other low-income patients. In Fiscal Year 2012, Medicaid recipients represented 40 percent of Children's Hospital of Pittsburgh of UPMC's patient population. Children's Hospital of Pittsburgh of UPMC and the larger UPMC organization care for a disproportionate share of the community's most vulnerable, as shown in the figure below:

UPMC CARES FOR A DISPROPORTIONATE NUMBER OF ALLEGHENY COUNTY'S MOST VULNERABLE



Source: Pennsylvania Health Care Cost Containment Council, FY 2012

- **Offering Community Health Improvement Programs and Donations:** Children's Hospital of Pittsburgh of UPMC provides services to the community through outreach programs that include screenings, educational classes, and referrals —all of which benefit patients, patients' families, and the community.
 - **Through the 2012 Fiscal Year, the hospital offered more than 100 community health events and programs, including:**
 - » General and specialized social services through the Family Care Connection Centers.
 - » Free medical care to children in medically underserved communities of Allegheny County and the surrounding area, including more than 3,000 children a year who were served by the Ronald McDonald CareMobile.
 - » Educational classes for parents and children held at the hospital, outpatient sites, in schools, social service agencies, and community organizations. More than 45,000 children and adults benefit from these classes and events annually.
 - » Injury prevention education, such as teen driver safety, bicycle helmet safety, car seat checks, ATV safety, and home safety programs for kids and adults. Educational sessions are held in schools, neighborhood centers, and at the hospital.
 - » Treatment and prevention of overweight and obese children through the Weight Management and Wellness Center. More than 1,000 new patients are seen every year, as well as those children already in the program.
 - » More than 2,000 children served by the Child Advocacy Center each year, which provides comprehensive evaluations for children and adolescents who may be victims of physical or sexual abuse, or neglect.
 - » The Children's Dental Care program, which offers free dental care through the Ronald McDonald Care Mobile, education for children from Family Care Connection Centers, and free Orthodontic treatment.
- **Anchoring the Local Economy:** With deep roots in the community dating back to 1890, the hospital takes an active role in supporting the local economy through employment, local spending, and strategic community partnerships. Children's Hospital of Pittsburgh of UPMC has paid more than \$222.4 million in salaries and benefits to its 3,094 employees during Fiscal Year 2012 — 73 percent of whom live in the area — and generated a total economic impact of \$1.0 billion in 2012. When the new state-of-the-art children's hospital was built in 2008, it produced an economic impact of more than \$700 million through the creation of more than 4,000 jobs, while also fueling the resurgence of the Lawrenceville neighborhood.

II. Definition of the Children’s Hospital of Pittsburgh of UPMC Community

For the purpose of this CHNA, the Children’s Hospital of Pittsburgh of UPMC community is defined as Allegheny County. Nearly 40 percent of patients treated at Children’s Hospital of Pittsburgh of UPMC reside in Allegheny County. By concentrating on the county, Children’s Hospital of Pittsburgh of UPMC can consider the needs of its patients, and do so in a way that allows accurate measurement using available secondary data sources.

Where Patients Treated at Children’s Hospital of Pittsburgh of UPMC Live

County	Children’s Hospital of Pittsburgh of UPMC %	Medical Surgical Discharges
Allegheny County	39.0%	5,381
All Other Regions	61.0%	8,417
Total Hospital Discharges	100%	13,798

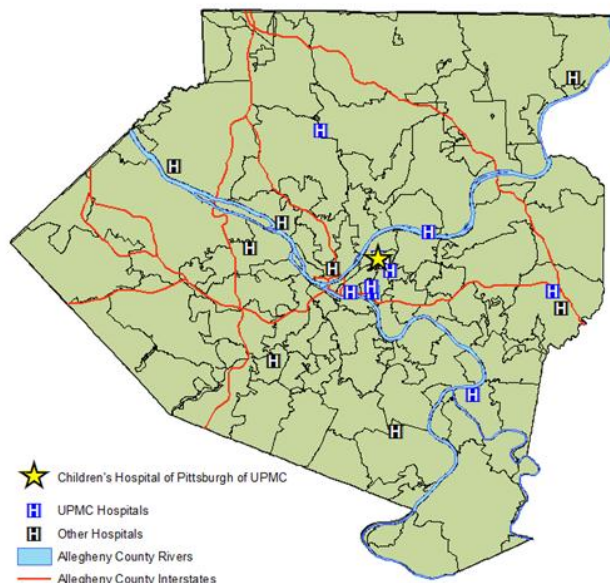
Source: Pennsylvania Health Care Cost Containment Council, FY2012

The hospital is situated centrally in the county, in the Lawrenceville neighborhood of the City of Pittsburgh. While the county represents the basic geographic definition of Children’s Hospital of Pittsburgh of UPMC’s community, the hospital has a broader reach throughout the seven county Pittsburgh Metropolitan Statistical Area (MSA) as the region’s largest specialty children’s hospital. This CHNA also considered characteristics of the MSA, as well as specific populations within the defined community — such as minorities, low-income families, and those with distinct health needs.

Existing Healthcare Resources in the Area:

Children’s Hospital of Pittsburgh of UPMC is one of eight UPMC licensed hospitals and 16 total hospitals in Allegheny County. It is also the largest children’s hospital and therefore the primary source of inpatient care for children in Allegheny County as well as surrounding counties.

Hospitals in Allegheny County



In the immediate service area, Children’s Hospital of Pittsburgh of UPMC is supported by more than 750 UPMC outpatient offices, in addition to the seven other licensed UPMC hospitals and numerous other UPMC facilities located in the county. These facilities include 22 UPMC Cancer Centers, nine UPMC Surgery and UPMC Outpatient Centers, four Children’s Express Urgent Care Centers, 30 Centers for Rehabilitation Services sites, 51 Imaging Centers, nine Children’s Hospital of Pittsburgh of UPMC satellite offices, and more than 600 pediatric, primary, and specialty care doctor’s offices.

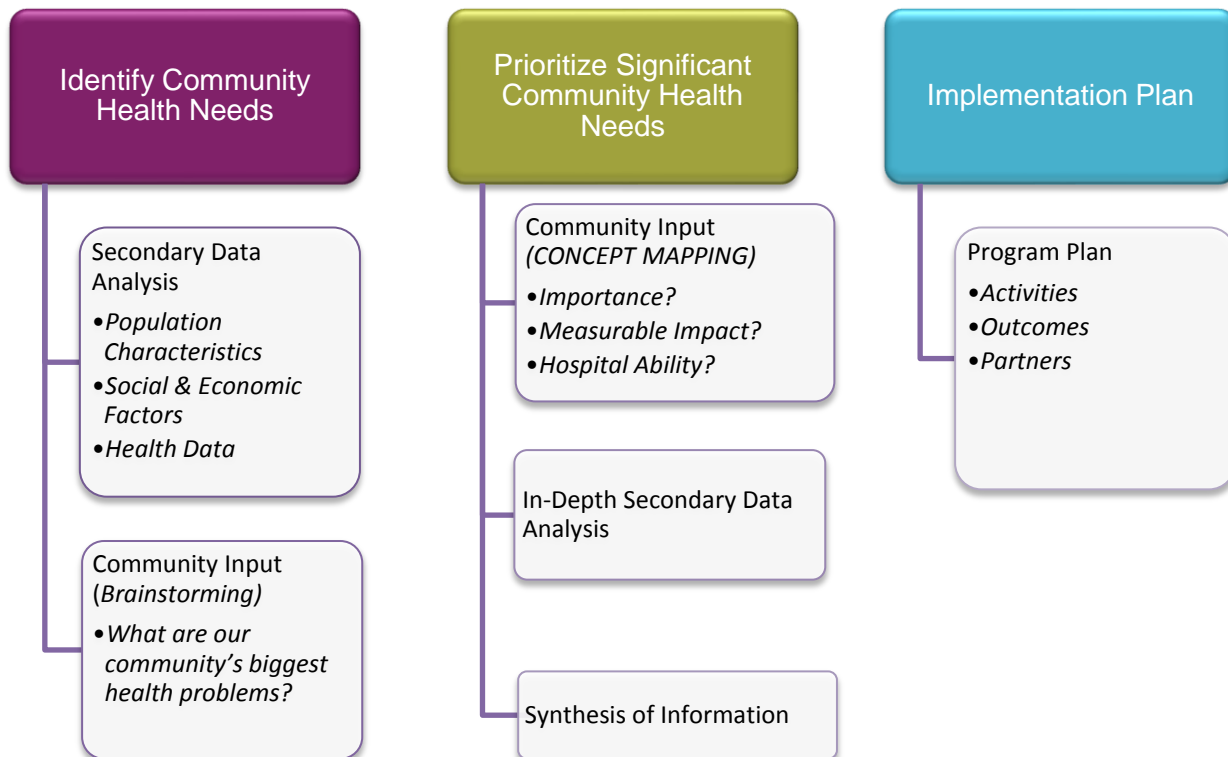
III. Methods Used to Conduct the Community Health Needs Assessment

Overview

In conducting this CHNA, UPMC pursued an approach that was comprehensive, methodologically rigorous, inclusive, and open to the community’s perspective on health care needs. To conduct the CHNA in a manner that reflects best practices, UPMC partnered with the University of Pittsburgh Graduate School of Public Health (Pitt Public Health). Pitt Public Health’s mission is to provide leadership in health promotion, disease prevention, and the elimination of health disparities in populations. Pitt Public Health faculty and researchers’ expertise ensured that the CHNA was undertaken using a structured process for obtaining community input on health care needs and perceived priorities, and that analysis leveraged best practices in the areas of evaluation and measurement.

Framework for Conducting the CHNA:

The Community Health Improvement Process developed by the Institute of Medicine served as a guiding framework in assessing the health needs of the UPMC hospital communities. The hospital adapted this model to guide the development of its CHNA.



Secondary Data Sources and Analysis:

To identify the health needs of a community, UPMC — with assistance of faculty from Pitt Public Health — conducted an analysis of publicly available data. Secondary data — including population demographics, mortality, morbidity, health behavior, clinical care, and physical environmental data — were used to identify and prioritize significant community health needs. Data which informed this CHNA were compiled from a variety of state and national data sources and are reflected in the table below.

Population characteristics, socioeconomic, and health status data were also examined. Community-level data (usually county-level) were compared to the state, nation, and Healthy People 2020 benchmarks to help identify key health issues. When available, data specific to low-income individuals, underserved minorities, and uninsured populations were examined. In addition, analysis considered federal designations of Health Professional Shortage Areas (HPSA) — defined as “designated as having a shortage of primary medical care providers” and Medically Underserved Areas (MUA)— which may consist of a whole county or a group of contiguous counties, a group of county or civil divisions, or a group of urban census tracts.

Publicly Available Data and Sources Used for Community Health Needs Assessment

Data Category	Data Items	Description	Source
Demographic Data	Population Change	Comparison of total population and age-specific populations in 2000 and 2010 by county, state and nation.	U.S. Census
	Age and Gender	Median age, gender and the percent of Elderly Living Alone by Zip Code, county, state and nation in 2010.	
	Population Density	2010 total population divided by area in square miles by county, state and nation.	
	Median Income/Home Values	By Zip Code, county, state and nation in 2010.	
	Race/Ethnicity	Percent for each item by Zip Code, county, state and nation in 2010. Note: Zip Code level data was not available for disabled.	
	Insurance: Uninsured, Medicare, Medicaid		
	Female Headed Households		
	Individuals with a Disability		
	Poverty		
	Unemployed		
No High School Diploma			

Data Category	Data Items	Description	Source	
Morbidity Data	Adult Diabetes	2007 - 2009 data collected and compared by neighborhood, county, state and nation.	Allegheny County Health Survey, 2009-2010;	
	Cancer			
	Mental Health			PA Department of Health Behavioral Risk Factors Surveillance System; Birth, Death, and Other Vital Statistics; Cancer Statistics;
	Asthma (Childhood)			
	Birth Outcomes			
Health Behaviors Data	Obesity (Childhood and Adult)		U.S. Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System;	
	Alcohol Use			
	Tobacco Use			
	Sexually Transmitted Disease			National Center for Health Statistics
Clinical Care Data	Immunization		2007 - 2009 data collected and compared by county, state and nation. 2011 County Health Rankings by County.	Allegheny County Health Survey, 2009-2010;
	Cancer Screening (breast/colorectal)	PA Department of Health Behavioral Risk Factors Surveillance System; Birth, Death, and Other Vital Statistics; Cancer Statistics;		
	Primary Care Physician Data			
Benchmark Data	Mortality Rates, Morbidity Rates, Health Behaviors and Clinical Care Data	National benchmark goal measures on various topics for the purpose of comparison with current measures for neighborhood, county, state and nation.	Healthy People 2020	
Physical Environment Data	Access to Healthy Foods	2011 County Health Rankings by County.	Robert Wood Johnson Foundation County Health Rankings	
	Access to Recreational Facilities			

Information Gaps Impacting Ability to Assess Needs Described:

The best available data were used to obtain the most meaningful comparison and analysis possible. Public data sources, however, are limited by some information gaps, and small sample sizes can represent statistically unreliable estimates.

The community definition hinged at the county-level, in part, because the quality and availability of data at this level was generally most comprehensive and allowed for meaningful comparisons with state and national data. In some cases, data from geographical sources below the county level (such as Zip Codes) were available with adequate sample size for analysis. Whenever possible, population health data were examined for individual neighborhoods and sub-populations including low income, high minority, and uninsured populations.

Community Input:

Community input on the perceived health needs of the region was used to complement analysis of publicly available data. The CHNA used an inclusive and systematic process to collect information pertaining to the community's perceptions of its greatest needs, as well as its expectations of what the hospital's role should be in meeting those needs. Pitt Public Health facilitated this process and employed "Concept Mapping," a participatory, qualitative research method with a proven track record for gaining stakeholder input and consensus. (See Appendix C for more information on Concept Mapping.)

To gather community input, the hospital convened a community advisory council to provide broad-based input on health needs present in the hospital's surrounding community. UPMC also convened a community focus group for the purpose of discussing the overarching needs of the larger region served by UPMC's 13 licensed Pennsylvania hospitals. These groups were made up of:

- **Persons with special knowledge or expertise in public health**
- **Representatives from health departments or governmental agencies serving community health**
- **Leaders or members of medically underserved, low income, minority populations, and populations with chronic disease**
- **Other stakeholders in community health (see Appendix D for a more complete list and description of community participants)**

The Concept Mapping process consisted of two stages:

- **Brainstorming on Health Problems:** During brainstorming, the hospital's community advisory council met to gather input on the question, "What are our community's biggest health care problems?" Brainstorming resulted in the development of a 50-item list of health problems.
- **Rating and Sorting Health Problems to Identify Significant Health Needs:** Community members participated in the rating and sorting process via the Internet in order to prioritize the 50 health problems and identify significant health needs according to their perceptions of the community health needs. Each participant sorted the list into overarching themes, and then rated the problems using a 1 to 5 Likert scale (1 = not important; 5 = most important), according to the following criteria:
 - » How important is the problem to our community?
 - » What is the likelihood of being able to make a measurable impact on the problem?
 - » Does the hospital have the ability to address this problem?

Synthesis of Information and Development of Implementation Plan:

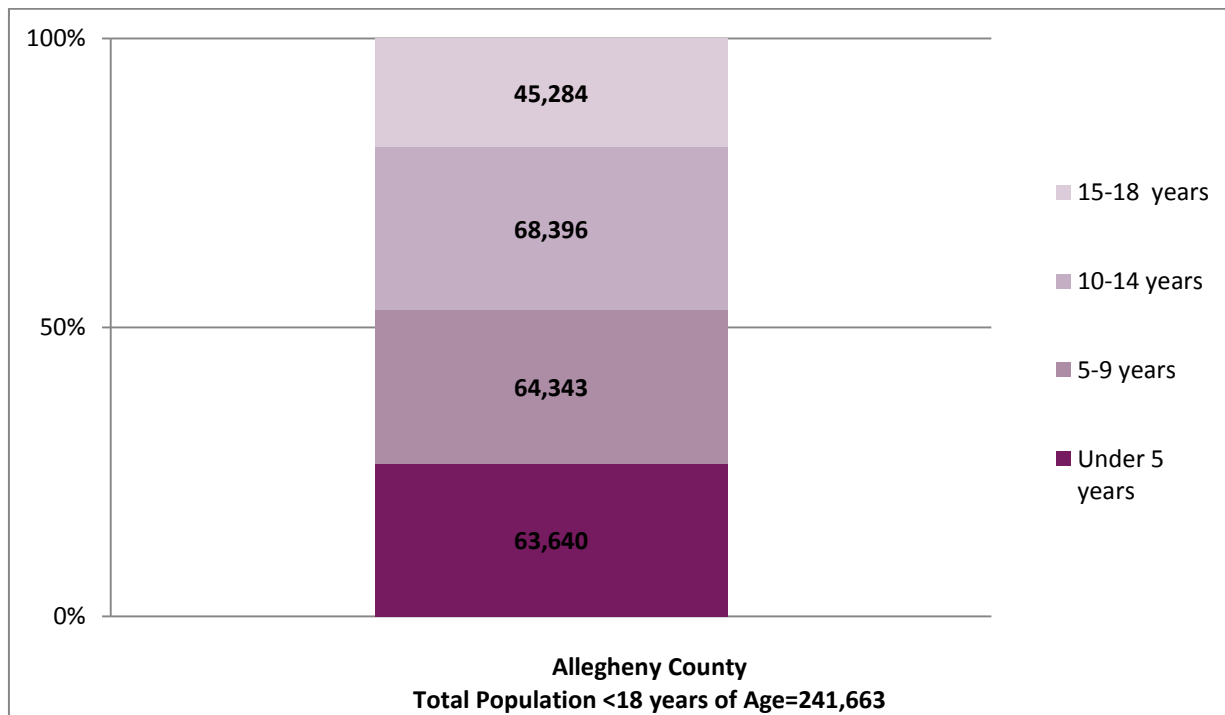
The Concept Mapping results were merged with results gathered from the analysis of publicly available data. In the final phase of the process, UPMC hospital leadership consulted with experts from Pitt Public Health, as well as the community advisory council, to identify a set of significant health needs that are critical, addressable, and have high levels of urgency in the community. The process then matched those needs to:

- **Best-practice methods for addressing these needs, identified by Pitt Public Health**
- **Existing hospital community health programs**
- **Programs and partners elsewhere in the community that can be supported and leveraged**
- **Enhanced data collection concerning programs, again with the consultation of Pitt Public Health**
- **A system of assessment and reassessment measurements to gauge progress over regular intervals**

IV. Results of the Community Health Needs Assessment and In-Depth Community Profile

Characteristics of the Community:

Over half of the under-18-years-of-age population in Allegheny County was younger than 10 years of age: In 2010, about 20 percent, or about 240,000 residents in Allegheny County, were less than 18 years of age—similar to the percentage in the Pittsburgh region, but slightly lower than state (22 percent) and national (24 percent) figures. More than half of this age group (52 percent) were of younger children, or those less than 10 years of age (see figure below).



Source: U.S. Census

A significant number of children are medically underserved:

- **Although Allegheny County is economically stable, there are concentrations of medically underserved individuals – especially children.**
 - » 15 percent of children in Allegheny County live in poverty
 - » 25 percent of children in Allegheny County live in households receiving public assistance
 - » 28 percent of children in Allegheny County are covered by Medicaid, and an additional 13,000 children in Allegheny County are covered by Pennsylvania’s Children’s Health Insurance Program (CHIP)
- **Children’s Hospital of Pittsburgh of UPMC is the primary health care provider for children living in Allegheny County across all of these demographic categories.**

Social and Economic Population Demographics				
	Allegheny County	Pittsburgh MSA	Pennsylvania	National
Percent Children (<18) in Poverty*	15.1%	16.8%	19.1%	21.6%
Percent Children Living in Households that Receive Public Assistance*	25.4%	26.6%	26.0%	26.7%

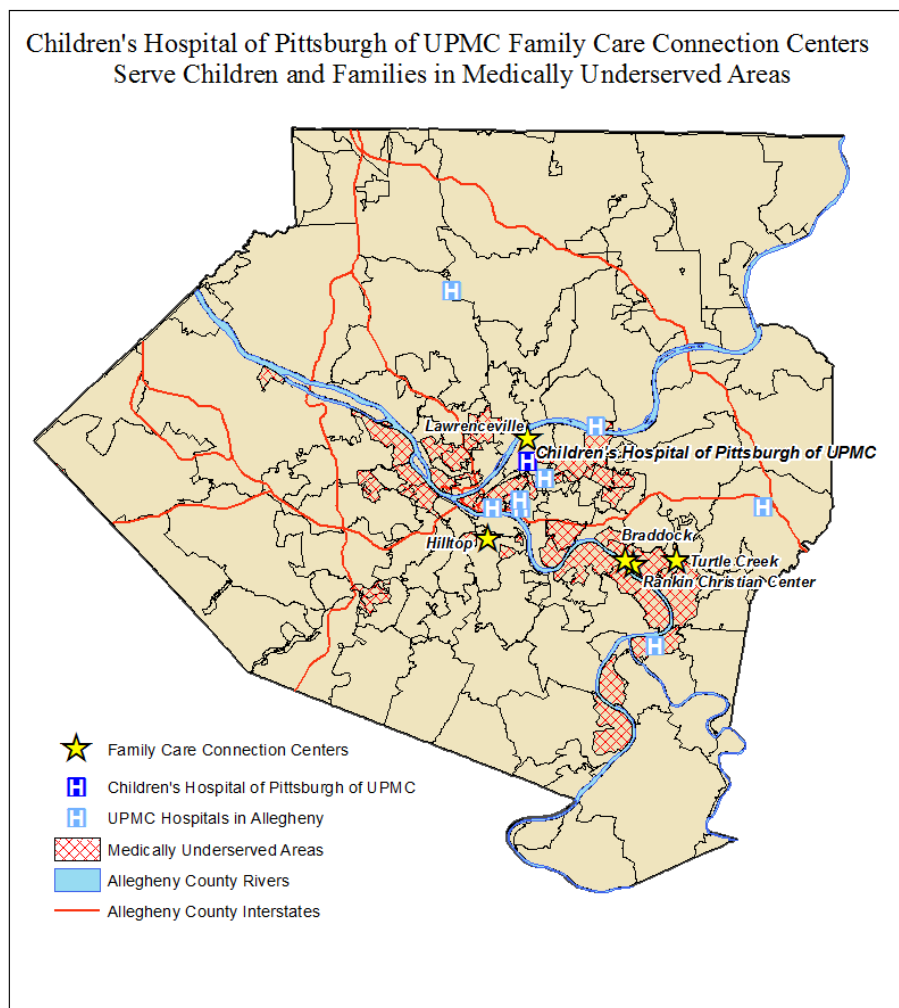
*Among children in households. Source: U.S. Census

Many of the neighborhoods surrounding Children's Hospital of Pittsburgh of UPMC are federally designated as Medically Underserved Areas (MUAs).

The following factors are considered in the determination of MUAs:

- A high percentage of individuals living below the poverty level
- High percentages of individuals over age 65
- High infant mortality
- Lower primary care provider to population ratios

Children's Family Care Connection Centers provide service to families in many of these neighborhoods (see map).



Source: Health Resources and Services Administration

Significant Health Needs for Children's Hospital of Pittsburgh of UPMC Community:

Concept mapping input was deployed across all UPMC hospital communities within western Pennsylvania and yielded three overarching themes to contextualize the health care needs of the community:

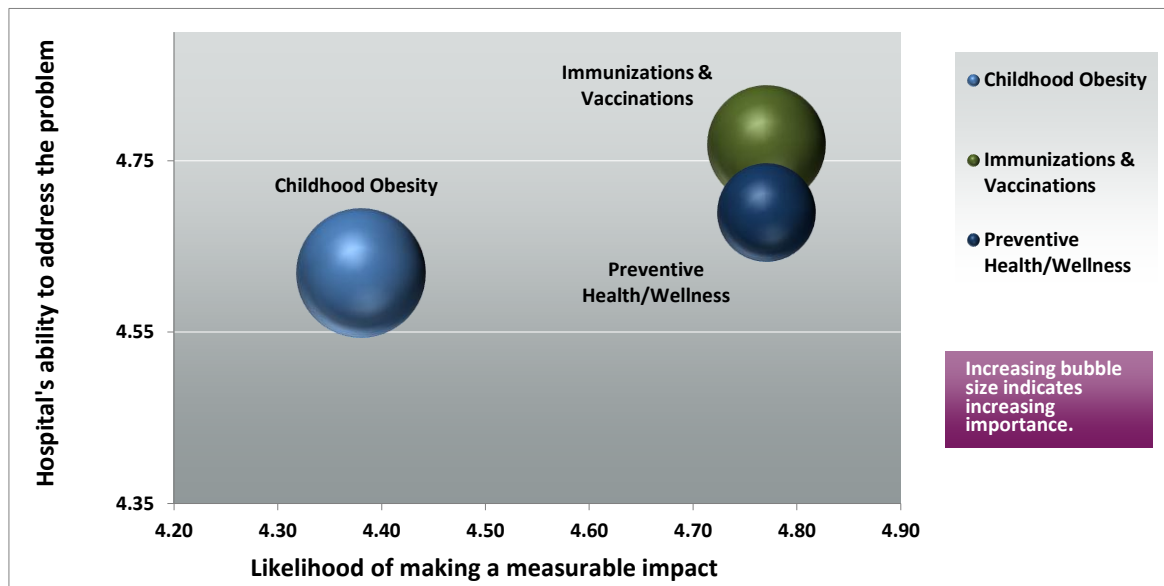
- **Chronic Disease**
- **Prevention and Healthy Living**
- **Navigating Resources**

For Children's Hospital of Pittsburgh of UPMC community, the assessment identified significant health needs that were rated highly across the three criteria of importance, likelihood of making a measurable impact, and the hospital's ability to address the problem. The significant health needs are:

- **Childhood Obesity**
- **Immunizations and Vaccinations**
- **Preventive Health and Wellness**

The following illustration depicts where these significant health needs ranked within the criteria considered. Please note: metrics are rated on a Likert scale of 1 through 5.

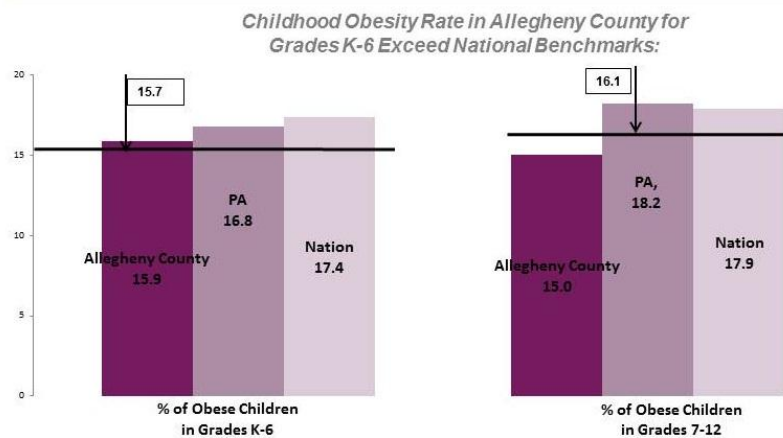
Children's Hospital of UPMC of Pittsburgh Significant Health Needs



In-depth secondary data analysis reinforced that these health topics were areas of concern for the Children's Hospital of Pittsburgh of UPMC community. The secondary data findings are illustrated below:

Childhood Obesity – Importance to the Community

- **Obesity is a risk factor for many adult chronic diseases, including heart disease, diabetes, and cancer.**
- **Overweight and obesity are prevalent among children both nationally and locally—almost one-third of students attending schools in Allegheny County were overweight or obese.**
- **Childhood obesity in children grades K through 6 exceeds benchmarks.**



Sources: Pennsylvania Department of Health, 2009-2010; Healthy People 2020.

Childhood obesity is a concern in Allegheny County, and across the Pittsburgh region. Childhood obesity is a prevalent condition both locally and nationally. In Allegheny County, during the 2009-2010 school year, 16 percent of school-aged children in grades K through 6, and 15 percent of children in grades 7 through 12, were obese. In the same year, about 33 percent of children in Allegheny County in both age groups were overweight or obese. Obesity rates for younger children exceeded national benchmarks.

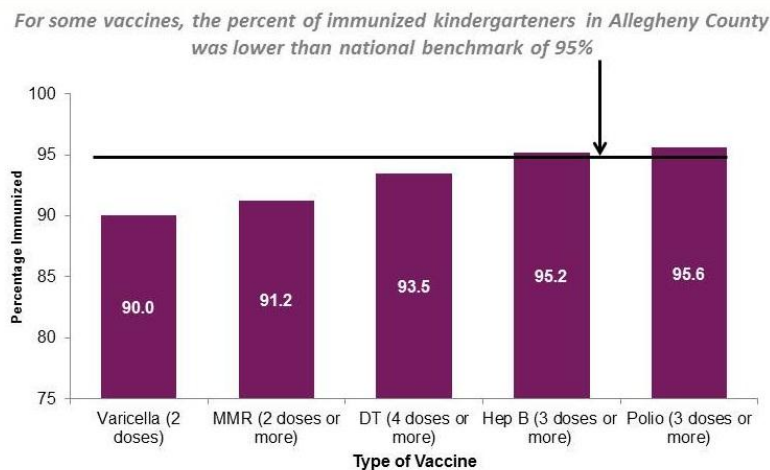
Childhood obesity is higher in some sub-populations, especially underserved minorities, more so than others.

Publicly available local data on childhood obesity for sub-populations is limited. National data, however, demonstrated that racial/ethnic groups had higher percentages of obesity. In 2009, 15.1 percent of African-American children, 14.9 percent of Hispanic children, and 10.2 percent of White children were obese.

Childhood obesity can be prevented through healthy eating and physical activity. Local data on healthy eating and physical activity are limited for children. However, state data show that, for high school students, 6 percent did not eat vegetables, 5 percent did not eat fruit, and 13 percent were not physically active. More so, data showed differences between racial groups. A low percentage of White high school students did not eat vegetables (4 percent), fruit (5 percent), and did not engage in physical activity (10 percent). In comparison, a higher percentage of African-American high school students did not eat vegetables (13 percent), fruit (7 percent), and did not engage in any physical activity (24 percent). Children's Hospital of Pittsburgh of UPMC has many obesity prevention activities, and by focusing efforts on younger age groups and their families, including underserved minorities, may take a leading role in curbing obesity rates in Allegheny County.

Childhood Immunizations and Vaccinations – Importance to the Community

- Immunization of infants and children is important in fighting off vaccine preventable diseases, such as whooping cough, measles, and polio.
- Immunizing infants and children also helps protect the rest of the community.
- Vaccine percentages for children in Allegheny County were lower than national benchmarks.



Sources: Allegheny County Health Department. 2010; Healthy People 2020.

Childhood immunizations and vaccinations ensure a healthy community: Measles, polio, and whooping cough have decreased dramatically since the introduction of immunizations and vaccinations. Immunizations help protect the rest of the community, especially infants, children who are too young to be vaccinated, and those who cannot be vaccinated for medical reasons.

Some vaccination coverage rates for young children were lower than national benchmarks: Although coverage rates for some vaccines exceeded national benchmarks (such as hepatitis B and polio), coverage rates of Allegheny County kindergarten children for other vaccines were lower than national benchmarks. Vaccinations against varicella (90 percent), measles-mumps-rubella (91 percent), and diphtheria-tetanus (93.5 percent) were lower than the national benchmark of 95 percent.

Increasing access to vaccination, especially for low-income families, is key: Although local public data are unavailable to examine vaccination coverage rates for subpopulations, such as low-income individuals and underserved minorities, national studies suggest that poverty is associated with lower county vaccination rates.

Preventive Health and Wellness – Importance to the Community – Setting the Stage for Good Health Habits:

Childhood and adolescence are favorable ages to develop healthy behaviors: The foundations for good decision-making are being developed when children and adolescents are in their formative years — especially as it relates to distinguishing between healthy and risk-taking behaviors. Prevention and healthy behaviors are important factors in producing individuals who are healthier at all stages of life. When these behaviors are learned at a young age, it is more likely they will become lifelong habits. Through preventive health and wellness education during childhood, there is the potential to arm children with the education needed to avoid certain chronic diseases and/or injuries, which are causes of death for more than two-thirds of adults currently.

V. Overview of the Implementation Plan

Overview:

Children's Hospital of Pittsburgh of UPMC has developed an implementation plan that addresses the significant community health needs identified through the CHNA process. The plan relies on collaboration and the leveraging of partnerships with many of the same organizations who participated in the assessment process. The plan also represents a synthesis of input from:

- **Community-based organizations**
- **Government organizations**
- **Non-government organizations**
- **UPMC hospital and Health Plan leadership**
- **Public health experts that include Pitt Public Health**

Adoption of the Implementation Plan:

On June 4, 2013 the Children's Hospital of Pittsburgh of UPMC Board of Directors adopted an implementation plan to address the significant health needs identified:

- **Childhood Obesity**
- **Immunizations and Vaccinations**
- **Preventive Health and Wellness**

A high level overview of the Children's Hospital of Pittsburgh of UPMC implementation plan is illustrated in the figure below and details are found in Appendix A:

Children's Hospital of Pittsburgh of UPMC Implementation Plan

Topic	Goal	Collaborating with Community Partners
Childhood Obesity	Increase the number of children and families participating in physical activity and healthy dietary choices by partnering with Family Care Connection Centers and Family Support Centers – clinics in low-income neighborhoods which provide general and specialized social services to families, particularly children, adolescents, and mothers.	Allegheny County Health Dept. Allegheny Intermediate Unit Children's Community Pediatrics Department of Human Services Head Start Pittsburgh Public School School Districts
Immunizations and Vaccinations	Increase number of children receiving immunizations and vaccinations by promoting the importance of immunizations and vaccinations through a public awareness campaign and target low income populations to enhance access to immunizations and vaccinations.	Social Service Providers YMCA CHP-CareMobile CHP-Child Advocacy Center CHP-Community Education CHP-Family Care Connection Centers
Preventive Health and Wellness	Partner with school district and other community partners to enhance preventive health and wellness efforts and increase education and awareness regarding healthy lifestyle choices	CHP-Injury Prevention CHP-Nursing Triage CHP-Nutrition CHP-Weight Management

VI. APPENDICES

APPENDIX A: Detailed Community Health Needs Assessment Implementation Plans

Priority Health Issue: Addressing Childhood Obesity

Childhood obesity is a priority in the Children's Hospital of Pittsburgh of UPMC community: Childhood obesity is a national epidemic, having more than doubled in children and tripled in adolescents in the past 30 years. The percentage of obese children in Allegheny County is comparable to the percentages in the state and nation, and higher than the national benchmarks set by Healthy People 2020. Childhood obesity can have both immediate and long-term effects on health and wellbeing. Obese youth are more likely to have risk factors for cardiovascular disease, such as high cholesterol or high blood pressure, as well as an increased risk for diabetes. Children and adolescents who are obese are likely to be obese as adults, and are therefore more at risk for adult health problems such as heart disease, type 2 diabetes, stroke, and several types of cancer. One study showed that children who became obese as early as age 2 were more likely to be obese as adults.

Children's Hospital of Pittsburgh of UPMC is addressing this issue: Childhood obesity can be prevented through healthy lifestyle habits, including healthy eating and physical activity. Children's Hospital of Pittsburgh of UPMC currently operates a multidisciplinary center devoted to the treatment and prevention of overweight and obesity in children. Over 1,000 new patients are seen every year, as well as those children already in the program.

Children's Hospital of Pittsburgh of UPMC plans to do more to focus on this priority: In addition to operating their weight management center, Children's Hospital of Pittsburgh of UPMC plans to leverage their existing partnership with the Family Care Connection Centers, as well as with other community organizations to meet the needs of overweight and obese children.

Chronic Disease: Diabetes				
Program	Activities	Outcomes	Target Population	Partners
		Goal-Year 3		
Obesity Prevention Activities	Partner with the Family Care Connection Centers and Family Support Centers to provide nutrition and lifestyle education and family activities. Offer cooking classes and workshops.	Identify goals and evaluation methods and data. Increase in number of children and parents attending education sessions. Increase time children spend on physical activity.	Children and families of children utilizing FCCs/FSCs. Families with children ages 2-5. Low income families and children.	Allegheny Intermediate Unit, Children's Community Pediatrics, Allegheny County Department of Human Services, Social Service Providers, YMCA, CHP-Community Education, CHP-Family Care Connection Centers, CHP-Weight Management.

Priority Health Issue: Addressing Immunizations and Vaccinations

Immunizations and vaccinations are an important priority in the Children’s Hospital of Pittsburgh of UPMC

community: Vaccines are the best protection against 16 major diseases and are among the most successful and cost-effective public health tools for preventing disease and death. Vaccines are given on a recommended schedule during childhood. The recommended schedule is designed to protect infants and children early in life, when they are most vulnerable, and before they are exposed to potentially life-threatening diseases. These immunizations are required before a child can start school, but many should be administered in the first 15 months of life, well before a child is school-aged.

Children’s Hospital of Pittsburgh of UPMC is addressing this issue: Children’s Hospital of Pittsburgh of UPMC already administers vaccinations through its many providers, including those at the Family Care Connection Centers and through Children’s Community Pediatric practices.

Children’s Hospital of Pittsburgh of UPMC plans to do more to focus on this priority: In addition to the current vaccinations and immunizations provided, Children’s Hospital of Pittsburgh of UPMC plans to expand these efforts. Access to vaccinations and immunizations will be expanded to low-income individuals by using an existing resource - the Ronald McDonald CareMobile - to provide vaccinations and immunizations in low-income areas on certain days. Children’s Hospital of Pittsburgh of UPMC also plans to lead a public awareness campaign to highlight the importance of vaccinations and dispel misinformation in the media.

Immunizations and Vaccinations				
Program	Activities	Outcomes	Target Population	Partners
		Goal-Year 3		
Ronald McDonald Care Mobile Immunization Program	Identify underserved areas. Provide immunizations to low income children through Ronald McDonald CareMobile.	Increase the number of children receiving vaccinations/immunizations.	Low-income children.	CHP – CareMobile, CHP – Family Care Connection Centers.
Public Awareness Campaign	Identify CHP spokesperson. Develop message to emphasize the importance of immunizations and dispel inaccurate information about immunizations. Implement public awareness campaign.	Increase the number of children receiving vaccinations/immunizations.	Guardians of low-income children.	Allegheny County Health Department, Children’s Community Pediatrics, Allegheny County Department of Human Services, School Districts.

Priority Health Issue: Addressing Preventive Health and Wellness

Preventive health and wellness is a priority in the Children’s Hospital of Pittsburgh of UPMC community: Prevention and healthy behaviors are important factors in producing individuals who are healthier at all stages of life. When these behaviors are learned at a young age, it is more likely that they will become lifelong habits. Through preventive health and wellness education during childhood, there is the potential to help children avoid certain types of chronic disease and/or injury, which are causes of death for more than two-thirds of adults.

Children’s Hospital of Pittsburgh of UPMC is addressing this issue: Children’s Hospital of Pittsburgh of UPMC has an extensive suite of programs addressing many topics related to preventive health and wellness, such as dental care and health screenings administered in low-income areas by the Ronald McDonald CareMobile, comprehensive preventive care services available through the Family Care Connection Centers, various injury prevention programs targeting infants, children, and adolescents, and educational classes and special events centered on many topics related to health and wellness.

Children’s Hospital of Pittsburgh of UPMC plans to do more to focus on these priorities: In addition to existing programs and services related to preventive health and wellness, Children’s Hospital of Pittsburgh of UPMC plans to identify and partner with a school district in Allegheny County to implement a tailored suite of preventive health and wellness programs. Children’s Hospital of Pittsburgh of UPMC will work with the identified district to evaluate their current efforts in preventive health and wellness and determine how their expertise in pediatric and adolescent health can best compliment current initiatives. The preventive health and wellness needs of children not yet in school will continue to be addressed through the Family Care Connection Centers.

Preventive Health and Wellness				
Program	Activities	Outcomes	Target Population	Partners
		Goal-Year 3		
School Partnership Initiative	Identify and partner with a school district to enhance their health & wellness programs. Review school’s existing programs and identify needs to address through this initiative. Engage parents through presentations before or after parent/teacher meetings. Coordinate with community partners, such as the YMCA, to provide health education to children and their families at partner sponsored events. Areas of focus may include <ul style="list-style-type: none"> • Health education for adolescents • First aid/CPR/home safety education • School nurse support • Immunizations & vaccinations • Early education intervention • School/sports physicals <ul style="list-style-type: none"> - Dental & health screenings • Obesity prevention • Parent education • Injury prevention 	Identify and implement data tracking methods.	Children age 0 – 12th grade (Family Care Centers will address the needs of children that are not yet school-aged). Allegheny County schools with more than 50 percent low income, minority enrollment.	Department of Human Services, Schools, YMCA, CHP – CareMobile, CHP – Child Advocacy Center, CHP – Community Education, CHP – Dental, CHP – Family Care Connection Centers, CHP – Injury Prevention, CHP - Nursing Triage, CHP – Nutrition, CHP – Weight Management, Head Start.

Outcomes and Evaluation of Hospital Implementation Plans:

UPMC engaged with researchers from Pitt Public Health at the University of Pittsburgh to develop evaluation metrics to measure and track progress related to this implementation plan. The metrics vary by hospital, according to health outcomes, current hospital efforts, and hospital resources.

The implementation plan was developed with the expectation that future progress would be reviewed by the hospital, as well as potentially by public health agencies. Therefore, two types of outcomes are considered:

- **Process Outcomes (directly relating to hospital/partner delivery of services):**

Process outcomes indicate efforts hospitals and community partners can undertake to increase delivery of a service designed to change a health impact indicator. These mostly involve increases (or better targeting) in programming, outreach, publicity, or related efforts. Process outcomes can be measured by increases in investment (dollars or personnel), outreach (media messages, public service announcements), service units delivered (classes, screenings), people attending or completing programs, and number of sites for delivery of programs.

- **Health Impact Outcomes (applies to changes in population health for which the hospital's efforts are only indirectly responsible):**

Health impact outcomes are changes in population health related to a broad array of factors of which hospital and community partner efforts are only one contributing part. These outcomes include reductions in the prevalence of disease, risk factors, and health behaviors associated with disease. Benchmarks for progress in population indicators are available from *Healthy People 2020* and Robert Wood Johnson Foundation county health rankings.

The following table identifies measurable process outcomes and related health impact indicators considered in the development of this plan. Some of the outcomes indicators, particularly the process outcomes, may be impacted in short time frames, such as the three-year span of a Community Health Needs Assessment cycle. Others, including many of the health impact indicators, are not expected to change significantly over the short-term.

Health Topic	Process Outcomes (Hospital/Partner Delivery of Services)	Health Impact Outcomes (Changes in Population Health)
Childhood Immunizations	Increase — <ul style="list-style-type: none"> • Number of children with complete immunization series • Uptake of annual flu vaccination 	Decrease — <ul style="list-style-type: none"> • School absenteeism related to infectious conditions
Childhood Obesity	Increase — <ul style="list-style-type: none"> • Number children and families participating in physical activity and healthy diet programs • Partnerships with schools • Schools offering healthier food choices 	Decrease — <ul style="list-style-type: none"> • Prevalence of obesity in pre-school (age 2-5) and school-age children • Prevalence of sedentary behavior • Prevalence of high-fat, high-sugar diet

APPENDIX B: Detailed Community Health Needs Profile

Population Demographics:

Characteristics	Allegheny County	Pennsylvania	United States
Area (sq. miles)	730.08	44,742.70	3,531,905.43
Density (persons per square mile)	1675.6	283.9	87.4
Total Population, 2010	1,223,348	12,702,379	308,745,538
Total Population, 2000	1,281,666	12,281,054	281,424,600
Population Change ('00-'10)	(58,318)	421,325	27,320,938
Population % Change ('00-'10)	-4.6%	3.4%	9.7%
Age			
Median Age	41.3	40.1	37.2
%<18	19.8%	22.0%	24.0%
% Under 5	5.20%	5.70%	6.50%
% 5-9	5.30%	5.90%	6.60%
% 10-14	5.60%	6.20%	6.70%
% 15-18	3.70%	4.20%	4.20%
%18-44	34.9%	34.3%	36.5%
%45-64	28.5%	28.1%	26.4%
% >65+	16.8%	15.4%	13.0%
% >85+	2.9%	2.4%	1.8%
Gender			
% Male	47.9%	48.7%	49.2%
% Female	52.1%	51.3%	50.8%
Race/Ethnicity			
% White*	81.5%	81.9%	72.4%
% African-American*	13.2%	10.8%	12.6%
% American Indian and Alaska Native*	0.1%	0.2%	0.9%
% Asian*	2.8%	2.7%	4.8%
% Native Hawaiian/Other Pacific Islander*	0.0%	0.0%	0.2%
% Hispanic or Latino**	1.6%	5.7%	16.3%
Disability	12.8%	13.1%	11.9%

*Reported as single race; **Reported as any race

Source: US Census, 2010

Social and Economic Factors:

Characteristics	Allegheny County	Pennsylvania	United States
Income, Median Household	\$47,505	\$49,288	\$50,046
Home Value, Median	\$119,000	\$165,500	\$179,900
% No High School Diploma*	7.4%	11.6%	14.4%
% Unemployed**	8.3%	9.6%	10.8%
% of People in Poverty	12.0%	13.4%	15.3%
% Elderly Living Alone	13.1%	11.4%	9.4%
% Female-headed households with own children <18	6.2%	6.5%	7.2%
Health Insurance			
% Uninsured	8.0	10.2	15.5
% Medicaid	11.3	13.1	14.4
% Medicare	12.1	11.2	9.3

**Based on those ≥25 years of age; **Based on those ≥16 years and in the civilian labor force
 Source: US Census, 2010*

Comparison of Additional Health Indicators for Allegheny County to Pennsylvania, United States, and Healthy People 2020:

Characteristics	Allegheny County	Pennsylvania	United States	Healthy People 2020
Morbidity				
Diabetes (%)	11.0	9.0	8.0	NA
Mental Health (Mental health not good \geq 1 day in past month) (%)	38.0	35.0	NA	NA
Low Birthweight (% of live births)	8.1	8.4	8.2	7.8
Health Behaviors				
Obesity (Adult) (%)	28.5	28.0	26.9	30.6
Childhood Obesity (Grades K-6) (%)	15.9	16.8	17.4	15.7
Childhood Obesity (Grades 7-12) (%)	15.0	18.2	17.9	16.1
Excessive Alcohol Use (%)	33.0	17.0	15.8	24.4
Current Tobacco Use (%)	23.0	20.0	17.9	12.0
STDs (Gonorrhea per 100,000)*	175.3	103.8	285	257
Clinical Care				
Immunization: Ever had a Pneumonia Vaccination (65+) (%)	78	70	68.6	90
Cancer Screening				
Mammography (%)	59.0	63.0	75.0	81.1
Colorectal Screening (%)	66.0	63.0	65.0	70.5
Primary Care Physician: Population (Ratio)	1:638	1:1,067	NA	NA
Receive Prenatal Care in First Trimester (%)	87.1	70.9	71.0	77.9
Physical Environment				
Access to Healthy Foods (%)	66	57	NA	NA
Access to Recreational Facilities	16	12	NA	NA

Sources:

Allegheny County Data: Allegheny County Health Survey 2009-2010 ; Pennsylvania Department of Health, 2007-2009; Robert Wood Johnson County Health Rankings, 2011

Pennsylvania Data: Pennsylvania Department of Health, 2009; Robert Wood Johnson County Health Rankings, 2011

U.S. Data: U.S. Centers for Disease Control and Prevention, 2009. Healthy People, 2020; National Center for Health Statistics. 2011.

**Gonorrhea data: County and Pennsylvania rates are per 15-35+ year old women; National and Healthy People 2020 rates are per 15-44 year old women.*

APPENDIX C: Concept Mapping Methodology

Overview:

Children's Hospital of Pittsburgh of UPMC, with consultation and support from Pitt Public Health, utilized a research method known as concept mapping to develop a better understanding of perceived health problems for their community. Concept mapping is well suited for a Community Health Needs Assessment because the research method involves stakeholders in the process and allows for prioritization of health problems based on community input.

Concept mapping is a participatory research method that yields a conceptual framework for how a group of stakeholders views a particular topic or issue. The method explores the relationships of ideas and concepts and allows for the development of group consensus. It allows for the collection of a wide range of stakeholder-generated ideas and applies quantitative analytical tools (i.e., multidimensional scaling and hierarchical cluster analysis). Concept mapping output includes a concept map which is a diagram that illustrates the relationships between ideas. The research method is used to facilitate the creation of a shared vision and understanding within a group. The research method synthesizes individual data and includes a rating process that is used to prioritize key issues.

Each UPMC hospital completed the concept mapping and through the process identified hospital-specific priority community health problems based on stakeholder input.

Application of Concept Mapping for Children's Hospital of Pittsburgh of UPMC:

Children's Hospital of Pittsburgh of UPMC established a community advisory council. Participants contributed through face-to-face meetings and online input.

The concept mapping research method consisted of two stages:

- **Brainstorming – gathering stakeholder input**
- **Sorting and Rating – organizing and prioritizing the stakeholder input**

Brainstorming - Identifying Health Needs:

In the brainstorming meeting, the Children's Hospital of Pittsburgh of UPMC Community Advisory Council met in-person to solicit members' input on the focal question, "What are our community's biggest health problems?"

Council members first brainstormed independently and then shared their list with the Pitt Public Health research team. Their responses were then compiled to generate a full list of community health problems for the hospital. The Pitt Public Health research team shared the full list with the group and facilitated a group discussion of the responses to ensure the list was comprehensive and reflected the scope of health problems faced in the Children's Hospital of Pittsburgh of UPMC community.

The Children's Hospital of Pittsburgh of UPMC brainstorming list was integrated with brainstorming lists from the other UPMC hospitals to develop a final master list of community health problems to be used in the subsequent concept mapping sorting and rating. A consolidated final master list of the 50 community health problems was distilled from the robust community input. The following table presents each of the 50 community health problems and provides a numerical value in parentheses so that the item can be linked with the concept map in the following figure.

Final Master List of 50 Community Health Problems

Nutrition and healthy eating (1)	Diabetes (11)	Medication management and compliance (21)	High blood pressure/Hypertension (31)	Smoking and tobacco use (41)
Immunizations/Vaccinations (2)	Health literacy – ability to understand health information and make decisions (12)	Exercise (22)	Breast cancer (32)	Adolescent health and social needs (42)
Lung cancer (3)	Urgent care for non-emergencies (13)	Navigating existing healthcare and community resources (23)	Pediatrics and child health (33)	Depression (43)
Maternal and infant health (4)	End of life care (14)	Preventive Screenings (cancer, diabetes, etc) (24)	Sexual health including pregnancy and STD prevention (34)	Support for families/caregivers (44)
Alcohol abuse (5)	Asthma (15)	Heart Disease (25)	Dementia and Alzheimer's (35)	Health insurance: understanding benefits and coverage options (45)
Adult obesity (6)	Prenatal care (16)	Primary Care (26)	Chronic Obstructive Pulmonary Disease (COPD) (36)	Preventive health/wellness (46)
Drug abuse (7)	Dental care (17)	Childhood obesity (27)	Stroke (37)	Injuries including crashes and sports related, etc (47)
Access to specialist physicians (8)	Financial access: understanding options (18)	Intentional injuries including violence and abuse (28)	Post-discharge coordination and follow-up (38)	Childhood developmental delays including Autism (48)
Behavioral health/Mental Health (9)	High cholesterol (19)	Cancer (29)	Arthritis (39)	Eye and vision care (49)
Geographic access to care (10)	Care coordination and continuity (20)	Social support for aging and elderly (30)	Senior health and caring for aging population (40)	Environmental health (50)

Sorting and Rating – Prioritizing Health Needs:

The Children's Hospital of Pittsburgh of UPMC Community Advisory Council completed the sorting and rating activities via the Internet. Each participant was asked to sort the master list of 50 community health problems into thematic areas, and to then rate the problems using a 1 to 5 Likert scale, according to the following criteria:

Importance:

How important is the problem to our community?

(1 = not important; 5 = most important)

Measurable Impact:

What is the likelihood of being able to make a measurable impact on the problem?

(1 = not likely to make an impact; 5 = highly likely to make an impact)

Hospital Ability to Address:

Does the Hospital have the ability to address this problem?

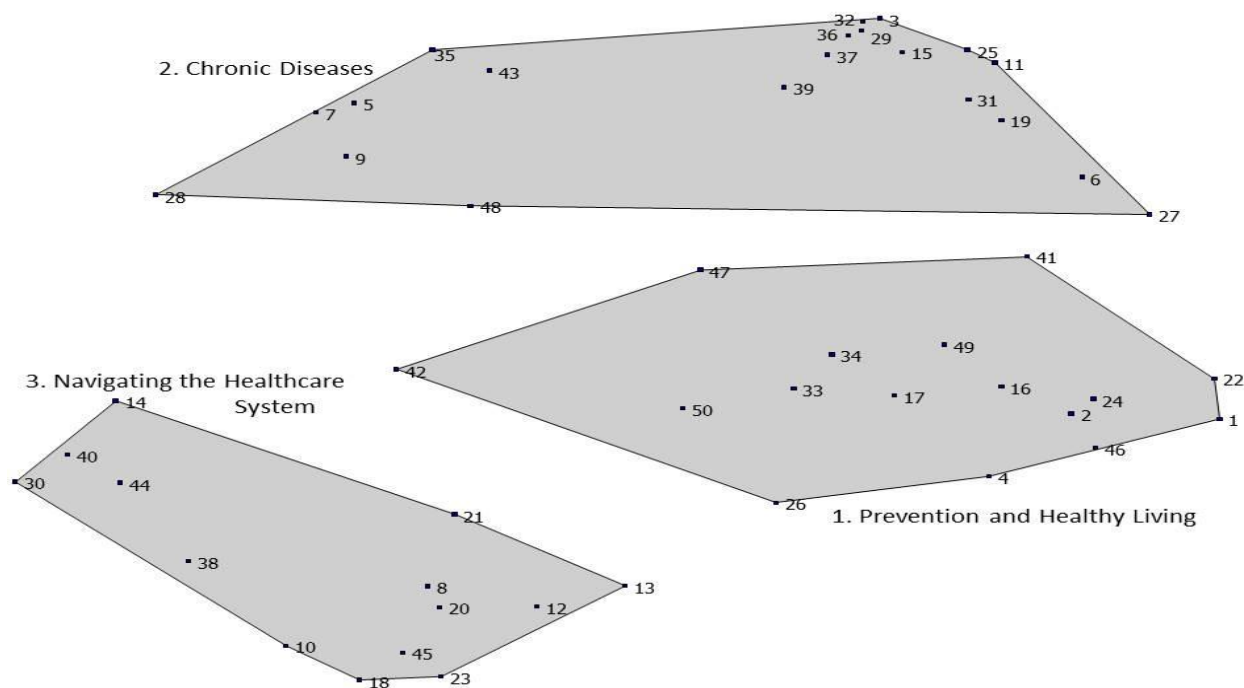
(1 = no ability; 5 = great ability)

Multi-dimensional scaling was applied to the sorting data to examine similarities between the 50 community health problems. Hierarchical clustering was used to group the sorting data into common thematic areas and to establish a final cluster map which provided a visual representation of the data. The final cluster map of the 50 community health problems reflects three thematic areas (See Figure below):

- **Prevention and Healthy Living (16 items)**
- **Chronic Diseases (20 items)**
- **Navigating the Healthcare System (14 items)**

Each of the 50 community health problems are represented in the figure below as a point. The numbers next to each point correspond to the item number. For example, item #31 is High Blood Pressure/Hypertension. The proximity of the points to each other illustrates the group thoughts about the degree of similarity between the items. For example, the item #31 (High Blood Pressure/Hypertension) and item #19 (High Cholesterol) were felt to be very similar. Those two community health problems appear on the right side of the Chronic Diseases cluster.

Final Cluster Map:



For each of the rating criteria, the rating levels were broken into three equal distributions (tertiles) representing high, moderate, and low priority. The cut points for each rating criteria are as follows:

Importance:

Low (1-3.67); Moderate (3.68-4.06); High (4.07-5.0)

Measurable Impact:

Low (1-3.33); Moderate (3.34-3.83); High (3.84-5.0)

Hospital Ability to Address:

Low (1-3.20); Moderate (3.21-3.85); High (3.86-5.0)

Within each cluster, the rating data for each individual community health problem was examined across all three rating criteria. For example, in the Prevention and Healthy Living cluster, the 16 individual community health problems were identified as being low, moderate or high for the importance, measurable impact and hospital ability to address rating criteria.

The rating categories results were then combined with results from secondary data analyses and used to identify high priority community health problems for Children’s Hospital of Pittsburgh of UPMC. Children’s Hospital of Pittsburgh of UPMC’s leadership next consulted with experts from Pitt Public Health and members of the community advisory council to review the list of high priority community health problems and identify the set of needs that are critical, addressable, and have high levels of urgency in the community. The resulting list constituted the top tier of health problems for the community.

APPENDIX D: Community Participants

To ensure the CHNA was conducted in a rigorous manner reflecting best practices, UPMC sought support and expertise from individuals and organizations with expertise in public health. UPMC engaged with the University of Pittsburgh Graduate School of Public Health (Pitt Public Health) to:

- **Develop a framework to itemize and prioritize community health needs based on review and analysis of secondary data on community health**
- **Obtain community input on health needs and perceived health care priorities through a consistent, structured process**
- **Develop implementation strategies that leverage best practices in evidence-based community health improvement**
- **Establish evaluation and measurement criteria to monitor results of implemented efforts**

The following individuals from Pitt Public Health participated in the CHNA process:

- **Steven M. Albert, PhD, MPH, Professor and Chair – Department of Behavioral and Community Health Sciences, Pittsburgh, PA**
- **Jessica G. Burke, PhD, MHS, Associate Professor - Department of Behavioral and Community Health Sciences, Pittsburgh, PA**
- **Donna Almario Doeblner, DrPH, MS, MPH, Visiting Assistant Professor - Department of Behavioral and Community Health Sciences, Pittsburgh, PA**
- **Jennifer Jones, MPH, Project Assistant - Department of Behavioral and Community Health Sciences, Pittsburgh, PA**

In addition, local and state public health department input and data were obtained and utilized in this community health assessment. UPMC sought input from the Allegheny County Health Department through meetings facilitated by Pitt Public Health, and relied on publically available Pennsylvania Department of Health reports and additional local health department information accessed via telephone conversations and special data requests.

Community input was garnered from a community advisory council, formed to represent the communities and constituencies served by the hospital. Council participants included representatives of medically underserved, low income and minority populations, consumer advocates, nonprofit organizations, academic experts, local government officials, community-based organizations, and health care providers.

The Community Advisory Council met between June 2012 and November 2012 and completed an online survey during August and September 2012. Their activities were facilitated by faculty from Pitt Public Health (see Appendix C).

Children's Hospital of Pittsburgh of UPMC Community Advisory Council included representatives from the following organizations:

- **Allegheny County Department of Human Services, Pittsburgh, PA**
- **Allegheny Court of Common Pleas, Pittsburgh, PA**
- **Children's Hospital Foundation, Pittsburgh, PA**
- **District Health Services, Pittsburgh Public Schools, Pittsburgh, PA**
- **Family Support Policy Board, University of Pittsburgh Office of Child Development, Pittsburgh, PA**
- **Ronald McDonald House Charities of Pittsburgh, Pittsburgh, PA**
- **YMCA of Greater Pittsburgh, Pittsburgh, PA**

The Children's Hospital of Pittsburgh of UPMC Community Advisory Council was also supported by members of the hospital's Board of Directors, physicians, and hospital leadership.

A focus group, also comprised of individuals and organizations representing the broad interests of the community - including representatives from medically underserved, low income and minority populations - met in August 2012. This meeting included a discussion facilitated by Pitt Public Health faculty to identify important health needs in UPMC's communities. Participants included representatives from the following organizations:

- **Addison Behavioral Care, Pittsburgh, PA**
- **Allegheny County Area Agency on Aging, Pittsburgh, PA**
- **Consumer Health Coalition, Pittsburgh, PA**
- **Disabilities Resource Committee, UPMC Community Provider Services, Pittsburgh, PA**
- **Greater Pittsburgh Community Food Bank, Duquesne, PA**
- **LEAD Pittsburgh, Pittsburgh, PA**
- **Office of Inclusion and Diversity, UPMC, Pittsburgh, PA**
- **Pennsylvania Health Access Network, Pittsburgh, PA**
- **Refugee Services, Jewish Family & Children's Services, Pittsburgh, PA**
- **Three Rivers Center for Independent Living, Pittsburgh, PA**
- **United Way of Allegheny County, Pittsburgh, PA**
- **UPMC Board Diversity and Inclusion Committee, Pittsburgh, PA**
- **UPMC Health Plan, Pittsburgh, PA**
- **Urban League of Pittsburgh, Pittsburgh, PA**
- **VA Pittsburgh Healthcare System, Pittsburgh, PA**
- **Women's Shelter of Greater Pittsburgh, Pittsburgh, PA**
- **YMCA of Greater Pittsburgh, Pittsburgh, PA**
- **YWCA of Greater Pittsburgh, Pittsburgh, PA**

UPMC also invited representatives from the following organizations to participate:

- **Allegheny Conference on Community Development**
- **Allegheny Intermediate Unit**
- **HI-HOPE (Hazelwood Initiative)**
- **Kingsley Association**
- **Pennsylvania Psychological Association**
- **PERSAD**
- **Salvation Army of Western Pennsylvania**
- **The Pennsylvania Health Law Project**