



Community Health Needs Assessment

And

Community Health Strategic Plan

June 30, 2013

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EXECUTIVE SUMMARY

UPMC Mercy Plays a Major Role in its Community:

UPMC Mercy is a nonprofit, 495-bed tertiary acute-care teaching hospital located in Pittsburgh, Pennsylvania. Situated in Uptown, an inner city Pittsburgh, Pennsylvania neighborhood in Allegheny County, the hospital delivers a full range of state-of-the-art, quality medical services — including highly specialized medical and surgical treatment — to the residents of Pittsburgh’s Uptown, Hill District, South Side, and South Hills neighborhoods. The hospital is the region’s only trauma and burn center, and welcomes 1,650 newborns annually. UPMC Mercy has served the community since 1847, when it was founded by the Sisters of Mercy. The hospital became UPMC Mercy in 2008, and remains Pittsburgh’s only Catholic hospital.

UPMC Mercy 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. UPMC Mercy’s Catholic mission to care for the underserved is reflected in the many programs it administers to address the health and spiritual needs of those in the immediate community. In 2012, the hospital provided \$22 million in charity care and unreimbursed amounts from programs for the poor.

UPMC Mercy in the Community

<p><i>UPMC Mercy is the only Catholic hospital remaining in Pittsburgh</i></p> <p><i>It is the safety net provider for the community</i></p> <p><i>UPMC Mercy is the region’s only trauma and burn center</i></p>	
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UPMC Mercy 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, UPMC Mercy 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 a structured community input process, known as “Concept Mapping.”

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

Through the CHNA process, UPMC Mercy identified significant health needs for its particular community. They are:

Topic	Importance to the Community
Behavioral Health and Detoxification (<i>Drug and Alcohol</i>)	Resources that provide detox services have declined due to closures of state mental hospitals and cuts in government support for behavioral health programs. Since 2009, the number of behavioral health and detoxification patients seen through UPMC Mercy's Emergency Department has tripled.
Diabetes and Stroke	Diabetes and stroke are leading causes of death in the UPMC Mercy service area, and are associated with heart disease, which is the leading cause of death.

UPMC is Responding to the Community's Input:

Western Pennsylvania has a diverse range of health needs. Key themes that emerged from the UPMC Mercy 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:

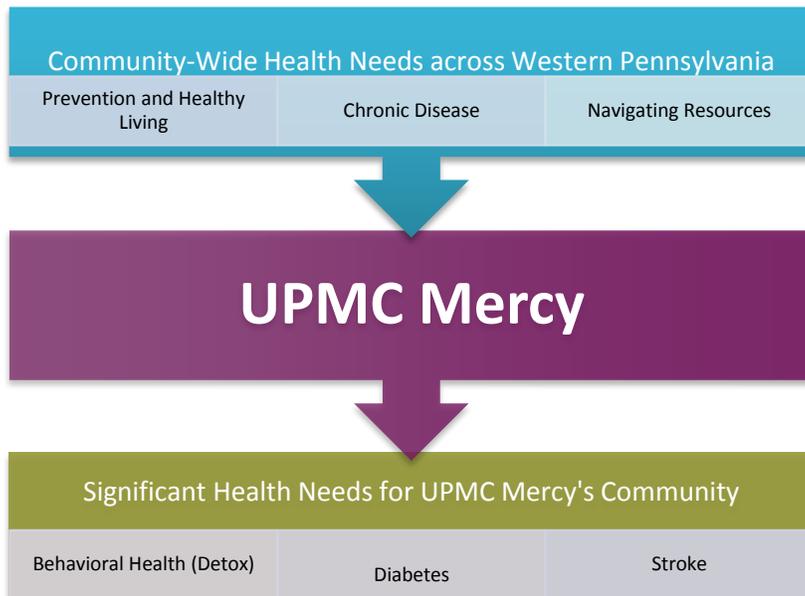
- Focus on a Few High-Urgency Issues and Follow-Through:** The hospital is concentrating on a limited number of significant community health needs, and has developed concrete plans to chart measurable improvements.
- Chronic Disease Prevention and Care:** Nearly two-thirds of deaths in the community are attributable to chronic disease. UPMC Mercy is planning a wide range of initiatives to support prevention and care for chronic disease.
- Navigating Available Resources:** Many established health care programs in UPMC Mercy's community are often untapped due, in part, to social and logistical challenges faced among populations and individuals lacking social support systems.
- Community Partnerships:** UPMC Mercy 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 seniors and behavioral health.

UPMC Mercy Is Improving Community Health in Measurable Ways:

On May 21, 2013, the UPMC Mercy 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



Facilitating Access to Behavioral Health and Detox Treatment

Goal: Facilitate access to appropriate levels of behavioral health and detox services in the community. Address needs of all patients, including the uninsured.

Collaborating Partners: Pittsburgh Mercy Behavioral Health, Catholic Charities/Free Care Clinic, UPMC Mercy Emergency Department's Evaluation and Referral Center, re:solve, UPMC McKeesport, Western Psychiatric Institute and Clinic of UPMC, Veterans Administration, 26 hospitals in the region, addiction facilities in the region, Allegheny County Department of Human Services

- **With declining resources and reduced government funding for patients needing behavioral health and detox services, UPMC Mercy has stepped up to fill this need by coordinating resources and leveraging partnerships throughout the region.**
 - » A growing number of individuals have turned to UPMC Mercy's Emergency Department for behavioral and detox services. In conjunction with Western Psychiatric Institute and Clinic of UPMC, the hospital is implementing support mechanisms to direct patients to more appropriate levels of care, before their needs become an emergency.
 - » UPMC Mercy's Emergency Department will offer on-the-spot health crisis intervention and stabilization services in conjunction with crisis counselors from re:solve Crisis Network's multi-disciplinary team of experts. For patients in need of outpatient detox services, UPMC Mercy will improve the continuity of care, regardless of whether patients have insurance or not, by referring individuals directly to an outpatient detox program for which they are eligible.

Preventing and Managing Diabetes and Stroke

Goal: Increase community participation in free hospital-hosted programs which provide education on prevention and management of diabetes and stroke.

Collaborating Partners: Diabetes Prevention Support Center at the University of Pittsburgh, UPMC Diabetes Centers, UPMC Health Plan, Hill House, Catholic Charities/Free Care Clinic, American Diabetes Association, UPMC Mercy mission and ministry staff/parish nurse group, UPMC Rehabilitation Institute, UPMC Presbyterian, Catholic Charities/Free Care Clinic, Duquesne University, Carlow University, EMS providers/responders

- **UPMC Mercy is certified through both the American Diabetes Association and the American Heart Association for its programs in diabetes and stroke education, prevention and management. The hospital will apply this clinical expertise to community outreach activities — particularly in lower income communities where the prevalence of chronic disease is often higher.**
 - » For adults at risk of developing diabetes, UPMC Mercy will offer The Group Lifestyle Balance program, a 12-session evidence based program with follow-up support. This program focuses on diabetes prevention through education, increased physical activity and healthy eating.
 - » To reach community members in a variety of settings, UPMC Mercy is offering free health screenings to assess an individual's risk of stroke. Programs include blood pressure screening, as well as the delivery of educational materials on stroke.

COMMUNITY HEALTH NEEDS ASSESSMENT (CHNA) REPORT

I. Objectives of a Community Health Needs Assessment

CHNA Goals and Purpose:

In Fiscal Year 2013, UPMC Mercy 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.

UPMC Mercy has many long-standing initiatives focused on improving the health of its community. UPMC approached this CHNA 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 UPMC Mercy:

UPMC Mercy is a nonprofit, 495-bed tertiary acute-care teaching hospital located in Allegheny County, Pennsylvania, and is the only Catholic hospital operating in southwestern Pennsylvania. It offers a full range of quality medical services to the people of Pittsburgh's Uptown, Hill District and South Side neighborhoods, as well as the suburbs of Pittsburgh's South Hills. The hospital provides area residents with access to medical, surgical, behavioral health, rehabilitation, and transitional care, as well as cutting-edge medical services not typically found at a local community hospital. Specialized services include the region's only Level 1 burn and trauma services, neurologic and neurosurgical care, orthopaedics, physical medicine and rehabilitation, cardiac services, and women's health. During the Fiscal Year ended June 30, 2012, UPMC Mercy had a total of 29,338 admissions and observations, 72,008 emergency room visits, and 20,521 surgeries.

UPMC Mercy is a teaching hospital, with residency programs in general surgery, podiatry, emergency medicine, physical medicine and rehabilitation, and internal medicine. It is also part of UPMC, one of the country's leading Integrated Delivery and Finance Systems (IDFS), which positions the hospital to draw on the expertise of the larger organization when patients require access to more complex or highly specialized care.

UPMC Mercy in Your Community



Pittsburgh's only Catholic hospital builds on special relationships with residents in Uptown, South Side, and Hill District (serving a large minority community).

Continued Tradition of Caring – UPMC Mercy's Ongoing Catholic Mission

- Uncompensated care: \$22.9 million.
- Strengthened local partnerships.

Special Role in Expanded Service Area

- Maintained and expanded outpatient services in Pittsburgh's South Side, South Hills, and west suburbs.
- Delivered 1,650 babies in the past year.

Keeping Institution Open – and Thriving

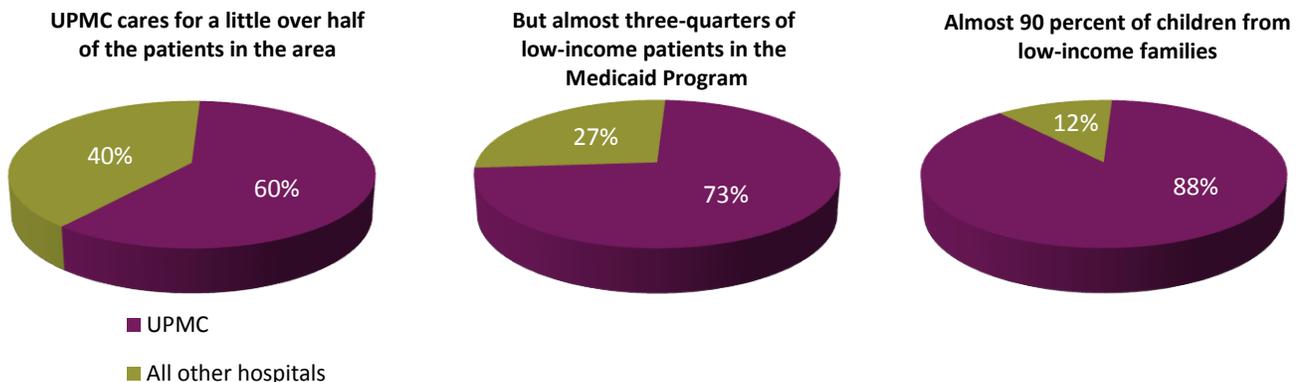
- Considerable fiscal improvement since 2007 merger with UPMC.
- Admissions up 58 percent.
- Employment reaches more than 2,800 individuals.

UPMC Mercy's Community Service and Community Benefit Initiatives:

UPMC Mercy 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 UPMC Mercy'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 and Elderly Populations:** Recognizing its mission to the community, UPMC Mercy is committed to serving Medicare and Medicaid patients. In Fiscal Year 2012, these patients represented 61 percent of UPMC Mercy's patient population. UPMC Mercy 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:** UPMC Mercy provides services to the community through outreach programs, including referral centers, screenings, educational classes, and support groups — all of which benefit patients, patients’ families, and the community. Through the 2012 Fiscal Year, the hospital offered many community health events, including burn and injury prevention classes, prenatal and perinatal classes, infant and child CPR, and ongoing free continuing education classes for EMS personnel. UPMC Mercy also supports events sponsored by the Catholic Diocese of Pittsburgh and Catholic Charities, and continues to offer health screening and health education at numerous Catholic parish festivals. The estimated cost of these programs, in addition to donations to allied nonprofit partner organizations that enhance UPMC Mercy’s community services, was \$6.0 million in Fiscal Year 2012.
- **Anchoring the Local Economy:** With deep roots in the community dating back to 1847, the hospital takes an active role in supporting the local economy through employment, local spending, and strategic community partnerships. A major employer in the area, UPMC Mercy has paid more than \$156 million in salaries and benefits to its 2,812 employees — and generated a total economic impact of \$811 million in 2012.

Other community programs include:

- » Nursing education for local residents through the Mercy Hospital School of Nursing and allied health initiatives
- » Workforce development programs to help those with special needs develop skills for employment
- » Health care and spiritual care for the homeless

UPMC Mercy also helps address a number of community needs by working closely with other community service organizations.

Areas of support and partner organizations include:

- **Family Support and Social Services:**
 - » The Brashear Association, which provides human services and community action to support and enrich families in South Pittsburgh
 - » Hill House, which delivers a spectrum of integrated social services to historically underserved populations in Pittsburgh’s Hill District
- **Neighborhood Improvement:**
 - » Uptown Partners of Pittsburgh, which works with residents, institutions, and businesses to keep the neighborhood clean, safe and green
- **Serving Those Most In Need:**
 - » A Child’s Place, which provides care to children who have been neglected or are suspected of having been abused

II. Definition of the UPMC Mercy Community

For the purpose of this CHNA, the UPMC Mercy community is defined as Allegheny County. With 77 percent of patients treated at UPMC Mercy residing in Allegheny County, the hospital primarily serves residents of this geographic region. By concentrating on the county, UPMC Mercy can both consider the needs of the great majority of its patients, and do so in a way that allows accurate measurement using available secondary data sources.

Most Patients Treated at UPMC Mercy Live in Allegheny County

County	UPMC Mercy %	Medical Surgical Discharges
Allegheny County	76.9%	13,487
All Other Regions	23.1%	4,050
Total Hospital Discharges	100%	17,537

Source: Pennsylvania Health Care Cost Containment Council, FY2012

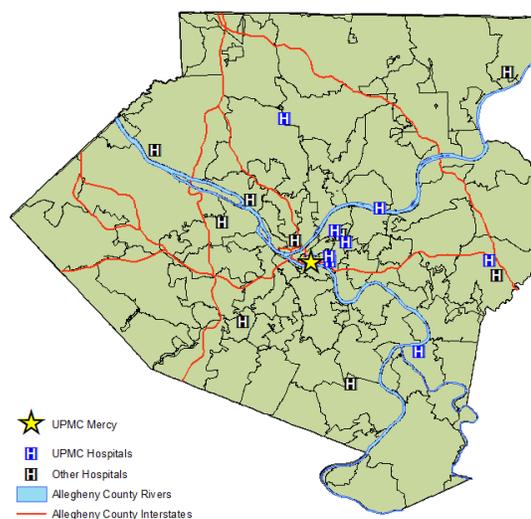
The hospital is situated centrally in the Uptown neighborhood of the City of Pittsburgh, an area noted for its economic challenges. While the county represents the basic geographic definition of UPMC Mercy’s community, this CHNA also considered specific focus areas within the hospital’s immediate geographic “service area.” Small “focus area” analyses were conducted to identify geographical areas within the county, as well as areas of concentration with potentially higher health needs — such as areas with high minority populations, low per-capita incomes, and areas with historically distinct health needs. Health data reflecting Zip Codes of neighborhoods within the service area was also analyzed.

Existing Healthcare Resources in the Area:

UPMC Mercy is one of eight UPMC licensed hospitals and 16 total hospitals in Allegheny County.

In the immediate service area, UPMC Mercy is supported by 147 UPMC outpatient offices, in addition to the seven other licensed UPMC hospitals and numerous other UPMC facilities located in the county. These facilities include three UPMC CancerCenters, four UPMC Surgery and UPMC Outpatient Centers, an Urgent Care Center, eight Centers for Rehabilitation Services sites, fourteen Imaging Centers, two Magee-Womens Hospital of Pittsburgh of UPMC satellite offices, two Children’s Hospital of Pittsburgh of UPMC satellite offices, and 113 pediatric, primary and specialty care doctor’s offices.

Hospitals in Allegheny County



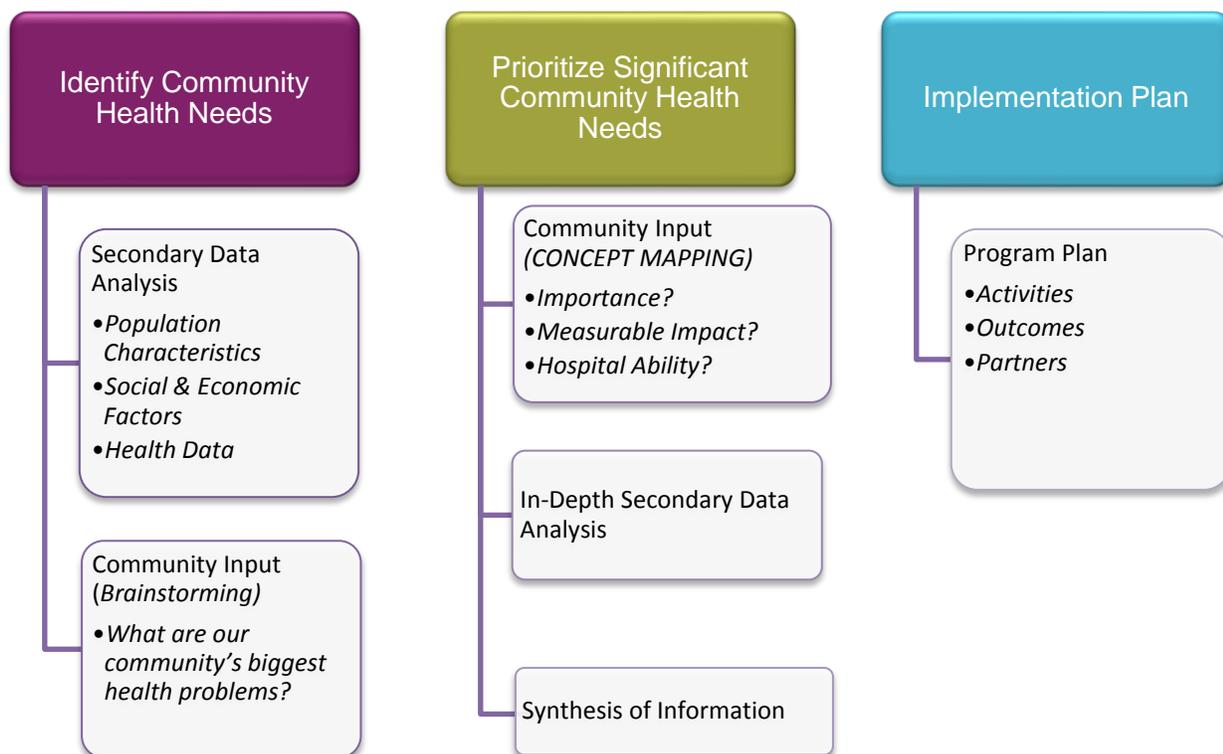
III. Methods Used to Conduct the Community Health Needs Assessment

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			
Obesity (Childhood and Adult)	U.S. Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System;			
Alcohol Use				
Tobacco Use			National Center for Health Statistics.	
Sexually Transmitted Disease				
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:

Sizable Elderly Population with High Social Needs: A notable characteristic of Allegheny County is the large and increasing percentage of elderly residents (65 years and older). Allegheny County has a large elderly population (17 percent), especially when compared to Pennsylvania (15 percent), and the United States (13 percent). A higher percentage of elderly in Allegheny County live alone, compared with Pennsylvania and the United States. Reflective of the higher proportion of elderly, the percentage of Medicare recipients was higher in the county than the state and nation (See Appendix B).

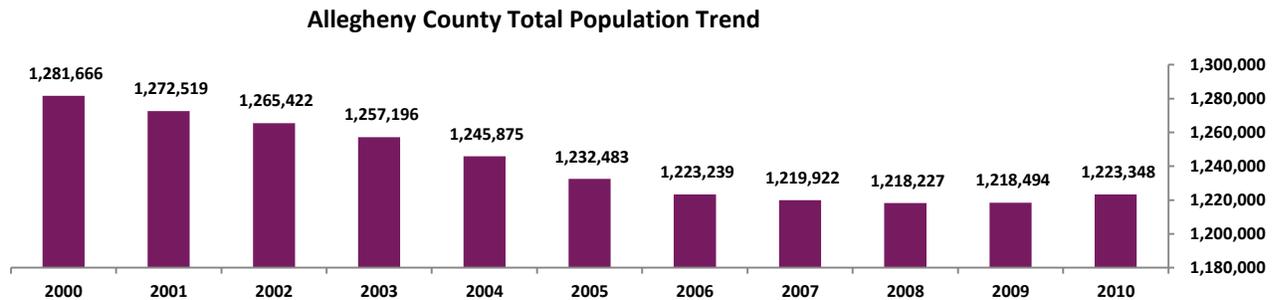
Allegheny County Has a Sizable Elderly Population

Age Distribution - 2010			
	Allegheny County	Pennsylvania	United States
Median Age	41.3	40.1	37.2
% Children (<18)	19.8%	22.0%	24.0%
% 18-64	63.4%	62.6%	63.0%
% 20-49	39.2%	39.0%	41.0%
% 50-64	21.3%	20.6%	19.0%
% 65+	16.8%	15.4%	13.0%
% 65-74	7.8%	7.8%	7.0%
% 75-84	6.1%	5.4%	4.3%
% 85+	2.9%	2.4%	1.8%
% Elderly Living Alone	13.1%	11.4%	9.4%

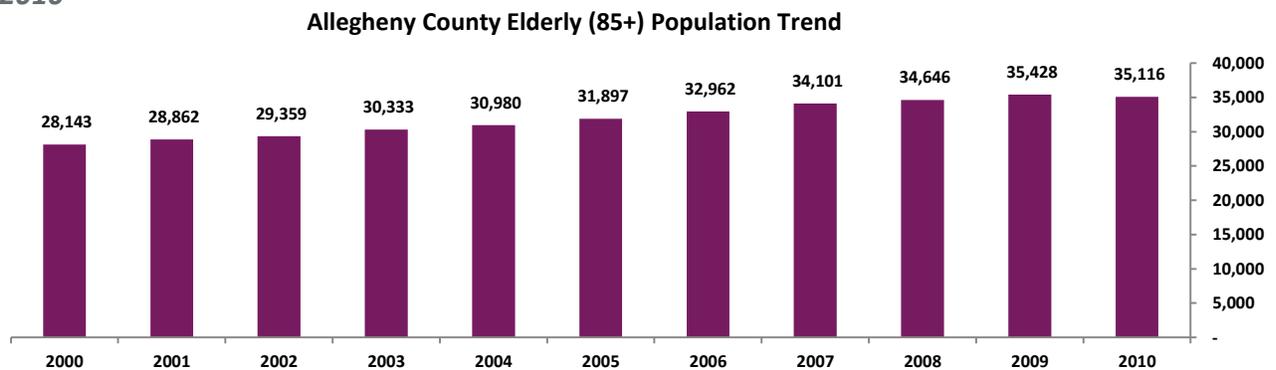
Source: U.S. Census

Total Population Decline in Allegheny County but Aging Population Increasing: In 2010, Allegheny County had a total population of 1,223,348. The population density of Allegheny County at the time was 1,675.6 people per square mile. Between 2000 and 2010, the county's total population decreased from 1.28 million to 1.22 million, representing a five-percent decline (see figure below). At the same time, the county's most elderly (age 85 and over) population *increased* significantly (see figure below). This trend resulted in a higher median age (41 years) in the county compared with Pennsylvania (40 years) and the United States (37 years).

Allegheny County's total population has seen a 5 percent decrease from 2000 to 2010



However, the most elderly population (85+) has grown 25 percent from 2000 to 2010



Source: U.S. Census

Economically Stable in Allegheny County Overall: When compared to the Commonwealth of Pennsylvania and the nation, the overall population of Allegheny County is economically stronger and faces fewer economic health challenges on average. Allegheny County tends to:

- **Be more educated**
- **Have fewer people unemployed**
- **Have fewer families living in poverty**
- **Have fewer uninsured and fewer recipients of the income based Medicaid health insurance program (See Appendix B)**

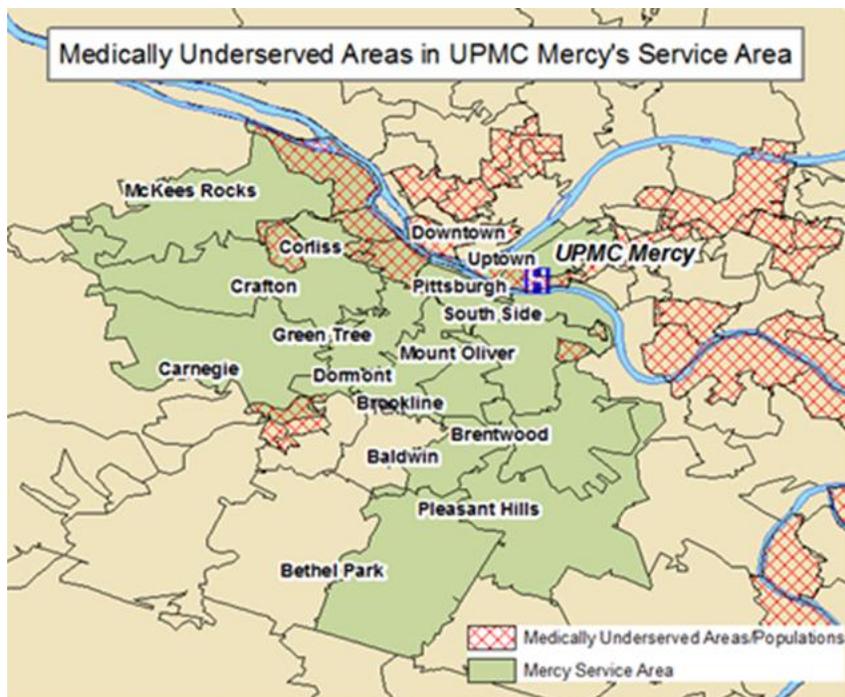
Medically Underserved Areas in UPMC Mercy Service Area: In contrast to the relatively strong Allegheny County statistics, UPMC Mercy is surrounded by some neighborhoods that have characteristics of populations more likely to experience health disparities. Compared to Allegheny County, the service area has a lower median household income and higher proportion of residents without a high school diploma. In addition, areas of concentration in the service area (such as Uptown, Zip Code 15219) are designated as federally Medically Underserved Areas (MUA).

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

Social and Economic Population Demographics		
	Allegheny County	UPMC Mercy Service Area
Median Household Income	\$45,362	\$43,810
% in Poverty (among families)	8.7%	9.1%
% with No High School Diploma (among those 25+)	8.4%	9.7%
% Unemployed (among total labor force)	7.2%	6.9%
Racial Groups		
% White	81.5%	83.6%
% African-American	13.2%	11.7%
% Other Race	5.3%	4.7%

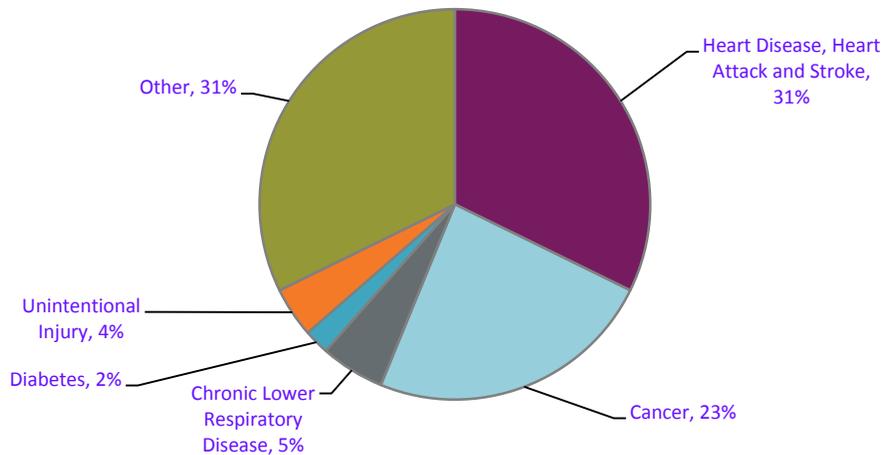
Source: U.S. Census



Sources: Health Resources and Services Administration

Chronic Disease and Mortality:

Nearly two-thirds of deaths in Allegheny County are attributable to chronic disease.



Source: Pennsylvania Department of Health, 2011

Significant Health Needs for UPMC Mercy's 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 areas served by UPMC hospitals:

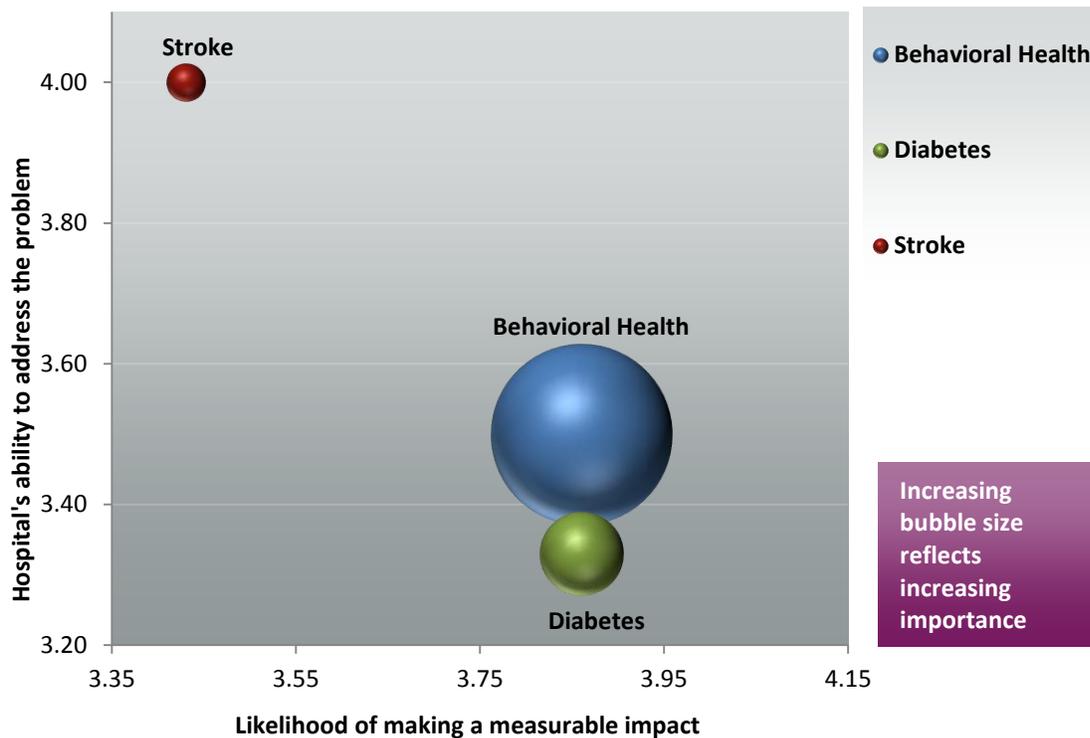
- **Chronic Disease**
- **Prevention and Healthy Living**
- **Navigating Resources**

For UPMC Mercy's 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:

- **Behavioral Health and Detox**
- **Diabetes**
- **Stroke**

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.

UPMC Mercy Significant Health Needs

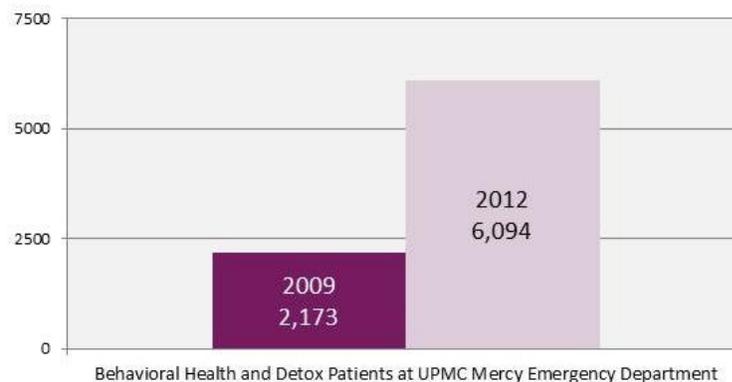


In-depth secondary data analysis reinforced that these health topics were areas of concern for the UPMC Mercy community. The secondary data findings are illustrated below:

Behavioral Health and Detoxification Services – Importance to the Community

- UPMC Mercy is one of only three hospital inpatient detox programs in western Pennsylvania.
- Closure of state mental hospitals and cuts in government support for behavioral health programs are resulting in decreased supply of and access to detox services.
- Since 2009, the number of behavioral health and detoxification patients seen through UPMC Mercy's Emergency Department has tripled.

Increase in Number of Behavioral Health and Detox Patients Seen at UPMC Mercy Emergency Department



Source: UPMC Mercy

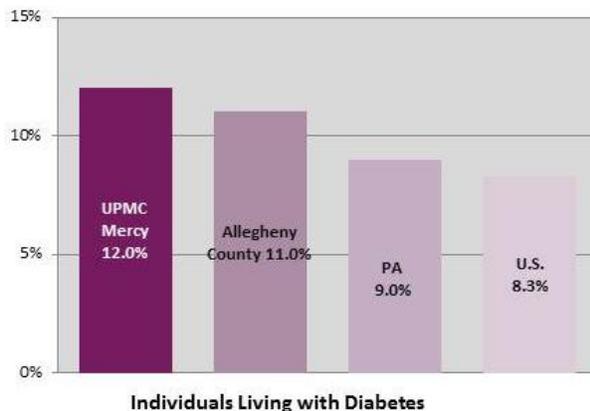
Demand for detox treatment is growing: Behavioral health, especially detox treatment for drug and/or alcohol dependence and abuse, is an important issue both nationally and locally. The U.S. Department of Health and Human Services reported that a large “treatment gap” for substance dependence and abuse exists nationally. In 2011, almost 22 million Americans (8 percent) needed treatment for drugs and/or alcohol dependence, but only 10 percent of those needing treatment actually received it. Echoing national statistics, our region has experienced an increase in the demand for detox services, during a time when access to services has decreased due to state mental health closures and cuts in government support. UPMC Mercy is one of only three hospital inpatient detox programs in western Pennsylvania, and the only inpatient detox hospital program in Allegheny County. Since 2009, the number of behavioral detox patients seen at the UPMC Mercy Emergency Department has increased dramatically—almost tripling from 2,173 in 2009 to 6,094 in 2012.

National data suggest that medically underserved populations, low-income individuals, and underserved minorities are at increased risk for substance dependence or abuse: Publicly available health data on substance abuse and treatment are unavailable at the local level, but the U.S. Department of Health and Human Services reported in 2011 that those with less than a high school education had higher rates of substance dependence or abuse (9 percent), compared to those who graduated from college (6 percent). Allegheny County Health Survey data on binge drinking, which is associated with alcohol dependence and abuse, showed that about 33 percent of Allegheny County adults were binge drinkers. A higher percentage were found in those with less than a high school education (43 percent), those earning <\$15,000 (36 percent), and African-Americans (38 percent).

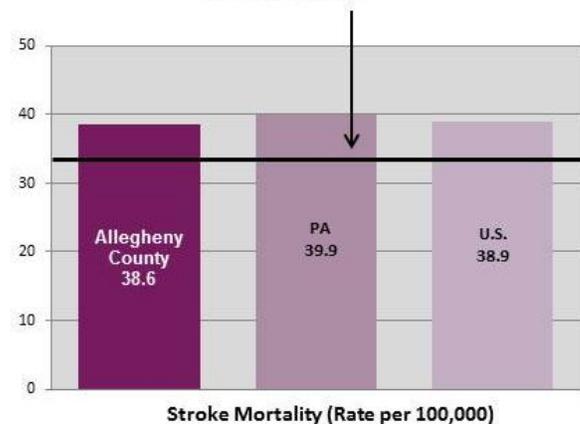
Diabetes and Stroke - Importance to the Community

- **Diabetes and stroke are leading causes of death in the UPMC Mercy service area and are associated with heart disease, which is the leading cause of death.**
- **A high percentage of individuals in the UPMC Mercy service area are living with diabetes.**

Diabetes rates are higher in the UPMC Mercy service area



Although the Allegheny County stroke mortality rate is similar to the state and nation, it is higher than the Benchmark: 33.8



Sources: Allegheny County Health Survey 2009-2010; Pennsylvania Department of Health, 2011; Healthy People 2020; U.S. Centers for Disease Control and Prevention, 2009

Diabetes:

Diabetes affects many people: Nationally, 8.3 percent of the total U.S. population has been diagnosed with diabetes, and it is estimated that almost one-third of people with the disease have not been diagnosed. Diabetes is a leading cause of death in the UPMC Mercy service area. Diabetes is also a major cause of heart disease and stroke, and may underlie many deaths attributed to these conditions. Unmanaged diabetes can lead to hypertension, blindness, kidney disease, and lower-limb amputation. In the UPMC Mercy service area, 12 percent of residents reported having diabetes, which was higher than the county, state, and the nation. UPMC Mercy has existing programs that address diabetes. There is potential to leverage strong community partnerships to enhance these efforts.

Diabetes rates are increasing: The prevalence of diabetes in the county increased from 7 to 11 percent between 2002 and 2009-2010. The prevalence of diabetes was higher in the county than in the state.

Diabetes is particularly problematic for sub-populations, including low-income and underserved minorities: Within Allegheny County, specific sub-populations have significantly elevated diabetes mortality rates. The mortality rate was higher among men (22.3/100,000) compared with women (15.8/100,000), higher among African-Americans (35.6/100,000) than in Whites (16.6/100,000), and increased with age. In parallel with mortality rates, the prevalence of diabetes is much higher among specific sub-populations within Allegheny County. Diabetes affects a significantly higher percentage of African-Americans (15 percent) compared with Whites (11 percent). A higher proportion of the elderly (22 percent) reported having diabetes than young adults (1 percent). Those with a high school education or less, or those with low incomes (less than \$15,000) were more likely to report having diabetes. There were no differences between men and women.

Stroke:

Stroke affects many people: Almost 130,000 individuals die from a stroke each year, which represents 5 percent of all deaths nationally. Similarly, 6 percent of all deaths in the Allegheny County are due to stroke and represent almost 720 deaths. Risk factors for stroke include having heart disease, being overweight/obese, diabetes, alcohol use, and lack of exercise. UPMC Mercy has existing programs that address these risk factors for stroke, and there is potential to leverage strong community partnerships to enhance these efforts.

Stroke is particularly problematic for sub-populations within Allegheny County: The stroke death rate was higher among men (46/100,000) compared to women (40/100,000), higher among African-Americans (59/100,000) than Whites (41/100,000), and increased by age. In parallel with mortality rates, the prevalence of those experiencing a stroke is much higher among specific sub-populations within Allegheny County, especially those with lower incomes and older individuals.

V. Overview of the Implementation Plan

Overview:

UPMC Mercy 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 May 21, 2013, the UPMC Mercy Board of Directors adopted an implementation plan to address the identified significant health needs:

- **Behavioral Health and Detox**
- **Diabetes**
- **Stroke**

A high level overview of the UPMC Mercy implementation plan is illustrated in the figure below and details are found in Appendix A:

High-Level Overview of UPMC Mercy Implementation Plan

Topic	Goal	Collaborating Community Partners
Behavioral Health and Detox	<p>Facilitate access to appropriate levels of behavioral health and detox services.</p> <p>Leverage internal UPMC resources and partner with other providers and services in the region. Address needs of all patients including the uninsured.</p>	<p>Pittsburgh Mercy Behavioral Health</p> <p>Catholic Charities /Free Care Clinic</p> <p>UPMC Mercy Emergency Department’s Evaluation and Referral Center</p> <p>re:solve</p> <p>UPMC McKeesport</p>
Diabetes	<p>Increase the participation in and frequency of hospital hosted free community programs which provide education on prevention and self-management of diabetes.</p> <p>Leveraging partnerships and exploring new outreach and communication mechanisms.</p>	<p>Western Psychiatric Institute and Clinic of UPMC</p> <p>Veterans Administration</p> <p>26 hospitals in the region</p> <p>Addiction facilities in the region</p> <p>Allegheny County Department of Human Services</p> <p>Diabetes Prevention Support Center at University of Pittsburgh</p> <p>UPMC Diabetes Centers</p>
Stroke	<p>Offer education on stroke prevention and support programs. Increase the number of participants by creating public awareness of the importance of recognizing the symptoms of stroke and getting treatment as soon as possible.</p> <p>Work with community partners, holding educational events, and exploring new outreach and communication mechanisms, particularly within low income populations.</p>	<p>UPMC Health Plan</p> <p>Hill House</p> <p>Catholic Charities/Free Care Clinic</p> <p>American Diabetes Association</p> <p>UPMC Health Plan/Hill House</p> <p>UPMC Mercy mission and ministry staff/Parish Nurse group</p> <p>UPMC Rehabilitation Institute</p> <p>UPMC Presbyterian</p> <p>Catholic Charities/Free Care Clinic</p> <p>Duquesne University</p> <p>Carlow University</p> <p>EMS providers/responders</p>

VI. APPENDICES

APPENDIX A: Detailed Community Health Needs Assessment Implementation Plans

Priority Health Issue: Addressing Behavioral Health and Detox

Behavioral health is a priority in UPMC Mercy’s community: Behavioral health is an umbrella term that refers to a continuum of services for individuals at risk of, or suffering from, mental, behavioral and/or addiction disorders. Effects of behavioral health issues include abnormal alterations in thinking, mood, or behavior associated with distress and impaired functioning. The effects of mental illness include disruptions of daily function; incapacitating personal, social, and occupational impairment; and premature death. Behavioral health issues have become an increasing priority in UPMC Mercy’s community. The number of patients presenting in the Emergency Department for behavioral health and detox needs has nearly tripled over the past three years, from 2,173 cases in 2009 to 6,094 cases in 2012.

UPMC Mercy is addressing this issue: UPMC Mercy offers behavioral health services 24 hours a day, seven days a week. The goal of these services is to help people with mental illness, intellectual disability, and addiction issues thrive in their communities. Behavioral health patients can access emergency services on a walk-in basis at the Evaluation and Referral Center (ERC) in UPMC Mercy’s Emergency Department. The ERC assesses the individual in crisis and, based on the information obtained during the assessment, recommends the appropriate level of care and placement for services.

UPMC Mercy plans to do more to focus on this priority: In addition to providing existing evaluation and referral services offered in UPMC Mercy’s Emergency Department, UPMC Mercy plans make the referral process more seamless for patients and more convenient for their families/caregivers through strengthening partnerships with other hospitals in the area and optimizing current resources such as re:solve.

Behavioral Health and Detox				
Program	Activities	Outcomes	Target Population	Partners
		Goal-Year 3		
Evaluation and Referral Center (ERC)	<p>Enhance communication between ERC, UPMC McKeesport Hospital, and WPIC Diagnostic Evaluation Center for bed management.</p> <p>Provide bed searching service to 28 facilities which are included as partners.</p> <p>Network with other facilities by having staff tour and meet each other (Diversion and Acute Stabilization, Central Recovery Center, re:solve) on a regular basis.</p> <p>Transfer appropriate patients from UPMC Mercy to UPMC McKeesport.</p> <p>Provide five detox clinicians in UPMC Mercy’s ED from 11 AM to 11 PM.</p>	<p>Provide appropriate level of care in timely manner.</p> <p>Increase patients’ awareness of relevant services available through other community resources (such as the county).</p> <p>Decrease wait time for patients presenting in the ED for detox and behavioral health services.</p>	<p>Behavioral health patients.</p> <p>Detox patients.</p>	<p>UPMC Mercy Evaluation and Referral Center, re:solve, UPMC McKeesport, UPIC, Catholic Charities Free Care Clinic, Pittsburgh Mercy Behavioral Health, Allegheny County Department of Human Services, 26 other facilities in region, Butler Memorial Hospital, Glenbeigh Hospital of Rock Center, Stepping Stones Unit at Meadville Medical Center, Cove Forge, Gateway Rehabilitation Center, Greenbriar Treatment Center, Pyramid-Altoona, Turning Point, Twin Lakes, ARC Manor, Alpha House, Gaiser Addiction Center, Harbor Light, House of the Crossroads, Renewal Inc, POWER, White Deer Run, Veterans Administration.</p>

Behavioral Health and Detox				
Program	Activities	Outcomes	Target Population	Partners
		Goal-Year 3		
Addressing Crisis Situations for Patients with Behavioral and Detox Needs	Optimize resources available for behavioral health patients through re:solve, which provides 24 hour, 7 days a week mental health crisis intervention and stabilization services. Program is staffed by psychiatrists, counselors, crisis nurses, crisis service coordinators and support staff.	Partner with re:solve to ensure service is easily accessible to patients.	Behavioral Health Patients.	re:solve Crisis Network.
	Optimize the use of alternate treatment plans rather than 201(voluntary) commitments.	Address current delays in obtaining outpatient services through the use of partial hospital programs, which can be facilitated in a more expeditious time frame. Work with re:solve as a link to programs. Utilize mobile teams to address the gap between ED evaluation and intensive outpatient services. Continue partnerships and evaluate timeliness of obtaining outpatient services.	Behavioral Health Patients.	re:solve Crisis Network.
Continuity of Care for Insured Patients	Partner with WPIC and UPMC Mercy's Pharmacy to coordinate and support behavioral detox referrals.	Improve continuity of care when a patient with insurance coverage gets referred to an ambulatory detox program. Track detox referrals.	Detox Patients.	UPMC Mercy Pharmacy, WPIC.
Continuity of Care for Uninsured/ Underinsured Patients	Improve continuity of care and address gaps in care for uninsured patients who do not qualify for ambulatory detox, 4A, or 3A programs.	Improved referral structure.	Detox Patients.	

Priority Health Issue: Addressing Diabetes

Diabetes is an important priority in UPMC Mercy's community: Diabetes is the sixth-leading cause of mortality in the UPMC Mercy service area, where there is a much larger percentage of people living with diabetes (12.0 percent) than the state (9.0 percent) and nation (8.3 percent). Diabetes is also associated with other leading causes of death,

including heart disease, which is the number one cause of death. Diabetes may be prevented through increased physical activity, a healthy diet, and maintenance of a healthy weight. For those living with diabetes, education about the disease, coupled with self-management techniques, has the potential to greatly improve wellness and quality of life.

UPMC Mercy is addressing this issue: UPMC Mercy currently has an extensive suite of diabetes programs aimed at preventing diabetes and addressing risk factors before the disease occurs. The hospital also offers management programs that have been recognized by the American Diabetes Association for meeting the national standards for excellence in outpatient diabetes education. A team of certified diabetes educators provides the tools necessary for patients to begin managing diabetes and living healthier lifestyles - lifestyles that include healthy eating and exercise, as well as medication management.

UPMC Mercy plans to do more to focus on this priority: UPMC Mercy plans to expand their current diabetes offerings by reaching out to more individuals that are at risk for diabetes, currently have diabetes, or are caregivers to individuals with diabetes.

Diabetes				
Program	Activities	Outcomes	Target Population	Partners
		Goal-Year 3		
Group Life Style Balance Sessions	Provide 12 support sessions. Continue eight months of support sessions after the initial 12.	Increase number of participants.	Overweight and obese, at risk for diabetes.	Diabetes Prevention Support Center at Pitt.
Medical Nutrition Therapy	Provide therapy in individual sessions for people with diseases that have nutritional implications, including people at risk for diabetes.	Increase number of participants.	Adult and children with reactive hypoglycemia, hypercholesterolemia impaired fasting glucose, Polycystic Ovary Syndrome, obesity.	UPMC Diabetes Centers, UPMC Health Plan.
Diabetes Management Program (for Diabetics)	Provide group and individual sessions for people with diabetes. Provide gestational diabetes and pre-gestational counseling for people with type 1 or 2 diabetes.	Increase number of participants.	Adults and children with type 1 or 2 diabetes who are at risk for complications.	UPMC Diabetes Centers, UPMC Health Plan, ADA.
Diabetes Management Program (for Caregivers)	Facilitate group sessions for people caring for adults and children with type 1 or 2 diabetes.	Offer 4 classes each year.	Caregivers for Personal Care Homes and Mon Yough Community Services.	American Diabetes Association.
Community Awareness: New Initiatives	Explore new outreach and communications mechanisms through UPMC partnerships, such as Center for Inclusion and UPMC Health Plan/Hill House Community Health Workers initiatives.	Evaluate initiatives to determine success of program. Continue initiatives if successful.	Minority Populations, Low Income Populations.	Center for Inclusion, Pitt Public Health, UPMC Health Plan/Hill House.

Priority Health Issue: Addressing Stroke

Stroke is a priority in UPMC Mercy’s community: Stroke is a leading cause of death in UPMC Mercy’s community, as well as in the county, state and nation. A stroke occurs when a clot blocks the blood supply to the brain or when a blood vessel in the brain bursts. Risk of stroke can be greatly reduced through lifestyle changes and, in some cases, medication. Stroke can cause death or significant disability, such as paralysis, speech difficulties, and other issues. Some treatments can reduce stroke damage if patients get medical care soon after symptoms begin. When a stroke occurs, getting the patient to the hospital quickly can greatly improve his or her chances of recovery.

UPMC Mercy is addressing this issue: UPMC Mercy is a certified Primary Stroke Center location, providing advanced therapy for stroke 24 hours a day, 7 days per week. UPMC neurologists and neurosurgeons are among the national leaders in stroke therapy and can offer patients advanced or investigational stroke therapies not available at other stroke treatment centers.

UPMC Mercy plans to do more to focus on these priorities: UPMC Mercy plans to educate its community about the symptoms of stroke and the importance of seeking treatment for stroke as soon as symptoms begin. Along with education on stroke symptoms and how to proceed when symptoms begin, UPMC Mercy also plans to provide other types of health screenings, such as blood pressure screenings. Providing ongoing support to those who have already experienced a stroke, as well as educating providers about stroke are also in UPMC Mercy’s plan to address this issue.

Stroke				
Program	Activities	Outcomes	Target Population	Partners
		Goal-Year 3		
Screenings	<p>Provide community health screenings including blood pressure screening.</p> <p>Provide education about signs and symptoms of stroke, and how to access.</p> <p>Expand number of community partners (parish nurses, EMS providers) to provide screening and education to a broader number of community members.</p>	Increase number of screenings.	General population.	UPMC Health Plan, UPMC Mercy mission and ministry staff, parish nurse group, Duquesne University, Carlow University, EMS providers.
Primary Stroke Centers Awareness Initiative	Hold community presentations on importance of quickly seeking a Primary Stroke Center when a family member is experiencing symptoms of stroke.	Increase awareness of stroke symptoms and UPMC Mercy as a Primary Stroke Center.	General population.	EMS responders.
Stroke Support Group	Provide stroke support group for stroke survivors.	Increase the number of attendees.	Stroke survivors.	UPMC Rehabilitation Institute, UPMC Presbyterian Shadyside.
Stroke Symposium	Hold annual stroke symposium for stroke survivors and caregivers.	Increase number of attendees.	Stroke Survivors and Caregivers.	UPMC Rehabilitation Institute, UPMC Presbyterian Shadyside.

Stroke				
Program	Activities	Outcomes	Target Population	Partners
		Goal-Year 3		
Provider Education	Educate EMS and hospital providers on the most current treatment of the stroke patient at the annual stroke conference.	Increase the number of attendees year over year	EMS and Health care Providers.	UPMC Mercy staff and physicians, EMS responders.
Community Awareness: New Initiatives	Explore new outreach and communications mechanisms through UPMC partnerships, such as Center for Inclusion, and UPMC Health Plan/Hill House Community Health Workers initiatives.	Continue initiatives if successful.	Minority Populations, Low Income Populations.	Center for Inclusion, Pitt Public Health, UPMC Health Plan/Hill House.

Outcomes and Evaluation of Hospital Implementation Plans:

UPMC engaged with researchers from Pitt Public Health 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)
Behavioral Health and Detox	Increase— <ul style="list-style-type: none"> • Involvement of allied services in psych ED (re:solve, crisis service) • Referrals for primary care and prevention services post psych ED-discharge • Public awareness of risk factors and resources related to behavioral health 	Decrease— <ul style="list-style-type: none"> • Repeated psych ED care • Prevalence of homelessness • Excess morbidity in patients using psych ED
Diabetes	Increase-- <ul style="list-style-type: none"> • Classes in prevention (diet, weight, nutrition, exercise) • Access to monitoring and screening exams (eyes, feet, HbA1c, glucose) • Completion rate in diabetes self-management classes • Number of community partners offering programs • Number of discharged patients using diabetes programs • Media efforts to promote diabetes awareness • Telemedicine management and access to specialists in rural hospitals • Access to primary care providers 	Decrease-- <ul style="list-style-type: none"> • Community prevalence of diabetes • Disparities in prevalence among minorities • Prevalence of related chronic conditions (stroke, heart disease) • Prevalence of undiagnosed patients without appropriate treatment
Stroke Management	Increase— <ul style="list-style-type: none"> • Stroke management skills in EMS and hospital staff • Public knowledge of stroke symptoms and calls to EMS 	Decrease— <ul style="list-style-type: none"> • Time to admission and appropriate stroke therapy • Disability from stroke

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%
%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

Leading Causes of Mortality for Allegheny County, Pennsylvania and the United States (rates per 100,000 population):

Causes of Death	Allegheny County	Pennsylvania	United States
	Percent of Total Deaths	Percent of Total Deaths	Percent of Total Deaths
All Causes	100.00	100.0	100.0
Diseases of Heart	26.83	25.9	24.6
Malignant Neoplasms	23.02	23.1	23.3
Chronic Lower Respiratory Diseases	5.06	5.2	5.6
Cerebrovascular Diseases	5.52	5.5	5.3
Unintentional Injuries	1.84	4.4	4.8
Alzheimer's Disease	2.79	2.9	2.8
Diabetes Mellitus	2.22	2.6	2.2
Influenza and Pneumonia	2.35	2.0	2.0
Nephritis, Nephrotic Syndrome and nephrosis	2.51	2.4	1.5
Intentional Self-Harm (Suicide)	0.97	1.3	1.5

Sources: Pennsylvania Department of Health, 2009; National Center for Health Statistics, 2011

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 ≥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:

UPMC Mercy, 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 UPMC Mercy:

UPMC Mercy 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 UPMC Mercy 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 UPMC Mercy community.

The UPMC Mercy 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 presented 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 UPMC Mercy 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?

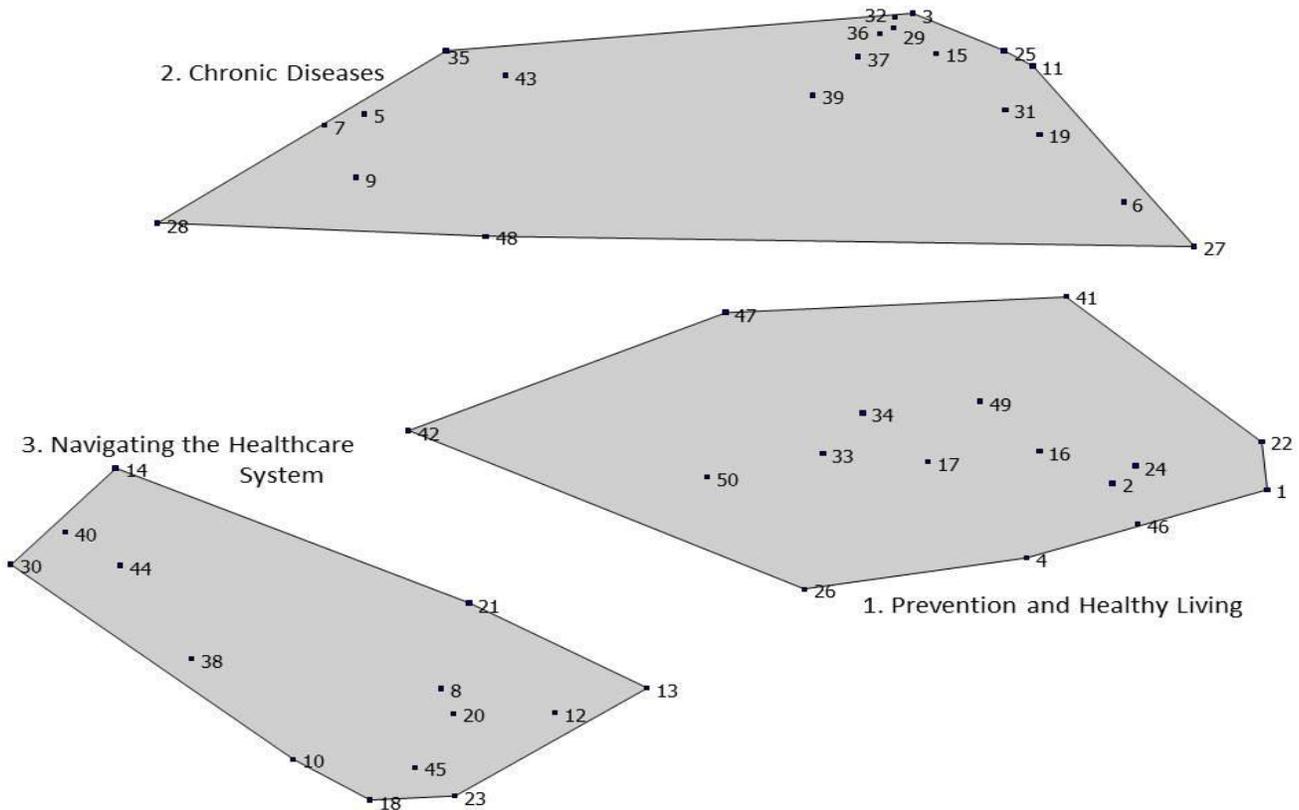
(1 = no ability; 5 = great ability)

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 UPMC Mercy. UPMC Mercy 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 Doebler, 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).

UPMC Mercy Community Advisory Council included representatives from the following organizations:

- **Brashear Association, Pittsburgh, PA**
- **Catholic Charities, Pittsburgh, PA**
- **Catholic Diocese of Pittsburgh Pastoral Center, Pittsburgh, PA**
- **Hill House Association, Pittsburgh, PA**
- **McAuley Ministries, Pittsburgh, PA**

The UPMC Mercy 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 the following organizations to participate:

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