UPMC Presbyterian Shadyside

Community Health Needs Assessment

And

Community Health Strategic Plan

June 30, 2013

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EXECUTIVE SUMMARY

UPMC Presbyterian Shadyside Plays a Major Role in its Community:

UPMC Presbyterian Shadyside is a nonprofit, quaternary-care licensed teaching hospital, which provides the most highly specialized medical care and is located in Pittsburgh, Pennsylvania. The hospital includes two campuses which span two Pittsburgh neighborhoods within Allegheny County. The Oakland campus includes UPMC Presbyterian and Western Psychiatric Institute and Clinic. The Shadyside campus includes UPMC Shadyside.

UPMC Presbyterian Shadyside is a Level I Regional Resource Trauma Center and is ranked #10 in the nation and #1 in the state by *U.S. News & World Report*. As the hub of UPMC's academic medical center, the hospital, in collaboration with the University of Pittsburgh Schools of the Health Sciences, leverages research, educational initiatives, and clinical programs to translate advances in medical science into enhanced medical capabilities. The hospital includes Western Psychiatric Institute and Clinic, which is the flagship hospital of the UPMC Behavioral Health Network and recognized as a national leader in providing research-based care and treatment of behavioral health and addictive disorders.

UPMC Presbyterian Shadyside 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 Presbyterian Shadyside in the Community

Hub of innovation for large academic medical center

Nearly 12,000 area residents are employed by UPMC Presbyterian Shadyside

Total economic impact of $3.9 billion

UPMC Presbyterian Shadyside 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 Presbyterian Shadyside 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 the 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 Presbyterian Shadyside 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.

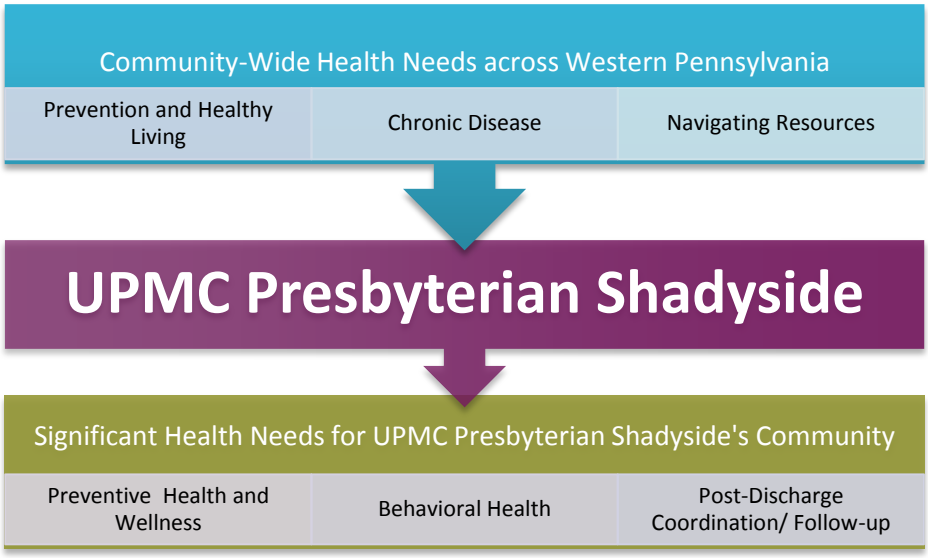
Through the Community Health Needs Assessment process, UPMC Presbyterian Shadyside identified significant health needs for its particular community. They are:

Topic	Importance to the Community
Post-Discharge Coordination and Follow-Up	The community identified post-discharge coordination and follow-up as a significant health need for UPMC Presbyterian Shadyside. Research suggests that adverse events after discharge, and subsequent re-hospitalizations, can be reduced through interventions at the time of hospital discharge, and also through follow-up with the patient.
Preventive Health and Wellness	Preventive screenings can help identify some of the leading causes of death early when treatment is likely to work best. Preventive health and wellness, such as preventive screening rates, were lower than benchmarks.
Behavioral Health	About 38 percent of all adults in Allegheny County reported experiencing poor mental health in the past month. Prevention, early diagnosis, and management of behavioral health issues can enhance the quality of life of those affected, including individuals, families, and communities.

UPMC is Responding to the Community's Input:

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

Identifying Significant Health Needs Relevant for the Hospital Community



- **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 Presbyterian Shadyside 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 Presbyterian Shadyside'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 Presbyterian Shadyside is collaborating successfully with local organizations in 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, behavioral health, and children.

UPMC Presbyterian Shadyside Is Improving Community Health in Measurable Ways:

On June 13, 2013, the UPMC Presbyterian Shadyside 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.

Coordinating Post-Discharge and Follow-up

Goal: Decrease or maintain the rate of readmission. Ensure smooth care transitions for patients and families. Pilot innovative programs for patients with complex clinical needs.

Collaborating Partners: UPMC Health Plan, area home health centers, area skilled nursing facilities, UPMC Family Health Centers

- **UPMC Presbyterian Shadyside offers innovative programs to assist community members in navigating the transition from hospital to home, and in ensuring that patients receive the support they need to recover.**
  - » ED U-Turn is a collaboration between UPMC and Jefferson Regional Home Health, a division of UPMC Visiting Nurses Association. This innovative program puts specially trained nurses in touch with the sickest patients to provide home health care, with the goal of helping those patients avoid re-admission to the hospital.
  - » Patients seen in the Emergency Department (ED) receive antibiotics free of charge through the ED Pharmacy Project to prevent additional, unnecessary visits to the ED.

Promoting Preventive Health and Wellness in the Community

Goal: Increase the number of community residents screened and educated through preventive health and wellness programs.

Collaborating Partners: UPMC Cancer Center, University of Pittsburgh, community organizations, governmental organizations, food banks, libraries, churches

- **UPMC Presbyterian Shadyside cares for the local and region-wide medically underserved community through screening, education, and outreach.**
  - » Cancer screenings are offered at UPMC's Hillman Cancer Center, and also within underserved communities throughout western Pennsylvania. Future efforts include a focus on rural communities.
  - » Community partnerships with organizations such as the Hill House, Urban League Guild, and local churches connect individuals in underserved neighborhoods with the COACH program which provides heart disease screenings and education, as well as coordination with free-care clinics.

Increasing Awareness of Behavioral Health Resources

Goal: Improve early intervention, access to services, and treatment of individuals with behavioral health issues in western Pennsylvania. Develop a community task force to increase public awareness and reduce stigma.

Collaborating Partners: UPMC community hospitals, community organizations, schools, academic researchers, health care providers, government

- **Western Psychiatric Institute and Clinic is the primary behavioral health facility in western Pennsylvania. It provides a wide range of programs and services to help meet the behavioral health needs of the community, and will continue to build new collaborations to improve coordination of care between physical and mental health.**
  - » Based on community demand, Western Psychiatric Institute and Clinic of will engage a collaboration of community partners to identify and roll out new ways to decrease the stigma around behavioral health, a key element for seeking treatment in a safe and effective manner.
  - » Establishing a routine for managing behavioral health conditions, including medication compliance, can be complex — especially for homeless individuals. Western Psychiatric Institute and Clinic of UPMC helps homeless individuals increase stability in their lives by providing housing through HUD grants. By having a home, these individuals can maintain appropriate treatment, and experience improved outcomes.

COMMUNITY HEALTH NEEDS ASSESSMENT (CHNA) REPORT

I. Objectives of a Community Health Needs Assessment

CHNA Goals and Purpose:

In Fiscal Year 2013, UPMC Presbyterian Shadyside 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 Presbyterian Shadyside 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 community 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 Presbyterian Shadyside:

UPMC Presbyterian Shadyside maintains two hospital campuses located in Allegheny County, Pennsylvania. UPMC Presbyterian Shadyside is a teaching hospital and the primary clinical training site for students of the University of Pittsburgh's Schools of Medicine and Nursing. It is also a major clinical practice site for nursing baccalaureate programs at many surrounding universities. The hospital offers a full range of quality medical services to the people of Pittsburgh and the surrounding region, and functions as the hub of the UPMC academic medical center. The hospital provides area residents with access to medical, surgical, behavioral health, rehabilitation, and transitional care, as well as cutting-edge medical services. Specialized services include transplants, CT imaging, digital mammography, minimally invasive surgery, cardiothoracic surgery, neurosurgery, critical care medicine, and on-site cancer care at the world-renowned Hillman Cancer Center, the flagship of the UPMC CancerCenters network. UPMC Presbyterian Shadyside is also one of the busiest transplant centers in the world, with more than 18,000 transplants performed since 1981.

Description of Western Psychiatric Institute and Clinic:

Western Psychiatric Institute and Clinic, licensed as a part of UPMC Presbyterian Shadyside, is a national leader in the care and treatment of behavioral health and addictive disorders. Located in Allegheny County, Pennsylvania, the hospital is the primary provider of behavioral health care to the people of Pittsburgh, as well as the region.

UPMC Presbyterian Shadyside in Your Community

UPMC Presbyterian

UPMC Shadyside

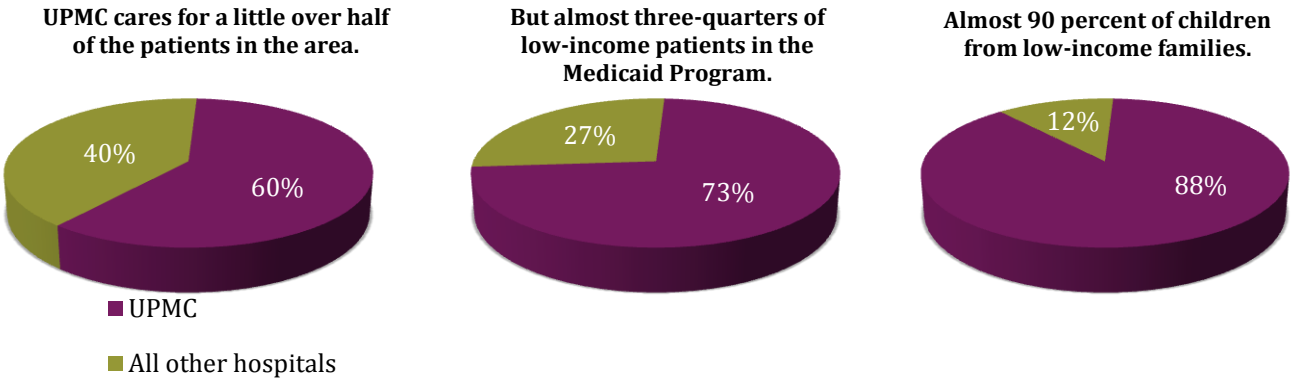
Western Psychiatric Insititute and Clinic

UPMC Presbyterian Shadyside's Community Service and Community Benefit Initiatives:

UPMC Presbyterian Shadyside 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 Presbyterian Shadyside'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, and 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 Presbyterian Shadyside is committed to serving Medicare and Medicaid patients. In Fiscal Year 2012, these patients represented 59 percent of UPMC Presbyterian Shadyside's patient population and 75 percent of Western Psychiatric Institute and Clinic's patient population. UPMC Presbyterian Shadyside 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 Presbyterian Shadyside provides services to the community through outreach programs, including referral centers, screenings, and educational classes — all of which benefit patients, patients' families, and the community. Through the 2012 Fiscal Year, the hospital participated in nearly 700 community health events and programs, including many health fairs and educational events focused on awareness, prevention, and management of chronic disease and behavioral health issues. Events included wellness fairs in local school districts and through local employers, and various health education and screening events throughout the community — from churches and community centers to homeless shelters and soup kitchens. UPMC Presbyterian Shadyside also has many programs concentrated on childhood and adolescent safety, with programs focused on concussion prevention and management in student athletes, bike and car seat safety, education on the dangers of drinking and driving, and ATV safety to name a few. In addition to programs focused on health and safety issues, UPMC Presbyterian Shadyside offers programs which promote workforce development in the community, from formal internship and externship programs for medical professionals to shadowing and mentoring high school students and others. UPMC Presbyterian Shadyside committed $34.2 million to community services in Fiscal Year 2012.
- **Anchoring the Local Economy:** With deep roots in the community dating back to 1866, 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 Presbyterian Shadyside has paid nearly $665 million in salaries and benefits to its 11,962 employees — 79 percent of whom live in the area — and generated a total economic impact of $3.9 billion in 2012.

II. Definition of the UPMC Presbyterian Shadyside Community

For the purpose of this CHNA, the UPMC Presbyterian Shadyside community is defined as Allegheny County. With 51 percent of patients treated at UPMC Presbyterian Shadyside residing in Allegheny County, the hospital primarily serves residents of this geographic region. By concentrating on the county, UPMC Presbyterian Shadyside 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 Presbyterian Shadyside Live in Allegheny County

County	UPMC Presbyterian Shadyside %	Medical Surgical Discharges
Allegheny County	50.5%	30,481
All Other Regions	49.5%	29,911
Total Hospital Discharges	100%	60,392

Source: Pennsylvania Health Care Cost Containment Council, FY2012

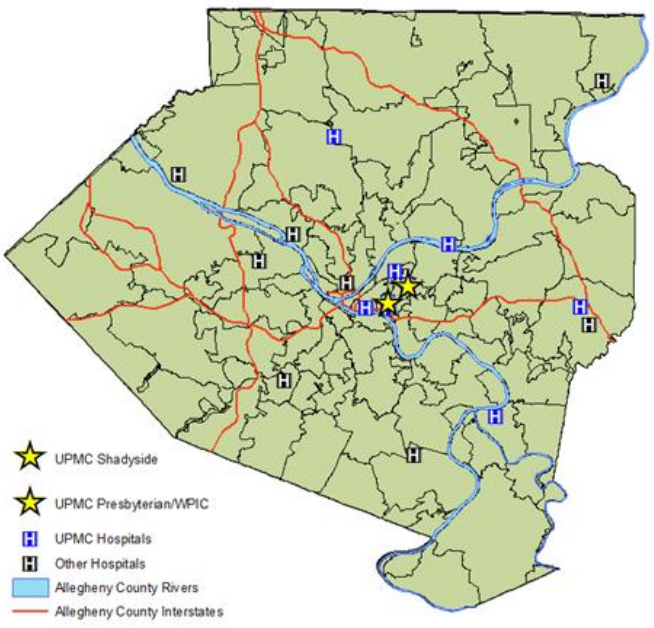
The hospital is situated centrally in the county, in the Oakland and Shadyside neighborhoods of the City of Pittsburgh. While the county represents the basic geographic definition of UPMC Presbyterian Shadyside's community, the hospital has a broader reach throughout the seven county Pittsburgh Metropolitan Statistical Area (MSA). This CHNA therefore also considered the MSA, as well as specific populations within the defined community — such as minorities, low-income individuals, and those with distinct health needs.

Existing Healthcare Resources in the Area:

UPMC Presbyterian Shadyside and Western Psychiatric Institute and Clinic are combined under one hospital license. Together they represent one of eight UPMC licensed hospitals and 16 total licensed hospitals in Allegheny County.

In the immediate service area, UPMC Presbyterian Shadyside 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 CancerCenters, nine UPMC Surgery and UPMC Outpatient Centers, 11 Senior Communities, five Urgent Care Centers, 30 Centers for Rehabilitation Services sites, 51 UPMC Imaging Centers, seven Magee-Womens Hospital of UPMC satellite offices, seven Children's Hospital of Pittsburgh of UPMC satellite offices, and more than 600 pediatric, primary and specialty care doctor's offices.

Hospitals in Allegheny County



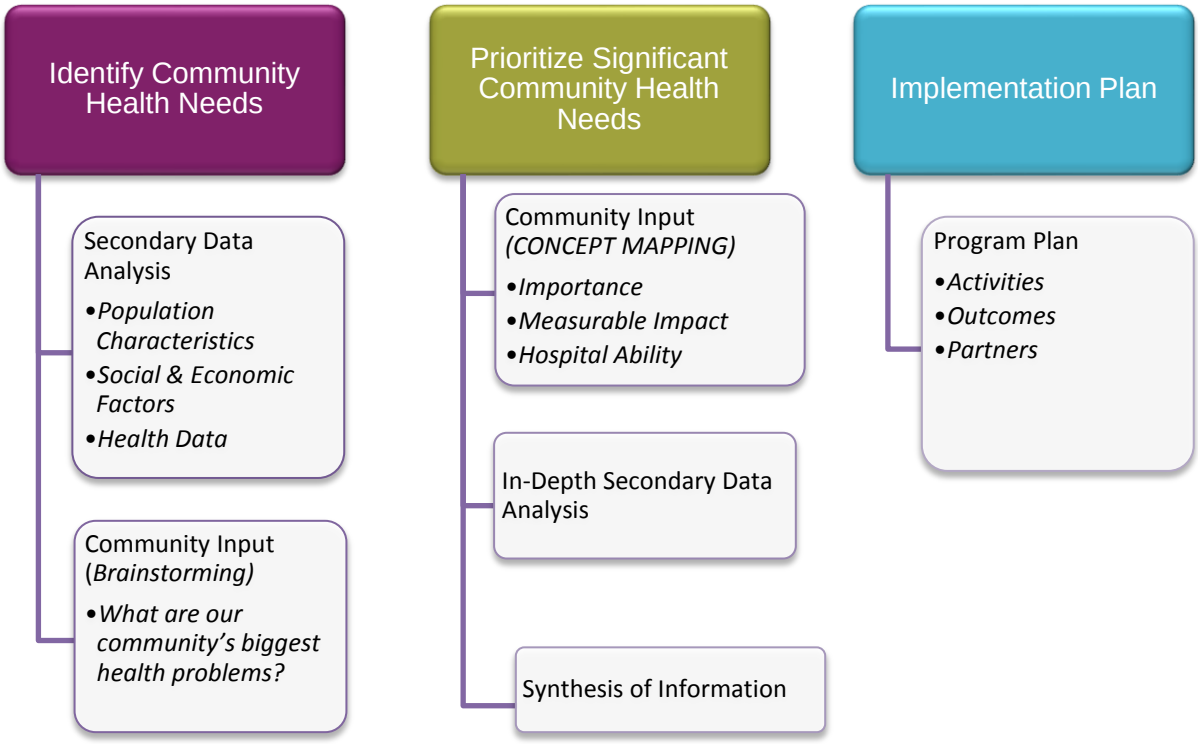
III. Methods Used to Conduct the Community Health Needs Assessment

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 environment 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, the 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; PA Department of Health Behavioral Risk Factors Surveillance System; Birth, Death, and Other Vital Statistics; Cancer Statistics; U.S. Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System; National Center for Health Statistics.
	Cancer		
	Mental Health		
	Asthma (Childhood)		
	Birth Outcomes		
Health Behaviors Data	Obesity (Childhood and Adult)		
	Alcohol Use		
	Tobacco Use		
	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; PA Department of Health Behavioral Risk Factors Surveillance System; Birth, Death, and Other Vital Statistics; Cancer Statistics; U.S. Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System; Robert Wood Johnson Foundation County Health Rankings; National Center for Health Statistics.
	Cancer Screening (breast/colorectal)		
	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).

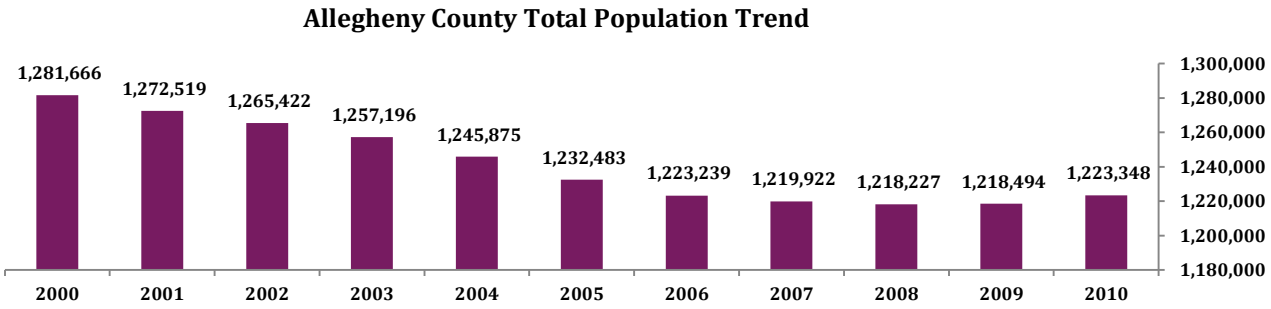
UPMC Presbyterian Shadyside's Community Has a Sizable Elderly Population

Age Distribution - 2010				
	Allegheny County	Pittsburgh MSA	Pennsylvania	National
Median Age	41.3	42.6	40.1	37.2
% Children (<18)	19.8%	20.2%	22.0%	24.0%
% 18-64	63.4%	62.5%	62.6%	63.0%
% 20-49	39.2%	37.7%	39.0%	41.0%
% 50-64	21.3%	22.1%	20.6%	19.0%
% 65+	16.8%	17.3%	15.4%	13.0%
% 65-74	7.8%	8.3%	7.8%	7.0%
% 75-84	6.1%	6.2%	5.4%	4.3%
% 85+	2.9%	2.8%	2.4%	1.8%
% Elderly Living Alone	13.1%	12.9%	11.4%	9.4%

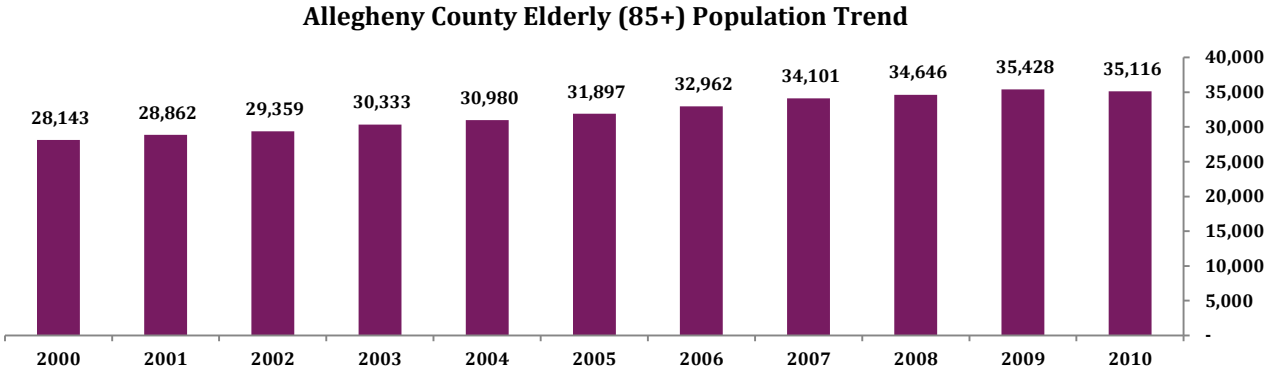
Source: U.S. Census

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 population (age 85 and over) *increased* by 25 percent, from 28,143 to 35,116 (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

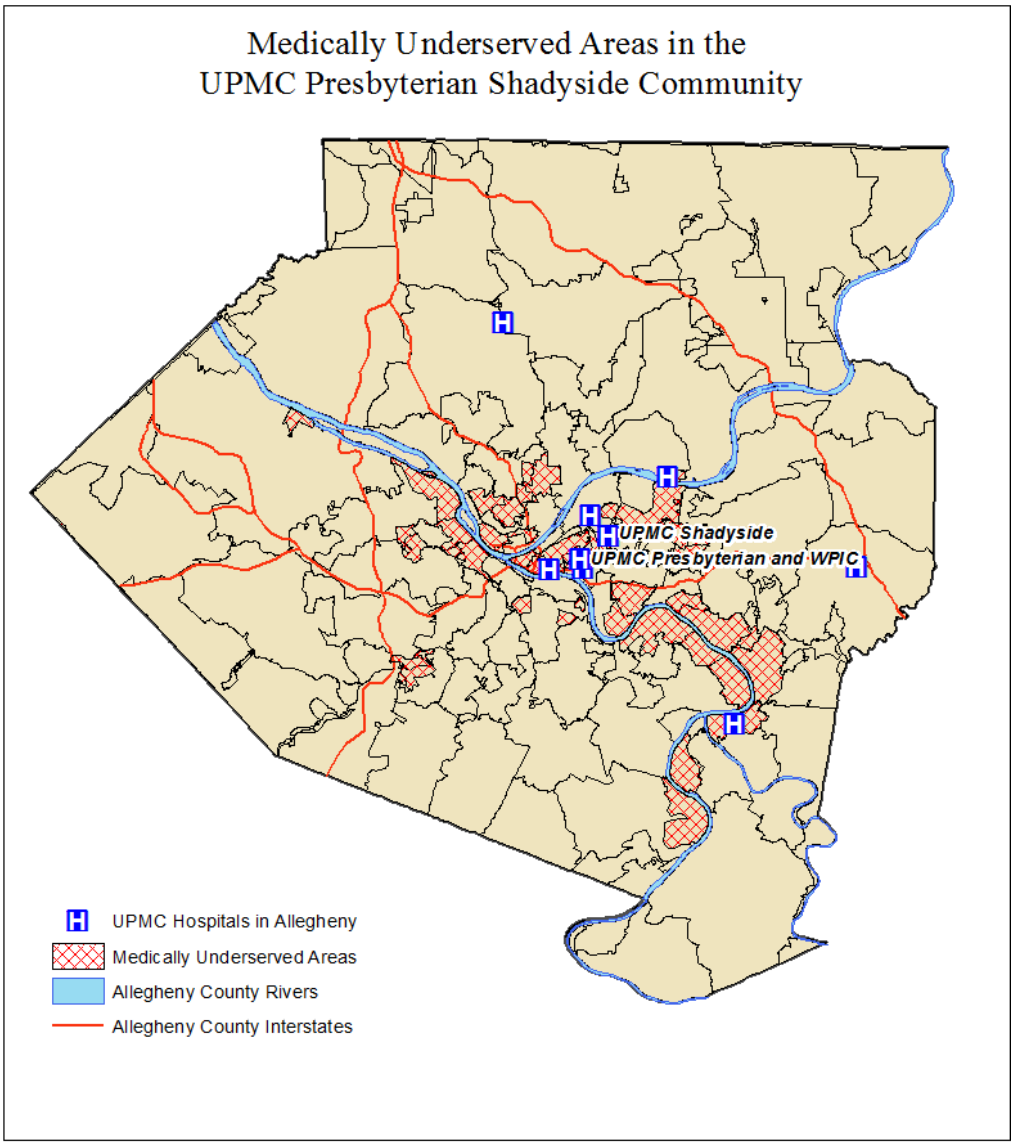
Economically Stable in Allegheny County Overall: When compared to the Commonwealth of Pennsylvania and the nation, the overall population of Allegheny County is economically stronger and faces fewer economic health challenges on average. Allegheny County tends to:

- **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 the UPMC Presbyterian Shadyside Service Area: In contrast to the relatively strong Allegheny County statistics, UPMC Presbyterian Shadyside is surrounded by some neighborhoods that have characteristics of populations more likely to experience health disparities. Neighborhoods around the service area, such as East Liberty (15206), Homewood (15208), Wilkinsburg (15221), and Greenfield/Hazelwood/Glen-Hazel (15207), all of which are in Allegheny County, have a lower median household income and higher poverty, compared to Allegheny County.

The following factors are considered in the determination of MUAs:

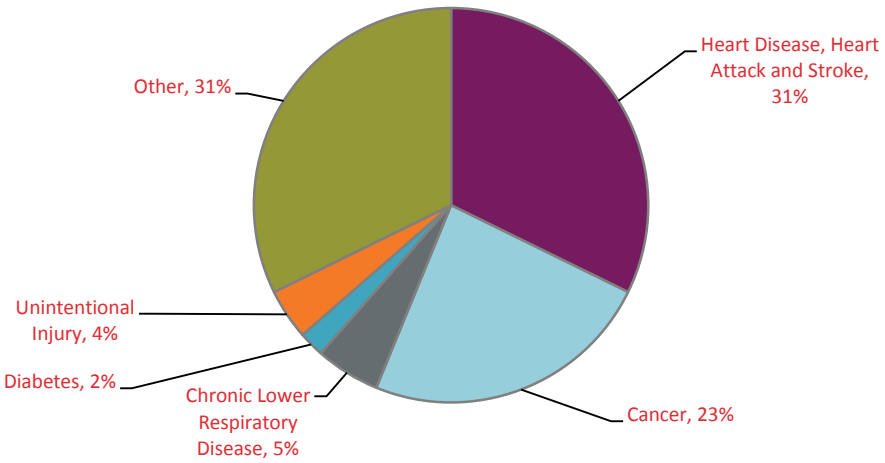
- **A high percentage of individuals living below the poverty level**
- **High percentages of individuals over age 65**
- **High infant mortality**
- **Lower primary care provider to population ratios**



Source: 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, 2009

Significant Health Needs for UPMC Presbyterian Shadyside'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:

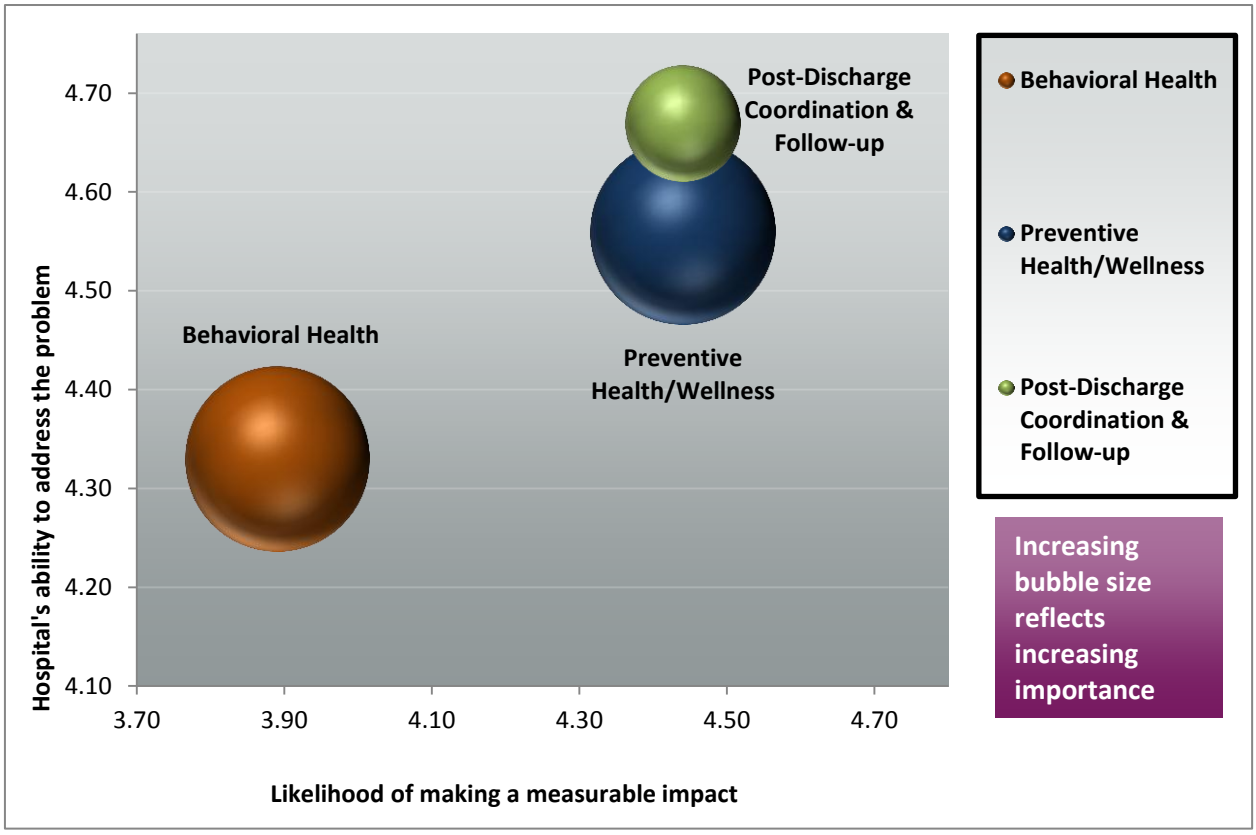
- **Chronic Disease**
- **Prevention and Healthy Living**
- **Navigating Resources**

For the UPMC Presbyterian Shadyside 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:

- **Post-discharge coordination and follow-up**
- **Preventive Screenings**
- **Behavioral Health**

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 Presbyterian Shadyside Significant Health Needs



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

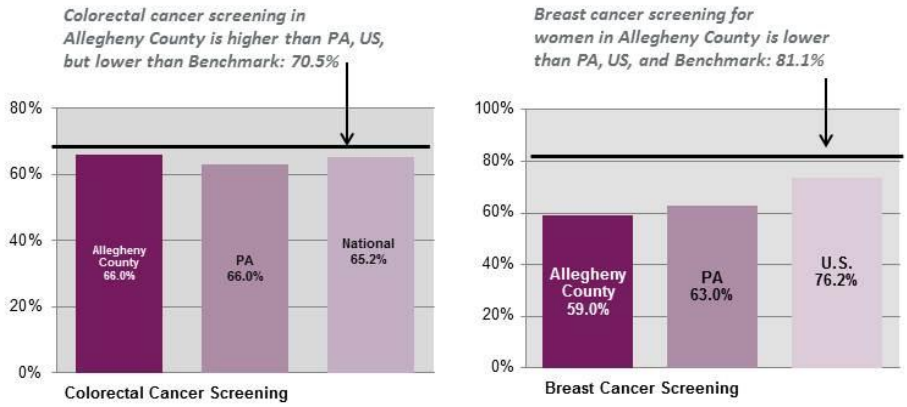
Post-Discharge Coordination and Follow-Up – Importance to the Community

The community identified post-discharge coordination and follow-up as a significant health need for UPMC Presbyterian Shadyside. Research suggests that adverse events after discharge, and subsequent re-hospitalizations, can be reduced through interventions at the time of hospital discharge, and also through follow-up with the patient. Approximately 87 percent of patients who were discharged from UPMC Presbyterian Shadyside in 2011-2012 had a staff member speak with them about help after discharge. These patients also received information regarding symptoms to look for upon discharge.

Qualitative information collected during the CHNA process and focus groups placed significant emphasis on the need for assistance with navigating available health care resources. There is an opportunity to expand post-discharge initiatives beyond clinical protocol to emphasize referrals to existing community, hospital, and social-support resources.

Preventive Health and Wellness – Importance to the Community

- **Preventive screenings can help identify some of the leading causes of death — such as heart disease, cancer, and diabetes — in early stages when treatment is likely to work best.**
- **Screening for colorectal cancer and breast cancer were lower than benchmarks.**



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

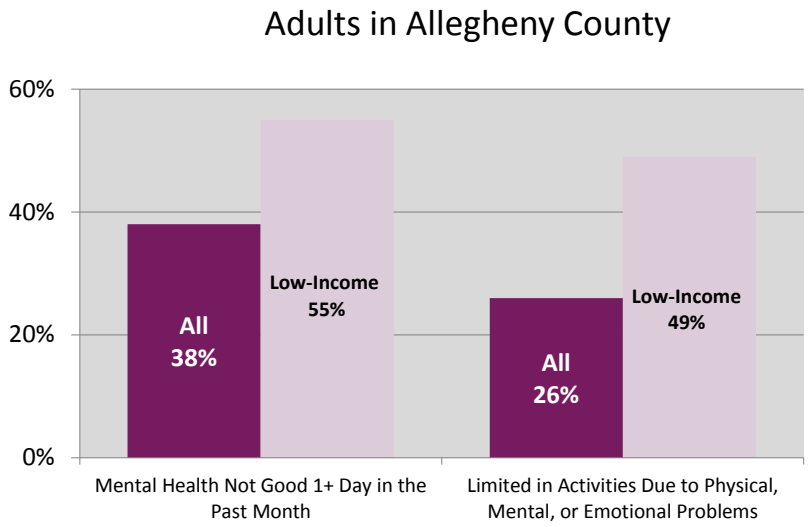
Preventive health and wellness, such as preventive screening rates, are on par with the state and nation: Preventive screenings are a cost-effective approach for promoting health, and can help further delay progression or worsening of certain diseases. Screening rates within Allegheny County for conditions such as colorectal cancer were generally above those of the state and the nation, likely due to existing initiatives in the area.

Enhancing navigation to existing resources creates opportunities for improvement within specific clinical areas and among specific sub-populations: Variations in screening rates were observed for certain demographics and areas within Allegheny County. For colorectal screening, a higher proportion of older individuals (65+) reported having a colorectal screening, compared to people 50 to 64 years old. In addition, those with a college degree reported receiving colorectal screening more often than those without a degree. No significant differences were observed based on sex, household income, or race.

For mammography screening, women with less than a high school education were significantly less likely to report receiving a mammogram, compared to women with more education. There were no significant differences by age, income, or race.

Behavioral Health – Importance to the Community

- **Nearly 25 percent of U.S. adults have a mental illness.**
- **38 percent of all adults in Allegheny County reported experiencing poor mental health in the past month – 55 percent of low income individuals experienced poor mental health in the past month.**
- **Prevention and early diagnosis of behavioral health issues may decrease the risk for or mitigate the worsening of other chronic diseases. Management of existing behavioral health issues can increase the quality of life for those living with these issues.**



Source: Allegheny County Health Survey 2009-2010

Behavioral health affects many individuals: Behavioral health includes mental health (state of well-being) and mental illness (diagnosable mental disorders). National data suggest that nearly 25 percent of U.S. adults have a mental illness. Data on the prevalence of mental illness is unavailable at the local level, but about 38 percent of adults in Allegheny County reported poor mental health in the past month.

Behavioral health can affect certain sub-populations, including low-income individuals. A higher percentage of low-income individuals (55 percent) reported poor mental health compared to those earning higher income (28 percent). Those with less than a high school education (49 percent) had a higher percentage of poor mental health, compared to those with a college education (31 percent). In addition, women (41 percent) were more likely to report poor mental health than men (34 percent). No significant differences were observed by age or by race.

V. Overview of the Implementation Plan

Overview:

UPMC Presbyterian Shadyside 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 13, 2013, the UPMC Presbyterian Shadyside Board of Directors adopted an implementation plan to address the identified significant health needs:

- **Post-Discharge Coordination and Follow Up**
- **Preventive Health and Wellness**
- **Behavioral Health**

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

Topic	Goal	Collaborating Community Partners
Post-Discharge Coordination and Follow-Up	Decrease or maintain the rate of readmission. Ensure smooth care transitions for patients by improving post-discharge coordination with both UPMC and external facilities; focus on cardiovascular patients; implement innovative pilot programs for patients' complex clinical cases.	UPMC Health Plan Area home health centers Area skilled nursing facilities UPMC Family Health Centers
Preventive Health and Wellness	Increase the number of community residents screened and educated through preventive health and wellness programs, including preventive screenings, offered through UPMC Presbyterian Shadyside.	UPMC Cancer Center University of Pittsburgh Community organizations Governmental organizations Food Banks, libraries, churches
Behavioral Health	Improve early intervention, access to services, and treatment of individuals with behavioral health issues in western Pennsylvania through initiatives focused on coordination of care between physical and mental health and preventing and managing comorbid physical and behavioral health issues. Direct resources toward initiatives which address the behavioral health needs of low-income and homeless populations, children and seniors. Increase public awareness through the development of a taskforce comprised of members from community behavioral health service organizations, academic researchers, clinicians, advocacy groups and managed care organizations.	UPMC community hospitals Community organizations Schools Academic researchers Healthcare providers Government

VI. APPENDICES

APPENDIX A: Detailed Community Health Needs Assessment Implementation Plans

Priority Health Issue: Addressing Post-Discharge Coordination

Post-Discharge Coordination is a priority in UPMC Presbyterian Shadyside's community: The term "care transition" describes a process in which the provision of a patient's care shifts from one setting to another, such as from a hospital to a patient's home or to a skilled nursing facility. The Institute of Medicine notes in its report *Crossing the Quality Chasm* that when patients experience care transitions they often receive little information on how to proceed after the transition. Patients lack knowledge about when to resume normal activities, medication side effects, and where to get answers to questions they might have. This lack of knowledge has the potential to contribute to the diminished health of the patient. Effective management of care transitions can help to prevent patients' conditions from worsening and thereby decrease hospital readmissions.

UPMC Presbyterian Shadyside is addressing this issue: UPMC Presbyterian Shadyside currently offers many programs to address care transitions through post-discharge coordination and follow-up. Many of these programs focus on patients and families living with chronic conditions, such as cardiovascular disease, which is the leading cause of death in the Pittsburgh area, the state and the nation. Other programs target individuals that are being discharged to facilities such as Skilled Nursing Facilities, and aim to ensure a smooth transition by educating hospital providers on clear protocols for handling patients that are very sick. Still other pilot programs are aimed at coordinating discharge and post-discharge care for patients with complex cases through the use of cross-functional teams and specially trained care transition coordinators.

UPMC Presbyterian Shadyside plans to do more to focus on this priority: UPMC Presbyterian Shadyside plans to continue efforts to better coordinate care transitions for patients and to reduce hospital readmissions. Additional programs focused on patients discharged from the ICU will be piloted.

Post-Discharge Coordination				
Program	Activities	Outcomes Goal-Year 3	Target Population	Partners
ED U-Turn	Develop program to provide follow-up care for patients discharged from ED within 24 hours so that they do not need to be admitted to hospital under observation status and do not engage in frequent flyer visits to ED that could be prevented. The program will also help patients with chronic conditions comply with medication and care plans and increase in-home safety for patients who are at risk for falls.	• Increase number of lower acuity patients that receive home care visit within 24 hours of ED visit. • Continue program and roll out to other areas if successful.	ED patients with chronic illness who present with lower acuity.	UPMC Presbyterian Shadyside ED Department, UPMC/Jefferson Regional Home Health.
ED Pharmacy Project	Provide ED patients with free antibiotics/anti-inflammatories to increase medication compliance and prevent re-visits to the ED.	• Expand program so all patients receive comprehensive medication reconciliation and medications prior to leaving the ED. • Improve medication compliance. • Decrease re-visits to ED.	All ED patients, especially vulnerable populations.	ED Staff, Pharmacy.

Post-Discharge Coordination				
Program	Activities	Outcomes Goal-Year 3	Target Population	Partners
UPMC Heart Failure Transition of Care Initiative	Provide services including: Discharge Advocate who is an RN responsible for coordination of services, education and communication. Discharge toolkit which contains tools for self-management (scale, weight logs, Congestive Heart Failure (CHF) specific educational materials). 30 day supply of home medications option. Information regarding scheduling PCP and follow up cardiologist appointments. Follow up phone call made within 24 hours post-discharge. One time, free of charge, "safe landing" visit for patients without home health care. Automated survey/assessment phone call at day 10 post-discharge (pilot program only).	• Maintain or decrease readmission rate for CHF patients.	CHF patients admitted to UPMC Presbyterian.	UPMC Center for Quality Improvement and Innovation, Electronic Medical Record, Ambulatory Care Network, and Health Plan.
UPMC Health Plan Transition Coordinators	Provide education regarding early signs of CHF to decrease readmissions and improve care needed for CHF patients across the continuum. Complete follow up phone calls to patient within 3 days of discharge to monitor transition to home, answer questions and provide further follow up as necessary.	• Improve management of patients at home to minimize need for hospitalization.	All Health Plan patients.	UPMC Health Plan.
Congestive Heart Failure (CHF) Readmissions	Provide education for patients with primary heart failure diagnosis. Call patients within 10 days post-discharge to answer questions and assess compliance with diet and weight plans.	• Decrease readmission rates. • Improved outpatient management of CHF.	CHF patients.	Home Care Telehealth.
Community Cardiopulmonary Rehabilitation Services	Provide Phase III cardiopulmonary rehabilitation services to community members who complete the prescribed Phase I and/or Phase II aspects of cardiac rehab.	• Maintain or increase number of community members who have participated in Phase I and/or Phase II and voluntarily enroll in Phase III.	Cardiac rehab patients.	
Stroke Service for Discharged Patients	Provide 7 day and 30 day post-discharge phone calls to patients and/or caregivers to ensure understanding and compliance with post discharge care.	• Increase percentage of patients reached by phone 7 days and 30 days post-discharge.	Stroke survivors and caregivers.	All UPMC facilities.

Priority Health Issue: Addressing Preventive Health and Wellness

Preventive Health and Wellness is a priority in UPMC Presbyterian Shadyside's community: Screenings that support the early detection of chronic disease such as cancer and heart disease are extremely important to the health of UPMC Presbyterian Shadyside's community. Early detection frequently means early, and typically more successful, treatment. This can be especially important in medically underserved populations, as the rates of these chronic diseases tend to be higher in these populations. Other types of preventive health measures such as influenza and pneumonia vaccinations and general education about health and wellness on topics such as injury prevention in the community are also important. These services are particularly important to the health of older populations.

UPMC Presbyterian Shadyside is addressing this issue: UPMC Presbyterian Shadyside has an established suite of programs that provides preventive screenings, including those for cancer and heart disease, which are provided at both hospital facilities and within underserved communities. The hospital also provides educational seminars, including those specifically designed for seniors, aimed at increasing awareness of safety and injury prevention.

UPMC Presbyterian Shadyside plans to do more to focus on this priority: UPMC Presbyterian Shadyside plans to increase the number of participants in screening and education programs.

Preventive Health and Wellness				
Program	**Activities**	**Outcomes** **Goal-Year 3**	**Target Population**	**Partners**
COACH (Community Outreach and Cardiovascular Health) program	COACH provides community outreach by offering community screening events and provides care for underserved populations. CHANGE (Children's Health and Nutrition Goals and Education) is a subset of COACH and provides educational activities focusing on middle school aged children.	• Provide region-wide free public screening/counseling for cardiovascular disease. • Staff Birmingham Free Clinic (PHCUP) Monthly Cardiology Clinic with Fellows and Faculty. • Develop referral processes for directing underserved populations to free care clinics. • Develop long term relationship with schools and summer camps for on-going educational programs. • Expand programs to other age groups and integrate parents, teachers, coaches, etc. into the process. • Partner with the Pitt Public Health for statistical analysis of data collected in school and screening programs.	All individuals in Pittsburgh and surrounding communities. Local shelters and missions. Pittsburgh Urban League Charter schools, children's summer camps. Underserved Populations.	AHA, Integrated Corporate Health (ICH), Pittsburgh Pens, local churches and shelters, Pittsburgh Girl Friends, Pittsburgh Hill House, University of Pittsburgh, Maggie Dixon Foundation, Urban League Guild, Simon Malls, Pittsburgh Charter Schools, Shadyside School of Nursing, Braddock summer camps.

Preventive Health and Wellness				
Program	**Activities**	**Outcomes** **Goal-Year 3**	**Target Population**	**Partners**
Cancer Screenings	Provide cancer screenings at Hillman Cancer Center as well as within underserved communities throughout western Pennsylvania. Screenings include clinical skin exams with visual inspection, oral exams, cervical exams, human papillomavirus, pap smear, clinical breast exams, and prostate cancer screenings. Conducted in compliance with US Preventive Task Force Recommended Guidelines and ACS recommendations.	• Expand reach of program to increase number of early stage cancer detected through screenings and increase consumer engagement in prevention and healthy lifestyle strategies. Expand into rural areas. • Increase scope within UPMC network cancer center locations. • Assist individuals in finding medical home. • Focus on underserved populations/areas.	Populations including lower socio-economic status, elderly, disabled, mentally challenged, minority races/ethnicities, and uninsured or underinsured.	UPCI/UPMC Cancer Center, University of Pittsburgh Center for Health Equity, Healthcare for the Homeless, Carnegie Library of Pittsburgh, Community libraries, churches, Salvation Army, Greater Pittsburgh Community Food Bank, local corporations, residential treatment centers, Healthy Start, Teacher's Federation, banks, YMCA/YWCA, local legislatures.
Flu and Pneumonia Vaccines	Vaccinate patients against influenza and pneumonia during inpatient stays.	• Vaccinate all inpatients. • Track number of patients vaccinated.	Flu: patients and staff. Pneumonia: at risk patients.	Nursing, pharmacy, physicians.
Senior Prevention and Wellness	Provide programs including: Geriatric Community Lecture – Education on injury risks and fall prevention. Car Fit – Senior driving safety and car safety check. Senior Driving and Wellness Expo – Education on driving safety and prevention.	• Increase the number of participants. • Expand the variety of prevention and wellness opportunities provided to the geriatric community.	Seniors and families in Pittsburgh and surrounding areas.	University of Pittsburgh School of Occupational Therapy, AARP, AAA, Local senior citizen organizations, UPMC Presbyterian Shadyside in-house Injury Prevention Committee.
Community Education and Outreach	Participate in community outreach at health fairs, events, and classes. Provide education on health and wellness for a number of different topics, such as chronic disease awareness and screenings, injury prevention, organ donor awareness and transplant education.	• Increase public awareness of these health topics in the community.	General Public.	Gilda's Club, Food Bank, Pittsburgh Womens Shelter, St. Mary of the Mount, ADA, Shadyside Presbyterian Church, Waynesburg Boy Scouts, UPMC Pre-Hospital STAT MedEvac, UPMC Presbyterian Shadyside in-house Injury Prevention Committee, Quality and Safety Council staff members, CORE, Team Pittsburgh, Transplant Games of America, UPMC, and supporters of transplant programs.

Priority Health Issue: Addressing Behavioral Health[1]

Early intervention, assessment and treatment of behavioral health issues are priorities for the community: National surveillance studies have demonstrated that 25 percent of the U.S. population has a diagnosable mental illness (CDC, 2011). 17 percent of adults in the U.S. have both a physical and a behavioral health condition (RWJF, 2011). Given the prevalence of behavioral health conditions, coordinated care for patients with behavioral health conditions, and linkages between behavioral health and physical health providers are very important issues for the community.

Western Psychiatric Institute and Clinic is working to meet the needs of the community: As the primary behavioral health facility in western Pennsylvania, Western Psychiatric Institute and Clinic (WPIC) provides a wide range of behavioral health services and programs for children, adolescents, and adults, as well as for vulnerable populations such as disabled individuals and the homeless. WPIC continually strives to improve its existing services, and through community input, seeks to find ways to decrease the stigma of behavioral health conditions and to engage and treat those in need. This plan outlines a number of WPIC initiatives intended to better meet the behavioral health needs of the community.

Behavioral Health: Prevention and Management of Patients with Chronic Behavioral Health Issues and/or Co-Morbid Physical Health Issues				
Program	**Activities**	**Outcomes** **Goal-Year 3**	**Target Population**	**Partners**
Initiative to Reduce Stigma of Behavioral Health	Create taskforce focused on developing and implementing efforts to increase awareness of behavioral health issues and reduce the stigma surrounding these issues. Include community organizations in taskforce.	• Increase public awareness of behavioral health issues. • Increase referrals to behavioral health providers for appropriate early intervention.	General public.	UPMC community hospitals, community organizations, schools, academic researchers, health care providers, government.
Children's Hospital of Pittsburgh of UPMC and WPIC Child Psychiatry Co-Location Project	Embed WPIC clinicians in pediatric settings, including UPMC's Children's Hospital of Pittsburgh of UPMC (CHP) and its pediatric practice locations and pediatric gastrointestinal (GI) clinics, to provide early screening, detection, and management of psychiatric conditions.	• Improved engagement and retention of psychiatrically informed primary health care providers. • Fewer sick child visits while maintaining well-child visit frequencies. • Fewer referrals to specialty psychiatric services.	Pediatric population: ages 0-18.	CHP clinic locations.

1. Definition: 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.

Behavioral Health: Prevention and Management of Patients with Chronic Behavioral Health Issues and/or Co-Morbid Physical Health Issues				
Program	Activities	Outcomes Goal-Year 3	Target Population	Partners
WPIC Co-Location in General/ Specialty and Geriatric Care Settings	Provide behavioral health clinical treatment and/or oversight by embedding WPIC clinicians in the following health care locations: • Oxford Primary Health • Benedum Geriatric Center • UPMC Internal Medicine • East Liberty Primary Care • Adult Gastrointestinal (GI) Clinics • University of Pittsburgh Cancer Institute • Transplant Services • Palliative Care • Pittsburgh Aids Coalition • Perinatal Clinic at Magee-Womens Hospital of UPMC • The Center for Liver Disease	• Maintain or increase number/volume of referrals to WPIC clinicians. • Measure patient engagement and retention in treatment.	General Population.	Associated organizations.
Blended Service Coordination (BSC) Wellness Initiative for People With Chronic Behavioral Health Issues	Provide group interventions utilizing wellness toolkits, including support for smoking cessation, weight loss, exercise, and dietary changes.	• Increase number of consumers engaged in each area of participation. • Initiate goal tracking and monitoring.	Adults with chronic behavioral health issues.	Community Care Behavioral Health, Allegheny County Dept. of Health Services, Allegheny Health Choices, Inc.
Metabolic Syndrome Screenings	Provide screenings to detect Metabolic Syndrome, a group of risk factors that occur together and increase risk for diabetes, high blood pressure, and hyperlipidemia.	• Maintain rates of metabolic syndrome screenings for people with chronic behavioral health issues.	Adults ages 18 and older with chronic behavioral health issues.	Family practice providers.
Eating Disorder Training	Provide WPIC/CHP sponsored training for community physical and mental health providers. Develop a model for ongoing consultation between WPIC, CHP Adolescent Medicine, and community providers. Host eating disorder multidisciplinary consultation team meetings.	• Initiate WPIC/CHP training sessions. • Create WPIC/CHP/ community provider consultation model. • Determine frequency and initiate eating disorder team meetings.	Community providers and medical students.	Women's Health Group (UPMC Internal Medicine), CHP Adolescent Medicine, Clarion County providers.
Adult Trauma Recovery Inpatient Unit (ATRIUM)	Provide newly developed evidence-based treatment, including recovery principles for individuals requiring inpatient care due to issues related to trauma.	• Provide treatment to appropriate patients. • Monitor established metrics.	Inpatients requiring care due to issues related to trauma exposure and symptomatology.	

Behavioral Health: Prevention and Management of Patients with Chronic Behavioral Health Issues and/or Co-Morbid Physical Health Issues				
Program	**Activities**	**Outcomes** **Goal-Year 3**	**Target Population**	**Partners**
Prevention Education and Student Assistance Programs (SAP)	Provide evidence-based programs to prevent initiation of alcohol, tobacco and other drug use and reduce harm and intergenerational transmission of addiction and violence for children, youth and families.	• Maintain or increase number of programs provided. • Train school professionals in the Commonwealth- approved SAP process. • Train teachers in Catholic schools in the PATHS Curricula. • Provide SAP liaison services to middle and secondary school students. • Provide prevention curricula to pre-school and elementary school children.	Schools and students in the region.	Regional pre-school, elementary, middle, and secondary schools.
RESPECT Program (Rapid HIV testing with a brief counseling session)	Provide evidence-based program to assess the acceptability and feasibility of offering HIV awareness and screening in an ambulatory detox setting as a strategy to promote prevention, early diagnosis and treatment to a higher risk patient population of substance users.	• Increase or maintain the number of people educated and screened for early detection and proactive initiation of treatment if appropriate.	At-risk adults.	
Homeless Population: Provision of Housing and Support	Provide housing (through HUD grants) and support to individuals through blended service coordination, so that appropriate treatment can be maintained, along with a continuum of care designed to improve outcomes.	• Monitor number of patients who have been provided housing through HUD grants.	Homeless individuals living with behavioral health conditions.	Housing Authority of the City of Pittsburgh.
Homeless Population: WPIC Homeless Continuum Team	Provide services to individuals who are homeless and suffering from mental illness in Allegheny County. One Safe Haven Program: 14 beds, homeless males; Three Shelter plus Care Programs: 116 beds; Two Permanent Housing Programs: 60 beds; Two Transitional Housing Programs: 15 beds.	• Increase or maintain the number of patients receiving treatment and support services. • Increase use of existing community resources.	Individuals and families who are homeless in Allegheny County.	
Individuals with Developmental Disabilities: Vocational Training Center	Provide programming and paid work in an environment of increased independence within a community-based adult training facility.	• Increase or maintain the number of participants.	Adolescents and adults with intellectual disability who may also have autism/pervasive developmental disorder.	

Behavioral Health: Prevention and Management of Patients with Chronic Behavioral Health Issues and/or Co-Morbid Physical Health Issues				
Program	**Activities**	**Outcomes** **Goal-Year 3**	**Target Population**	**Partners**
Individuals with Developmental Disabilities: Community Supported Employment Project (SEP)	Provide assistance in securing and maintaining competitive employment.	• Increase or maintain the number of patients participating in employment searching activities and strategies.	Adolescents and adults with intellectual disability, autism, or other developmental disorders.	
Child Service Line Depression Screening	Provide screening to detect undiagnosed depression in parents of children with behavioral health issues.	• Increase or maintain number of patients screened.	Parents of children with behavioral health issues.	
Conroy School-Merck Intensive Day Treatment Program	Provide screening and treatment to children with autism spectrum disorders.	• Increase or maintain number of patients screened.	Ages 5-20, with autism, intellectual disability, other developmental disabilities, and behavioral health disorders.	Pittsburgh Public Schools.
Autism Spectrum Disorders Early Detection and Treatment Programs	Autism Early Intensive Behavioral Intervention Wraparound Program: Provide in-home early intervention services. Family-Based Autism Mental Health Services: Provide mental health interventions, with an emphasis on family therapy and support. Theiss Child Development Center Early Autism Program: Provide early intensive behavioral intervention which utilizes applied behavioral analysis (ABA) and discrete trial training (DTT). Summer Therapeutic Inclusion Program: Provide treatment focused on reducing or eliminating symptoms and behaviors that are inhibiting the child's ability to reach his or her potential in home and school environments.	• Increase or maintain number of children/ families in programs.	Families and children with autism spectrum disorder, pervasive developmental disorder, and other developmental disabilities.	Jewish Community Center Summer Day Camp at Monroeville and South Hills sites.
UPMC Senior Care-Benedum Geriatric Center and the Palliative Care Program	Provide outpatient palliative care through a program that was jointly developed by the Benedum Geriatric Center and the Palliative Care Program.	• Increase or maintain the number of patients who participate in outpatient palliative care program.	Seniors recently discharged from UPMC Presbyterian Shadyside.	UPMC Senior Care-Benedum Geriatric Center.
Geriatric In-Home Clinic	Provide medication management, nursing support, therapy, and service coordination and management.	• Increase or maintain the number of patients participating.	Seniors.	Allegheny County and other community agencies.

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)	Potential Health Impact Outcomes (Changes in Population Health)
Care Coordination Post-Discharge and Post-ED Episode	**Increase—** Patient and family self-management through EMS contact Follow-up after ED discharge (assistance with medication, discharge plan compliance, and home safety)	**Decrease—** Hospital readmissions Frequent ED use
Cardiac Rehabilitation	**Increase—** Number of patients with cardiac disease receiving rehab and preventive services	**Decrease—** Disability in patients with heart disease
Childhood Immunizations	**Increase--** Number of children with complete immunization series Uptake of annual flu vaccination	**Decrease—** School absenteeism related to infectious conditions
Older Adult Wellness	**Increase—** Osteoporosis screening Medication management education Access to home care services Pneumonia vaccination	**Decrease—** Falls-related ED admissions Hospitalization for preventable conditions Hospital re-admission

Health Topic	Process Outcomes (Hospital/Partner Delivery of Services)	Potential Health Impact Outcomes (Changes in Population Health)
Cancer Prevention and Education	**Increase—** Mammograms to un- and underinsured Colonoscopy access and outreach Dermatology screening	**Decrease—** Initial physician contact for patients with advanced disease Breast cancer mortality Colon cancer mortality
Autism	**Increase—** Screening, referral, and early detection	**Decrease—** Unrecognized autism and missed opportunities for remediation and treatment
Behavioral Health and Detox	**Increase—** Involvement of allied services in psych ED (re:solve Crisis Network) Referrals for primary care and prevention services post psych ED-discharge Public awareness of risk factors and resources related to behavioral health	**Decrease—** Repeated psych ED care Prevalence of homelessness Excess morbidity in patients using psych ED

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 Presbyterian Shadyside, 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 Presbyterian Shadyside:

UPMC Presbyterian Shadyside 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 Presbyterian Shadyside 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 Presbyterian Shadyside community.

UPMC Presbyterian Shadyside's 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 health care 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 Presbyterian Shadyside 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)

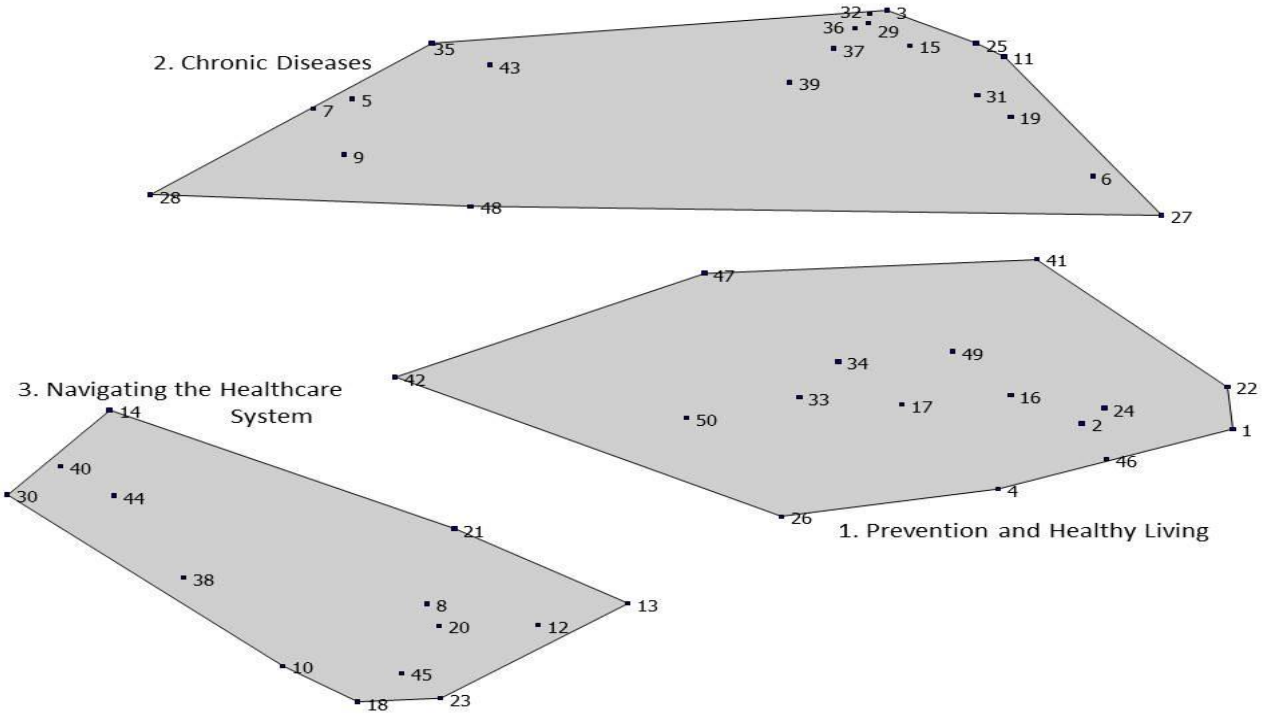
Hospital Ability to Address:
Does the hospital have the ability to address this problem?
(1 = no ability; 5 = great ability)

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, measureable 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 Presbyterian Shadyside. Leadership from UPMC Presbyterian Shadyside 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).

The UPMC Presbyterian Shadyside Community Advisory Council included representatives from the following organizations:

- **Baum/Center Initiative, Pittsburgh, PA**
- **Bloomfield-Garfield Corp, Pittsburgh, PA**
- **Carnegie Mellon University, Pittsburgh, PA**
- **Community Human Services Corporation, Pittsburgh, PA**
- **East End Cooperative Ministries, Pittsburgh, PA**
- **Family House, Pittsburgh, PA**
- **Oakland Planning and Development Corporation, Pittsburgh, PA**
- **People's Oakland, Pittsburgh, PA**
- **Pittsburgh City Council, Pittsburgh, PA**
- **University of Pittsburgh, Community Relations**

The UPMC Presbyterian Shadyside Community 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**
- **East Liberty Chamber of Commerce**
- **HI-HOPE (Hazelwood Initiative)**
- **Kingsley Association**
- **Mayor's Office, City of Pittsburgh**
- **Pennsylvania Psychological Association**
- **PERSAD**
- **Salvation Army of Western Pennsylvania**
- **Shadyside Chamber of Commerce**
- **The Pennsylvania Health Law Project**