UPMC St. Margaret

Community Health Needs Assessment
And
Community Health Strategic Plan

June 30, 2016

UPMC St. Margaret

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EXECUTIVE SUMMARY

UPMC St. Margaret Plays a Major Role in its Community:

UPMC St. Margaret is a nonprofit, 249-bed acute-care teaching hospital located in Allegheny County, Pennsylvania, in the city of Pittsburgh, near the Borough of Aspinwall. This patient-centered hospital delivers a full range of quality medical services, including highly specialized medical and surgical treatment, to area residents.

UPMC St. Margaret 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. A notable example of community involvement is the UPMC St. Margaret Family Health Centers, which provide primary medical care, preventive health care, disease management, and health-related education in medically underserved neighborhoods. The hospital also hosts award-winning nursing education programs at the UPMC St. Margaret School of Nursing, which provide the foundation for productive careers.

UPMC St. Margaret in the Community

The hospital provided $11.8 million in charity care and unreimbursed amounts from programs for the poor in the most recent year.

Family Health Centers in Lawrenceville, Bloomfield-Garfield, and New Kensington deliver primary and preventive medical care, disease management, and health related education to traditionally underserved areas.

UPMC St. Margaret 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 2016, UPMC St. Margaret conducted a Community Health Needs Assessment (CHNA) in keeping with requirements described in section 501(r)(3) of the Internal Revenue Code. Building on the initial CHNA conducted in Fiscal Year 2013, the Fiscal Year 2016 CHNA provided an opportunity for the hospital to re-engage with community stakeholders in a rigorous, structured process guided by public health experts.

An ongoing objective of the CHNA effort is to help align community benefit programs and resources with community health needs. This report documents progress toward addressing the significant health needs identified in Fiscal Year 2013, as well as an implementation plan to address new and ongoing community health needs over the Fiscal Year 2016-2019 period.

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 analysis of documented health and socioeconomic factors with a structured community input survey process that solicited feedback from a community advisory panel composed of leaders and organizations that represent patient constituencies, including medically-underserved, low-income, and minority populations within the hospital's community.

Addressing the Community's Significant Health Needs:

When the Fiscal Year 2013 CHNA was conducted, the significant health needs identified at that time were:

- **End-of-Life Care**
- **Preventive Health and Wellness**
- **Preventive Screenings**
- **Senior Health**

Three years later, when the Fiscal Year 2016 CHNA was conducted, UPMC St. Margaret affirmed the following significant health needs:

- **End-of-Life Care**
- **Preventive Health and Wellness**
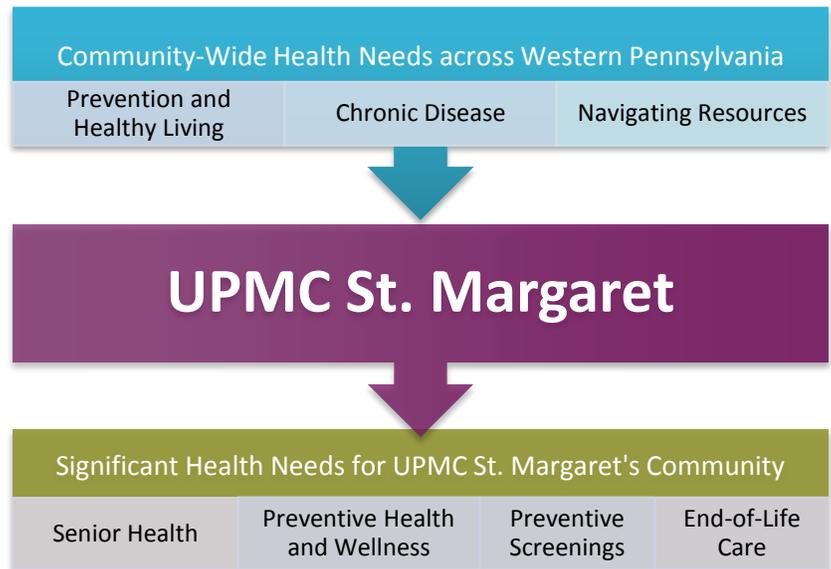- **Preventive Screenings**
- **Senior Health**

On May 31, 2016, the UPMC St. Margaret Board of Directors adopted an implementation plan to address the significant health needs identified in the Fiscal Year 2016 CHNA, and to set measurable targets for continued improvement. The plan drew support from an array of community partners, as well as from the larger UPMC system. This plan builds upon the Fiscal Year 2013 plan, recognizing that significant health needs will generally need more than two to three years to show meaningful improvement.

Topic	Importance to the Community
End-of-Life Care	Allegheny County's most elderly population (85+) has grown nearly 25% in the past decade. Most patients in hospice care, many who are 85+, have a primary diagnosis that includes chronic disease.
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.
Preventive Screenings	Screenings for colorectal cancer and breast cancer were lower in Allegheny County than benchmarks. 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.
Senior Health	Allegheny County has a larger percentage of seniors ages 65+, most elderly (85+), and seniors living alone compared to the state and nation. As individuals age, the risk for co-morbid health conditions increases. In addition, preventing falls and improving health literacy related to medication compliance, for example, are very important for the elderly.

Collective Impact Across Western Pennsylvania:

Western Pennsylvania has a diverse range of health needs. Key themes that emerged from the Fiscal Year 2016 UPMC St. Margaret CHNA process were consistent with those found through CHNAs conducted at other UPMC hospitals throughout western Pennsylvania. 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 St. Margaret is planning a wide range of prevention and chronic disease support activities.

- **Navigating Available Resources:** Established health care programs in UPMC St. Margaret'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 St. Margaret is collaborating successfully with local organizations on improving community health. The hospital will also leverage resources and synergies within the UPMC system, which include population-focused health insurance products and comprehensive programs, and resources targeted at areas including seniors and children.

Community-Wide Health Needs across Western Pennsylvania

Prevention and Healthy Living	Chronic Disease	Navigating Resources

UPMC St. Margaret

Significant Health Needs for UPMC St. Margaret's Community

| Senior Health	Preventive Health and Wellness	Preventive Screenings	End-of-Life Care

PROGRESS REPORT 2013-2016: SENIOR HEALTH

GOAL: UPMC St. Margaret is improving the overall health of seniors living in the hospital's service area.

STRATEGY:
The hospital takes a comprehensive approach to addressing seniors' health needs.

To achieve this goal, the hospital is targeting seniors, their families and caregivers, and health care providers. UPMC St. Margaret provides a comprehensive suite of programs focused on improving senior health. Efforts include:

» Supporting low-income seniors in the UPMC St. Margaret community

» Providing area seniors, including family and caregivers, with education, screenings, and support for chronic conditions

» Increasing communication about end-of-life care

» Offering training programs for medical professionals specifically tailored to geriatric patients

Community Need

Nearly

1 in 5

residents in the UPMC St. Margaret area are seniors (65+).

U.S. Census, 2010
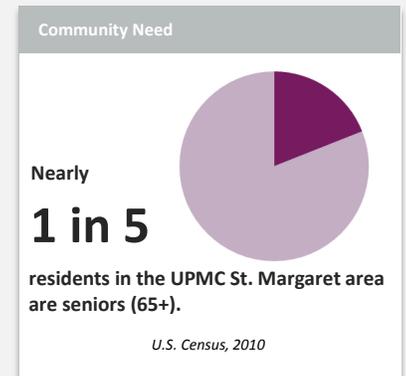
PROGRESS:
UPMC St. Margaret is documenting measurable impact in senior health.

Improving health outcomes in UPMC St. Margaret neighborhoods through *Living-at-Home*
UPMC St. Margaret, with support from the St. Margaret Foundation, expanded the *Living-at-Home* program to neighborhoods where a high percentage of seniors live, specifically targeting seniors who live alone and/or live below the poverty level. The program connects low-income seniors with community resources that help seniors coordinate in-home care and obtain referrals for services to enable them to live independently. Last year, nearly 100 individuals received services, such as home-delivered meals, grocery shopping, transportation to medical appointments, and yard work, and results showed a 59 percent decrease in hospital admissions and a 29 percent decrease in emergency department visits for participants of the program.

Helping fill the gaps for area's low-income seniors
UPMC St. Margaret has several initiatives in place to assist seniors who are experiencing financial barriers to care. For instance, the *UPMC St. Margaret's Bed Fund* provides financial assistance to seniors who cannot afford medications, medical supplies, emergency housing, or transportation. This past year, the fund provided a total of $37,553.57 to 151 patients.

Supporting senior health through educational programs, health screening events, and support groups

UPMC provides a wealth of community programs that target seniors and their families, including the National Senior Health and Fitness Day, the *Living with Arthritis* program, and the *Alive and Well* program, a series of presentations on topics such as stroke, cancer, hypertension, and advance directives. UPMC St. Margaret also hosted health screening events throughout the community, performing nearly 800 blood pressure, lipid profile, blood glucose, and BMI checks, and dispensing more than 900 free influenza vaccines. In addition, UPMC St. Margaret offers support groups for seniors suffering from chronic diseases, such as stroke, Alzheimer's, COPD, and diabetes.

Increasing in the number of free shuttle rides for seniors — from 4,130 to 6,500 rides

To help eliminate transportation barriers for seniors, UPMC St. Margaret offers a *Free Shuttle for Seniors* program. This service provides transportation for area seniors to grocery stores, doctors' offices, pharmacies, hospitals, and local stores. Since 2013, the program has expanded shuttle services, adding two more routes in the UPMC St. Margaret area. Efforts are in partnership with the St. Margaret Foundation, Family Services of Western Pennsylvania, and North Hills Community Outreach.

Helping elderly patients and their caregivers prepare for and communicate about end-of-life care

UPMC St. Margaret helps patients and their caregivers with end-of-life care decisions and increases awareness about how to maintain the best quality of life for patients and their families. Efforts include offering stress management classes for caregivers, connecting families with community resources and support, raising awareness about the importance of living wills, and providing palliative care to help identify goals of care and enhance communication between patient and health care provider. The Palliative Care Program has seen an increase in volume, with 563 consults and nearly 1,700 visits this year.

Training health care providers to advance care for seniors

The hospital has several initiatives in place to work with providers to improve geriatric care, with the overall goal to help reduce unplanned hospital readmissions and enhance the quality of life for seniors. Many of these efforts are in partnership with the area's skilled nursing facilities — from educating staff about ways to improve patient transitions to improving communication about changes in a patient's condition. In addition, the hospital offers a Geriatric Fellowship program, which provides fellows with specialized training and skills to provide high-quality, evidence-based care to geriatric patients.

Focusing on preventive and primary care in the community

The UPMC St. Margaret Family Health Centers, in partnership with Falk Clinic and the St. Margaret Foundation, offer primary medical care, preventive health care, and disease management. In particular, the centers offer medication management consultations with a pharmacist, home visits, outpatient behavioral health counseling, outpatient social work interventions, and free flu vaccinations to area residents age 65 and older.

COMMUNITY HEALTH NEEDS ASSESSMENT (CHNA) REPORT

I. Objectives of a Community Health Needs Assessment

CHNA Goals and Purpose:

In Fiscal Year 2016, UPMC St. Margaret conducted a 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. The plan builds upon a prior assessment and implementation plan developed in Fiscal Year 2013.

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

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

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

Description of UPMC St. Margaret:

UPMC St. Margaret is a nonprofit, 249-bed acute-care hospital located in Allegheny County, Pennsylvania. It offers a full range of quality medical services to the community. The hospital provides area residents with access to medical, surgical, rehabilitation, and transitional care, as well as cutting-edge medical services not typically found at a local community hospital. Specialized services include CT imaging, digital mammography, minimally invasive surgery, and an on-site UPMC CancerCenter. During the Fiscal Year ended June 30, 2015, UPMC St. Margaret had a total of 17,026 admissions and observations, 36,917 emergency room visits, and 15,026 surgeries.

UPMC St. Margaret is a teaching hospital, with residency programs in family practice, internal medicine, and a unique geriatric fellowship program. 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.

VITAL STATISTICS Fiscal Year 2015	
Licensed Beds	**249**
Hospital Patients	**17,026**
Emergency Dept. Visits	**36,917**
Total Surgeries	**15,026**
Affiliated Physicians	**833**

JOBS AND STRENGTHENING THE LOCAL ECONOMY	
UPMC St. Margaret Employees	**1,371**
Community Benefits Contributions	**$21 million**
Free and Reduced Cost Care	**$12 million**
$514 million Total Economic Impact of Hospital Operations	

II. Definition of the UPMC St. Margaret Community

For the purpose of this CHNA, the UPMC St. Margaret community is defined as Allegheny County. With 72 percent of patients treated at UPMC St. Margaret residing in Allegheny County, the hospital primarily serves residents of this geographic region. By concentrating on the county, UPMC St. Margaret 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 St. Margaret Live in Allegheny County*

County	UPMC St. Margaret %	Medical Surgical Discharges
Allegheny County	71.5%	8,544
All Other Regions	28.5%	3,404
Total Hospital Discharges	100%	11,948

Source: Pennsylvania Health Care Cost Containment Council, Fiscal Year 2015

The hospital is situated in the northeastern region of the county, an area with a high population of elderly individuals. While the county represents the basic geographic definition of UPMC St. Margaret's community, this CHNA also considered specific focus areas within the hospital's immediate geographic "service area." The service area analysis was conducted to identify geographical areas within the county, as well as areas with potentially higher concentrations of health needs — such as areas with high minority populations, low per-capita incomes, and areas with historically distinct health needs.

Existing Health Care Resources in the Area:

Hospitals in Allegheny County
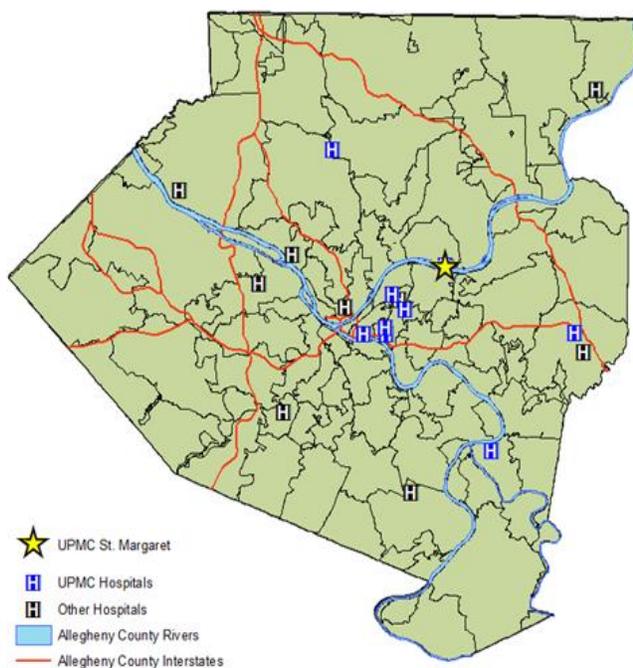
UPMC St. Margaret is one of eight UPMC licensed hospitals and 16 total hospitals in Allegheny County.

Additionally, UPMC St. Margaret is supported by nearly 110 UPMC outpatient offices within Allegheny County. These facilities include UPMC CancerCenters, Urgent Care Centers, Senior Living Facilities, Centers for Rehabilitation Services, Imaging Centers, Children's Hospital of Pittsburgh of UPMC satellite offices, and pediatric, primary, and specialty care doctors' offices.
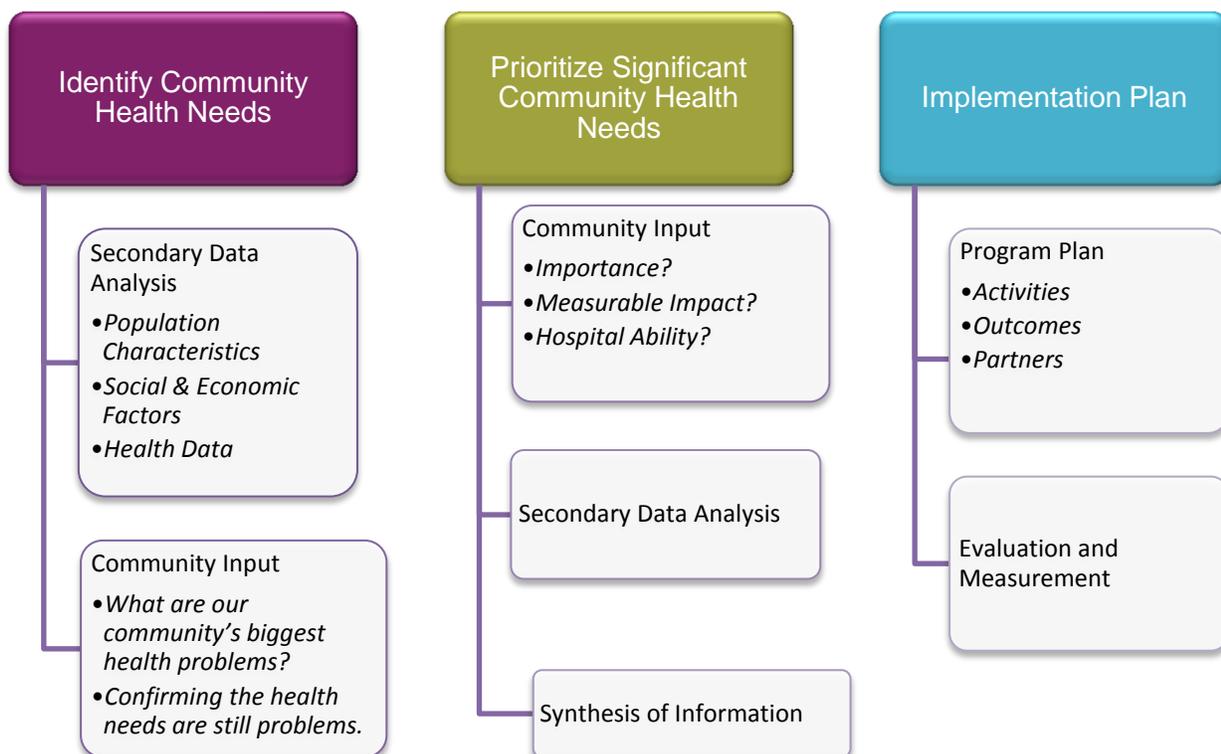
Legend:
- ★ UPMC St. Margaret
- Ⓗ UPMC Hospitals
- Ⓗ Other Hospitals
- Allegheny County Rivers
- Allegheny County Interstates

III. Methods Used to Conduct the Community Health Needs Assessment

Overview:

In conducting this CHNA and the prior CHNA conducted in Fiscal Year 2013, 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 supported a structured process for obtaining community input on health care needs and perceived priorities, and helped establish criteria for the evaluation and measurement of progress.

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.

Identify Community Health Needs

Secondary Data Analysis
- *Population Characteristics*
- *Social & Economic Factors*
- *Health Data*

Community Input
- *What are our community's biggest health problems?*
- *Confirming the health needs are still problems.*

Prioritize Significant Community Health Needs

Community Input
- *Importance?*
- *Measurable Impact?*
- *Hospital Ability?*

Secondary Data Analysis

Synthesis of Information

Implementation Plan

Program Plan
- *Activities*
- *Outcomes*
- *Partners*

Evaluation and Measurement

Secondary Data Sources and Analysis:

To identify the health needs of a community, UPMC 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	2010-2013 data collected and compared by county, state, and nation.	Allegheny County Health Survey, 2009-2010.
	Cancer		
	Mental Health		PA Department of Health Behavioral Risk Factors Surveillance System; Birth, Death, and Other Vital Statistics; Cancer Statistics.
	Asthma (Childhood)		
	Birth Outcomes		
Health Behaviors Data	Obesity (Childhood and Adult)		U.S. Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System.
	Alcohol Use		
	Tobacco Use		
	Sexually Transmitted Disease		National Center for Health Statistics.
Clinical Care Data	Immunization	2010-2015 data collected and compared by county, state, and nation.	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		
			U.S. Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System.
			Health Resources and Services Administration (HRSA).
			National Center for Health Statistics.
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.

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. UPMC 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.

The Fiscal Year 2016 CHNA builds on the assessment process originally applied in Fiscal Year 2013. In the initial assessment, 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. In the subsequent assessment, UPMC conducted a survey of community leaders and stakeholders specific to the hospital's community to assess the continuing importance of identified community health needs.

To gather community input, the hospital formed a community advisory panel to provide broad-based input on health needs present in the hospital's surrounding community. 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 Appendices C and D for more information on Concept Mapping and for a complete list and description of community participants)*

The full community input survey process consisted of multiple 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 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?

- **Confirming Topics:** In Fiscal Year 2016, community advisory panels were again surveyed about the continuing importance of the identified health needs. Advisory panel members participated in an online Qualtrics survey that solicited feedback on new health problems, and asked participants to rate whether the health problem "remains a major problem," "is somewhat of a problem," or "is no longer a problem."

Synthesis of Information and Development of Implementation Plan:

In the final phase of the process, the community input survey results were summarized by experts from Pitt Public Health and merged with results gathered from the analysis of publicly available data. Through this process, UPMC hospital leadership identified 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**
- **Existing hospital community health programs and resources**
- **Programs and partners elsewhere in the community that can be supported and leveraged**
- **Enhanced data collection concerning programs**
- **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: A notable characteristic of Allegheny County is the large 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). In the UPMC St. Margaret service area, a higher percentage (19 percent) of residents are elderly, compared to Allegheny County. 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).
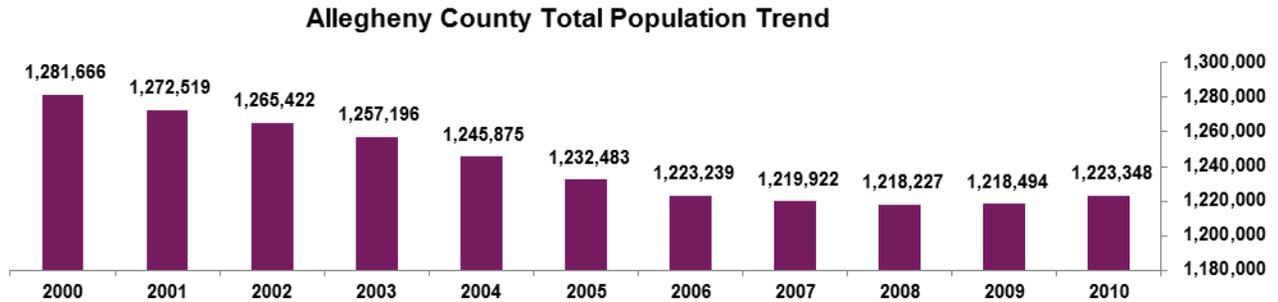
Allegheny County Has a Sizable Elderly Population.

| Age Distribution - 2010			
	Allegheny County	**UPMC St. Margaret Service Area**	**Pennsylvania**	**United States**
Median Age	41.3	44.8	40.1	37.2
% Children (<18)	19.8%	20.0%	22.0%	24.0%
% 18-64	63.4%	61.4%	62.6%	63.0%
% 20-49	39.2%	36.3%	39.0%	41.0%
% 50-64	21.3%	23.2%	20.6%	19.0%
% 65+	16.8%	18.6%	15.4%	13.0%
% 65-74	7.8%	8.5%	7.8%	7.0%
% 75-84	6.1%	6.9%	5.4%	4.3%
% 85+	2.9%	3.2%	2.4%	1.8%
% Elderly Living Alone	13.1%	14.2%	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 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.

Allegheny County Total Population Trend

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

Allegheny County Elderly (85+) Population Trend
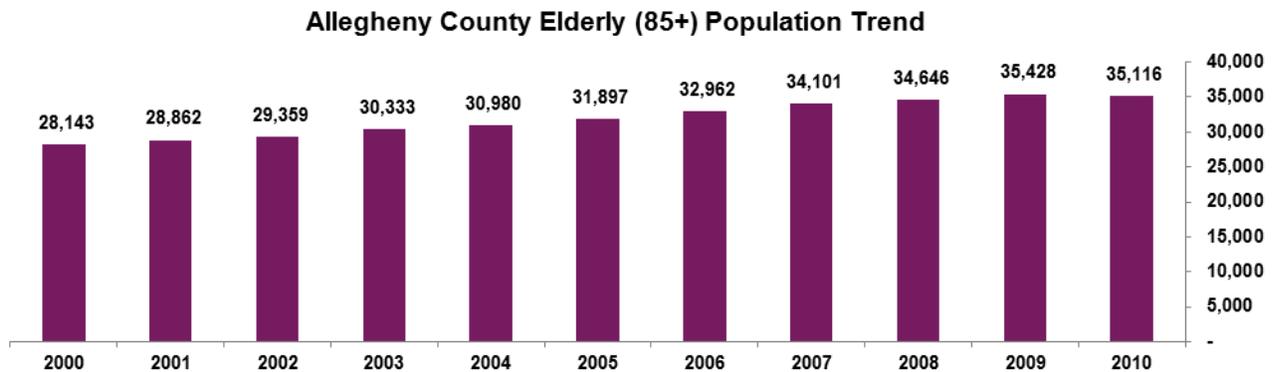
Source: U.S. Census

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

Characteristics of UPMC St. Margaret's Service Area:

UPMC St. Margaret's service area has a higher frail and homebound elderly population: Although population demographics for the general population residing in UPMC St. Margaret's community are similar to Allegheny County (see following table), the UPMC St. Margaret service area includes a larger elderly population. In addition, more than half of seniors in the UPMC St. Margaret service area were concentrated in the New Kensington, Etna, Sharpsburg, and Blawnox areas of Allegheny County that are noted for having a high percentage of seniors living alone and living below the poverty level (see following figure and map).

Social and Economic Population Demographics		
	Allegheny County	**UPMC St. Margaret Service Area**
Median Household Income	$45,362	$44,970
% in Poverty	8.7%	7.8%
% with No High School Diploma (among those 25+)	8.4%	9.1%
% Unemployed (among total labor force)	7.2%	6.0%
Racial Groups		
% White	81.5%	89.8%
% African-American	13.2%	6.8%
% Other Race	5.3%	3.4%

Source: U.S. Census

In addition, areas in Sharpsburg and Blawnox Zip Codes are federally designated as medically underserved areas. The following factors are considered in the determination of MUAs:
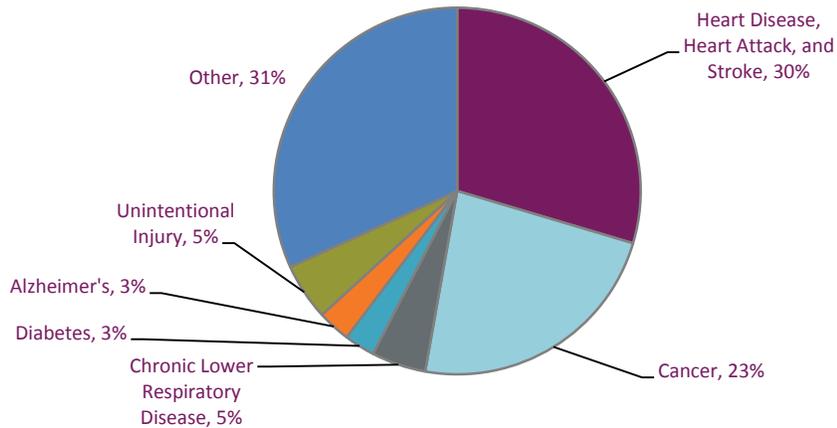
- **A high percentage of individuals living below the poverty level**

- **High percentages of individuals over age 65**

- **High infant mortality**

- **Lower primary care provider to population ratios**

More than 31,000 seniors aged 65+ live in the UPMC St. Margaret Service Area
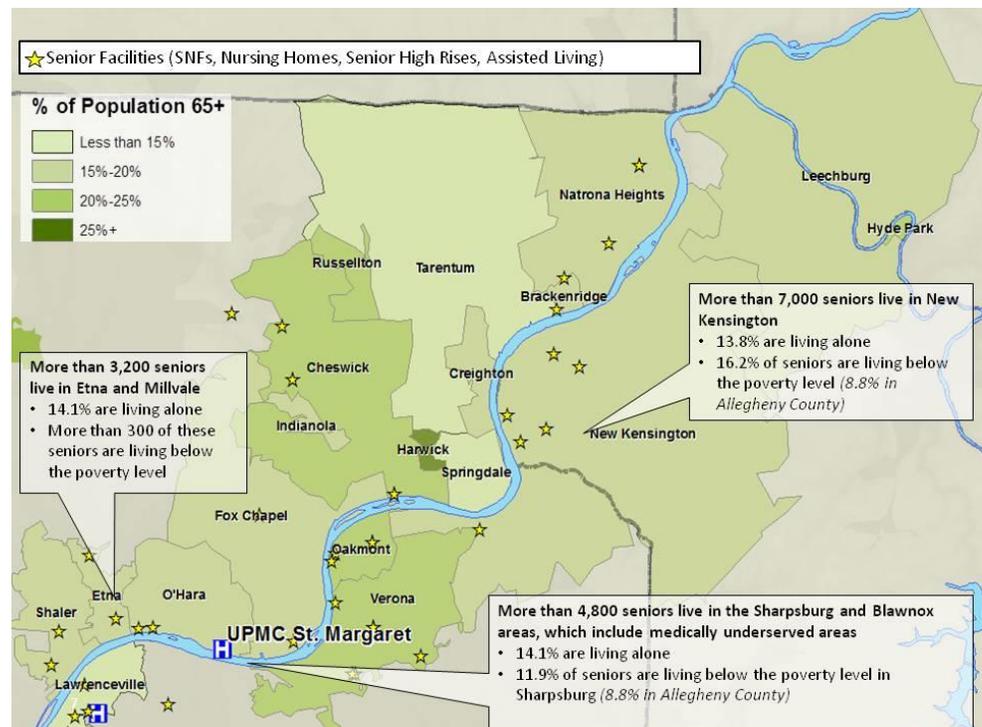
Chronic Disease and Mortality:

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

Heart Disease, Heart Attack, and Stroke, 30%
Other, 31%
Unintentional Injury, 5%
Alzheimer's, 3%
Diabetes, 3%
Chronic Lower Respiratory Disease, 5%
Cancer, 23%

Source: Pennsylvania Department of Health, 2012

Significant Health Needs for UPMC St. Margaret'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 areas served by UPMC hospitals:
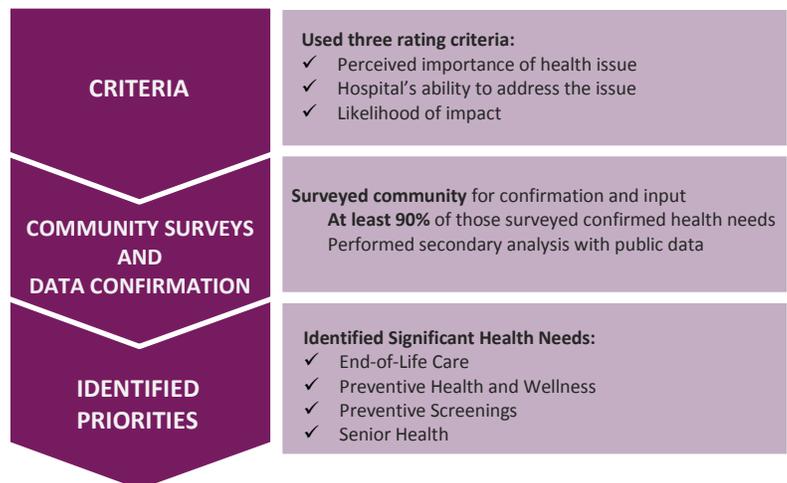
- **Chronic Disease**
- **Prevention and Healthy Living**
- **Navigating Resources**

For UPMC St. Margaret's community, the assessment identified the following 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:

- **End-of-Life Care**
- **Preventive Health and Wellness**
- **Preventive Screenings**
- **Senior Health**

Prioritizing Community Health Needs

CRITERIA	**Used three rating criteria:** ✓ Perceived importance of health issue ✓ Hospital's ability to address the issue ✓ Likelihood of impact
COMMUNITY SURVEYS AND DATA CONFIRMATION	**Surveyed community** for confirmation and input **At least 90%** of those surveyed confirmed health needs Performed secondary analysis with public data
IDENTIFIED PRIORITIES	**Identified Significant Health Needs:** ✓ End-of-Life Care ✓ Preventive Health and Wellness ✓ Preventive Screenings ✓ Senior Health

UPMC St. Margaret Significant Health Needs:

In-depth secondary data analysis reinforced that these health topics were areas of concern for the UPMC St. Margaret community. For purposes of this assessment, senior health and caring for an aging population is the overarching umbrella for these topics.

Senior Health Concerns – Importance to the Community:

- **The UPMC St. Margaret service area has a larger percentage of seniors ages 65+, most elderly (85+), and seniors living alone compared to the county, state, and nation.**

- **As individuals age, the risk for comorbid health conditions increases. In addition, preventing falls and improving health literacy related to medication compliance, for example, are important for the elderly.**

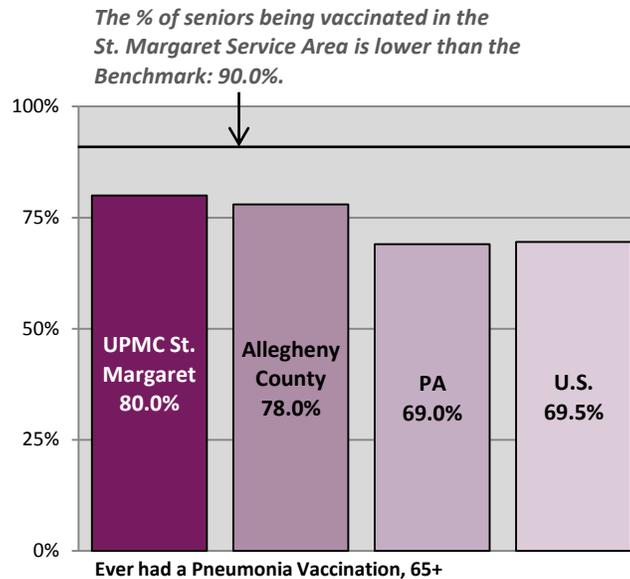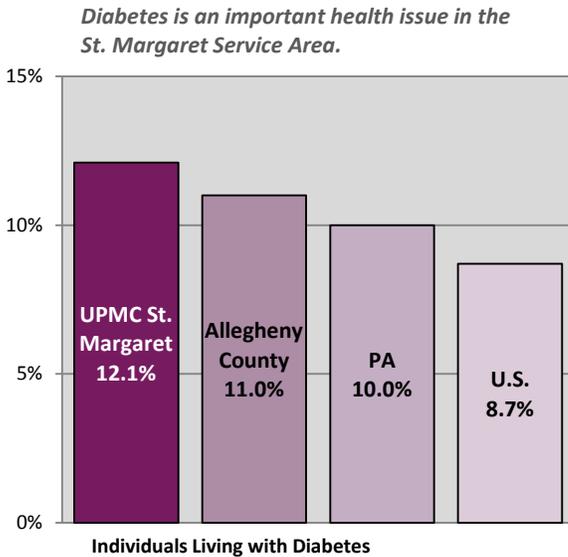|	St. Margaret Service Area	Allegheny County	PA	National
% 65+	18.6%	16.8%	15.4%	13.0%
% 85+	3.2%	2.9%	2.4%	1.8%
% Elderly Living Alone	14.2%	13.1%	11.4%	9.4%

Source: U.S. Census 2010

Increasing trends in the aging population, increasing need for aging-related services: According to national data, the aging population is predicted to more than double by 2050, which has consequences on health care and aging services. These issues are especially important for the UPMC St. Margaret service area, where a sizable percentage of elderly live. UPMC St. Margaret has many existing hospital-based and community-based programs addressing elderly concerns.

Navigating resources, including medication management and compliance, can be difficult, especially when family members live far away: Older adults rely on family members for support with health care problems, such as medication management and compliance. However, as community members commented in focus groups, tapping into health care services is more challenging for older adults whose family members no longer live in close proximity. U.S. Census data support this — a higher percentage of elderly are living alone (14 percent) in the UPMC St. Margaret service area compared to the county (13 percent), the state (11 percent), and the nation (9 percent). Providing support to the aging population, especially those who are living alone, is instrumental in maintaining their quality of life.

Chronic Disease Prevention and Management: Preventive Health and Wellness and Preventive Screenings — 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.**

- **Influenza and pneumonia are leading causes of death in Allegheny County, and the risk of death due to influenza and pneumonia is a serious threat to the elderly.**

- **Vaccinations are particularly important for specific populations, such as the elderly.**

Diabetes is an important health issue in the St. Margaret Service Area.

The % of seniors being vaccinated in the St. Margaret Service Area is lower than the Benchmark: 90.0%.

Individuals Living with Diabetes

- UPMC St. Margaret 12.1%
- Allegheny County 11.0%
- PA 10.0%
- U.S. 8.7%

Ever had a Pneumonia Vaccination, 65+

- UPMC St. Margaret 80.0%
- Allegheny County 78.0%
- PA 69.0%
- U.S. 69.5%

Sources: Allegheny County Health Survey 2009-2010; Pennsylvania Department of Health, 2013; Healthy People 2020; U.S. Centers for Disease Control and Prevention, 2013

A higher percentage of older individuals experience diabetes, cancer, and influenza/pneumonia: Health issues affect seniors more so than other age groups. National data show that two out of three older adults have multiple chronic conditions. In Allegheny County, a higher percentage of older residents experienced diabetes (22 percent), cancer (58 percent), and a majority of influenza and pneumonia deaths (92 percent).

Preventive health and wellness, including preventive screenings, is key: Early detection of diabetes and cancer and immunizing against influenza and pneumonia are cost-effective efforts in disease prevention, especially for older adults. Allegheny County Health Survey data show that although older adults are participating in these prevention efforts, more can be done. For diabetes, many individuals are undiagnosed, and only about 65 percent of older adults reported receiving a test for diabetes in the past three years. Breast cancer screening was 60 percent in older women, much lower than the benchmark of 81.1 percent. The percentages of older adults receiving influenza and pneumonia immunizations (72 percent and 78 percent, respectively) were much lower than the national benchmark of 90 percent.

End-of-Life Care – Importance to the Community:

Nationally, most patients in hospice care have a primary diagnosis that includes chronic disease — cancer, heart disease/stroke, and dementia. The majority of individuals in hospice care are age 65+, and 41 percent are age 85+. There is a large elderly population in Allegheny County with chronic diseases who can benefit from end-of-life care coordination and hospice programs.

V. Overview of the Implementation Plan

Overview:

UPMC St. Margaret 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 and stakeholders that 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 31, 2016, the UPMC St. Margaret Board of Directors adopted an implementation plan to address the identified significant health needs — specifically within the senior population:

- **End-of-Life Care**
- **Preventive Health and Wellness**
- **Preventive Screenings**
- **Senior Health**

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

High-Level Overview of UPMC St. Margaret Implementation Plan

Topic	Programs	Anticipated Impact Goal-Year 3	Planned Collaborations
Preventive Health and Wellness **Preventive Screenings**	Alive and Well Living Healthy with Arthritis Free Immunizations Free Shuttle for Seniors Cardiac Risk Screening Chronic Disease Support Groups Skin Cancer Screening Smoking Cessation Other Community Health Programs	Increased awareness about disease prevention Increased participation in events and support classes, including screening, immunizations, and transportation services	Oakmont Carnegie Library, Cooper-Siegel Community Library, Natrona Heights Community Library, Amber Woods, St. Juan Diego RC Church, St. Margaret Foundation, Arthritis Foundation, Hospital Association of Pennsylvania, Home Instead, UPMC Health Plan, Allegheny Ludlum, North Hills Community Outreach, Family Services of Western Pennsylvania, NAACP, Oberg Industries, Shop 'n Save grocery stores, Integrated Corporate Health, UPMC Geriatric Care Center, Alzheimer's Association, American Lung Association, UPMC St. Margaret Dermatology, UPMC St. Margaret Cancer Center, American Academy of Dermatology, American Cancer Society, the Aging Institute

Senior Health	Bed Fund UPMC St. Margaret Family Health Centers Living at Home Geriatric Care Center Coordinating Transitions Together Long Term Care Initiatives Interact II Program Speaker's Bureau Geriatric Fellowship Program Collaboration with the UPMC Aging Institute (New Initiative)	Increased number of patients receiving services and/or improved health outcomes Improved awareness of challenges impacting patient care in post-acute setting with overall goal to improve outcomes Continued enhancement of specialized care offered to senior population	Over 30 skilled nursing facilities in the local area, UPMC Seneca Place, The Willows, Harmar Village Care Center, Concordia Rebecca Residence, Oakmont Center for Nursing, Consulate Health Care of Cheswick, UPMC St Margaret Family Practice Residency Program, UPMC Health Plan, UPMC Geriatric Care Centers
End-of-Life Care	Advanced Care Planning Education Palliative Care Program No One Dies Alone Hospital Memorial Services Bereavement Support Group	Improved quality of life for patients who are seriously ill Continued support to families and caregivers	UPMC Palliative and Supportive Institute, St. Margaret Foundation

The UPMC St. Margaret implementation plan calls for collaboration with community partners and leveraging UPMC system-wide resources, to support a number of initiatives focused on the identified health priorities.

VI. APPENDICES

APPENDIX A: Detailed Implementation Plan

UPMC St. Margaret plans to focus on the following issues identified through its Community Health Needs Assessment (CHNA). These priority areas will be addressed by continuing to strengthen existing UPMC partnerships, such as leveraging a relationship with the Aging Institute of UPMC Senior Services and the University of Pittsburgh, as well as by attempting to reach more seniors in the community through connecting with faith-based organizations in the area.

Priority Health Issue: Preventive Health and Screenings

Preventive health and screenings are important priorities in UPMC St. Margaret's community: Nearly two-thirds of deaths in Allegheny County result from chronic disease. As individuals age, the incidences of chronic diseases such as cancer, dementia, heart disease, and stroke begin to increase. Additionally, older individuals frequently suffer from two or more of these conditions — such as diabetes and heart disease — at the same time. This situation, known as comorbidity, makes successful treatment of these diseases even more difficult.

UPMC St. Margaret is leveraging UPMC and community resources to address preventive health and screenings: UPMC St. Margaret provides a comprehensive suite of programs focused on prevention, detection, and management of chronic conditions, including preventive screenings and support groups. Many of the programs offered by the hospital target the senior population, including families and caregivers. In addition, the hospital works with other community organizations, such as the St. Margaret Foundation, North Hills Community Outreach, and Family Services of Western Pennsylvania to collectively address these health concerns. UPMC St. Margaret programs are also complemented by UPMC Insurance Services' efforts in many clinical areas. Efforts to enhance primary care — including community programs, coupled with provider-focused incentives — encourage health plan members to participate in preventive screenings and work toward preventive health and wellness goals.

Senior Health and Caring for an Aging Population: Preventive Health and Screenings				
Programs	**Intended Actions**	**Anticipated Impact** **Goal-Year 3**	**Target Population**	**Planned Collaborations**
Alive and Well Living Healthy with Arthritis **Free Immunizations** **Cardiac Risk Screening** **Skin Cancer Screening** **Chronic Disease Support Groups** **Smoking Cessation** **Other Community Health Screenings and Education Programs** **Free Shuttle for Seniors**	Continue to provide education throughout the community on a variety of health topics, including cancer, heart disease, stroke, diabetes, arthritis, and depression Continue to provide free flu vaccinations to area residents age 65 and older Continue to provide preventive screenings throughout the community, including blood pressure, BMI, skin cancer, blood glucose, lipid profile, pulse oximetry Continue to provide classes and support for diabetes, COPD, weight management, cancer (Look Good, Feel Better), smoking cessation, Alzheimer's disease, and other dementias Continue to offer transportation services	Increased awareness about disease prevention Increased participation in events and support classes, including screening, immunizations and transportation services	Area residents/ seniors, including those suffering from chronic disease	Faith-based communities in the area, UPMC Aging Institute, Oakmont Carnegie Library, Cooper-Siegel Community Library, Natrona Heights Community Library, Amber Woods, St. Juan Diego RC Church, St. Margaret Foundation, Arthritis Foundation, Hospital Association of Pennsylvania, Home Instead, UPMC Health Plan, Allegheny Ludlum, North Hills Community Outreach, Family Services of Western Pennsylvania, NAACP, Oberg Industries, Integrated Corporate Health, UPMC St. Margaret Geriatric Care Center, Alzheimer's Association, American Lung Association, UPMC St. Margaret Dermatology, UPMC St. Margaret Cancer Center, American Academy of Dermatology, American Cancer Society

Priority Health Issue: Senior Health and Caring for an Aging Population

The health needs of seniors are an important priority in UPMC St. Margaret's community: Seniors are a diverse group, but on the whole they are more vulnerable than other age groups, particularly in terms of health and income limitations. Low-income seniors in particular are some of the most vulnerable individuals as they often require specialized care and are at a higher risk for comorbid conditions. Low-income seniors may not be able to afford care and may have difficulty navigating the health care system, managing their medications, or performing daily activities on their own.

UPMC St. Margaret is leveraging UPMC and community resources to address senior health: UPMC St. Margaret offers a number of supportive services to patients who are experiencing financial barriers to care. These individuals are seen in the hospital's outpatient departments, at the Geriatric Care Center, and at the UPMC St. Margaret Family Health Centers. In addition, UPMC St. Margaret offers many training programs for medical professionals specifically targeted at treating the geriatric population.

Senior Health and Caring for an Aging Population:				
Programs	**Intended Actions**	**Anticipated Impact** **Goal-Year 3**	**Target Population**	**Planned Collaborations**
Bed Fund **UPMC St. Margaret Family Health Centers** **Living-at-Home**	Continue to provide assistance with medications, medical equipment, medical supplies, family lodging, emergency housing, and transportation Provide primary medical care, preventive health care, disease management, and health-related education Provide coordination for ongoing in-home care for older adults	Increased number of patients receiving services and/or improved health outcomes	Low-Income Seniors	St. Margaret Foundation, Falk Clinic, Aging Institute of UPMC Senior Services
Coordinating Transitions Together **Long Term Care Initiatives** **Interact II Program** **Speaker's Bureau Geriatric Fellowship Program** **Geriatric Care Center** **Collaboration with the Aging Institute (New Initiative)**	Continue to provide education to skilled nursing providers about patient care, coordinating and communicating care transitions, and approaches to prevent unplanned readmissions Provide specialized medical and psychiatric care, including comprehensive evaluation and treatment, targeting seniors Provide fellowship program so that fellows develop the knowledge and skill required to provide high-quality, evidence-based care to geriatric patients in various health care settings	Improved awareness of challenges impacting patient care in post-acute setting with overall goal to improve outcomes Continued enhancement of specialized care offered to senior population	Seniors Providers	Over 30 skilled nursing facilities in the local area, UPMC Seneca Place, The Willows, Harmar Village Care Center, Concordia Rebecca Residence, Oakmont Center for Nursing, Consulate Health Care of Cheswick, UPMC St. Margaret Family Practice Residency Program, UPMC Health Plan, UPMC Geriatric Care Centers

Priority Health Issue: End-of-Life Care

End-of-life care is a priority in UPMC St. Margaret's community: Nationally, many hospice patients have a primary diagnosis of cancer, dementia, or heart disease/stroke, and a majority of hospice patients are age 65 and older—41 percent are age 85 and older. Reflective of these national trends, end-of-life care is of particular importance in the UPMC St. Margaret community because almost two-thirds of deaths in Allegheny County result from chronic disease, and the number of individuals age 85 and older in Allegheny County has increased since 2000. In addition, the percentage of seniors (ages 65 and older) in the UPMC St. Margaret service area — 18.6 percent — is even higher than in Allegheny County — 16.8 percent.

UPMC St. Margaret is leveraging UPMC and community resources to address end-of-life care: UPMC St. Margaret works with patients and their families to ensure that patients are kept as comfortable as possible at the end of their lives. Care is provided to decrease or eliminate symptoms of physical, spiritual, and psychosocial pain and suffering. Palliative care services, which leverage the efforts of UPMC's Palliative and Supportive Institute, offered in the hospital include pain management, a palliative care consultation to develop treatment goals and advanced directives, psychological and spiritual counseling, and assistance with discharge planning and referrals, including referrals to hospice. UPMC St. Margaret volunteers also provide emotional support to patients who do not have family or friends with them during their final days. UPMC St. Margaret programs are also complemented by UPMC Insurance Services' efforts in many clinical areas, such as those targeted at the management of illness, comprehensive care planning, and interdisciplinary team support for health plan members.

End-of-Life Care				
Programs	**Intended Actions**	**Anticipated Impact** **Goal-Year 3**	**Target Population**	**Planned Collaborations**
Advance Care Planning Education **Palliative Care Program** **No One Dies Alone** **Hospital Memorial Services** **Bereavement Support Group**	Continue to provide education throughout the community about advance care planning, support, and comfort to seriously ill patients, including caregivers and family members Provide services through physicians, nurse practitioners, and social workers Services include pain management, symptom management, emotional support, counseling, and education	Improved quality of life for patients who are seriously ill Continued support to families and caregivers Increased bereavement and grief support services	Seniors, patients are who seriously ill, family and caregivers	UPMC Palliative and Supportive Institute, St. Margaret Foundation, Family Hospice and Palliative Care, UPMC Senior Communities

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.

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 labor force*
Source: US Census, 2010

Leading Causes of Mortality for the United States Compared to Pennsylvania and Allegheny County (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	100.0	100.0	100.0
Diseases of Heart	24.8	24.3	23.5
Malignant Neoplasms	23.2	22.8	22.5
Chronic Lower Respiratory Diseases	4.8	5.2	5.7
Cerebrovascular Diseases	4.8	5.1	5.0
Unintentional Injuries	5.0	4.9	5.0
Alzheimer's Disease	2.9	2.8	3.3
Diabetes Mellitus	2.7	2.9	2.9
Influenza and Pneumonia	2.1	1.9	2.2
Nephritis, Nephrotic Syndrome and nephrosis	2.1	2.2	1.8
Intentional Self-Harm (Suicide)	1.1	1.3	1.6

Sources: Pennsylvania Department of Health, 2012; National Center for Health Statistics, 2013

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	10.0	8.7	NA
Mental Health (Mental health not good ≥1 day in past month) (%)	43.0	35.0	NA	NA
Low Birthweight (% of live births)	7.6	8.1	8.0	7.8
Health Behaviors				
Obesity (Adult) (%)	28.5	30.0	29.4	30.5
Childhood Obesity (Grades K-6) (%)	15.3	16.4	17.7	15.7
Childhood Obesity (Grades 7-12) (%)	17.0	18.0	20.5	16.1
Excessive Alcohol Use (%)	33.0	17.0	16.8	24.4
Current Tobacco Use (%)	23.0	21.0	19.0	12.0
STDs (Gonorrhea per 100,000)[*]	251.5	150.5	250.6	251.9
Clinical Care				
Immunization: Ever had a Pneumonia (65+) Vaccinate, 65+ (%)	78.0	69.0	69.5	90.0
Cancer Screening				
Mammography (%)	59.0	60.0	74.0	81.1
Colorectal Screening (%)	66.0	69.0	67.3	70.5
Primary Care Physician: Population (PCP Physicians/100K Population)	108.6	82.0	75.8	NA
Receive Prenatal Care in First Trimester (%)	89.1	72.4	71.0	77.9

Sources:

Allegheny County Data: Allegheny County Health Survey 2009-2010; Pennsylvania Department of Health, 2012; Obesity Data, 2012-2013; Health Resources and Services Administration (HRSA), 2014-2015

Pennsylvania Data: Pennsylvania Department of Health, 2012; Data from Behavioral Risk Factor Surveillance System, 2013; Obesity Data, 2012-2013; Health Resources and Services Administration (HRSA), 2014-2015

U.S. Data: U.S. Centers for Disease Control and Prevention, 2013; Health Resources and Services Administration (HRSA), 2014-2015; Healthy People, 2020

*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:

Input from Persons Representing the Broad Interests of the Community

Overview:

To identify and prioritize health needs of the communities served by UPMC hospitals, the organization solicited and took into account input from persons who represent the broad interests of the community. During June through July 2015, more than 1,500 community leaders and members representing medically underserved, low-income and minority populations, consumer advocates, nonprofit organizations, academic experts, local government officials, local school districts, community-based organizations, and health care providers were invited to participate in UPMC's community health needs survey. More than 500 individuals completed the survey, and greater than 70 percent of those participants self-identified as being a representative or member of a medically underserved, minority, or low-income population. The goal of the survey was not only to provide community members with an opportunity to comment on UPMC's 2013 CHNA and implementation strategy, but also to identify other potential significant health needs.

To ensure the CHNA community input process was conducted in a rigorous manner reflecting best practices, UPMC sought support and guidance from individuals and organizations with expertise in public health. UPMC engaged with the University of Pittsburgh Graduate School of Public Health (Pitt Public Health) Department of Behavioral and Community Health Sciences to build on the methodology employed in UPMC's 2013 CHNA. Pitt Public Health assisted in:

- Developing a framework to itemize and prioritize community health needs

- Developing a survey tool for obtaining structured input from community leaders and community members

- Administering the online survey using Qualtrics web software (and also in paper format upon request)

- Analyzing survey results

In addition, local and state public health department input and data were obtained and utilized in this community health needs assessment. UPMC relied on publicly available Pennsylvania Department of Health reports and additional local health department information accessed via telephone conversations and in-person meetings.

UPMC also considered findings from the Allegheny County Health Department's (ACHD) *2015 Community Health Assessment*, released in April 2015, which identified five areas of focus: chronic disease; maternal and child health; mental and substance use disorders; access; and environment. In addition, UPMC examined ACHD's *Plan for a Healthier Allegheny,* a strategic plan that addresses the health issues identified in the assessment. UPMC takes an active role in Allegheny County's community health initiatives. During Fiscal Years 2015 and 2016, UPMC representatives attended ACHD community and workgroup meetings, served on a County Advisory Council, and met with ACHD officials to discuss community health initiatives and identify approaches to better align efforts.

Stakeholder Input

UPMC St. Margaret's Fiscal Year 2016 CHNA builds on the assessment process originally applied in 2013. That assessment used concept mapping to elicit stakeholder prioritization of health problems and develop group consensus on priorities. In the concept mapping effort, community advisory panels at each hospital participated in focus groups to brainstorm and then sort a set of 50 community health problems (see Appendix D for list of 50 topics). Concept mapping software uses this sorting data to create a display that illustrates the relationships between health topics, and allows aggregation of topics into thematic areas. The 50 topics were grouped into three main thematic areas: prevention and healthy living, chronic disease, and navigating the health care system. For example, stakeholders reliably sorted "access to specialist care" and "care coordination and continuity" into a common group. These form clusters in concept maps and allow rational aggregation into larger health priority areas, in this case "navigating the health care system."

Community panel members then rated community health problem areas according to the following three dimensions — importance of the problem to the community, the likelihood of having a measurable impact on the problem, and the ability of the hospital to address the problem. Using a criterion of high ratings on all three dimensions, combined with results of secondary analysis of population health indicators, generated health topics which were considered significant health needs.

Confirming Community Health Needs

In Fiscal Year 2015, surveys of hospital community advisory panels were used to assess the stability and continuing importance of Fiscal Year 2013 significant health needs. Advisory panels were invited to participate in an online Qualtrics survey, administered by Pitt Public Health. Survey respondents were presented community health priorities from Fiscal Year 2013 and asked to rate these on whether the health problem "remains a major problem," "is somewhat of a problem," or "is no longer a problem." Before the survey was sent out, advisory panels were able to nominate new health priorities, which were added to this initial list. In addition, panels repeated their ratings of importance, impact, and hospital ability for a set of all 18 community health priorities identified by all UPMC hospitals in the previous Fiscal Year 2013 CHNA to identify potentially new community health needs. Finally, the survey included an open-ended question to allow participants an opportunity to suggest other health problems.

Overall, nearly 90 percent of participants responded that health topics identified in the first round of CHNAs continue to remain or are somewhat a problem in UPMC's hospital communities. Stability and consistency are not surprising, given that these are significant health issues that need more than two to three years to show meaningful improvement. Fiscal Year 2013 community health need priorities were considered to remain priorities if more than half of respondents considered them to "remain a major problem." If a Fiscal Year 2013 health priority did not achieve this rating, new priorities were added based on ratings of other health priorities. These new health priorities were identified by high scores on the dimensions of importance, measurable impact, and hospital ability and also represented health concerns not subsumed in current specified priorities.

Community Representation and Rationale for Approach

Each hospital community advisory panel consisted of hospital board members, hospital staff, and community members. Community members were leaders of organizations that represented different patient constituencies and medically underserved, low-income, and minority populations and were invited to participate to ensure that a wide range of community interests were engaged in identifying community health needs. Organizations serving the medically underserved were well represented on the panels. In addition to hospital panels, the CHNA also included a community-wide panel consisting of health departments, mental health service providers, philanthropies, and other agencies providing health services not linked to particular hospitals.

Analyses disaggregated ratings to confirm that ratings were stable across different stakeholders.

The panels ensured that a wide variety of constituencies had an opportunity to weigh in on hospital community health priorities. Use of advisory panels and a survey explicitly assessing the continuing relevance of prior health priorities offers a number of advantages:

- It explicitly assesses stability/change of community health needs, while allowing participants an opportunity to consider new health priorities

- It uses the same measures to assess importance, impact, and hospital ability to address health priorities, which will allow tracking over time

- It elicits perceptions of a broad and inclusive list of hospital and community leaders who in turn represent a broad group of constituents

- It allows assessment of consensus across different kinds of stakeholders

UPMC St. Margaret invited representatives from the following organizations to participate in the community needs survey conducted in June 2015:

- **Allegheny Valley Chamber of Commerce, Natrona Heights, PA**
- **Bloomfield-Garfield Corporation, Pittsburgh, PA**
- **Harmar Village Care Center, Cheswick, PA**
- **Lawrenceville United, Pittsburgh, PA**
- **New Kensington Family Health Center, New Kensington, PA**

- **North Hills Community Outreach, Pittsburgh, PA**
- **Pittsburgh Public Schools, Pittsburgh, PA**
- **Presbyterian Senior Care, Oakmont, PA**
- **St. Scholastica Church, Pittsburgh, PA**
- **St. Margaret Foundation, Pittsburgh, PA**

The UPMC St. Margaret community survey was also supported by members of the hospital's Board of Directors and physicians, as well as hospital leadership.

Additionally, a UPMC system-wide group comprised of individuals and organizations representing the broad interests of the region's communities — including representatives from medically underserved, low-income, and minority populations — was invited to participate in the survey. Invitees included representatives from the following organizations:

- **Achieva, Pittsburgh, PA**
- **Action Housing, Inc., Pittsburgh, PA**
- **Allegheny County Area Agency on Aging, Pittsburgh, PA**
- **Allegheny County Department of Human Services, Pittsburgh, PA**
- **Allegheny County Office of Children, Youth, and Families, Pittsburgh, PA**
- **Allegheny Intermediate Unit, Homestead, PA**
- **Bethlehem Haven, Pittsburgh, PA**

- **Big Brothers Big Sisters of Greater Pittsburgh, Pittsburgh, PA**
- **Carlow University, Pittsburgh, PA**
- **Catholic Charities Free Health Care Center, Pittsburgh, PA**
- **Center for Engagement and Inclusion, UPMC, Pittsburgh, PA**
- **City of Pittsburgh Bureau of Police, Pittsburgh, PA**
- **Community College of Allegheny County, Monroeville, PA**

- Consumer Health Coalition, Pittsburgh, PA
- Coro Center for Civic Leadership, Pittsburgh, PA
- EDSI Solutions, Pittsburgh, PA
- Erie Regional Chamber and Growth Partnership, Erie, PA
- Expanding Minds, LLC, Pittsburgh, PA
- Goodwill of Southwestern Pennsylvania, Pittsburgh, PA
- Greater Pittsburgh Community Food Bank, Duquesne, PA
- Healthy Lungs Pennsylvania, Cranberry Township, PA
- Higher Achievement, Pittsburgh, PA
- Hosanna House, Inc., Wilkinsburg, PA
- iGate Corporation, Pittsburgh, PA
- Imani Christian Academy, Pittsburgh, PA
- Jewish Family and Children's Service of Pittsburgh, Pittsburgh, PA
- Josh Gibson Foundation, Pittsburgh, PA
- Junior Achievement of Western Pennsylvania, Pittsburgh, PA
- Kaplan Career Institute, Pittsburgh, PA
- Kingsley Association, Pittsburgh, PA
- LEAD Pittsburgh, Pittsburgh, PA
- Let's Move Pittsburgh, Pittsburgh, PA
- Mainstay Life Services, Pittsburgh, PA
- The Mentoring Partnership of Southwestern PA, Pittsburgh, PA
- NAMI Southwest Pennsylvania, Pittsburgh, PA
- Neighborhood Learning Alliance, Pittsburgh, PA
- Office of Human Services, Allegheny County Department of Human Services, Pittsburgh, PA
- Operation StrongVet Western Pennsylvania, Wexford, PA

- Pennsylvania Health Access Network, Pittsburgh, PA
- Pennsylvania Health Law Project, Pittsburgh, PA
- Persad Center, Pittsburgh, PA
- Pittsburgh Action Against Rape, Pittsburgh, PA
- Pittsburgh Black Nurses in Action, Pittsburgh, PA
- Pittsburgh Board of Education, Pittsburgh, PA
- Pittsburgh Disability Employment Project for Freedom, Pittsburgh, PA
- Pittsburgh Job Corps Center, Pittsburgh, PA
- The Pittsburgh Promise, Pittsburgh, PA
- Ralph A. Falbo, Inc., Pittsburgh, PA
- Randall Industries, LLC, Pittsburgh, PA
- Salvation Army of Western Pennsylvania, Carnegie, PA
- Smart Futures, Pittsburgh, PA
- United Way of Allegheny County, Pittsburgh, PA
- University of Pittsburgh School of Health and Rehabilitation Sciences, Pittsburgh, PA
- University of Pittsburgh Health Sciences, Pittsburgh, PA
- UPMC Board Diversity and Inclusion Committee, Pittsburgh, PA
- Urban League of Greater Pittsburgh, Pittsburgh, PA
- Ursuline Support Services, Pittsburgh, PA
- VA Pittsburgh Healthcare System, Pittsburgh, PA
- The Waters Foundation, Pittsburgh, PA
- The Wynning Experience, Pittsburgh, PA
- Vibrant Pittsburgh, Pittsburgh, PA
- Western Pennsylvania Conservancy, Pittsburgh, PA
- Women for a Healthy Environment, Pittsburgh, PA
- Women's Center and Shelter of Greater Pittsburgh, Pittsburgh, PA
- YMCA of Greater Pittsburgh, Pittsburgh, PA
- YWCA of Greater Pittsburgh, Pittsburgh, PA

APPENDIX D: Concept Mapping Methodology

Overview:

UPMC St. Margaret, 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 its 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 St. Margaret:

UPMC St. Margaret 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 St. Margaret 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 lists 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 St. Margaret community.

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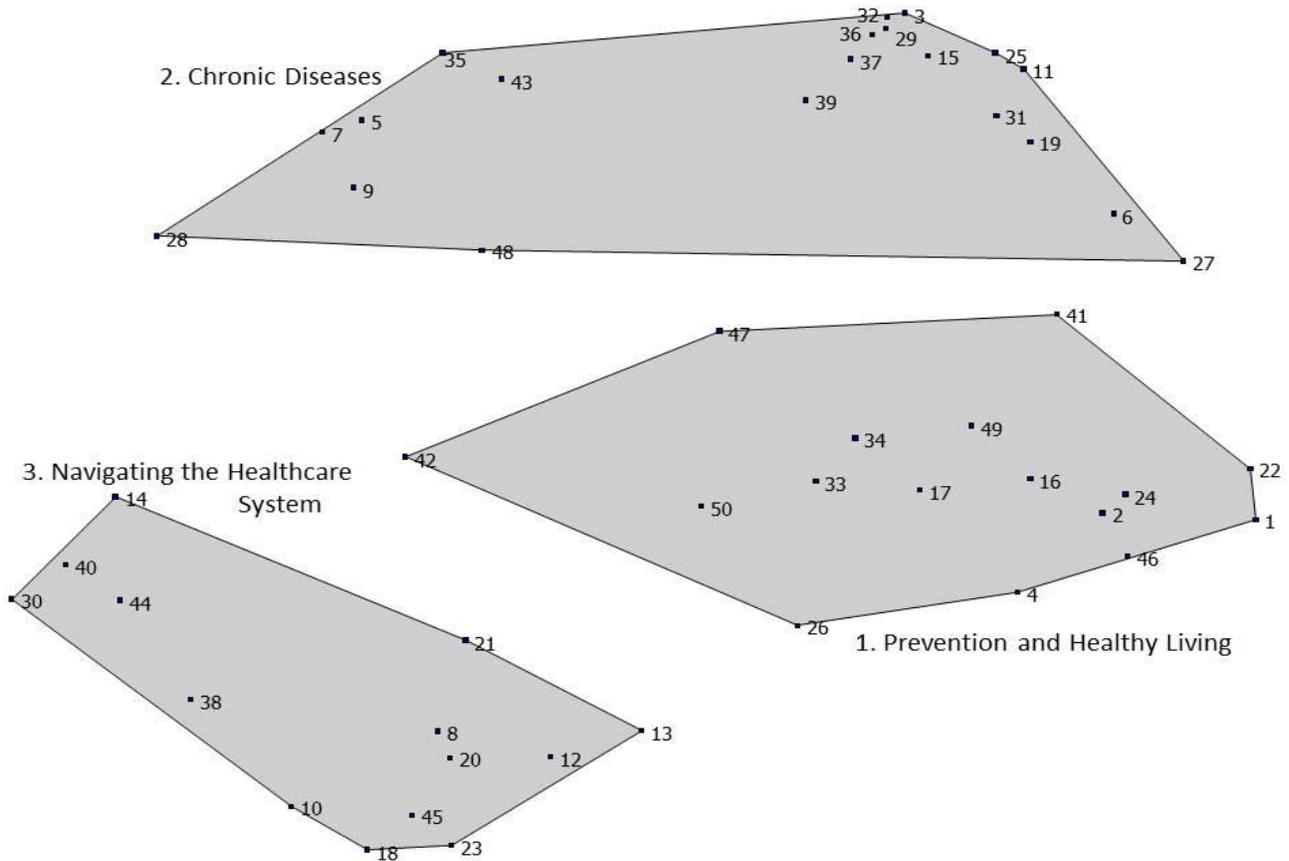
For each of the rating criteria, the rating levels were broken into three equal distributions (tertiles) representing high, moderate, and low priority. The cut points for each rating criteria are as follows:

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 St. Margaret. UPMC St. Margaret 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.