UPMC Hamot

Community Health Needs Assessment
And
Community Health Strategic Plan

June 30, 2016

UPMC Hamot

TABLE OF CONTENTS

EXECUTIVE SUMMARY

UPMC Hamot Plays a Major Role in its Community:

UPMC Hamot is a nonprofit, 433-bed tertiary-care teaching hospital located in Erie County, Pennsylvania. Operating in the city of Erie since 1881, the state-of-the-art facility delivers a full range of quality medical services — including highly specialized medical and surgical treatment — to the residents of the greater Erie region. UPMC Hamot is the only Level II trauma center in northwestern Pennsylvania. Since affiliating with UPMC in 2011, the hospital has benefited from over $140 million in investment, which includes improvements to inpatient and outpatient clinical care, equipment, and information technology.

UPMC Hamot 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. Efforts include promoting violence prevention programs, helping link at-risk youth with gainful employment through the Eagle's Nest program, and implementing the mall walker program to keep residents heart healthy throughout the year.

UPMC Hamot in the Community

Nearly 3,000 employees, with an economic impact of $564 million

UPMC Hamot conducts many free community health screenings and health fairs, reaching more than 20,000 individuals each year.

UPMC Hamot provides financial and professional support to the city of Erie, its schools, police and fire departments, and numerous nonprofit organizations.

UPMC Hamot 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 Hamot 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:

- **Preventive Screenings**
- **Maternal and Infant Health**
- **End-of-Life Care**

Three years later, when the Fiscal Year 2016 CHNA was conducted, UPMC Hamot affirmed the Fiscal Year 2013 significant health needs and added a fourth. The updated health needs are:

- **Preventive Screenings**
- **Maternal and Infant Health**
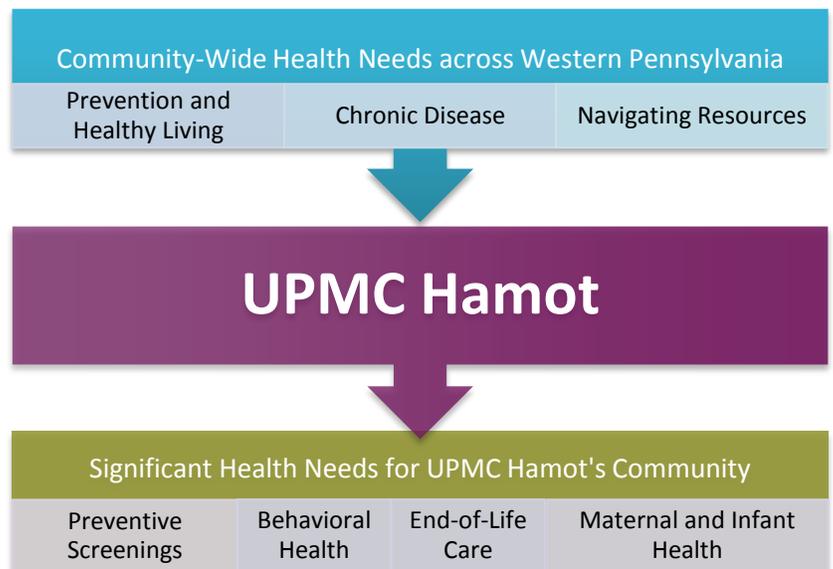- **End-of-Life Care**
- **Behavioral Health**

On May 31, 2016, the UPMC Hamot 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 issues will generally need more than two to three years to show meaningful improvement.

Topic	Importance to the Community
Preventive Screenings	Screenings for colorectal cancer and breast cancer were lower in Erie 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.
Maternal and Infant Health	The well-being of mothers and infants is important for a healthy community. Erie County's percentages of babies with low birth weight and early receipt of prenatal care by expectant mothers are comparable to the state and nation.
End-of-Life Care	Erie County's most elderly population (85+) has grown 37.2 percent in the past decade. Most patients in hospice care, many of whom are 85+, have a primary diagnosis that includes chronic disease.
Behavioral Health	38 percent of adults in Erie 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.

Collective Impact Across Western Pennsylvania:

Western Pennsylvania has a diverse range of health needs. Key themes that emerged from the Fiscal Year 2016 UPMC Hamot 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 Hamot is planning a wide range of prevention and chronic disease support activities.

- **Navigating Available Resources:** Established health care programs in UPMC Hamot'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 Hamot 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 Hamot

Significant Health Needs for UPMC Hamot's Community			
Preventive Screenings	Behavioral Health	End-of-Life Care	Maternal and Infant Health

PROGRESS REPORT 2013-2016: MATERNAL AND INFANT HEALTH

GOAL: UPMC Hamot is encouraging healthy behaviors through community education and support programs focused on prenatal care.

STRATEGY:
The hospital is improving access to prenatal care through education and support.

Community Need

More than **3,000** infants were born in Erie County in 2012.

(PADOH, 2012)

To achieve its goal, UPMC Hamot is targeting women of childbearing age and pregnant women who are at-risk, such as immigrants and low-income individuals. The hospital is addressing the risks of maternal and infant mortality and pregnancy-related complications through clinical programs delivered at Magee-Womens Hospital – UPMC Hamot Campus, as well as through community programs that provide access to prenatal care and education. Hospital efforts include:

» Helping pregnant women and new mothers get care and support

» Establishing partnerships with local organizations

PROGRESS:
UPMC Hamot is supporting pregnant women in the community.

Increasing education and access to prenatal care

UPMC Hamot is focused on increasing education and access to prenatal care throughout the community. The hospital offers a range of classes, such as childbirth education, breastfeeding, and infant care. The hospital also provides education and outreach at a number of community events and health fairs, including this year's "For Women Only Expo," which attracted 1,500 women. The hospital's efforts have resulted in a decrease in deliveries prior to 39 weeks gestation.

Targeting hard-to-reach populations

A significant number of refugees have settled in Erie County, and UPMC Hamot has provided efforts to improve outreach to this population, such as through development of a childbirth education program for non-native English speakers.

Collaborating with local agencies

UPMC Hamot is building relationships with several community resources, including the Positive Youth Development program, the Pregnancy Task Force, and the Maternal Child Health Task Force. UPMC Hamot hosted the Maternal Child Health Task Force Resource Fair that brought together 20 agencies to identify ways to work together. In addition, the hospital's prenatal programs are helping to foster new relationships between UPMC Hamot, the Multicultural Resource Center, and the Multicultural Health Evaluation Delivery Systems (MHEDS) clinic.

Safe Sleep Champion
UPMC Hamot has been officially recognized as a Cribs for Kids National Gold Certified Safe Sleep Hospital. The award was made possible with help from the UPMC Hamot Aid Society and its SleepSack® campaign. The sleep sacks, provided to newborns, help ensure parents have the help they need to sustain the safe sleep practices they learn in the hospital once they go home.

PROGRESS REPORT 2013-2016: END-OF-LIFE CARE

GOAL: UPMC Hamot is enhancing end-of-life programs.

STRATEGY:
The hospital is increasing community and provider education to improve end-of-life programs.

To achieve this goal, UPMC Hamot is targeting all individuals, especially employees, medical staff, and inpatients and their families. The hospital offers several programs to help equip employees, patients, and their caregivers with knowledge and resources to make end-of-life decisions. Efforts include:

» Educating the community about care for the seriously ill

» Offering end-of-life care programs to provide patients and their caregivers with information and support

Community Need

1 in 6 **Erie County residents are 65 and older.**

(U.S. Census)

PROGRESS:
UPMC Hamot is making a measurable difference in end-of-life awareness.

Educating more than **250** employees about end-of-life care

UPMC Hamot offers the *End-of-Life Resource Awareness* program designed to educate staff about end-of-life resources and how to interpret and honor patient wishes. More than 100 UPMC Hamot employees attended the kickoff event for this program, and more than 250 hospital staff members have completed online education modules.

Double in the number of palliative care consults — from 1,300 in 2012 to 2,577 in 2015

The hospital provides programs to ensure that patients and their families are equipped with information and resources to make end-of-life decisions.

Improving the quality of life for seriously ill patients
As part of UPMC Palliative and Supportive Institute, UPMC Hamot has improved the communication around end-of life decisions between providers, patients, and families. In 2015, 80 percent of palliative care patients had a Goals of Care conversation documented, 68 percent of patients reported a decrease in pain, and the average length of stay reduced from 10.9 days to 8.9 days.

Utilizing outpatient hospice program
Hospital staff help determine whether patients have advanced directives and what their end-of-life wishes are and help refer patients to outpatient hospice care. Over the past several years, the average length of stay for hospice patients has seen a steady increase. This indicates that the program's end-of-life care consults are helping to educate families about the most appropriate setting for care.
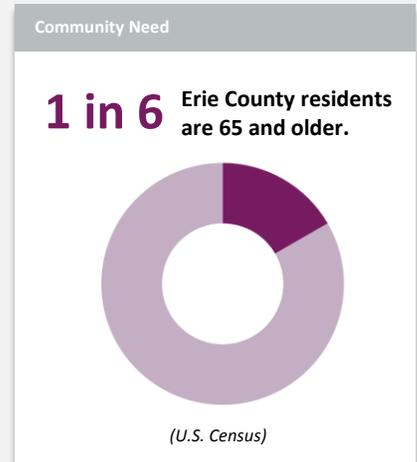
PROGRESS REPORT 2013-2016: PREVENTIVE SCREENINGS

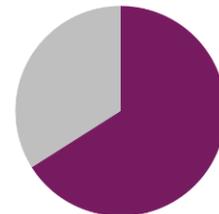## GOAL: UPMC Hamot is increasing awareness about screenings for chronic disease.

STRATEGY:
The hospital is leading efforts to raise awareness about preventive screenings in the community.

Community Need

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

(PADOH, 2012)

To achieve this goal, UPMC Hamot is targeting all community members. The hospital is implementing programs to encourage screenings. Efforts include:

» Implementing the UPMC Hamot Outpatient Coordination Center

» Establishing tracking tools to monitor preventive screenings in patients of UPMC Hamot's Primary Care Network

» Providing community outreach and offering screenings at community events

PROGRESS:
UPMC Hamot is increasing community awareness about preventive screenings.

Improving preventive health for the 115,000 lives cared for by UPMC primary care providers in Erie County

Hospital programs are connecting patients with primary care physicians and encouraging preventive screenings.

Recognition for Patient-Centered Medical Homes
The NCQA identified several of UPMC Hamot's primary care practices as patient-centered medical homes. Patients in medical homes are provided with a model of care that focuses on coordinating care tailored to patients' needs.

Establishing the UPMC Hamot Outpatient Coordination Center
In addition, the hospital established the UPMC Hamot Outpatient Coordination Center, a dedicated centralized resource that links individuals to primary care physicians and helps schedule appointments. The Center also helps identify and connect with individuals who have not seen their primary care physician in the past 18 months. In addition, tracking preventive screenings has improved with the implementation of a tool that provides preventive screening rates every quarter. Recent data demonstrate that more than 65 percent of patients were screened for colon cancer, 66 percent were screened for mammography, and 64 percent received a diabetes screen.

Promoting healthy behaviors and preventive screenings throughout the community

UPMC Hamot continues to promote health education. Overall, 14 events were held throughout the community, at locations ranging from senior health fairs to the YMCA, the local mall, and residents' workplaces. For example, the hospital launched a heart healthy exercise program, inviting Erie County residents to join a mall walker program at the Millcreek Mall. This program encourages participants to get daily exercise and provides a clean, safe, and weatherproof environment.

COMMUNITY HEALTH NEEDS ASSESSMENT (CHNA) REPORT

I. Objectives of a Community Health Needs Assessment

CHNA Goals and Purpose:

In Fiscal Year 2016, UPMC Hamot 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 Hamot 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 Hamot:

UPMC Hamot is a nonprofit, 433-bed tertiary acute-care hospital located in the City of Erie, Erie County, Pennsylvania. It offers a full range of quality medical services to the people of Erie County and the surrounding region. The hospital provides area residents with access to medical, surgical, Level II trauma services, cardiovascular/thoracic surgery with 24/7 access to in-house cardiologists, neurosurgery, comprehensive stroke services, and a Level III NICU, 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 a women's hospital. During the Fiscal Year ended June 30, 2015, UPMC Hamot had a total of 26,900 admissions and observations, 82,200 emergency room visits, and 12,400 surgeries.

VITAL STATISTICS Fiscal Year 2015	
Licensed Beds	**433**
Hospital Patients	**26,900**
Emergency Dept. Visits	**82,200**
Total Surgeries	**12,400**
Newborns and Neonatal Admissions	**2,400**
Active Medical Staff	**309**

JOBS AND STRENGTHENING THE LOCAL ECONOMY

As one of the top three employers in Erie County, UPMC Hamot is an economic pillar in the community.

UPMC Hamot Employees	**2,945**
Community Benefits Contributions	**$26 million**
Free and Reduced Cost Care	**$16 million**
	$564 million **Total Economic Impact of Hospital Operations**

UPMC Hamot is a teaching hospital, with residency programs in neurology, orthopaedics, emergency medicine, and pharmacy. In addition, UPMC Hamot offers a fellowship program in hand surgery. UPMC Hamot 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.

II. Definition of the UPMC Hamot Community

For the purpose of this CHNA, the UPMC Hamot community is defined as Erie County. With 69 percent of patients treated at UPMC Hamot residing in Erie County, the hospital primarily serves residents of this geographic region. By concentrating on the county, UPMC Hamot 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 Hamot Live in Erie County

County	UPMC Hamot %	Medical Surgical Discharges
Erie County	68.9%	14,019
All Other Regions	31.1%	6,317
Total Hospital Discharges	100%	20,336

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

The hospital is situated on the northern border of Erie County, Pennsylvania, on Lake Erie. While the county represents the basic geographic definition of UPMC Hamot's community, this CHNA also considered specific focus areas within the hospital's immediate geographic "service area." Small "focus area" analyses were conducted to identify geographical areas within the county, as well as areas of concentration with potentially higher health needs — such as areas with high minority populations, low per-capita incomes, and areas with historically distinct health needs. Health data reflecting Zip Codes of neighborhoods within the service area was also analyzed.

Existing Healthcare Resources in the Area:

UPMC Hamot is the only UPMC licensed hospital and one of four total acute care licensed hospitals in Erie County.
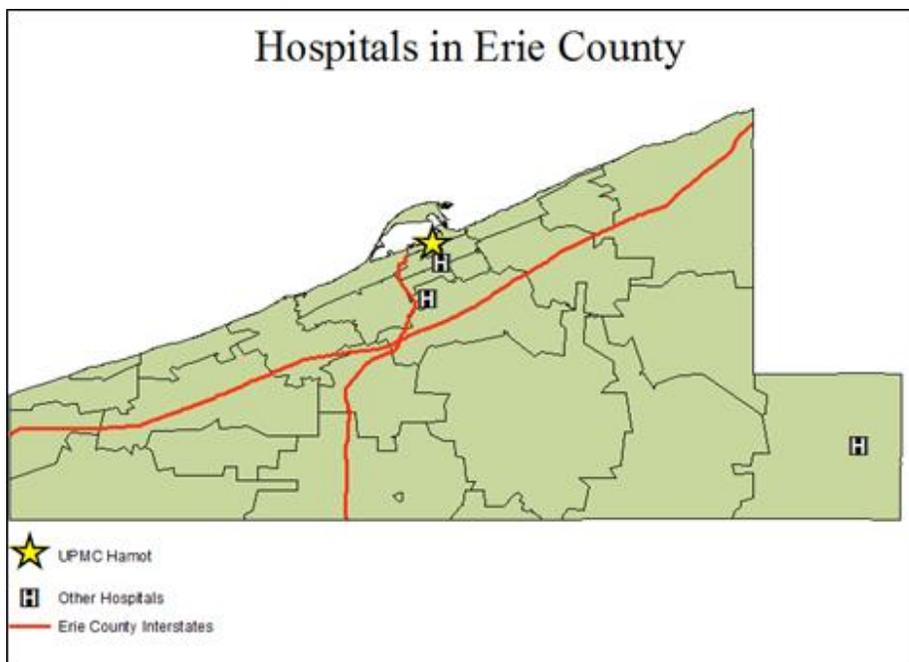
In the immediate service area, UPMC Hamot is supported by 40 UPMC outpatient offices and other UPMC facilities in the county. These facilities include Centers for Rehabilitation Services sites, Imaging Centers, urgent care centers, and pediatric, primary and specialty care doctors' offices.
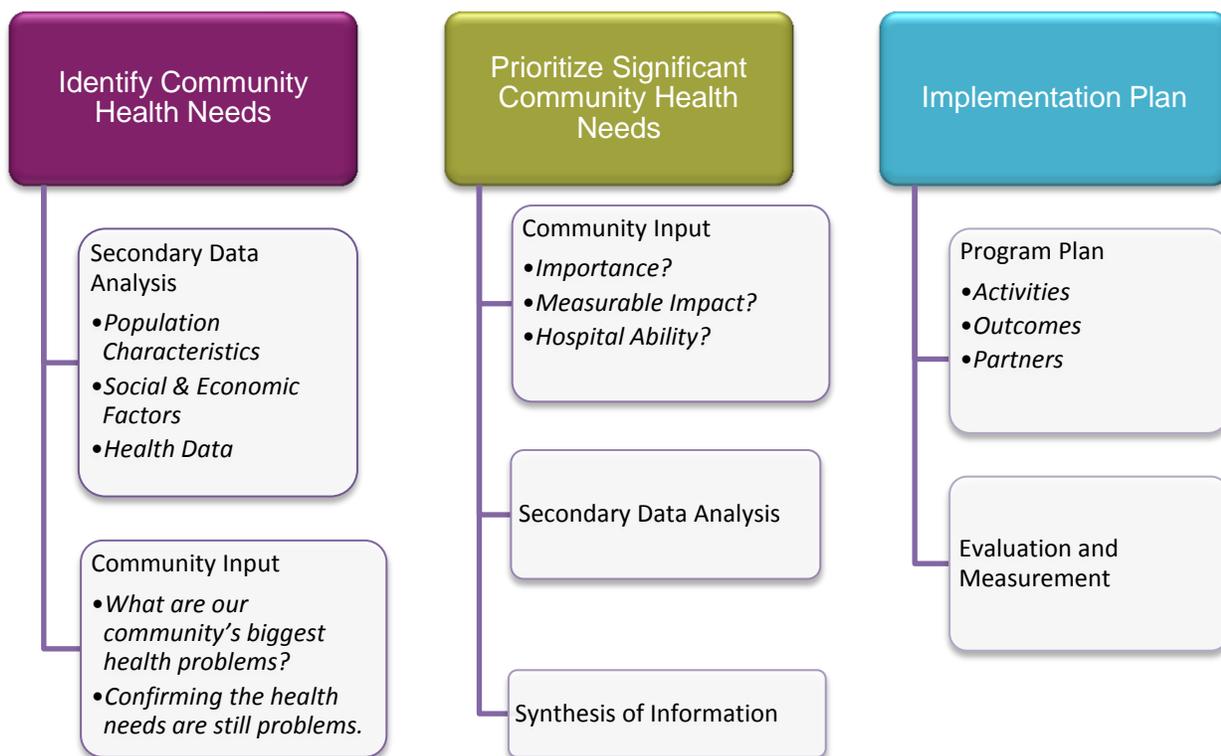
III. Methods Used to Conduct the Community Health Needs Assessment

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.	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	2010-2015 data collected and compared by county, state, and nation.	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.

Health Resources and Services Administration (HRSA).

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.

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 Erie County is the large and increasing percentage of elderly residents (age 65 and over). Erie County has a relatively large elderly population (15 percent) compared to the United States (13 percent). Reflective of the higher proportion of elderly, the percentage of Medicare recipients was higher in the county than the nation (see Appendix B).
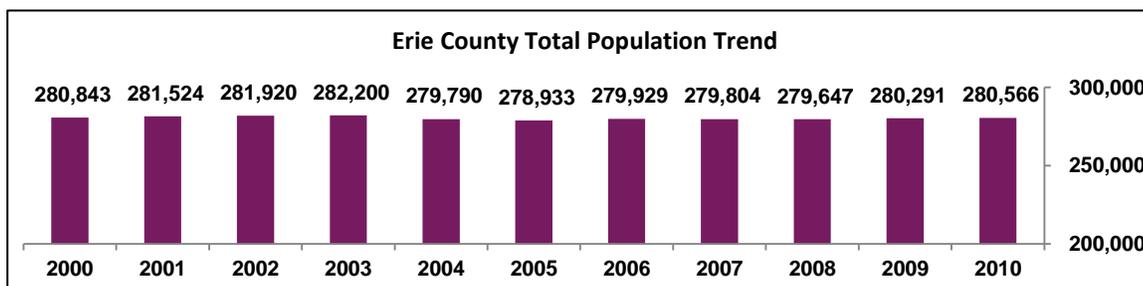
Erie County Has a Sizable Elderly Population

Age Distribution – 2010			
	Erie County	**Pennsylvania**	**National**
Median Age	38.6	40.1	37.2
% Children (<18)	22.7%	22.0%	24.0%
% 18-64	62.7%	62.6%	63.0%
% 20-49	38.6%	39.0%	41.0%
% 50-64	20.4%	20.6%	19.0%
% 65+	14.6%	15.4%	13.0%
% 65-74	7.2%	7.8%	7.0%
% 75-84	4.8%	5.4%	4.3%
% 85+	2.4%	2.4%	1.8%
% Elderly Living Alone	11.3%	11.4%	9.4%

Source: U.S. Census

Total Population Stable in Erie County but Aging Population Increasing: In 2010, Erie County had a total population of 280,566. The population density of Erie County at the time was 351.1 people per square mile. Although the population has remained stable since 2000, the county's most elderly population increased significantly (see figure below).

Erie County's total population has seen little change from 2000 to 2010.

Erie County Total Population Trend

Year	Population
2000	280,843
2001	281,524
2002	281,920
2003	282,200
2004	279,790
2005	278,933
2006	279,929
2007	279,804
2008	279,647
2009	280,291
2010	280,566

However, the most elderly population (85+) has grown 37 percent from 2000 to 2010.

Erie County Elderly (85+) Population Trend

Year	Population
2000	4,892
2001	5,165
2002	5,391
2003	5,609
2004	5,742
2005	5,933
2006	6,186
2007	6,364
2008	6,507
2009	6,669
2010	6,712
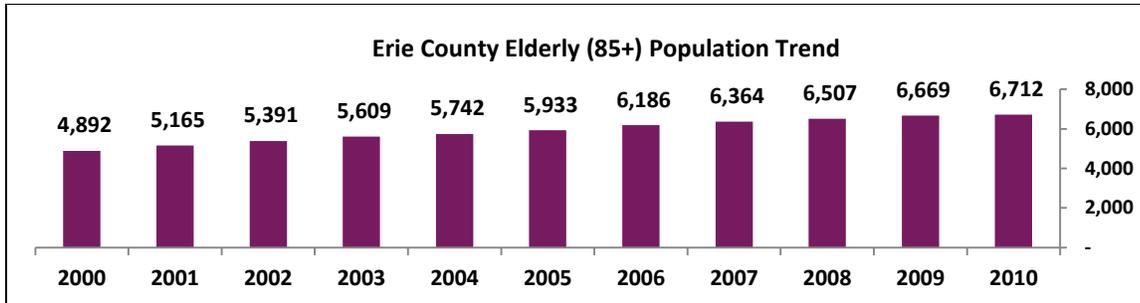
Source: U.S. Census

Socioeconomic Characteristics Reflect Challenges: When compared to the Commonwealth of Pennsylvania and the nation, the overall population of Erie County faces some economic challenges. Erie County tends to have:

- **A lower median household income**
- **More people living in poverty**
- **More recipients of the income-based Medicaid health insurance program (see Appendix B)**

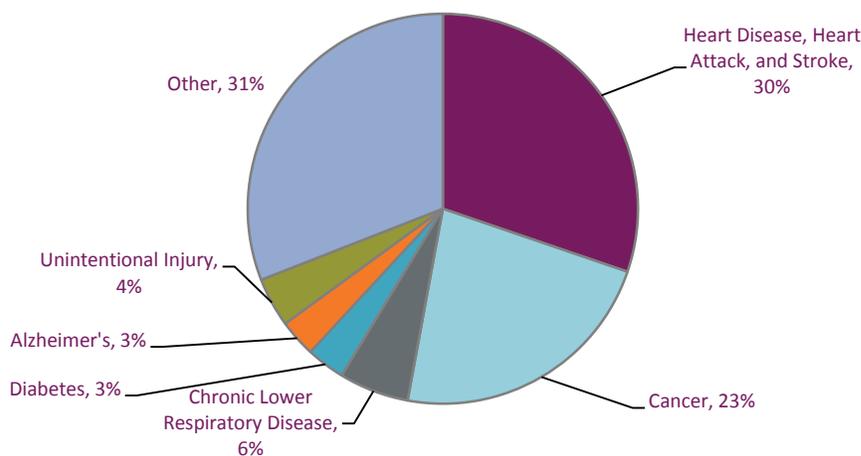| Social and Economic Population Demographics			
	Erie County	**Pennsylvania**	**Nation**
Median Household Income	$42,519	$49,288	$50,046
% in Poverty	17.4%	13.4%	15.3%
% with No High School Diploma (among those 25+)	9.8%	11.6%	14.4%
% Unemployed (among total labor force)	9.4%	9.6%	10.8%
Racial Groups:			
% White	88.2%	81.9%	72.4%
% African-American	7.2%	10.8%	12.6%
% Other Race	4.6%	7.3%	15.0%

Source: U.S. Census

In addition, neighborhoods within Erie County have characteristics of populations more likely to experience health disparities: Compared to Erie County, the City of Erie has a lower median household income ($24,562), and a higher percentage of families living in poverty (25.9 percent), individuals with no high school diploma (21.1 percent), and people who are unemployed (16.5 percent). The percentages of African-American residents (24.6 percent) and other races (11.6 percent) were also higher in the City of Erie, compared to Erie County. In addition, sections of the City of Erie are designated as federally Medically Underserved Areas (MUA).

The following factors are considered in the determination of MUAs:

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

Chronic Disease and Mortality:

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

Pie chart with the following segments: Heart Disease, Heart Attack, and Stroke, 30%; Cancer, 23%; Chronic Lower Respiratory Disease, 6%; Diabetes, 3%; Alzheimer's, 3%; Unintentional Injury, 4%; Other, 31%

Source: Pennsylvania Department of Health, 2012

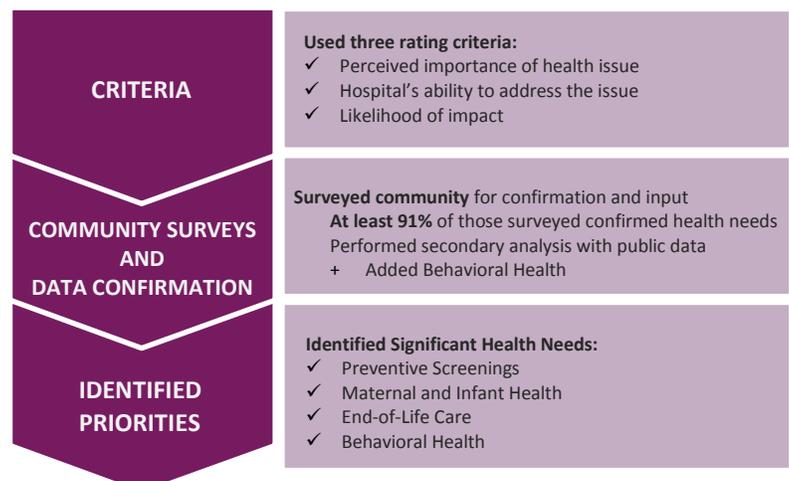*Significant Health Needs for UPMC Hamot's Community:*

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 community:

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

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

- **Preventive Screenings**
- **Maternal and Infant Health**
- **End-of-Life Care**
- **Behavioral 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 91% of those surveyed confirmed health needs
  Performed secondary analysis with public data
  + Added Behavioral Health

IDENTIFIED PRIORITIES

Identified Significant Health Needs:
- ✓ Preventive Screenings
- ✓ Maternal and Infant Health
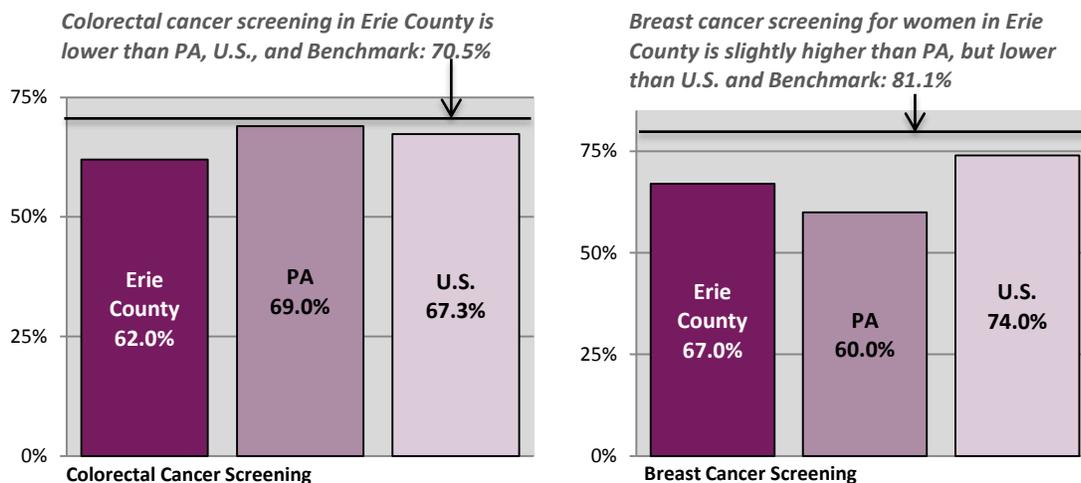- ✓ End-of-Life Care
- ✓ Behavioral Health

UPMC Hamot Significant Health Needs:

In-depth secondary data analysis reinforced that these health topics were areas of concern for the UPMC Hamot community.

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.**

- **Screening for colorectal cancer and breast cancer were lower in Erie County than benchmarks, with colorectal cancer screening also lower than the state.**

Colorectal cancer screening in Erie County is lower than PA, U.S., and Benchmark: 70.5%

Breast cancer screening for women in Erie County is slightly higher than PA, but lower than U.S. and Benchmark: 81.1%

Colorectal Cancer Screening:
- Erie County 62.0%
- PA 69.0%
- U.S. 67.3%

Breast Cancer Screening:
- Erie County 67.0%
- PA 60.0%
- U.S. 74.0%

Sources: Erie County Department of Health, 2011; Pennsylvania Department of Health, 2012; Healthy People 2020; U.S. Centers for Disease Control and Prevention, 2013
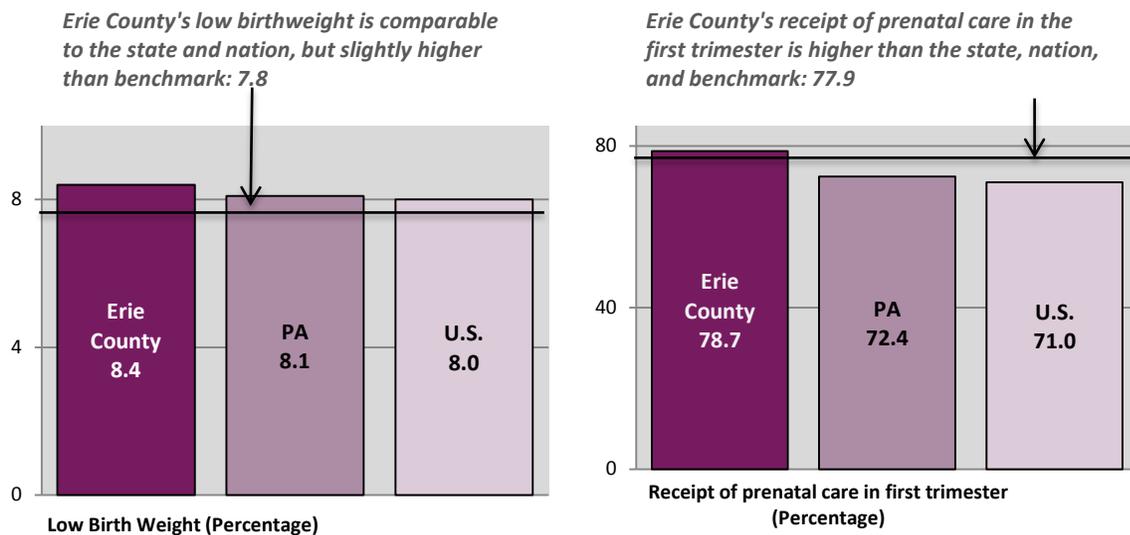
Screening rates are slightly lower or on par with state: Preventive screenings are a cost-effective approach in promoting health, and can help further delay progression or worsening of certain diseases. Screening rates within Erie County for conditions such as colorectal cancer and breast cancer were generally on par or higher than the state, likely due to existing initiatives in these areas.

Opportunities for improvement within specific clinical areas and sub-populations, specifically low-income populations: Variations in screening rates were observed for certain demographics and areas within Erie County. For colorectal cancer screening, a significantly higher percentage of those earning $50,000 or more (74 percent) were screened, compared to those earning <$25,000 (51 percent). No significant differences were observed by sex, age, and education. Due to small sample sizes, results by race/ethnicity are not reported.

For mammography screening, similar patterns were observed, except results were not statistically significant. A higher percentage of women earning $50,000 or more had a mammogram (80 percent), compared to those earning <$25,000 (51 percent). No significant differences were observed by sex, age, and education. Due to small sample sizes, results by race/ethnicity are not reported.

Maternal and Infant Health/Prenatal Care – Importance to the Community:

- **The well-being of mothers and infants is important for a healthy community.**

- **Erie County's percentages of babies with a low birth weight and early receipt of prenatal care by expectant mothers are comparable to the state and nation.**

- **Smoking during pregnancy, which is associated with poorer birth outcomes, was higher in Erie County, compared to the state.**

Erie County's low birthweight is comparable to the state and nation, but slightly higher than benchmark: 7.8

Erie County's receipt of prenatal care in the first trimester is higher than the state, nation, and benchmark: 77.9

Erie County 8.4 | PA 8.1 | U.S. 8.0

Low Birth Weight (Percentage)

Erie County 78.7 | PA 72.4 | U.S. 71.0

Receipt of prenatal care in first trimester (Percentage)

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

Healthy babies and healthy mothers are integral to a healthy community: The health of mothers and infants is integral to the health of families, the community, and the next generation. Over 3,000 infants were born in Erie County in 2012.

Accessing prenatal care and engaging in healthy behaviors during pregnancy is associated with healthy birth outcomes: Infant mortality rates and low birth weight data in Erie County are reflective of national trends. Starting prenatal care early during pregnancy, especially in the first trimester, can help result in healthy birth outcomes. Prenatal care during the first trimester was higher in Erie County (79 percent), compared to the state and the nation. Although receipt of early prenatal care was high in Erie County, healthy behaviors during pregnancy were lower: 76.3 percent of pregnant women were non-smokers in Erie County, compared to 84.7 percent in Pennsylvania.

Sub-populations, specifically low-income women and underserved minorities, are at risk for adverse birth outcomes: National studies suggest that low-income women and underserved minorities have a higher risk of adverse birth outcomes and challenges in accessing prenatal care. In Erie County, a sizable percentage of pregnant women were covered by Medicaid — 40.2 percent, which is higher than state data (33 percent). In addition, local data showed differences in birth outcomes between African-Americans and Whites. For Whites, 7.4 percent of infants were low birth weight and 78.4 percent received prenatal care in the first trimester. In comparison, a higher percentage of African-American infants had a low birth weight (13.4 percent), and a lower percentage of pregnant mothers received prenatal care in the first trimester (62.8 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, dementia: The majority of individuals in hospice care are age 65+, and more than one-third are age 85+. Hospice and end-of-life care issues are important for Erie County where a sizable percentage of deaths are due to chronic disease and the region has experienced an increase in the most elderly, those who are 85+.

Behavioral Health – Importance to the Community:

- **More than 18 percent of U.S. adults have a mental illness.**
- **More than one-third of Erie County adults reported experiencing 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.**

Behavioral health affects many individuals: Behavioral health includes mental health (state of well-being) and mental illness (diagnosable mental disorders). National data suggest that more than 18 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 Erie County reported poor mental health in the past month.

V. Overview of the Implementation Plan

Overview:

UPMC Hamot 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 Hamot Board of Directors adopted an implementation plan to address the identified significant health needs:

- **Preventive Screenings**
- **Maternal and Infant Health**
- **End-of-Life Care**
- **Behavioral Health**

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

High-Level Overview of UPMC Hamot Implementation Plan

Topic	Programs	Anticipated Impact Goal-Year 3	Planned Collaborations
Preventive Screenings	Screening Assessment (UPMC Hamot Outpatient Coordination Center) Screening Awareness and Screening of Underserved Populations	Improved screening rates for colon cancer, mammograms, and diabetes Increased number of individuals attending community events	UPMC Hamot Primary Care Network, Local and regional specialty providers, Gannon University, Voices for Independence, Legislative Representatives, YMCA, Erie365, African American Concerned Clergy, Word of Faith Development Corporation, MHEDS (Multicultural Health Evaluation Delivery System)
Maternal and Infant Health	Prenatal Care Access and Coordination of Care (especially targeting the refugee population) Efforts related to substance abuse and neonatal abstinence syndrome Safe Sleep Initiative	Improved awareness about the importance of prenatal care in the refugee and immigrant population Improved coordination of care for population with substance abuse problems Improved efforts to promote safe sleeping in infants	Catholic Charities, Multicultural Community Resource Center, MHEDS (Multicultural Health Evaluation Delivery System), Erie Art Museum, Maternal and Child Health Task Force, New Directions Methadone Clinic, Esper Treatment Center, Safe Harbor Behavioral Health, Erie County Drug Task Force, Cribs for Kids

End-of-Life Care	Community Awareness of End-of-Life Care Improve Utilization of End-of-Life Care	Increased awareness of advanced directives, living wills, palliative and hospice care Improved utilization of end-of-life care through evaluation of in-house hospice, growth of transitional care program	Erie Home for Children and Adults, Barber National Institute, Autism Society of NWPA, GECAC, Erie County Care Management, Great Lakes Home Health and Hospice, UPMC Palliative and Supportive Institute, Payers, Physicians
Behavioral Health	Access to a comprehensive array of behavioral health services especially focused on drug and alcohol Integration of behavioral health care services in other health care settings	Improved behavioral health care services and coordination of care	Erie County Dept of Human Services, PA DOH, Office of Mental Health and Substance Abuse, WCA, school districts, law enforcement, UPMC Hamot Emergency Department, Regional Health Services, Magee-Womens Hospital of UPMC, UPMC Hamot

The UPMC Hamot 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

Priority Health Issue: Addressing Preventive Screenings

Preventive screenings are an important priority in UPMC Hamot's community: Preventive screenings can include regular physical exams conducted by a primary care physician, blood tests (such as blood sugar or cholesterol), certain measurements (like weight and blood pressure), immunizations/vaccinations, and screening tests to look for signs of cancer or heart disease. All of these services can help to identify common, yet potentially serious, health concerns early. Early detection typically leads to more successful treatment. Currently, Erie County has a lower screening rate than the nation, as well as the national benchmark set by *Healthy People 2020* when it comes to colonoscopies and mammograms.

UPMC Hamot is leveraging UPMC and community resources to address preventive screenings: UPMC Hamot currently offers many preventive screenings, including blood and weight screenings and screenings for cancer, heart disease and stroke. UPMC Hamot provides these services through its Primary Care Network, which serves more than 115,000 residents, as well as through screenings at events held in the community. In addition, UPMC Hamot programs are complemented by UPMC Insurance Services' efforts in many clinical areas, including provider-focused incentives and primary care practice initiatives that support the delivery of quality preventive care and preventive screenings to health plan members.

Preventive Screenings				
Program	**Intended Actions**	**Anticipated Impact** **Goal-Year 3**	**Target Population**	**Planned Collaborations**
Screening Assessment (UPMC Hamot Outpatient Coordination Center) Screening Awareness and Screening of Underserved Populations	Continue to educate patients about importance of preventive screenings. Continue to collaborate with UPMC Hamot Outpatient Coordination Center in contacting patients. Continue to provide health education and screenings at community events.	Improved screening rates for colon cancer, mammograms, and diabetes. Increased number of individuals attending community events.	UPMC Hamot Primary Care Network patients	UPMC Hamot Primary Care Network; Local and regional specialty providers, Gannon University, Voices for Independence, legislative representatives, YMCA, Erie365, African American Concerned Clergy, Word of Faith Development Corporation, MHEDS, local businesses.

Priority Health Issue: Addressing Maternal and Infant Care

Maternal and infant health and prenatal care are important priorities UPMC Hamot's community: The well-being of mothers and infants affects the health, wellness, and quality of life of women, children, and families. Pregnancy can provide an opportunity to identify existing health risks in women, and the chance to prevent future health problems for women and their children.

UPMC Hamot is leveraging UPMC and community resources to address maternal and infant health: UPMC Hamot is addressing the risks of maternal and infant mortality and pregnancy-related complications through clinical programs delivered at Magee-Womens Hospital – UPMC Hamot Campus, the first facility of its kind in northwestern Pennsylvania, as well as through a strong suite of community programs that provide access to quality prenatal clinical care and education to the Erie community, including underserved populations. In addition, UPMC Hamot programs are complemented by UPMC Insurance Services' efforts in many clinical areas — including specific programs and provider-focused incentives — that encourage health plan members to have a healthy pregnancy, and support optimized maternal and infant health.

Maternal and Infant Health				
Program	**Intended Actions**	**Anticipated Impact** **Goal-Year 3**	**Target Population**	**Planned Collaborations**
Prenatal Care Access and Coordination of Care (especially targeting the refugee population) Efforts related to substance abuse and neonatal abstinence syndrome Safe Sleep Initiative	Hold quarterly prenatal classes at community locations Enroll 25 patients in navigation services in FY17, 30 in FY18, 40 in FY19 Educational materials translated into 5 languages Explore the need to expand these types of services to other vulnerable populations (e.g. women with disabilities) Collaboration with New Directions and Esper Treatment Center to develop care plan for patients prior to delivery Continue to provide education about safe sleep throughout the community (classes, health fairs, education materials)	Improved awareness about the importance of prenatal care in the refugee and immigrant population. Improved coordination of care for population with substance abuse problems. Improved efforts to promote safe sleeping in infants.	Refugee and immigrant populations Pregnant women who have a history of substance abuse Infants and their caregivers	Catholic Charities, Multicultural Community Resource Center, MHEDS (Multicultural Health Evaluation Delivery System), Erie Art Museum, Maternal and Child Health Task Force, New Directions Methadone Clinic, Esper Treatment Center, Safe Harbor Behavioral Health, Erie County Drug Task Force, Cribs for Kids

Priority Health Issue: Addressing End-of-Life Care

End-of-life care is an important priority in UPMC Hamot's community: Almost two-thirds of deaths in Erie County result from chronic disease. Nationally, many hospice patients have a primary diagnosis of cancer, dementia, or heart disease/stroke. The majority of individuals in hospice are age 65 and older, and more than one-third are age 85 and older. The number of individuals age 85 and older in Erie County has increased since 2000.

UPMC Hamot is leveraging UPMC and community resources to address End-of-Life Care: UPMC Hamot works with patients and their families to ensure that patients are kept as comfortable as possible at the end of their lives, and that symptoms of physical, spiritual, and psychosocial pain and suffering are decreased as much as possible. The hospital has programs in place to ensure that employees, patients, and their caregivers are equipped with the necessary knowledge and resources to make end-of-life decisions. UPMC Hamot programs are complemented by UPMC Insurance Services' efforts in many clinical areas, including end-of-life care for health plan members. In addition, programs strive to improve the management of illnesses, facilitate comprehensive care planning, and provide interdisciplinary team support.

End-of-Life Care				
Program	Intended Actions	Anticipated Impact Goal-Year 3	Target Population	Planned Collaborations
Community Awareness of End-of-Life Care Improve Utilization of End-of-Life Care	Continue to participate in programs educating the community about end of life care and concerns. Explore approaches to educate special needs population and their caregivers. Continue to support palliative care program, including engaging patients in Goals of Care conversation and palliative care consults.	Increased awareness of advanced directives, living wills, palliative and hospice care. Improved utilization of end-of-life care through evaluation of in-house hospice, growth of transitional care program.	Community, seriously ill patients and families/caregivers. Focus on special needs population, including caregivers.	Erie Home for Children and Adults, Barber National Institute, Autism Society of NWPA, GECAC, Erie County Care Management, Great Lakes Home Health and Hospice, UPMC Palliative and Supportive Institute, Payers, Physicians

Priority Health Issue: Addressing Behavioral Health

Behavioral health is an important priority in UPMC Hamot's community: Approximately 38 percent of adults in Erie 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 Hamot is leveraging UPMC and community resources to address behavioral health: Safe Harbor Behavioral Health of UPMC Hamot is a recognized leader in outpatient behavioral health services and will continue to work to expand array of behavioral health care services to meet the growing needs of its community. Efforts include expanding efforts to provide drug and alcohol treatment services and ways to provide crisis interventions, especially for adolescents. The hospital will also explore approaches to integrate behavioral health services in various settings — emergency department and primary care settings — and targeting different populations — such as post-partum women and pre- and post-bariatric surgery patients. In addition, UPMC Hamot programs are complemented by UPMC Insurance Services' efforts in many clinical areas, including community-based programming that screens health plan members for behavioral health conditions, refers them to treatment resources, and coordinates their care.

Behavioral Health				
Program	**Intended Actions**	**Anticipated Impact** <hr> **Goal-Year 3**	**Target Population**	**Planned Collaborations**
Access to a comprehensive array of behavioral health services especially focused on drug and alcohol Integration of behavioral health care services in other health care settings	Expand efforts to provide services, such as drug and alcohol treatment, including exploration of efforts to become a Behavioral Center of Excellence. Explore approaches to establish crisis residential services for adolescents. Explore approaches to enhance access to behavioral health care services in other settings, such as emergency department, post-partum, bariatric services, and primary care offices.	Improved behavioral health care services and coordination of care.	Community members in need of behavioral health services.	Erie County Dept of Human Services, PA DOH, Office of Mental Health and Substance Abuse, WCA, school districts, law enforcement, UPMC Hamot Emergency Department, Regional Health Services, Magee-Womens Hospital of UPMC, UPMC Hamot, Safe Harbor Behavioral Health

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

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

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

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

APPENDIX B: Detailed Community Health Needs Profile

Population Demographics

Characteristics	Erie County	Pennsylvania	United States
Area (sq miles)	799.15	44,742.70	3,531,905.43
Density (persons per square mile)	351.1	283.9	87.4
Total Population, 2010	280,566	12,702,379	308,745,538
Total Population, 2000	280,843	12,281,054	281,424,600
Population Change ('00-'10)	-277	421,325	27,320,938
Population % Change ('00-'10)	-0.1%	3.4%	9.7%
Age			
Median Age	38.6	40.1	37.2
%<18	22.7%	22.0%	24.0%
%18-44	35.5%	34.3%	36.5%
%45-64	27.4%	28.1%	26.4%
% >65+	14.6%	15.4%	13.0%
% >85+	2.4%	2.4%	1.8%
Gender			
% Male	49.2%	48.7%	49.2%
% Female	50.8%	51.3%	50.8%
Race/Ethnicity			
% White*	88.2%	81.9%	72.4%
% African-American*	7.2%	10.8%	12.6%
% American Indian and Alaska Native*	0.2%	0.2%	0.9%
% Asian*	1.1%	2.7%	4.8%
% Native Hawaiian/Other Pacific Islander*	0.0%	0.0%	0.2%
% Hispanic or Latino**	3.4%	5.7%	16.3%
Disability	15.6%	13.1%	11.9%

*Reported as single race; **Reported as any race
Source: US Census, 2010

Social and Economic Factors

Characteristics	Erie County	Pennsylvania	United States
Income, Median Household	$42,519	$49,288	$50,046
Home Value, Median	$117,500	$165,500	$179,900
% No High School Diploma*	9.8%	11.6%	14.4%
% Unemployed**	9.4%	9.6%	10.8%
% of People in Poverty	17.4%	13.4%	15.3%
% Elderly Living Alone	11.3%	11.4%	9.4%
% Female-headed households with own children <18	7.9%	6.5%	7.2%
Health Insurance			
% Uninsured	9.6	10.2	15.5
% Medicaid	16.9	13.1	14.4
% Medicare	10.5	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 Erie County
(rates per 100,000 population)

Causes of Death	Erie 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	24.9	24.3	23.5
Malignant Neoplasms	22.7	22.8	22.5
Chronic Lower Respiratory Diseases	5.8	5.2	5.7
Cerebrovascular Diseases	5.4	5.1	5.0
Unintentional Injuries	4.1	4.9	5.0
Alzheimer's Disease	3.1	2.8	3.3
Diabetes Mellitus	3.2	2.9	2.9
Influenza and Pneumonia	1.5	1.9	2.2
Nephritis, Nephrotic Syndrome and nephrosis	2.4	2.2	1.8
Intentional Self-Harm (Suicide)	1.2	1.3	1.6

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

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

Characteristics	Erie 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) (%)	38.0	35.0	NA	NA
Low Birthweight (% of live births)	8.4	8.1	8.0	7.8
Health Behaviors				
Obesity (Adult) (%)	32.0	30.0	29.4	30.5
Excessive Alcohol Use (%)	22.0	17.0	16.8	24.4
Current Tobacco Use (%)	27.0	21.0	19.0	12.0
STDs (Gonorrhea per 100,000)*	163.2	150.5	250.6	251.9
Clinical Care (%)				
Immunization: Ever had a Pneumonia Vaccination (65+) (%)	79.0	69.0	69.5	90.0
Cancer Screening				
Mammography (%)	67.0	60.0	74.0	81.1
Colorectal Screening (%)	62.0	69.0	67.3	70.5
Primary Care Physician: Population (PCP Physicians/100K Population)	78.8	82.0	75.8	NA
Receive Prenatal Care in First Trimester (%)	78.7	72.4	71.0	77.9

Sources:

Erie County Data: Erie County Department of Health, 2011-2013; Pennsylvania Department of Health 2010-2012; Health Resources and Services Administration (HRSA), 2014-2015

Pennsylvania Data: Pennsylvania Department of Health, 2012; Data from Behavioral Risk Factor Surveillance System, 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.

Stakeholder Input

UPMC Hamot'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 Hamot invited representatives from the following organizations to participate in the community needs survey conducted in June 2015:

- **AAA East Central, Pittsburgh, PA**
- **Adagio Health, Pittsburgh, PA**
- **Baldwin Brothers, Inc., Erie, PA**
- **Benedictine Sisters of Erie, Erie, PA**
- **BKD, LLP, Erie, PA**
- **Center for Hearing and Deaf Services, Pittsburgh, PA**
- **CMIT Solutions for Erie, Erie, PA**
- **Community Health Net, Erie, PA**
- **Edinboro University, Edinboro, PA**
- **Erie Bank, Erie, PA**
- **Erie Career Link, Erie, PA**
- **Erie Community Foundation, Erie, PA**
- **Erie County Health Department, Erie, PA**
- **Erie Insurance, Erie, PA**
- **Erie School District, Erie, PA**

- **Erie Together, Erie, PA**
- **Erie Voice, Erie, PA**
- **Family Services of NW PA, Sharon, PA**
- **Gannon University, College of Health Professions and Sciences, Erie, PA**
- **Greater Erie Community Action Committee, Erie, PA**
- **HERO Healthcare Resource Center, Erie, PA**
- **Inter-Church Ministries of Erie County, Erie, PA**
- **John F. Kennedy Center, Inc., Erie, PA**
- **Knox McLaughlin Gornall & Sennett, P.C., Erie, PA**
- **Lakeview Health, Erie, PA**
- **McCarthy, McDonald, Schulberg & Joy, Pittsburgh, PA**
- **Mercyhurst University, Institute of Public Health, Erie, PA**
- **MLK Center, Erie, PA**

- Multicultural Community Resource Center, Erie, PA

- Myers Trucking Company, Kane, PA

- Penn State Behrend, Erie, PA

- Primary Health Network, Erie, PA

- Scott Enterprises, Erie, PA

- Sisters of St. Joseph Neighborhood Network, Erie, PA

- Solenoid Solutions, Inc., Erie, PA

- Sustainable Lifestyle Group, Erie, PA

- U.S. Committee for Refugees and Immigrants, Erie, PA

- United Way of Erie County, Erie, PA

- Urban Erie Community Development Corporation, Erie, PA

- U.S. Court of Appeals, Third Circuit, Erie, PA

- Voices for Independence, Erie, PA

- Welders Supply Company, Erie, PA

- Word of Faith Development Corporation, Erie, PA

- Youth Leadership Institute of Erie, Erie, PA

The UPMC Hamot 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 Hamot, 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 Hamot:

UPMC Hamot 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 Hamot 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 Hamot community.

UPMC Hamot'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 healthcare and community resources (23)	Pediatrics and child health (33)	Depression (43)
Maternal and infant health (4)	End-of-life care (14)	Preventive Screenings (cancer, diabetes, etc) (24)	Sexual health including pregnancy and STD prevention (34)	Support for families/caregivers (44)
Alcohol abuse (5)	Asthma (15)	Heart Disease (25)	Dementia and Alzheimer's (35)	Health insurance: understanding benefits and coverage options (45)
Adult obesity (6)	Prenatal care (16)	Primary Care (26)	Chronic Obstructive Pulmonary Disease (COPD) (36)	Preventive health/wellness (46)
Drug abuse (7)	Dental care (17)	Childhood obesity (27)	Stroke (37)	Injuries including crashes and sports related, etc (47)
Access to specialist physicians (8)	Financial access: understanding options (18)	Intentional injuries including violence and abuse (28)	Post-discharge coordination and follow-up (38)	Childhood developmental delays including Autism (48)
Behavioral health /mental health (9)	High cholesterol (19)	Cancer (29)	Arthritis (39)	Eye and vision care (49)
Geographic access to care (10)	Care coordination and continuity (20)	Social support for aging and elderly (30)	Senior health and caring for aging population (40)	Environmental health (50)

Sorting and Rating – Prioritizing Health Needs:

The UPMC Hamot Community Advisory Council completed the sorting and rating activities either in person or 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:
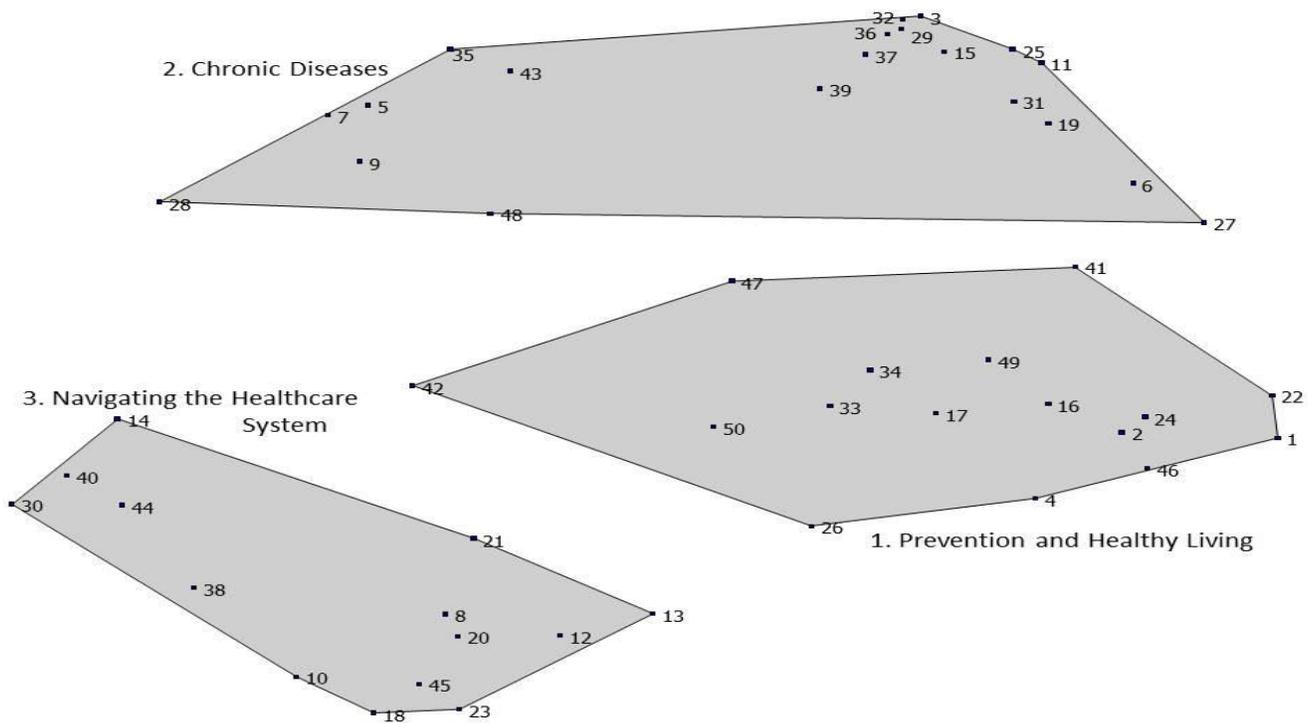
For each of the rating criteria, the rating levels were broken into three equal distributions (tertiles) representing high, moderate, and low priority. The cut points for each rating criteria are as follows:

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 Hamot. Leadership from UPMC Hamot 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.