

Magee-Womens Hospital of UPMC



Community Health Needs Assessment *And* Community Health Strategic Plan

June 30, 2016

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EXECUTIVE SUMMARY

Magee-Womens Hospital of UPMC is a nonprofit, 383-bed acute-care womens teaching hospital located in Pittsburgh, Pennsylvania that serves both men and women. Situated in Oakland, a Pittsburgh, Pennsylvania neighborhood in Allegheny County, the state-of-the-art hospital is one of the nation's top ten hospitals specializing in gynecology care, and is a Bariatric Center of Excellence. More than half of all babies born in Allegheny County over the past year were delivered at Magee-Womens Hospital of UPMC.

Magee-Womens Hospital of UPMC maintains a historically strong connection with its community, and offers an array of community-oriented programs and services to improve the health of local residents. One notable example is the *Girls on the Run* program, which is dedicated to promoting good choices for a lifetime of self-respect and healthy living for girls through a series of classes. These classes utilize warm-ups and workouts to encourage emotional, social, mental, spiritual, and physical well-being.

Magee-Womens Hospital of UPMC in the Community

***One of the nation's top-ten hospitals
specializing in gynecology care***

***More than half of all babies born each
year in Allegheny County are delivered at
Magee-Womens Hospital of UPMC.***

Bariatric Center of Excellence



Magee-Womens Hospital 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, Magee-Womens Hospital of UPMC 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.

Magee-Womens Hospital of UPMC

Addressing the Community's Significant Health Needs:

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

- **Obesity**
- **Nutrition and Healthy Eating**

Three years later, when the Fiscal Year 2016 CHNA was conducted, Magee-Womens Hospital of UPMC affirmed the Fiscal Year 2013 significant health needs and added Maternal and Infant Health:

- **Obesity**
- **Nutrition and Healthy Eating**
- **Maternal and Infant Health**

On April 18, 2016, the Magee-Womens Hospital of UPMC 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
Obesity	Nearly two-thirds of Allegheny County residents are overweight or obese. Obesity, a precursor to many chronic diseases, is a health issue that cuts across all populations, in all stages of life.
Nutrition and Healthy Eating	
Maternal and Infant Health	The well-being of mothers and infants is important for a healthy community. Breastfeeding rates in Allegheny County are lower, compared to the state and benchmark.

Collective Impact Across Western Pennsylvania:

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

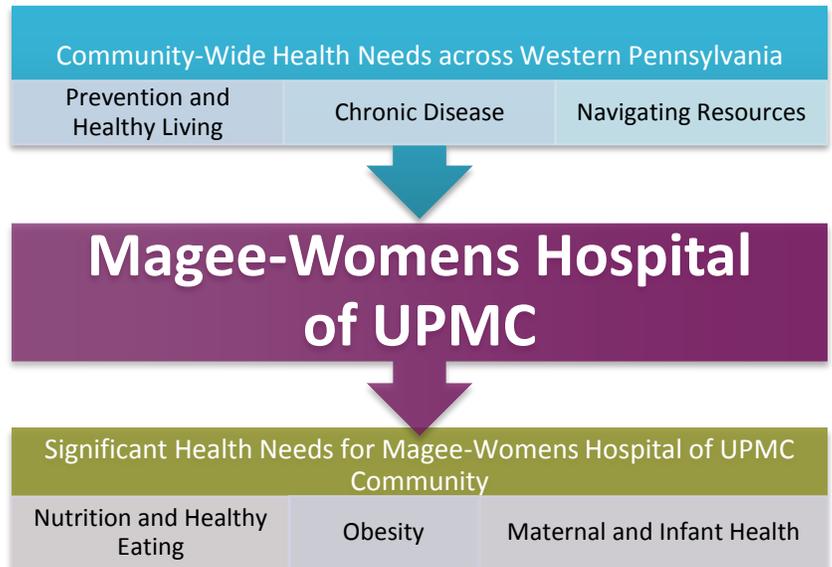
Magee-Womens Hospital of UPMC

- **Navigating Available Resources:**

Established health care programs in Magee-Womens Hospital of UPMC's community are often untapped due, in part, to social and logistical challenges faced among populations and individuals lacking social support systems.

- **Community Partnerships:**

Magee-Womens Hospital of UPMC is collaborating successfully with local organizations on improving community health. The hospital will also leverage resources and synergies within the UPMC system, which include population-focused health insurance products and comprehensive programs and resources targeted at areas including seniors and children.



PROGRESS REPORT 2013-2016: OBESITY, NUTRITION, AND HEALTHY EATING

GOAL: Magee-Womens Hospital of UPMC is increasing awareness of obesity prevention, nutrition, and healthy eating.

STRATEGY:

The hospital takes a comprehensive approach to educating community members about nutrition and healthy eating, with the goal of reducing obesity.

To achieve this goal, the hospital is targeting pregnant women and families, low-income individuals, individuals with chronic disease, and employees and health care providers. The hospital has tailored specific programs to reduce obesity and to promote healthy lifestyles in Allegheny County. The hospital's recent efforts include:

- » Offering education programs that target pregnant women, and in particular, low-income expectant mothers
- » Emphasizing the importance of nutrition to the health and recovery of cancer patients
- » Promoting programs that encourage girls to be healthy and confident
- » Offering a range of programs to support weight loss among obese individuals
- » Leading by example and empowering employees to make healthy choices

PROGRESS:

Magee-Womens Hospital of UPMC is making a measurable impact in the community.

Breastfeeding initiation rate increased to 80 percent

The hospital's efforts to educate pregnant women and new mothers about the health benefits of breastfeeding have yielded positive results. The breastfeeding initiation rate increased from 70 percent in 2013 to 80 percent in 2015, helping to reduce obesity. To support breastfeeding initiatives, the hospital continues to train more staff as certified breastfeeding counselors, growing the number of one-on-one lactation consultations. In addition, Magee-Womens Hospital of UPMC is promoting breastfeeding at UPMC's seven other hospitals with birthing centers, while working with Pennsylvania's Keystone 10 Initiative.

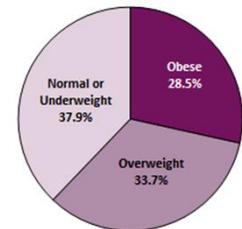
In addition, the hospital's prenatal group program promotes healthy behaviors and breastfeeding among low-income expectant mothers through outpatient clinics located in underserved areas.

Emphasizing nutrition for cancer patients

Nutrition is critical to the health and recovery of cancer patients. Magee-Womens Hospital of UPMC offers numerous ways to promote nutrition among individuals with cancer, including: a partnership with the Pittsburgh Steelers to provide cooking demonstrations; one-on-one nutrition consultations; and a dietitian hotline. Dietician-led nutrition counseling programs have received high satisfaction ratings among patients, and helped reduce readmissions in gynecology oncology patients from 18 percent in 2012 to 12.5 percent in 2015.

Community Need

Obesity is a significant health concern in Allegheny County.



(Source: Allegheny County Health Survey, 2009-2010)



Supporting 1,483 community members as they adopt healthier habits and lose weight

Magee-Womens Hospital of UPMC offers a wide range of programs to support weight loss. They include:

Body Changers

This program, which has grown to include 1,208 participants, provides a social support system that encourages a healthy lifestyle. A unique aspect of the Body Changers program is the PrepAbility class, where once a month, a registered dietician helps participants prep a week's worth of nutritional meals.

Bariatric Lifestyle Program

This program is geared toward individuals who are considering weight loss surgery, and focuses on having a healthy lifestyle—through nutritional assessments and goal setting—in place before the procedure. To date, a total of 275 people have participated in the program.

Encouraging more than 1,400 girls to be healthy and confident

As a host of the *Girls on the Run* program, Magee-Womens Hospital of UPMC impacts the lives of more than 1,400 girls. The program encourages girls to be healthy and gain confidence through exercise, and champions the unlimited potential of young women. By completing a 5K race, participants achieve a sense of accomplishment, and experience setting and reaching goals.

Leading by example

The hospital proudly demonstrates how to incorporate organically grown fruits and vegetables into a healthy diet.

Growing fresh fruits and vegetables

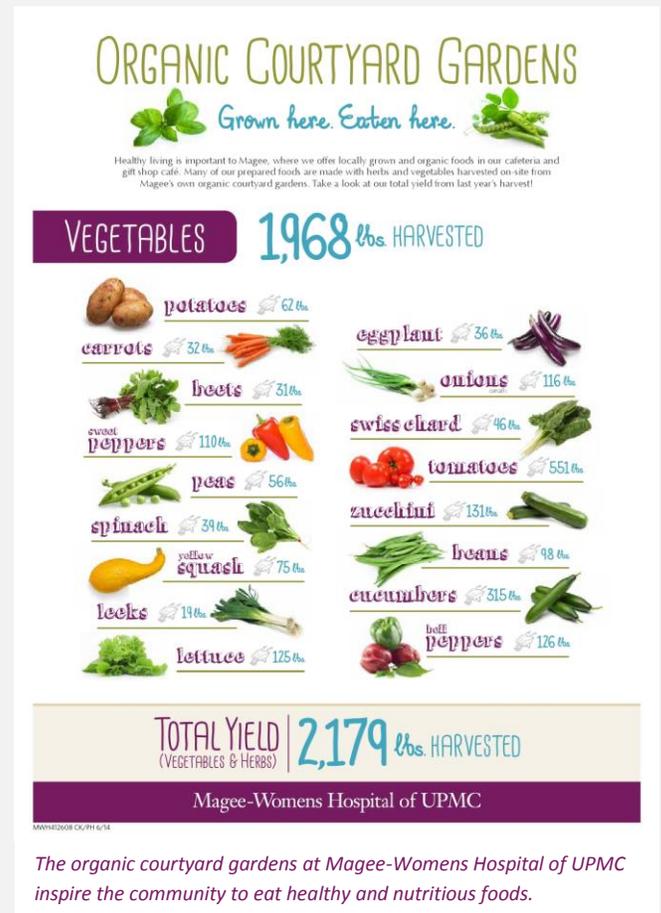
In 2015, the organic courtyard gardens at Magee-Womens Hospital of UPMC were recognized with the “*Garden of Distinction*” award from the Pennsylvania Horticultural Society. More than 2,000 pounds of vegetables and herbs were harvested from the gardens this past year, some of which were incorporated into patient and staff meals. The hospital also hosted 15 Farmers’ Markets, attracting approximately 150 guests per week.

Teaching health care providers about healthy foods

The hospital hosted more than 150 health care providers at an *Environmental Literacy Symposium*, teaching them about healthy foods, food systems, and sustainability.

Sharing healthy tips with the community

The hospital supports several community events: *Go Red for Women*, *Women’s Health Expo*, and the *Heart Walk*. Hospital employees staffed tables at these events, providing more than 2,900 attendees with information on healthy lifestyles.



COMMUNITY HEALTH NEEDS ASSESSMENT (CHNA) REPORT

I. Objectives of a Community Health Needs Assessment

CHNA Goals and Purpose:

In Fiscal Year 2016, Magee-Womens Hospital of UPMC 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.

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

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

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

Magee-Womens Hospital of UPMC

Description of Magee-Womens Hospital of UPMC:

Magee-Womens Hospital of UPMC is a nonprofit, 383-bed acute care specialty womens hospital located in Allegheny County, Pennsylvania. It offers a full range of quality medical services to both women and men in the Pittsburgh region. The hospital provides area residents with access to medical, surgical, and behavioral health care, as well as cutting-edge medical services. In addition to being one of the nation's top ten hospitals specializing in women and the leading hospital in Pittsburgh for gynecological care, Magee-Womens Hospital of UPMC is also a Bariatric Center of Excellence and offers other specialized services such as CT imaging, digital mammography, minimally invasive and robotic assisted

surgery, and an on-site UPMC CancerCenter. During the Fiscal Year ended June 30, 2015, Magee-Womens Hospital of UPMC had a total of 22,990 admissions and observations, 23,519 emergency room visits, and 15,883 surgeries.

Magee-Womens Hospital of UPMC is a teaching hospital, with residency and fellowship programs in family practice, internal medicine, and many specialty areas. 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. The hospital's reach extends across western Pennsylvania through specific ties with UPMC's network of hospitals, as well as with a wide range of local UPMC health care providers, clinics, and community outreach organizations.

VITAL STATISTICS		JOBS AND STRENGTHENING THE LOCAL ECONOMY	
Fiscal Year 2015			
Licensed Beds	383	Magee-Womens Hospital of UPMC Employees	2,399
Hospital Patients	22,990	Community Benefits Contributions	\$57 million
Emergency Dept. Visits	23,519	Free and Reduced Cost Care	\$28 million
Total Surgeries	15,883	\$1 billion	
Affiliated Physicians	1,368	Total Economic Impact of Hospital Operations	
Babies Born	10,363		

II. Definition of the Magee-Womens Hospital of UPMC Community

For the purpose of this CHNA, the Magee-Womens Hospital of UPMC community is defined as Allegheny County. With 66 percent of patients treated at Magee-Womens Hospital of UPMC residing in Allegheny County, the hospital primarily serves residents of this geographic region. By concentrating on the county, Magee-Womens Hospital of UPMC 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 Magee-Womens Hospital of UPMC Live in Allegheny County

County	Magee-Womens Hospital of UPMC %	Medical Surgical Discharges
Allegheny County	66.0%	14,103
All Other Regions	34.0%	7,265
Total Hospital Discharges	100%	21,368

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

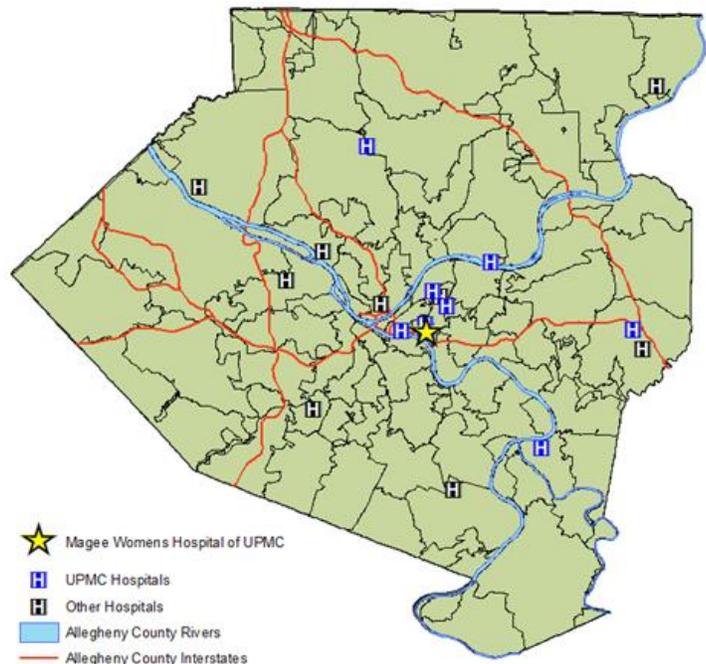
The hospital is situated centrally in the county, in the Oakland neighborhood of the City of Pittsburgh. While the county represents the basic geographic definition of Magee-Womens Hospital of UPMC’s community, this CHNA also considered the seven county Pittsburgh Metropolitan Statistical Area, as well as specific populations within the defined community — such as minorities, low-income individuals, and those with distinct health needs.

Existing Healthcare Resources in the Area:

Magee-Womens Hospital of UPMC is one of eight UPMC licensed hospitals and 16 total hospitals in Allegheny County. Magee-Womens Hospital of UPMC is the primary source of specialty care for women in Allegheny County as well as surrounding counties.

Additionally, Magee-Womens Hospital of UPMC 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.

Hospitals in Allegheny County



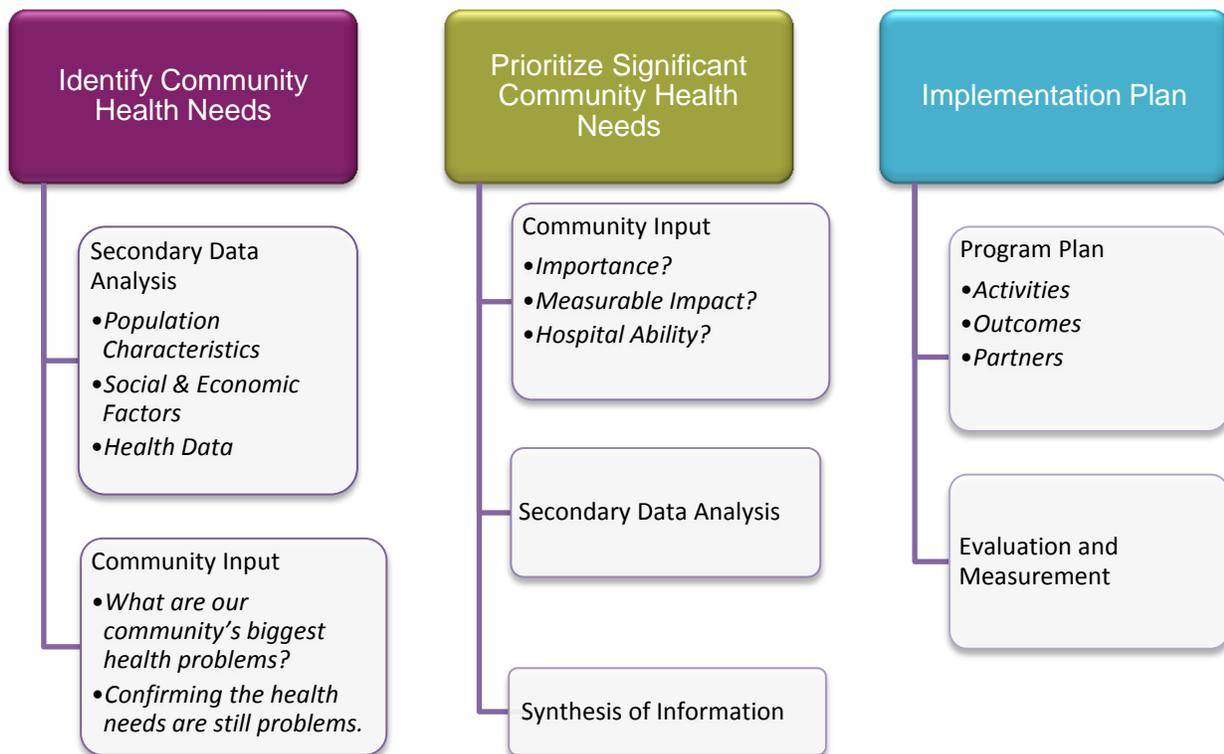
III. Methods Used to Conduct the Community Health Needs Assessment

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.



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		
	Asthma (Childhood)		
	Birth Outcomes		
Health Behaviors Data	Obesity (Childhood and Adult)	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.
	Alcohol Use		
	Tobacco Use		
	Sexually Transmitted Disease		
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)		
	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:

In 2010, Allegheny County had a total population of 1,223,348 and a population density of 1,675.6 people per square mile. Women comprised about 52 percent of the total population. Other characteristics of this population in Allegheny County include:

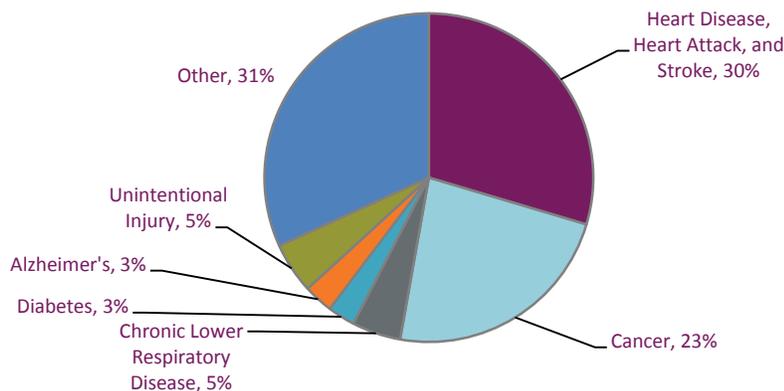
- **Women were slightly older than men. Compared to men, women’s median age was slightly higher and a higher percentage were 65+ or 85+ (see table below).**
- **Over one-third of women were of childbearing age (between 15-44 years of age).**

Age Distribution of Allegheny County Population, By Gender - 2010			
	Women	Men	Total
Median Age	43.3	39.3	41.3
% <15	15.1%	17.1%	16.1%
% 15-44	37.1%	40.2%	38.6%
% 45-64	28.5%	28.6%	28.6%
% 65+	19.3%	14.0%	16.8%
% 65-74	8.4%	7.2%	7.8%
% 75-84	7.0%	5.0%	6.1%
% 85+	3.8%	1.8%	2.9%

Source: U.S. Census, 2010

Chronic Disease and Mortality:

Nearly two-thirds of deaths in Allegheny County are attributable to chronic disease. One of the major risk factors for chronic disease is obesity.



Source: Pennsylvania Department of Health, 2012

Significant Health Needs for Magee-Womens Hospital of UPMC's Community:

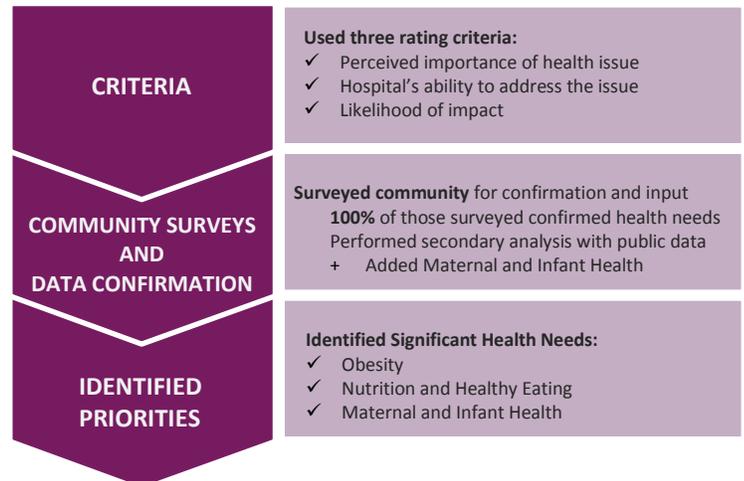
Concept Mapping input was deployed across all UPMC hospital communities within western Pennsylvania and yielded three overarching themes to contextualize the health care needs of the community:

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

For Magee-Womens Hospital of UPMC'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:

- **Obesity**
- **Nutrition and Healthy Eating**
- **Maternal and Infant Health**

Prioritizing Community Health Needs

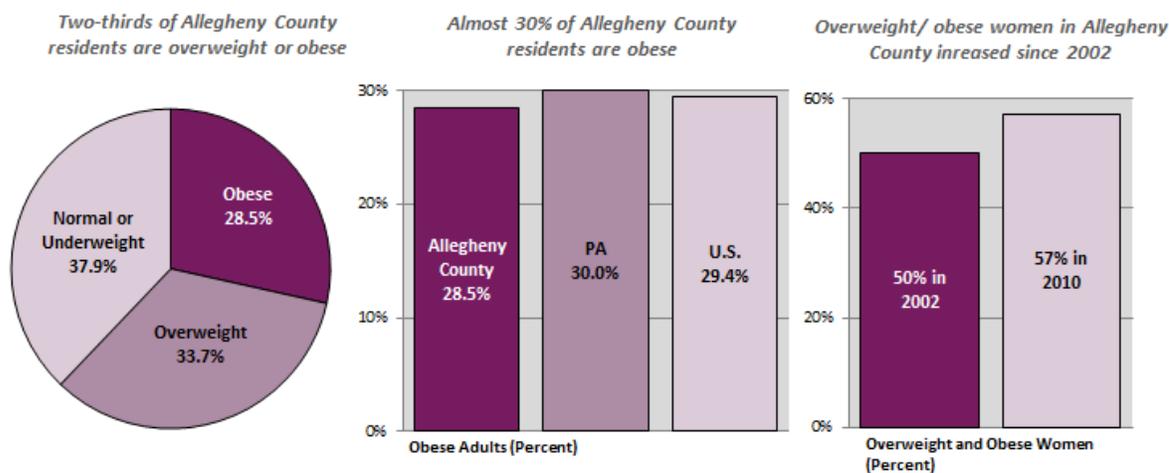


Magee-Womens Hospital of UPMC Significant Health Needs:

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

Obesity and Nutrition and Healthy Eating – Importance to the Community:

- Nearly two-thirds of the Allegheny County population is overweight or obese, and almost 30 percent of the population is obese with a BMI of 30+.
- In 2009-2010, almost 60 percent of women in Allegheny County were overweight or obese.
- Obesity is an underlying factor associated with many chronic diseases, which account for almost two-thirds of all deaths in Allegheny County.



Sources: Allegheny County Health Survey 2009-2010; Pennsylvania Department of Health 2012; Healthy People 2020; U.S. Centers for Disease Control and Prevention, 2013

The prevalence of obesity is high: Obesity (body mass index >30) is a prevalent, costly condition in the United States, and an underlying risk factor for many chronic diseases, including diabetes, heart disease, stroke, and cancer. This is of relevance to Allegheny County and the Pittsburgh region where almost 30 percent of residents are obese, and two-thirds of deaths are due to chronic disease.

For women, overweight or obese data trends showed an increase: For women in Allegheny County, being overweight or obese showed a significant increase: 50 percent of women were overweight or obese in 2002, and 57 percent in 2009-2010.

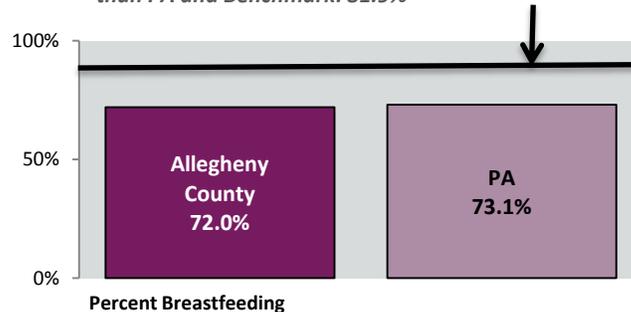
Obesity prevalence is higher in some medically underserved populations, such as low-income individuals and underserved minorities, than others: Certain sub-populations are disproportionately affected by obesity in Allegheny County. Higher percentages of those aged 45-64 (34 percent), those with less than a high school education (32 percent), those with low income (less than \$15,000) (35 percent), and African-Americans (40 percent) were obese. For women specifically, similar patterns were observed, although African-American women reported higher obesity (44 percent).

Obesity is a preventable condition: Obesity is a complex condition that can be influenced by healthy eating and physical activity. A comprehensive and integrated approach is needed to curtail the obesity epidemic both locally and nationally. Thus, providing education and interventions that target particular groups (child-bearing women, pregnant women, those affected by chronic disease, families) and utilize health care providers as advocates for improving healthy eating are approaches that Magee-Womens Hospital of UPMC is already doing but can enhance in the future.

Maternal and Infant Health – Importance to the Community:

- The well-being of mothers and infants is important for a healthy community.
- Breastfeeding has health and economic benefits conferred to both infant and mother.
- In addition, providing healthy lifestyle education both prenatally and postnatally can help improve birth outcomes.

There is an opportunity to increase breastfeeding rates in Allegheny County where rates are lower than PA and Benchmark: 81.9%



Sources: Allegheny County Health Survey 2009-2010; Pennsylvania Department of Health 2012; Healthy People 2020; U.S. Centers for Disease Control and Prevention, 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. Nearly 13,000 infants were born in Allegheny County in 2012.

Promoting healthy behaviors, such as breastfeeding, during and after pregnancy: Promoting healthy behaviors during and after pregnancy is an opportune time to engage mothers-to-be and families to improve health for themselves and also for their babies. Breastfeeding, for example, is a healthy behavior that confers benefits to both mother and infants. Studies have shown that breastfed infants develop immunity against ear infections and pneumonia and have a reduced risk for chronic diseases, such as asthma and obesity. Also, mothers who breastfeed have a lower risk for breast and ovarian cancers. Breastfeeding rates are slightly lower in Allegheny County (72 percent) compared to Pennsylvania (73 percent). Younger women (ages 15-24) were less likely to breastfeed (56 percent) compared to women ages 25-44 (77 percent). In addition, other behaviors to promote healthy birth outcomes include starting prenatal care early during pregnancy (e.g. first trimester) and not smoking during pregnancy.

V. Overview of the Implementation Plan

Overview:

Magee-Womens Hospital of UPMC 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 April 18, 2016 the Magee-Womens Hospital of UPMC Board of Directors adopted an implementation plan to address the identified significant health needs:

- **Obesity and Nutrition and Healthy Eating**
- **Maternal and Infant Health**

High-Level Overview of the Magee-Womens Hospital of UPMC Implementation Plan

Topic	Programs	Anticipated Impact Goal-Year 3	Planned Collaborations
Obesity and Nutrition and Healthy Eating	Targeted obesity programs focusing on different populations, including pregnant women, young girls, international population, cancer patients, morbidly obese, employees, and wider community.	Increase awareness of obesity prevention through promotion of healthier eating and physical activity.	Bhutanese Community Association of Pittsburgh, UPMC Heart & Vascular Institute, Lifespan Senior Resource Center, Magee-Womens Hospital of UPMC (Dietary Services, Bariatrics, Green Team, UPP, Gynecologic Oncology, Nursing Services, Internal Medicine), Pittsburgh Steelers/NFL, UPP Plastic Surgery, UPMC Cancer Center, University of Pittsburgh School of Health and Rehabilitation Sciences, University of Pittsburgh Health and Physical Activity Department, UPMC Fitness Center, University of Pittsburgh Health and Fitness Center, Phipps Conservatory and Botanical Gardens, Freedom Farms, Paragon Foods, Health Care Concierge at MyHealth, KDKA Channel 2, American Heart Association, UPMC Health Plan
Maternal and Infant Health	Breastfeeding Initiatives/Keystone 10 Prenatal and Postnatal education, including classes Centering Pregnancy ELECT Teen Parenting Program Pregnancy Recovery Center	Increase breastfeeding rates and improve healthy lifestyle behaviors during pregnancy. Work collaboratively with other organizations to address adverse birth outcomes.	La Leche League, Propel Schools, UPMC Health Plan, UPMC fourth year medical students, Robert Morris University, Allegheny County Health Department, Shadyside Hospital School of Nursing, St. Margaret's School of Nursing, Carlow University School of Nursing, Pennsylvania Department of Health, PA Chapter of American Academy of Pediatrics, Magee-Womens Hospital of UPMC OPC, IT Dept., OB Physicians, PAs and Nurses, Birth Circle of Pittsburgh (Community Doulas), Pittsburgh Public Schools

The Magee-Womens Hospital of UPMC 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 Obesity and Nutrition and Healthy Eating

Obesity is an important priority in Magee-Womens Hospital of UPMC’s community: Obesity is an important health concern and is a risk factor for many chronic diseases, such as heart disease and stroke. About 57 percent of Allegheny County women are overweight or obese, and 62 percent of the total population is overweight or obese.

Magee-Womens Hospital of UPMC is leveraging UPMC and community resources to address obesity, including nutrition and healthy eating: As the area’s only womens hospital, Magee-Womens Hospital of UPMC plays a significant role in the health and wellness of women in the western Pennsylvania region. Applying a targeted approach to the lives that Magee-Womens Hospital of UPMC touches—from international populations, cancer patients, morbidly obese, employees, and the wider community—Magee-Womens Hospital of UPMC is taking an effective approach to addressing obesity in the community. Magee-Womens Hospital of UPMC programs are complemented by UPMC Insurance Services’ efforts that encourage preventive care and provide support through lifestyle coaching. The following implementation plan provides a population-based approach to addressing improvements in obesity, diet, and nutrition for community residents. It also leverages the hospital’s unique role as a provider of health care for women in all stages of life.

Obesity and Nutrition and Healthy Eating				
Program	Intended Actions	Anticipated Impact Goal-Year 3	Target Population	Planned Collaborations
Targeted obesity programs focusing on different populations	Enhance efforts to promote healthier nutrition in specific populations, such as patients with cancer and morbidly obese. Support efforts to promote obesity prevention throughout the community, including engaging young girls to be physically active and educating the immigrant population. Continue to support Magee Organic Garden and use this as vehicle to promote sustainable healthier eating throughout the community.	Increase awareness of obesity prevention through promotion of healthier eating and physical activity.	Targeted efforts focusing on different populations, including pregnant women, young girls, international population, cancer patients, morbidly obese, employees, and wider community	Bhutanese Community Association of Pittsburgh, UPMC Heart & Vascular Institute, Lifespan Senior Resource Center, Magee-Womens Hospital of UPMC (Dietary Services, Bariatrics, Green Team, UPP, Gynecologic Oncology, Nursing Services, Internal Medicine), Pittsburgh Steelers/NFL, UPP Plastic Surgery, UPMC Cancer Center, University of Pittsburgh School of Health and Rehabilitation Sciences, University of Pittsburgh Health and Physical Activity Department, UPMC Fitness Center, University of Pittsburgh Health and Fitness Center, Phipps Conservatory and Botanical Gardens, Freedom Farms, Paragon Foods, Health Care Concierge at MyHealth, KDKA Channel 2, American Heart Association, UPMC Health Plan

Priority Health Issue: Addressing Maternal and Infant Health

Maternal and Infant Health is an important priority in Magee-Womens Hospital of UPMC’s community: Magee-Womens Hospital of UPMC delivers more than 50 percent of babies born in Allegheny County, and correspondingly plays a large role in the health and well-being of pregnant women and childbearing families. Improving maternal and infant health not only helps improve the health of infants, and the next generation, but it also provides an opportunity to improve the health of women, their partners, and families. Approaches to improving maternal and infant health include encouraging breastfeeding, increasing first trimester prenatal care visits, and educating about healthy lifestyle behaviors (such as not smoking, eating healthier, and physical activity) prenatally and after pregnancy.

Magee-Womens Hospital of UPMC is leveraging UPMC and community resources to address maternal and infant health: Magee-Womens Hospital of UPMC is employing several strategies to improve maternal and infant health. Efforts include offering of breastfeeding classes, increasing the number of trained breast counselors who can help provide one-on-one support, and taking the lead to encourage breastfeeding across other UPMC hospitals. Magee-Womens Hospital of UPMC also offers prenatal education to improve healthy behaviors before and after pregnancy, targeting hard-to-reach populations, such as teen girls and those with low incomes. Magee-Womens Hospital of UPMC continues to collaborate with other community organizations, such as the Allegheny County Health Department, to work collectively in addressing adverse birth outcomes. In addition, Magee-Womens Hospital of UPMC programs are complemented by UPMC Insurance Services’ efforts in many clinical areas, including efforts designed to optimize maternal and infant health. These initiatives encourage every member to have a healthy pregnancy through clinical care coordination, education, and preventive care.

Maternal and Infant Health				
Programs	Intended Actions	Anticipated Impact Goal-Year 3	Target Population	Planned Collaborations
Breastfeeding Initiatives/Keystone 10 Prenatal and Postpartum Classes, including educational emails to pregnant women Centering Pregnancy ELECT Teen Parenting Program Pregnancy Recovery Center	Educate pregnant women about healthy lifestyle behaviors prenatally Promoting breastfeeding at Magee-Womens Hospital of UPMC	Increased breastfeeding rates Improve healthy lifestyle behaviors during pregnancy	Pregnant women, including low-income women and teenage women.	La Leche League, Propel Schools, UPMC Health Plan, UPMC fourth year medical students, Robert Morris University, Allegheny County Health Department, Shadyside Hospital School of Nursing, St. Margaret’s School of Nursing, Carlow University School of Nursing, Pennsylvania Department of Health, PA Chapter of American Academy of Pediatrics, Magee-Womens Hospital of UPMC OPC, IT Dept., OB Physicians, PAs and Nurses, Birth Circle of Pittsburgh (Community Doulas), Pittsburgh Public Schools

Outcomes and Evaluation of Hospital Implementation Plans:

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

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

- **Process Outcomes (directly relating to hospital/partner delivery of services):**
Process outcomes indicate efforts hospitals and community partners can undertake to increase delivery of a service designed to change a health impact indicator. These mostly involve increases (or better targeting) in programming, outreach, publicity, or related efforts. Process outcomes can be measured by increases in investment (dollars or personnel), outreach (media messages, public service announcements), service units delivered (classes, screenings), people attending or completing programs, and number of sites for delivery of programs.
- **Health Impact Outcomes (applies to changes in population health for which the hospital's efforts are only indirectly responsible):**
Health impact outcomes are changes in population health related to a broad array of factors of which hospital and community partner efforts are only one contributing part. These outcomes include reductions in the prevalence of disease, risk factors, and health behaviors associated with disease. Benchmarks for progress in population indicators are available from *Healthy People 2020* and Robert Wood Johnson Foundation county health rankings.

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

Magee-Womens Hospital of UPMC

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

Magee-Womens Hospital of UPMC

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 \geq 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 Vaccination, 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 on-line 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

Magee-Womens Hospital of UPMC'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

Magee-Womens Hospital of UPMC invited representatives from the following organizations to participate in the community needs survey conducted in June 2015:

- **Adagio Health Care, Pittsburgh, PA**
- **AlphaGraphics, Pittsburgh, PA**
- **BDO, Pittsburgh, PA**
- **Community College of Allegheny County, Pittsburgh, PA**
- **Federated Investors, Pittsburgh, PA**
- **Magee-Womens Hospital Foundation, Pittsburgh, PA**
- **McCarthy, McDonald, Schulberg and Joy, Pittsburgh, PA**
- **MEDRAD, Inc. – Bayer Healthcare, Pittsburgh, PA**
- **Michael Baker International, Pittsburgh, PA**
- **Phipps Conservatory, Pittsburgh, PA**
- **Pietragallo, Gordon, Alfano, Bosick and Raspanti, LLP, Pittsburgh, PA**
- **Shady Lane, Pittsburgh, PA**
- **Susan G. Komen Race for the Cure, Pittsburgh Affiliate, Pittsburgh, PA**
- **U.S. District Court, Judge, Pittsburgh, PA**
- **WellWoman Media, Pittsburgh, PA**
- **Westinghouse Electric Company, LLC, Pittsburgh, PA**

The Magee-Womens Hospital of UPMC community survey was also supported by members of the hospital's Board of Directors and physicians, as well as hospital leadership.

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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**
- **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., Wilkensburg, PA**
- **iGate Corporation, Pittsburgh, PA**
- **Imani Christian Academy, 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**
- **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**

Magee-Womens Hospital of UPMC

- 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 Wyrning 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:

Magee-Womens Hospital of UPMC, with consultation and support from Pitt Public Health, utilized a research method known as concept mapping to develop a better understanding of perceived health problems for 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 Magee-Womens Hospital of UPMC:

Magee-Womens Hospital of UPMC established a community advisory council. Participants contributed through face-to-face meetings and online input.

The concept mapping research method consisted of two stages:

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

Brainstorming - Identifying Health Needs:

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

Council members first brainstormed independently and then shared their 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 Magee-Womens Hospital of UPMC community.

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

Magee-Womens Hospital of UPMC

Final Master List of 50 Community Health Problems

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

Importance:

How important is the problem to our community?

(1 = not important; 5 = most important)

Measurable Impact:

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

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

Hospital Ability to Address:

Does the hospital have the ability to address this problem?

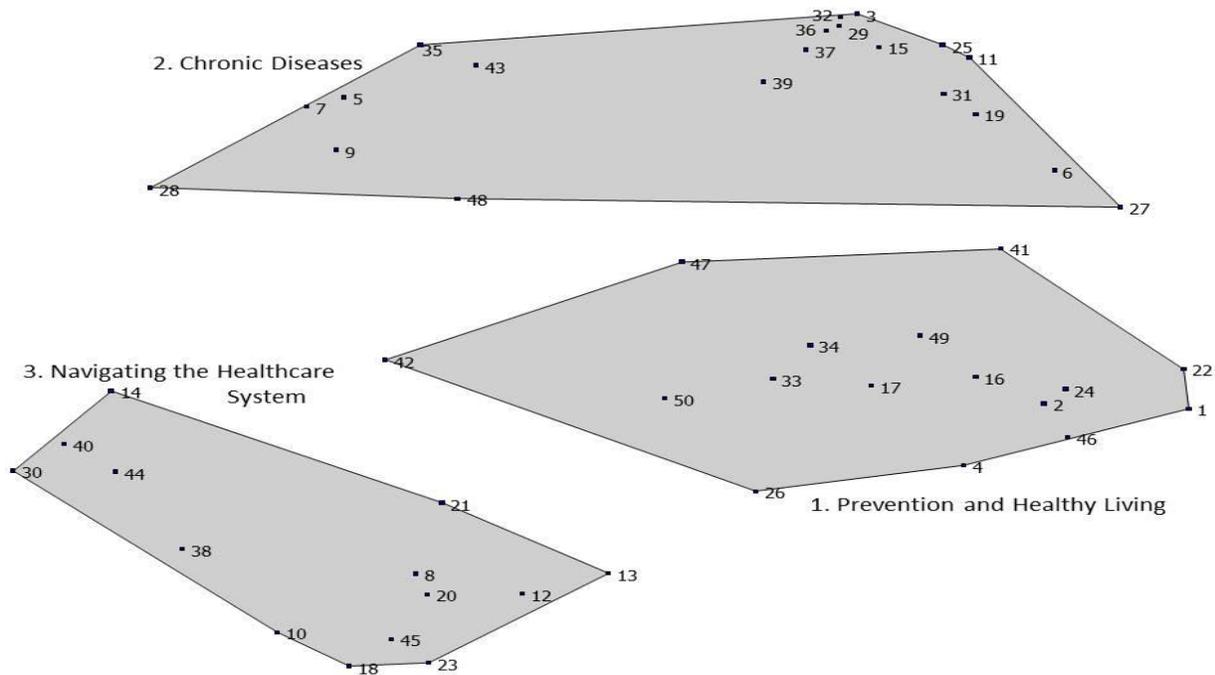
(1 = no ability; 5 = great ability)

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

- **Prevention and Healthy Living (16 items)**
- **Chronic Diseases (20 items)**
- **Navigating the Health Care 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 Magee-Womens Hospital of UPMC. Magee-Womens Hospital of UPMC 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.