UPMC
LIFE CHANGING MEDICINE

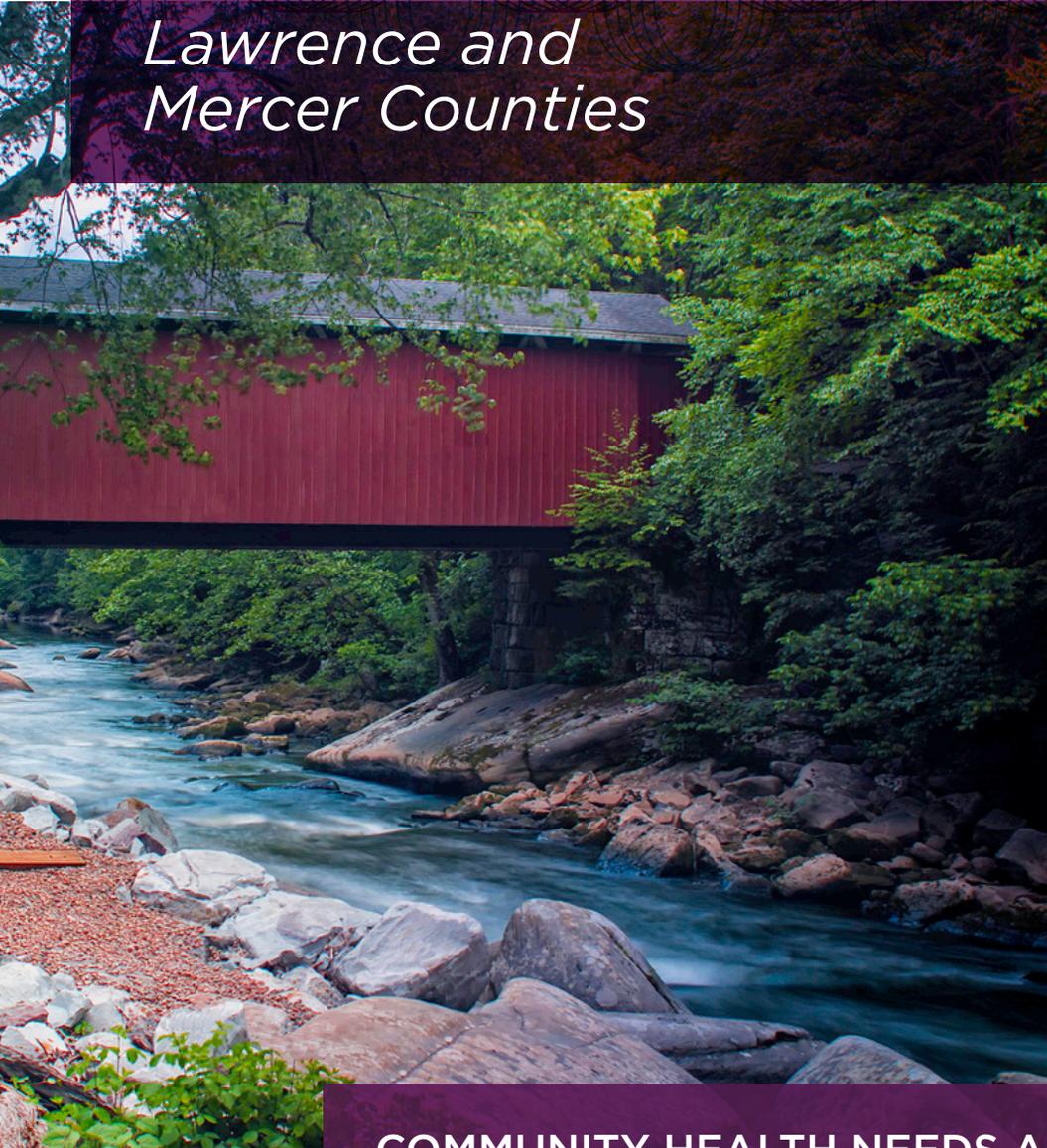UPMC | HORIZON

UPMC | JAMESON

Community Health Needs Assessment
Community Health Strategic Plan
Lawrence and Mercer Counties

June 30, 2019

Enhancing the Health of Our Communities

Lawrence and Mercer Counties

UPMC
LIFE CHANGING MEDICINE

COMMUNITY HEALTH NEEDS ASSESSMENT
UPDATE COVERING

UPMC HORIZON　　　　　　　　**UPMC JAMESON**

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2016-2019 REGIONAL PROGRESS REPORT

UPMC is committed to supporting the health of Lawrence and Mercer counties. By adapting and regionalizing health care services, UPMC Horizon and UPMC Jameson are reshaping health care delivery to produce stronger health outcomes in their communities.

CLOSE-TO-HOME ACCESS TO CUTTING-EDGE RESOURCES

By working together, UPMC Horizon and UPMC Jameson are continuing to expand access to specialty health care in Lawrence and Mercer counties. With combined resources, the hospitals are successful in increasing services, improving facilities, upgrading technology, and recruiting physicians.

- **Heart and Vascular Institute:** Offers comprehensive cardiovascular services from advanced diagnostic testing to infusion services. In one location, patients can access the Heart and Vascular Institute at UPMC Jameson, the UPMC Esophageal and Lung Surgery Institute at UPMC Jameson, a state-of-the-art cardiac catherization lab, and centralized registration, imaging, and diagnostics.

- **The Birthplace at UPMC Horizon:** Provides patients access to an obstetrician-gynecologist, neonatal nurse practitioners, and an anesthesiologist, who are in-house 24 hours a day, seven days a week, as well as a Level II neonatal nursery.

- **UPMC Jameson Minimally Invasive Bariatric Surgery Center:** Combines the expertise of a board-certified, fellowship-trained surgeon with proven methods of nutrition and exercise. The program has three regional office locations – Greenville, Hermitage, and New Castle. Surgery is performed at UPMC Jameson.

UPMC Jameson's new Outpatient Center is a one-stop-shop for heart and vascular care.

ENHANCING PRIMARY CARE TO ENCOURAGE HEALTHY BEHAVIORS

Through its primary care network, UPMC Horizon offers patients access to a wide spectrum of health services, including preventive screenings and support for chronic disease management.

- UPMC Horizon is encouraging patients to participate in cancer screenings, such as informing more than 15,000 women in Mercer County to call for a free or reduced cost mammogram.

- Primary Care Physicians are referring patients with diabetes to participate in 1:1 self-management classes.

Attracting New Providers to the Region: Since 2016, UPMC Horizon and UPMC Jameson have successfully recruited more than 20 new physicians.

BRINGING ADVANCED HEALTH CARE TECHNOLOGY AND SPECIALTY PHYSICIANS RIGHT TO OUR PATIENTS

Over the last three years, UPMC has launched new programs to help expand access to health care. Strategies include:

- **Establishing Telemedicine Services:**

  > In 2017, UPMC Jameson started a telemedicine program, which allows patients to meet, by video conference, with UPMC specialists in Pittsburgh. The telemedicine program helps overcome distance barriers, improving patients' access to medical services that were previously unavailable in Lawrence and Mercer counties. To date, UPMC Jameson offers telemedicine services for Neurology and Infectious Disease, and Behavioral Health.

- **New Approaches for Addressing Behavioral Health**:

  > **Expanding Consult and Liaison Services with Telemedicine:** UPMC Jameson is leveraging telemedicine technology for behavioral health consults. Using telepsychiatry, the hospital quickly connects its patients with a University of Pittsburgh Physicians psychiatrist. This new service improves patients' level of access to a face-to-face consultation with a physician, and it brings the evidence-based, expert care of UPMC Western Psychiatric Hospital to local patients.

  > **Offering Recovery-Oriented Treatment through Partial Hospitalization:** The UPMC Jameson Partial Hospitalization Program provides adults with structured, intensive mental health treatment. The program combines individual, group, and family therapy sessions for patients with depression, anxiety, panic disorder, and other behavioral health issues, and is led by a multidisciplinary staff, including a psychiatrist, nurses, social workers, and counselors.

  > **Providing a Peer Resource for Treatment and Recovery:** Available at both UPMC Jameson and UPMC Horizon, the Peer Navigator program offers patients with substance use disorders an opportunity to work with an individual who has experienced addiction and can serve as a model of recovery. Peer navigators provide wellness coaching, referrals to community resources, and help in identifying and reaching treatment goals.

COLLABORATING WITH WESTMINSTER COLLEGE TO EDUCATE NURSES

UPMC Jameson School of Nursing — now part of the UPMC Schools of Nursing — and Westminster College have partnered to offer a four-year Bachelor of Science in Nursing degree. This program expands the curriculum to provide opportunities for future nurses to develop specialized skills to serve patients in rural areas, and to gain practical experience in telemedicine, behavioral health, pediatrics, and Amish health customs. This partnership will help encourage the next generation of nurses to remain in our local communities, building a strong pipeline to nursing positions in home care, primary care offices, and in UPMC hospital settings, including UPMC Horizon and UPMC Jameson.

UPMC is the largest employer in the Lawrence-Mercer county region.

Lawrence   Mercer

UPMC | HORIZON

UPMC | JAMESON
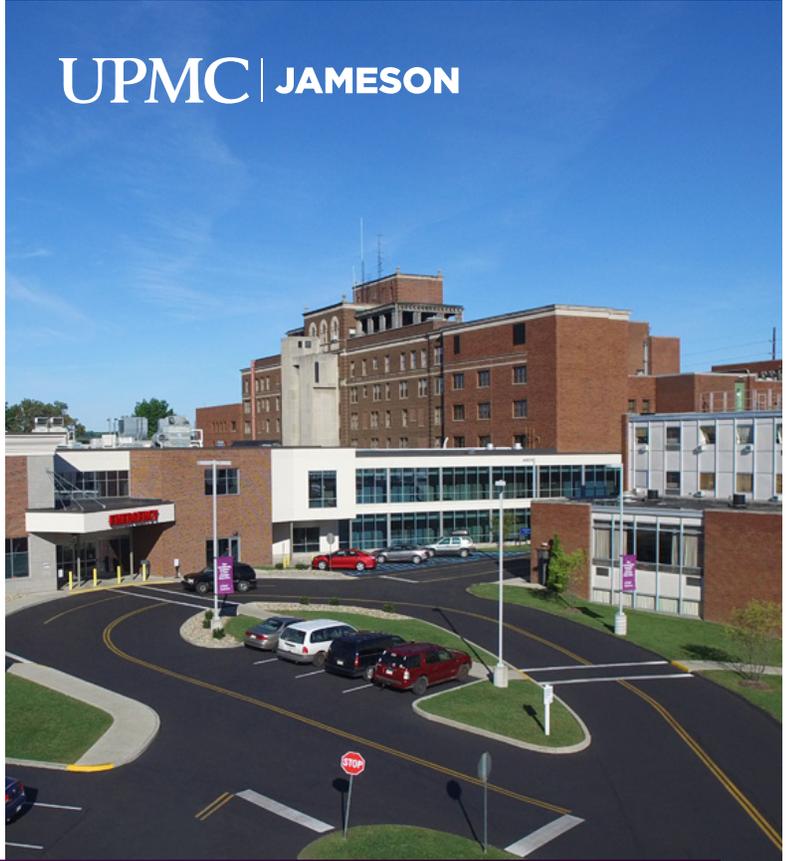
UPMC is addressing important community health needs.

- Heart Disease
- Adult Obesity and Nutrition

- Behavioral Health
- Access to Primary Care and Specialty Care

INVESTING IN OUR COMMUNITIES

In addition to working to improve health in Lawrence and Mercer counties, UPMC enriches the community economically and provides a safety net for those who have nowhere else to turn for care.

UPMC is dedicating more than $100 million to provide the highest-quality health care in the region, including:

- $75 million to develop services, facilities, and information technology in Lawrence County

- $10 million for physician recruitment

- $25 million in emergency, surgical, and medical oncology expansions

- $5 million in information technology

Every dollar spent by UPMC hospitals while doing business creates more than twice as much total impact in local communities. The combined economic impact of UPMC Jameson and UPMC Horizon was $444 million in 2017.

In Fiscal Year 2017, UPMC Horizon and UPMC Jameson contributed $31 million in community benefits, and dedicated $19.4 million of that amount to care for those without means to pay.

UPMC
LIFE CHANGING MEDICINE

I. EXECUTIVE SUMMARY

UPMC's mission is to serve our community by providing outstanding patient care and to shape tomorrow's health system through clinical and technological innovation, research, and education.

UPMC Plays a Major Role in Its Community:

UPMC is one of the world's leading Integrated Delivery and Financing Systems ("IDFS"), combining a major Health Services Division with 40 hospitals and more than 700 clinical locations, with a 3.4 million-member Insurance Services Division. One of the largest nonprofit health systems in the United States, UPMC is headquartered in Pittsburgh, Pennsylvania, and serves patients seeking highly specialized medical care primarily from communities across Pennsylvania, as well as throughout the nation and around the world. UPMC is also the largest medical insurer in western Pennsylvania, and is the largest insurer of Medical Assistance, Medicare Advantage, Children's Health Insurance, and Behavioral Health populations in the region.

Committed to its mission of service, UPMC provides approximately $1 billion a year in benefits to the communities it serves, and delivers more care to the region's poor and underserved than any other health system in the state.

UPMC's commitment to service is seen in the following ways:

UPMC's Community Benefit Commitment	
FY2018	$1.2 billion
FY2017	$960 million
FY2016	$912 million

- **Establishing a healthy culture in the communities we serve:** UPMC enhances health and wellness through more than 3,000 community-focused programs.
- **Caring for the vulnerable:** In Fiscal Year 2017, UPMC subsidized $303 million in charity care and coverage for unreimbursed costs of care provided to Medicaid beneficiaries.
- **Providing state-of-the-art, life-saving care to the community:** In partnership with the University of Pittsburgh, UPMC makes significant investments in translational science, technology, research, and education designed to improve clinical quality, promote patient-centered care, and benefit the overall health of residents of our communities.
- **Contributing to a thriving future for the state:** UPMC fosters economic prosperity through direct investment and new product development, which improves the health of communities large and small. The largest nongovernmental employer in Pennsylvania, UPMC supports more than one in four hospital jobs in the commonwealth and has a $36 billion economic impact in the region each year.
  - » UPMC invested $400 million in education and research in 2017, primarily at the University of Pittsburgh, which ranks #5 in National Institutes of Health (NIH) dollars.
  - » UPMC sponsors 97 percent of all hospital-funded research in western Pennsylvania.

Assessing the Significant Community Health Needs for Lawrence and Mercer Counties:

In Fiscal Year 2019, UPMC's two licensed hospitals located in and serving Lawrence and Mercer counties, Pennsylvania, conducted a joint Community Health Needs Assessment (CHNA) in keeping with requirements described in section 501(r) of the Internal Revenue Code. Building on the initial CHNAs conducted in Fiscal Years 2013 and 2016, the Fiscal Year 2019 joint CHNA provided an opportunity for the hospitals to re-engage with community stakeholders in a rigorous, structured process guided by public health experts.

The collaborating hospitals in this CHNA deliver an array of specialized programs and services to the residents of Lawrence and Mercer counties. UPMC Horizon is a nonprofit, acute-care teaching hospital located in Mercer County, approximately one hour northwest of Pittsburgh, Pennsylvania. Operating from campuses located in Farrell and Greenville, UPMC Horizon delivers a full range of quality medical services — including highly specialized medical and surgical treatment — not typically found at a local community hospital. UPMC Jameson is a nonprofit, acute-care hospital in New Castle, Pennsylvania, approximately 55 miles north of Pittsburgh and 20 miles southeast of Youngstown, Ohio. UPMC Jameson is a full-service community hospital providing inpatient, outpatient, and emergency care, as well as specialized diagnostic and treatment procedures, such as those offered at The Heart and Vascular Institute at UPMC Jameson and The UPMC Esophageal and Lung Surgery Institute at UPMC Jameson.

UPMC Licensed Hospitals in Lawrence and Mercer Counties
UPMC Horizon
UPMC Jameson

For the purpose of this joint CHNA, the collaborating UPMC hospitals define their community to be Lawrence and Mercer counties. By combining efforts and resources, this joint assessment identifies important local health issues, while supporting a coordinated, system-wide community health strategy that extends across the region. Working together, UPMC's hospitals are committed to advancing health for residents in the community.

Input from Community Stakeholders and Public Health Experts:

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 public health data and socioeconomic factors with a structured community input survey process that solicited feedback from community advisory panels composed of leaders and organizations that represent patient constituencies within the community — including medically underserved, low-income, and minority populations.

CHNA Findings: Significant Community Health Needs for Lawrence and Mercer Counties:

The residents of Lawrence and Mercer counties have a wide range of health concerns. The Fiscal Year 2019 joint CHNA identified four significant health needs of importance to the communities served by UPMC Horizon and UPMC Jameson.

	Significant Health Needs	Health Issues	Importance to the Community
1	**Chronic Disease Management**	Obesity, Heart Disease and Stroke	Nearly two-thirds of deaths in the community are attributable to chronic disease.
2	**Behavioral Health**	Opioid and Substance Abuse, Access to Behavioral Health Services	Behavioral health conditions are among the most common conditions in the nation. They have a far-reaching impact on the community. Individuals with a behavioral health condition are at greater risk for developing a wide range of physical health problems.
3	**Access to Care and Navigating Resources**	Specialty Care, Primary Care	Access to care and navigating resources have important implications for the health of the community in a variety of ways, including preventing disease and disability, detecting and treating illnesses or conditions, managing chronic disease, reducing preventable hospitalization, and increasing quality of life.
4	**Prevention and Community-Wide Healthy Living**	Community Prevention and Wellness Initiatives	Preventive care efforts, such as preventive screenings, can help identify diseases early, improve management of diseases, and reduce costs.

Amplifying UPMC's Impact Across Lawrence and Mercer Counties:

In 2019, the Board of Directors for each UPMC licensed hospital adopted plans to address the significant health needs identified in the Fiscal Year 2019 joint CHNA, and to measure and track associated improvements. This report documents progress toward addressing significant health needs identified from prior CHNAs, as well as delineates hospital-specific implementation plans that will address community health needs over the Fiscal Year 2019-2022 period. These plans build upon the goals established in Fiscal Year 2016, recognizing that significant health needs will generally require more than two to three years to show meaningful improvement.

While tailored to each hospital, the implementation plans:

- **Focus on a Few High-Urgency Issues and Follow-Through:** UPMC hospitals in the two-county region are concentrating on a limited number of health issues that will address the significant health needs in the community.

- **Support a Wide Range of Chronic Disease Prevention and Care Initiatives:** Nearly two-thirds of deaths in the community are attributable to chronic disease.

- **Enhance and Expand Efforts to Address Behavioral Health Needs:** Rated high in importance by community survey participants, behavioral health conditions have a growing impact on the community.

- **Promote Navigating Available Resources:** Established health care programs in the communities of Lawrence and Mercer counties are often untapped due, in part, to social and logistical challenges faced among populations.

- **Leverage Community Partnerships:** An ongoing objective of the CHNA effort is to help align community programs and resources with community health needs. UPMC hospitals are collaborating successfully with local organizations to improve community health. The hospitals are also leveraging resources and synergies within the UPMC system, which include population-focused health insurance products and comprehensive programs and resources targeted at areas including behavioral health, seniors, and children.

- **Emphasize Populations Most in Need:** Where applicable, implementation plans specify programs and outreach for population segments that include women and infants, low-income residents, and people with substance use disorder.

The following chart illustrates how each UPMC hospital will contribute to addressing the significant health needs in the two-county region. Additionally, detailed hospital-specific implementation plans are provided in Section IV of this report.

UPMC Hospitals in Lawrence and Mercer Counties	2019 Significant Health Needs in Lawrence and Mercer Counties						
	Chronic Disease Management		Behavioral Health		Access to Care and Navigating Resources		Prevention and Community-Wide Healthy Living
	Obesity	Heart Disease and Stroke	Opioid and Substance Abuse	Access to Behavioral Health	Primary Care	Specialty Care	Community Prevention and Wellness
UPMC Horizon					✓	✓	✓
UPMC Jameson	✓	✓	✓	✓	✓	✓	

II. Overview and Methods Used to Conduct the Community Health Needs Assessment

CHNA Goals and Process Overview:

In Fiscal Year 2019, UPMC's two licensed hospitals in Lawrence and Mercer counties collaborated to conduct a joint CHNA, in keeping with IRS 501(r) guidelines. Through the assessment process, UPMC's hospitals identified the counties' significant health needs, prioritized those health needs, established action plans, and identified resources to address those needs. The 2019 document builds upon prior assessments and implementation plans developed in Fiscal Years 2013 and 2016. UPMC approached the CHNA requirement 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 the most significant community health needs. 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.
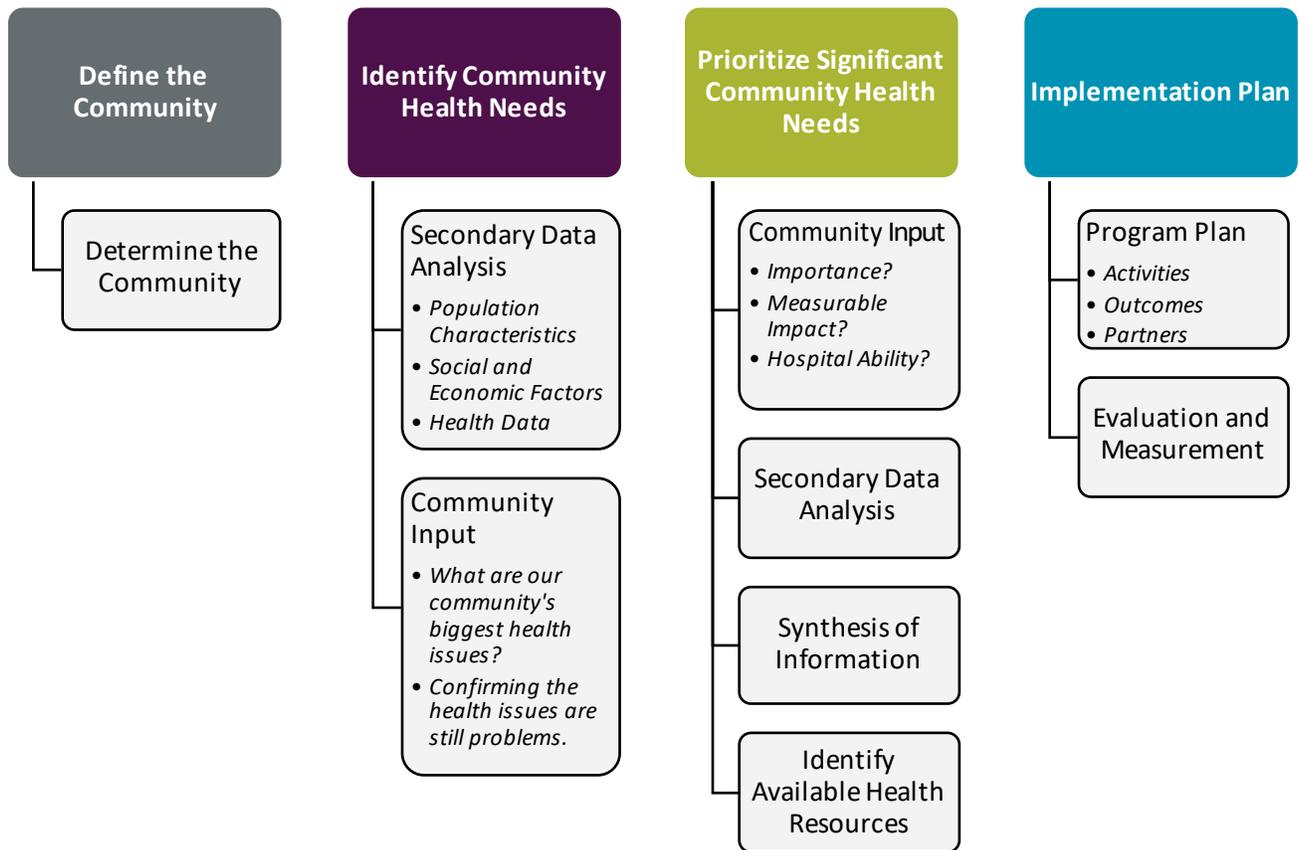
The CHNA incorporated analysis of public health data and input from individuals representing the broad interests of the community — including those with special knowledge and expertise in public health, and community stakeholders representing members of medically underserved, low-income, and minority populations. 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 IRS CHNA requirements apply specifically to nonprofit hospital organizations, collaboration with community partners is essential for implementing and achieving effective community health improvement.

Collaborated with Experts in Public Health:

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. Aligning with assessments conducted in 2013 and 2016, Pitt Public Health faculty and researchers' expertise supported a structured process for obtaining community input on health care needs and perceived priorities, an in-depth review and summary of publicly available health data, and the establishment of criteria for evaluating and measuring 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 hospitals adapted this model to guide the development of their CHNA.

Define the Community

- Determine the Community

Identify Community Health Needs

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

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

Prioritize Significant Community Health Needs

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

Secondary Data Analysis

Synthesis of Information

Identify Available Health Resources

Implementation Plan

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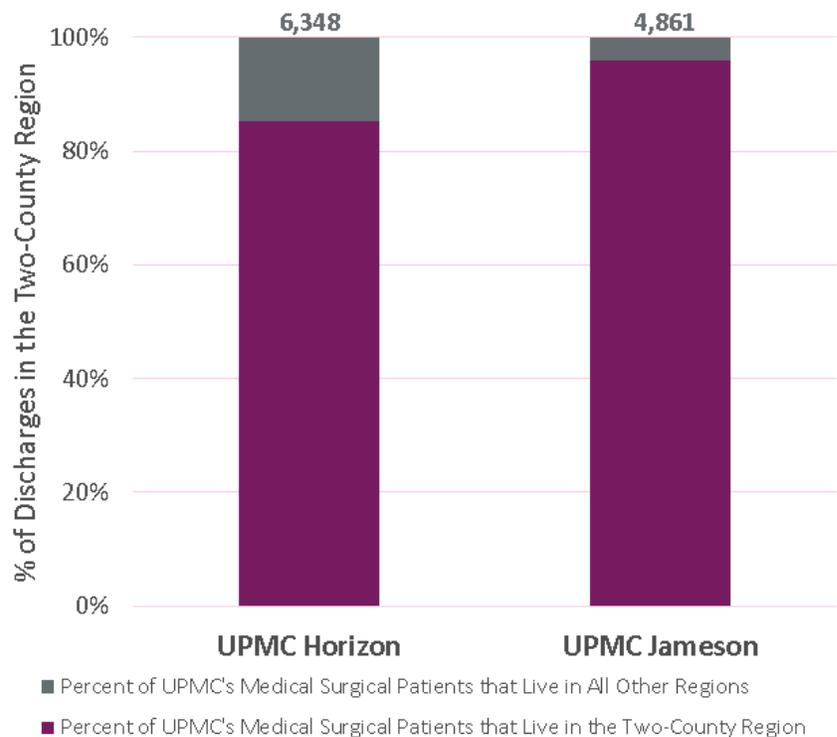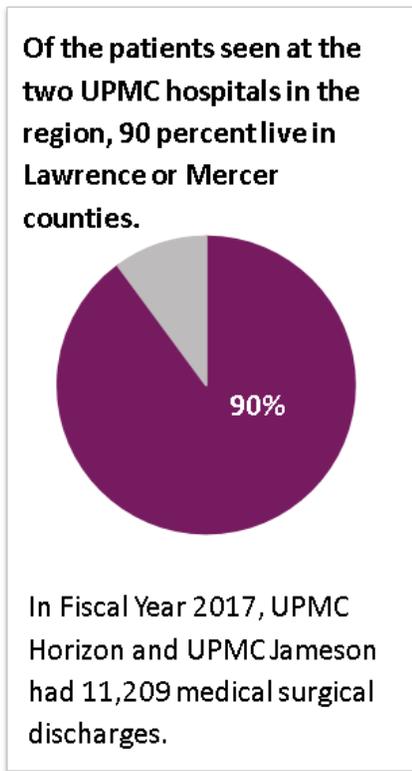- *Partners*

Evaluation and Measurement

Definition of the Community: Lawrence County and Mercer County:

For the purpose of this joint CHNA, UPMC Horizon and UPMC Jameson define their community to be Lawrence and Mercer counties. With 90 percent of patients treated at UPMC Horizon or UPMC Jameson residing in Lawrence or Mercer counties, these two hospitals primarily serve residents of this geographic region. By concentrating on Lawrence and Mercer counties, UPMC can 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.

While the two-county region represents the basic geographic definition of each of these hospitals, this CHNA also considered characteristics of the broader area, such as state data, as well as specific populations within the defined community — such as minorities, low-income individuals, and those with distinct health needs.

By combining efforts and resources, UPMC Horizon and UPMC Jameson are focusing on important local health issues, while supporting a coordinated community health strategy across the region and system-wide.
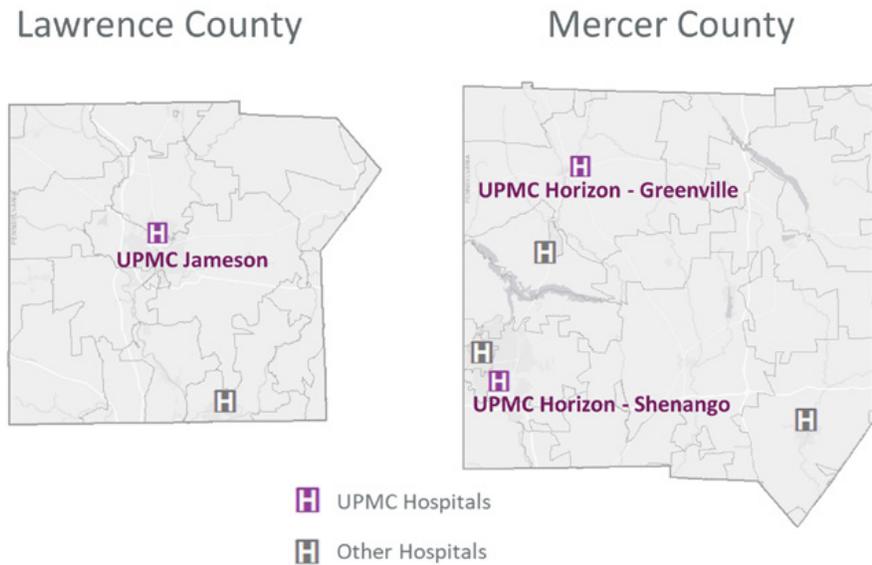
Most Patients Treated at UPMC Horizon and UPMC Jameson Live in the Two-County Region: Lawrence and Mercer Counties

Of the patients seen at the two UPMC hospitals in the region, 90 percent live in Lawrence or Mercer counties.

90%

In Fiscal Year 2017, UPMC Horizon and UPMC Jameson had 11,209 medical surgical discharges.

6,348   4,861

% of Discharges in the Two-County Region

UPMC Horizon   UPMC Jameson

■ Percent of UPMC's Medical Surgical Patients that Live in All Other Regions
■ Percent of UPMC's Medical Surgical Patients that Live in the Two-County Region

Source: Pennsylvania Health Care Cost Containment Council, Fiscal Year 2017

Identifying UPMC's System-Wide Resources Available to Address the Region's Significant Health Needs

UPMC's hospitals are supported by a comprehensive network of additional health care resources in the area, including more than 60 UPMC outpatient offices within Lawrence and Mercer counties. Facilities include Urgent Care Centers, Centers for Rehabilitation Services, Imaging Centers, and pediatric, primary, and specialty care doctors' offices.

Lawrence County

UPMC Jameson

Mercer County

UPMC Horizon - Greenville

UPMC Horizon - Shenango

H UPMC Hospitals

H Other Hospitals

Identifying and Prioritizing Significant Health Needs:

Secondary Data Analysis and Sources:

UPMC conducted an in-depth analysis of publicly available data in partnership with Pitt Public Health. Secondary data, including population demographics, mortality, morbidity, health behaviors, clinical care, socioeconomic, and health status data, were used to identify, prioritize, and confirm significant community health needs. A full list of secondary data sources used are listed in **Appendix A.** Community-level data (usually county-level) were compared to the state, nation, and *Healthy People 2020* benchmarks to help identify key health issues. This information may be found in **Appendix B**.

Population characteristics, socioeconomic, and health status data were also examined. When available, data specific to low-income individuals, underserved minorities, and uninsured populations were examined. In addition, the analysis considered federal designations of Health Professional Shortage Areas (HPSAs) — defined as "designated as having a shortage of primary medical care providers", Medically Underserved Areas (MUAs) — 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, and Medically Underserved Populations (MUP) — which are specific sub-groups of people living in a defined geographic area with a shortage of primary care health services.

Community Input:

Community input on the perceived health needs and priorities of the region was used to complement analysis of publicly available data. To identify and prioritize health needs of the communities served, the CHNA solicited and took into account input from persons who represent the broad interests of the community, including those with special knowledge of or expertise in public health.

The Fiscal Year 2019 CHNA builds on the assessment processes applied in Fiscal Years 2013 and 2016, engaging community advisory panels to provide structured input on health needs present in each hospital's surrounding community. In May-June 2018, Pitt Public Health surveyed community leaders and stakeholders specific to each hospital's local community, as well as a system-wide panel of regional stakeholders. A total of 2,074 community participants from 22 UPMC hospital communities were surveyed.

Participants included:

- Leaders or members of medically underserved, low-income, minority populations, and populations with chronic disease.
- Representatives from public health departments or governmental agencies serving community health.
- Medical staff leaders who have a unique perspective and view of the community.
- Other stakeholders in community health such as consumer advocates, nonprofit and community-based organizations, local school districts, government organizations, and health care providers. See **Appendix C** for a complete list and description of community participants.

Lawrence and Mercer County Survey Participation Statistics

53
Community stakeholders invited to participate across Community Health Needs Surveys

72%
Of participants surveyed, represented medically underserved, low-income, or minority populations

The full community input survey process consisted of multiple stages over the past three CHNA cycles; UPMC Jameson joined the system-wide process for the first time in 2019:

CHNA Year	Activity	Description
2013	Brainstorming on Health Problems	Each hospital's community advisory panel 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.
2013	Rating and Sorting Health Problems to Identify Significant Health Needs	Community members participated in the rating and sorting process to prioritize the 50 health problems. Each participant sorted the list into overarching themes, and then rated the problems using a 1 to 5 Likert scale, 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?
2013	Concept Mapping	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.
2016	Confirming Health Issues	Community advisory panels were surveyed about the continuing importance of the identified health issues. Advisory panel members participated in an online Qualtrics survey that solicited feedback on new health issues, as well as reaffirming whether previously identified issues continue to be a problem in the community.
2019	**Confirming and Expanding Health Issues**	**In partnership with Pitt Public Health, UPMC refined the community survey to incorporate emerging areas of exploration within the public health field (e.g., health-related social needs).** **Using a Qualtrics survey, community leaders provided feedback on:** • The continued importance of the 2016 health issues. • Relative importance, ability to impact, and hospital ability to address an expanded list of health issues. • Determination of population segments with the greatest health needs (e.g., seniors, children and adolescents, mothers and infants, general community, or other).

Synthesis of Information and Development of Implementation Plan:

The secondary data analyses and results from the community input survey process were aggregated, evaluated, and synthesized with the assistance of public health experts from Pitt Public Health. Through this effort, UPMC hospital leadership identified a set of significant health needs and their composite health issues 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.

Outcomes and Evaluation of Hospital Implementation Plans:

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

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

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

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

III. Results of the Community Health Needs Assessment and In-Depth Community Profile

Characteristics of the Community:

Lawrence and Mercer counties are located northwest Pennsylvania. Lawrence County has a total population of 91,108 and Mercer County has a total population of 116,638.

Sizable Elderly Population with High Social Needs: A notable characteristic of both counties is the large and increasing percentage of elderly residents (65 years and older). Lawrence and Mercer counties both have a large elderly population (19 percent), especially when compared to Pennsylvania (15 percent), and the United States (13 percent). A higher percentage of elderly in both counties live alone, compared with Pennsylvania and the United States. Reflective of the higher proportion of elderly, the percentage of Medicare recipients was higher in the county than the state and nation (See **Appendix B**).

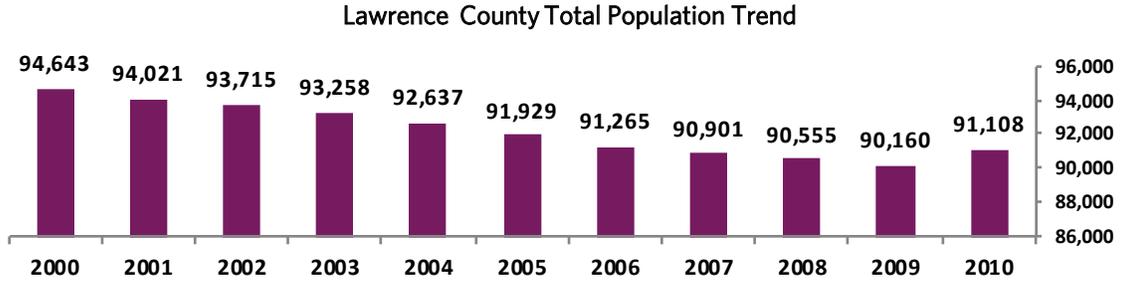*Lawrence and Mercer Counties Have Sizable Elderly Populations*

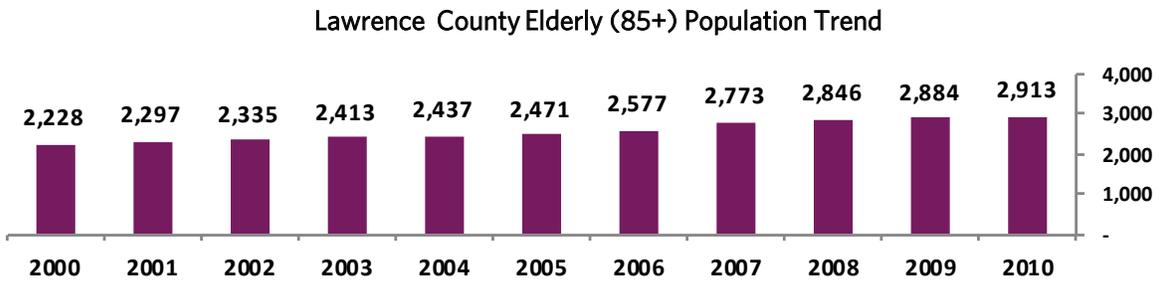| Age Distribution - 2010				
	Lawrence County	**Mercer County**	**Pennsylvania**	**United States**
Median Age	43.6	42.8	40.1	37.2
% Children (<18)	21.2	21.6	22.0	24.0
% 18-64	60.0	59.9	62.6	63.0
% 20-49	35.1	35.4	39.0	41.0
% 50-64	22.2	21.3	20.6	19.0
% 65+	18.8	18.5	15.4	13.0
% 65-74	8.8	8.8	7.8	7.0
% 75-84	6.8	6.6	5.4	4.3
% 85+	3.2	3.1	2.4	1.8
% Elderly Living Alone	13.8	13.9	11.4	9.4

Source: U.S. Census

Total Population Stable in Lawrence and Mercer Counties but Aging Population Increasing: Although the population has remained stable since 2000, the most elderly population (age 85 and over) increased significantly (see figures below).

Lawrence County:

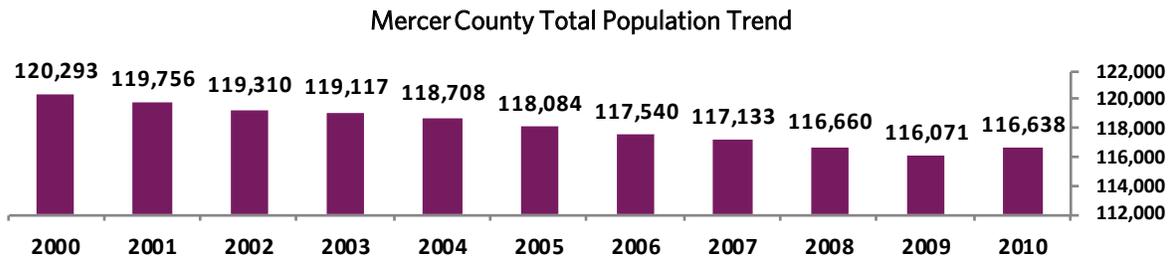*Lawrence County's total population has seen a 4 percent decrease from 2000 to 2010.*

Lawrence County Total Population Trend

Year	Population
2000	94,643
2001	94,021
2002	93,715
2003	93,258
2004	92,637
2005	91,929
2006	91,265
2007	90,901
2008	90,555
2009	90,160
2010	91,108

However, the most elderly population in Lawrence County (85+) has seen a 31 percent increase from 2000 to 2010.

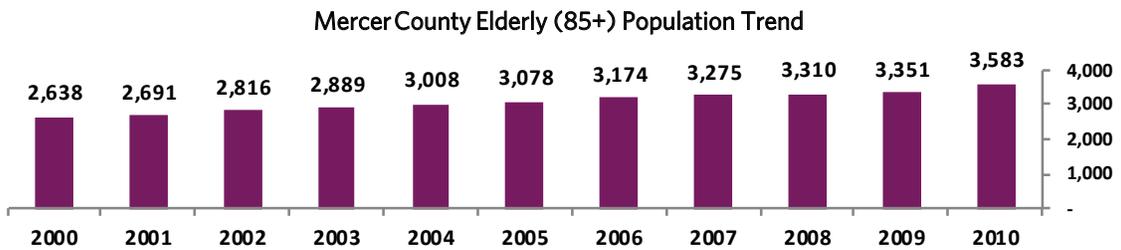### Lawrence County Elderly (85+) Population Trend

Year	Population
2000	2,228
2001	2,297
2002	2,335
2003	2,413
2004	2,437
2005	2,471
2006	2,577
2007	2,773
2008	2,846
2009	2,884
2010	2,913

Mercer County:

Mercer County's total population has seen a 3 percent decrease from 2000 to 2010.

Mercer County Total Population Trend

Year	Population
2000	120,293
2001	119,756
2002	119,310
2003	119,117
2004	118,708
2005	118,084
2006	117,540
2007	117,133
2008	116,660
2009	116,071
2010	116,638

However, the most elderly population in Mercer County (85+) has seen a 36 percent increase from 2000 to 2010.

Mercer County Elderly (85+) Population Trend

Year	Population
2000	2,638
2001	2,691
2002	2,816
2003	2,889
2004	3,008
2005	3,078
2006	3,174
2007	3,275
2008	3,310
2009	3,351
2010	3,583

Source: U.S. Census

Socioeconomic Challenges in Lawrence and Mercer Counties: When compared to the Commonwealth of Pennsylvania and the nation, the overall populations of Lawrence County and Mercer County face some economic challenges.

Lawrence County tends to have:

- **A lower median household income**
- **More residents in poverty**

Mercer County tends to have:

- **A lower median household income**
- **More residents in poverty**

Social and Economic Population Demographics				
	Lawrence County	**Mercer County**	**Pennsylvania**	**United States**
Median Age	43.6	42.8	40.1	37.2
Median Household Income	$38,192	$40,398	$49,288	$50,046
% of People in Poverty	16.6	16.7	13.4	15.3
% with No High School Diploma (among those 25+)	12.1	11.8	11.6	14.4
% Unemployed (among those 16+ in labor force)	9.1	10.0	9.6	10.8
Racial Groups				
% White	93.8	91.6	81.9	72.4
% African-American	3.8	5.8	10.8	12.6
% Other Race	2.4	2.6	7.3	15.0

Source: U.S. Census

Medically Underserved Areas and Populations in Lawrence and Mercer Counties: Areas in Lawrence and Mercer counties have characteristics of populations more likely to experience health disparities. The map below indicates neighborhoods and populations in the counties that are federally designated by the Health Resources & Services Administration (HRSA) as Medically Underserved Areas (MUAs) or Medically Underserved Populations (MUPs).

The following factors are considered in the determination of MUAs and MUPs:

- **A high percentage of individuals living below the poverty level**
- **A high percentage of individuals over age 65**
- **High infant mortality**
- **Lower primary care provider to population ratios**
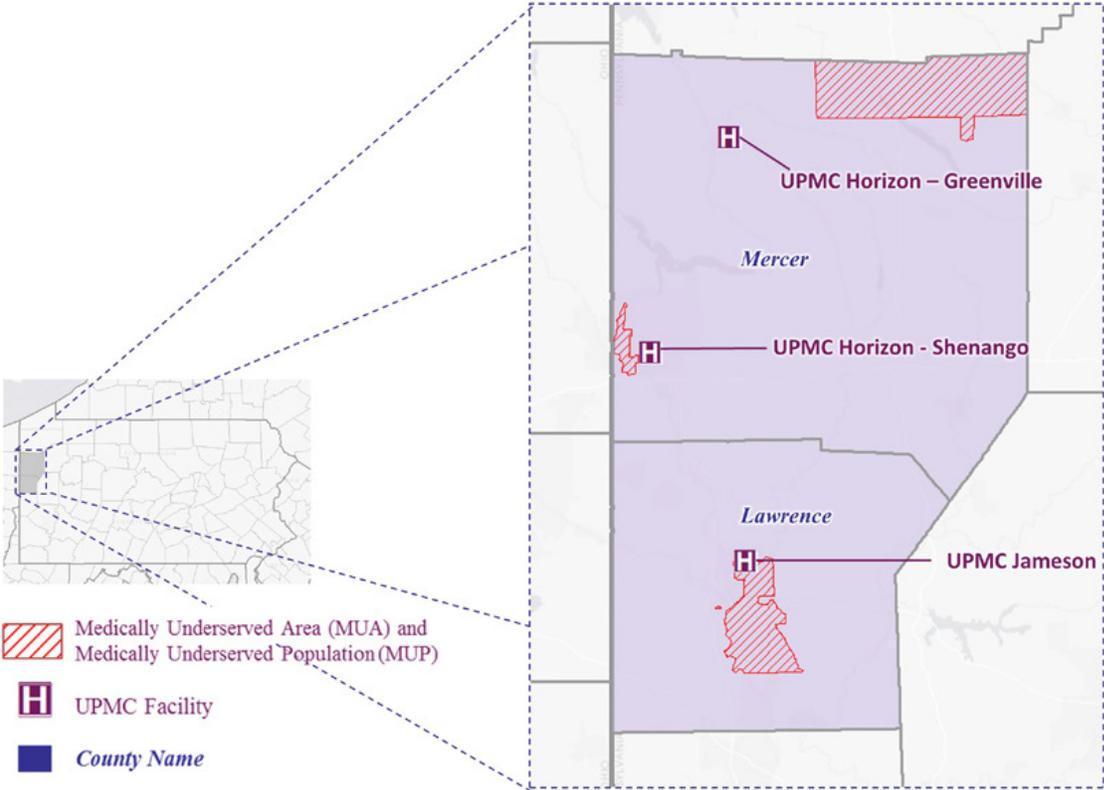
Percent Population that Lives in a HRSA-Designated Medically Underserved Area (MUA) Across the Region
- ~23.6 percent of the Lawrence County population lives in a HRSA-designated Medically Underserved Area (MUA).
- ~ 6.9 percent of the Mercer County population lives in a HRSA-designated Medically Underserved Area (MUA).

Findings: Significant Health Needs for the Community:

Synthesizing data from the community input process and secondary data analyses gathered for Lawrence and Mercer counties yielded four significant health needs for the community:

- **Chronic Disease Management**
- **Behavioral Health**
- **Access to Care and Navigating Resources**
- **Prevention and Community-Wide Healthy Living**

Significant Health Needs for the Community	
Chronic disease management rated highly in importance and hospitals' ability to address the need.	**Behavioral health** rated as highly important for the region, with an emphasis on combating opioid and substance use.
Access to care and navigating resources was rated highly in the hospitals' ability to address and likelihood of making a significant impact.	**Prevention and community-wide healthy living** was perceived as particularly important for the general population.

These four significant health needs were identified based on data from the community input process, earlier concept mapping efforts conducted with community participants, public health literature, and consultation with public health experts. Each need represents an area that is correlated with, and often drives, health outcomes, including mortality, quality of life, risk of hospitalization, and disease burden. All four significant health needs rated as a high priority on importance and perceived ability for hospitals to rate the issue across the community leader surveys administered in Lawrence and Mercer counties (scored above 3.95 on a scale of 1 to 5). For UPMC hospitals in Lawrence and Mercer counties, the assessment also identified seven composite health topics within the overarching health priorities.

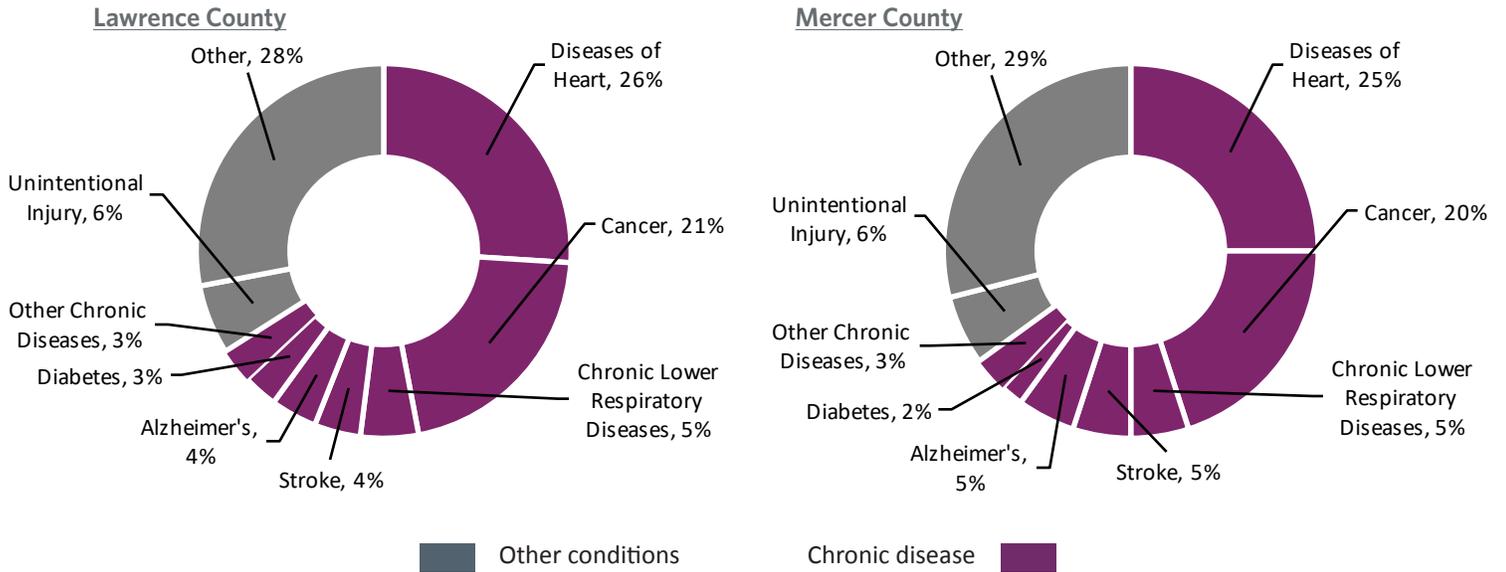## Significant Health Needs in Lawrence and Mercer Counties

Chronic Disease Management	Behavioral Health	Access to Care and Navigating Resources	Prevention and Community-Wide Healthy Living
• Heart Disease and Stroke • Obesity	• Access to Behavioral Health Services • Opioid and Substance Abuse	• Primary Care • Specialty Care	• Community Prevention and Wellness Initiatives

Chronic diseases represent the leading causes of death nationally and in the community.

Chronic diseases are the leading cause of death nationally, in Pennsylvania, and in Lawrence and Mercer counties. In Lawrence and Mercer counties, nearly two-thirds of deaths are attributable to chronic disease. Chronic diseases have implications for the health and wellness and costs of care for community members. Seniors are particularly vulnerable, as age is correlated with increased likelihood of developing chronic disease.

Chronic Disease is a Leading Cause of Death

Lawrence County

Other, 28%
Diseases of Heart, 26%
Unintentional Injury, 6%
Cancer, 21%
Other Chronic Diseases, 3%
Diabetes, 3%
Chronic Lower Respiratory Diseases, 5%
Alzheimer's, 4%
Stroke, 4%

Mercer County

Other, 29%
Diseases of Heart, 25%
Unintentional Injury, 6%
Cancer, 20%
Other Chronic Diseases, 3%
Diabetes, 2%
Chronic Lower Respiratory Diseases, 5%
Alzheimer's, 5%
Stroke, 5%

Other conditions   Chronic disease

Source: Pennsylvania Department of Health, 2016

Chronic diseases have important implications for the health and wellness of the community.

Managing chronic diseases is becoming more complex as an increasing number of individuals suffer from multiple chronic conditions or comorbidities.

Chronic Disease	Significance
Obesity	Many populations continue to see steady increases in obesity rates. Obesity is a serious health concern because it is associated with the development of other chronic diseases, including diabetes, heart disease, stroke, and cancer. Nearly 1 in 5 children in grades 7-12 (19.1%) in Pennsylvania are obese.
Heart Disease	Heart disease is the leading cause of death nationally and in Pennsylvania. Heart disease is responsible for nearly 1 in every 4 national deaths.
Stroke	Stroke is the fifth leading cause of death for Americans and is responsible for 1 out of every 20 deaths.
Respiratory Disease	Chronic lower respiratory diseases are the fourth leading cause of death nationally, and the fifth leading cause of death in Pennsylvania.
Diabetes	Diabetes is among the top 10 causes of death both nationally and in Pennsylvania. In Pennsylvania, more than 1 in 10 adults suffer from diabetes.
Cancer	More than 1.5 million people are diagnosed with cancer each year in the United States. Cancer is the second leading cause of death nationally and in Pennsylvania.

Risks for chronic diseases vary across population segments in Lawrence and Mercer counties, with differences demonstrated for some medically underserved, low-income, and minority populations.

Public health data suggests that lower education and lower income are often associated with increased prevalence of certain chronic diseases. For example, in Lawrence and Mercer counties, 42 percent of adults who earn less than $25,000 are obese, compared to 31 percent of adults who earn an income of $50,000 or more. Similarly, 23 percent of adults (35 years+) in Lawrence and Mercer counties who earn less than $25,000 have ever been told they had a heart attack, heart disease, or stroke, compared to 8 percent of adults who earn an income of $50,000 or more.

Access to behavioral health services, including assistance to combat opioid and substance use disorders, has significant community health implications.

Behavioral health disorders include a spectrum of conditions, such as anxiety, depression, and bipolar disorder, as well as substance use disorders, such as opioid addiction or alcohol abuse. Behavioral health conditions are among the most common health conditions in the nation.

Public health research has shown that individuals with a behavioral health condition are at greater risk of developing a wide range of physical health problems (e.g., chronic diseases).

Behavioral health issues are widespread across the population nationally and in Lawrence and Mercer counties.

>50%	1 in 5	1 in 5
Of the national population will be diagnosed with a mental illness during their lifetime.	Americans will experience a mental illness in a given year.	Children either have had or have a seriously debilitating mental illness.

Source: U.S. Centers for Disease Control and Prevention (CDC)

In Lawrence and Mercer counties, 36 percent of adults reported experiencing poor mental health in the past month. The percent of adults in Lawrence and Mercer counties reporting poor mental health in the past month has demonstrated slight increases over the past several years.

Behavioral health needs occur at higher rates for some medically underserved, low-income, and minority sub-populations in the community.

Residents in Lawrence and Mercer counties with lower levels of income are more likely to report higher levels of mental health distress.

Mental Health Not Good 1+ Day in the Past Month by Household Income (Percent)

Lawrence and Mercer Counties

54 (<$25,000) 32 ($50,000+)

Household Income

■ <$25,000   ■ $50,000+
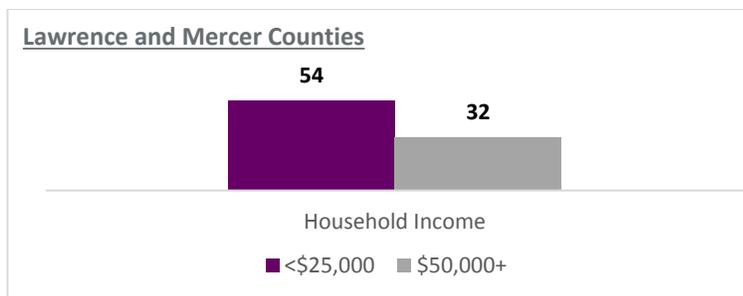
Source: Pennsylvania Department of Health, 2014-2016

Opioid and substance use disorders are an epidemic of growing concern in both Pennsylvania and the United States.

Nationally in 2016, approximately 20.1 million people 12 years or older had a substance use disorder (SUD) associated with alcohol or illicit drug use in the past year. Pennsylvania has also been affected by the opioid epidemic. In 2016, Pennsylvania was one of five states with the highest rates of death due to drug overdoses. Pennsylvania Governor Tom Wolf initially declared the heroin and opioid epidemic a disaster emergency in January of 2018, then renewed the declaration in April, highlighting the critical need for resources and coordination to stem the epidemic.

	Lawrence County	Mercer County	Pennsylvania
Drug overdose mortality rate per 100,000 population	37	23	28

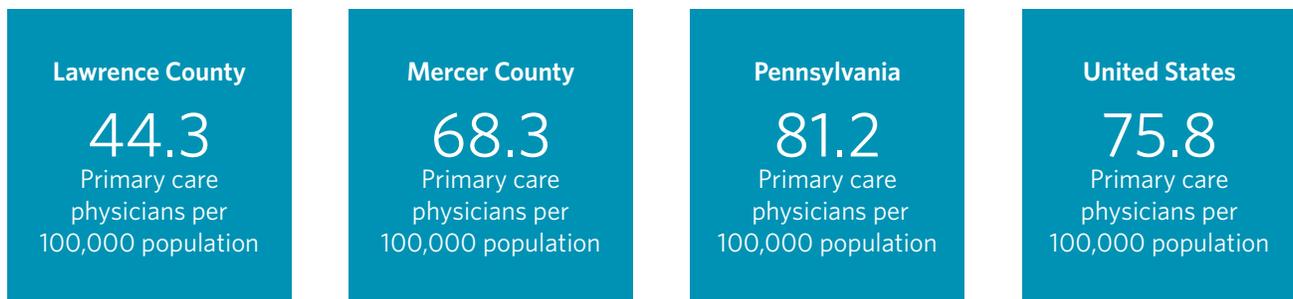*Source: Robert Wood Johnson County Health Rankings & Roadmaps, 2018*

Access to health services and navigating the health care system contribute to positive health outcomes.

Access to care and navigating resources have important implications for the health of the community in a variety of ways, including preventing disease and disability, detecting and treating illnesses or conditions, managing chronic disease, reducing preventable hospitalization, and increasing quality of life.

Primary care services can play a key role in facilitating access. Those without access to usual sources of primary care, such as a primary care physician, are less likely to receive preventive services, such as recommended screenings.

Primary care physician supply is lower in Lawrence and Mercer counties compared to state and national benchmarks. Additionally, Lawrence and Mercer counties contain a number of Health Professional Shortage Area (HPSA) designations, defined as geographic areas or population groups that indicate health provider shortages.

In Lawrence County there are 44.3 primary care physicians per 100,000 population, and in Mercer County there are 68.3 primary care physicians per 100,000 population, placing both counties below the supply of primary care physicians for the state and the nation.
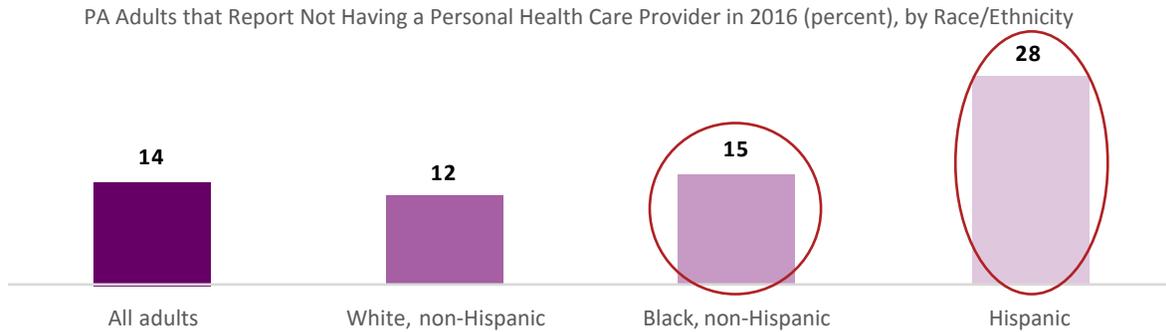
Lawrence County	Mercer County	Pennsylvania	United States
44.3	**68.3**	**81.2**	**75.8**
Primary care physicians per 100,000 population	Primary care physicians per 100,000 population	Primary care physicians per 100,000 population	Primary care physicians per 100,000 population

Source: Robert Wood Johnson County Health Rankings & Roadmaps, 2018

Similarly, access to specialty care is an important part of disease care and management, but patients may encounter challenges accessing services.
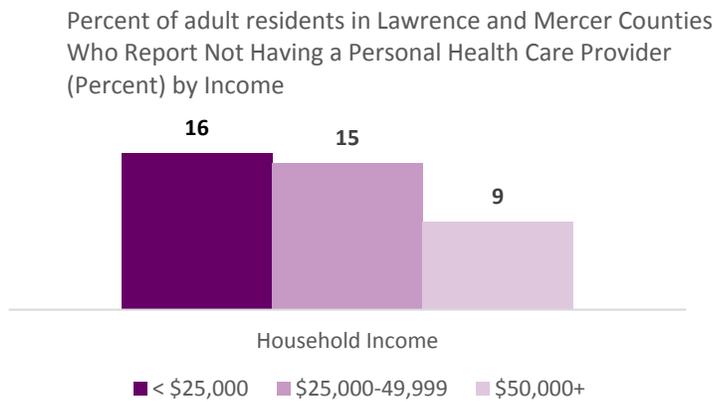
Available and ready access to primary care services has implications for medically underserved, low-income, and minority populations.

In Pennsylvania in 2016, more Hispanics (28 percent) and African Americans (15 percent) reported not having a primary care provider compared to White, non-Hispanics (12 percent).

PA Adults that Report Not Having a Personal Health Care Provider in 2016 (percent), by Race/Ethnicity

All adults	White, non-Hispanic	Black, non-Hispanic	Hispanic
14	12	15	28

Source: Pennsylvania Department of Health, 2016

In Lawrence and Mercer counties, low-income residents are more likely to report not having a personal health care provider compared to those with higher income levels.

Percent of adult residents in Lawrence and Mercer Counties Who Report Not Having a Personal Health Care Provider (Percent) by Income

16	15	9

Household Income

■ < $25,000 ■ $25,000-49,999 ■ $50,000+

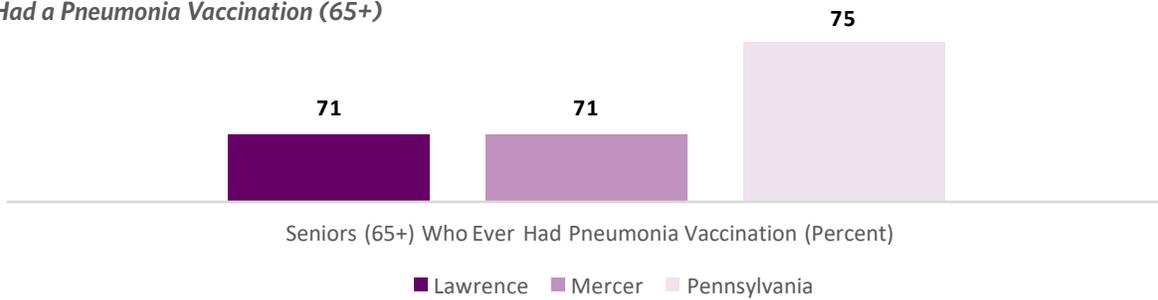*Source: Pennsylvania Department of Health, 2014-2016*

Preventive care efforts are effective tools to improve community health.

Preventive care efforts, such as preventive screenings, can help identify diseases early, improve management of diseases, and reduce costs. Pennsylvania has lower rates for mammography and colon cancer screenings compared to *Healthy People 2020* benchmarks.

Medically underserved, low-income, and minority populations may be less likely to access or receive preventive care.

County data indicates that seniors may experience barriers in accessing recommended preventive services. Fewer seniors (65+) in Lawrence and Mercer counties reported having a pneumonia vaccination compared to the state.

Ever Had a Pneumonia Vaccination (65+)

Seniors (65+) Who Ever Had Pneumonia Vaccination (Percent)

■ Lawrence   ■ Mercer   ■ Pennsylvania

Source: Pennsylvania Department of Health, 2014-2016

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UPMC Is Working to Address Significant Health Needs:

UPMC hospitals in Lawrence and Mercer counties are dedicated to addressing significant health needs in the community.

UPMC hospitals continue to build an extensive suite of programs and services to address the four significant health needs of chronic disease management, behavioral health, access to care and navigating resources, and prevention and community-wide healthy living. UPMC hospitals leverage community-based partnerships and system-wide resources to support residents in need.

Chronic Disease Management

UPMC hospitals in the region are working to increase awareness, prevention, and management of chronic diseases in the community. The hospitals continue to employ and expand a broad array of tactics, including community education and outreach, preventive screenings, and increased efforts to improve access to clinical services to assist residents with these conditions.

Behavioral Health

UPMC hospitals in the region continue to enhance efforts to address behavioral health needs in the community through a wide variety of channels and services. Efforts include expanding access to behavioral health specialties through telehealth and programs to increase awareness and support residents impacted by substance use disorders.

Access to Care and Navigating Resources

Collaborating with local community organizations, as well as tapping into UPMC system-wide resources, UPMC hospitals in the community are working to extend access to primary and specialty care through innovative care delivery models such as the Nurse Family Partnership.

Prevention and Community-Wide Healthy Living

UPMC hospitals in the region are partnering with local organizations to enhance and develop programs that promote health and wellness in the community. The hospitals continue the unique collaboration with primary care physicians in the community to use evidence-based strategies to improve prevention efforts and encourage healthy lifestyles.

UPMC Hospitals in Lawrence and Mercer Counties	2019 Significant Health Needs in Lawrence and Mercer Counties						
	Chronic Disease Management		Behavioral Health		Access to Care and Navigating Resources		Prevention and Community-Wide Healthy Living
	Obesity	Heart Disease and Stroke	Opioid and Substance Abuse	Access to Behavioral Health	Primary Care	Specialty Care	Community Prevention and Wellness
UPMC Horizon					✓	✓	✓
UPMC Jameson	✓	✓	✓	✓	✓	✓	

IV. UPMC Hospitals Are Improving Community Health

2016-2019 Progress Reports and 2019-2022 Implementation Plans by Hospital

Charting Progress: Reflecting on the Impact UPMC Has Had Over the Past Three Years:

UPMC Horizon and UPMC Jameson have worked to continuously improve community health since the last CHNA cycle. The following reports showcase the extensive range of innovative programs and initiatives these hospitals have put in place to promote community health and wellbeing.

Moving Forward: Continuing to Promote Health and Wellbeing in the Community:

To address the significant community health needs identified through the 2019 CHNA process, each hospital developed an implementation plan. The hospital plan relies on collaboration and partnership with many of the same organizations and stakeholders that participated in the assessment process. In addition, the plan considers input from:

- Community-based organizations
- Government organizations
- Non-government organizations
- UPMC hospital and Health Plan leadership
- Public health experts that include Pitt Public Health

The following section contains a description of each hospital, its 2016 CHNA priorities, a progress report documenting initiatives taken to respond to those priorities over the 2016 to 2019 time period, and the hospital's CHNA priorities and implementation plan for 2019 to 2022.

Community Health Improvement Progress and Plans

2016 – 2019 Progress Reports and

2019 – 2022 Implementation Plans

UPMC | HORIZON

Caring for the Community

UPMC Horizon is a nonprofit, acute-care teaching hospital located in Mercer County, approximately an hour northwest of Pittsburgh, Pennsylvania. Operating from campuses located in Farrell and Greenville, this state-of-the-art hospital delivers a full range of quality medical services — including highly specialized medical and surgical treatment — to the people of the surrounding region. The hospital provides area residents with access to medical, surgical, and rehabilitation care, as well as cutting-edge medical services not typically found at a local community hospital. Specialized services include telemedicine, CT imaging, diabetes care, MRI, stroke and coronary care, gastroenterology, women's health, and an on-site UPMC Hillman Cancer Center.

VITAL STATISTICS Fiscal Year 2018		JOBS AND STRENGTHENING THE LOCAL ECONOMY	
Licensed Beds	136	Employees	717
Hospital Patients	7,532	Community Benefits Contributions	$16 million
Emergency Dept. Visits	36,140	Free and Reduced Cost Care	$10 million
Total Surgeries	5,317	Total Economic Impact of Hospital Operations	$276 million

Addressing the Community's Significant Health Needs

When the Fiscal Year 2016 CHNA was conducted, UPMC Horizon affirmed the following significant health need:

- **Primary Care**

PRIMARY CARE

GOAL

Enhance opportunities with primary care providers to promote prevention, screening, and management of chronic disease

STRATEGY

The hospital is using the UPMC network to address chronic disease in the community

ACTIONS:

✓ Work with local primary care providers.

✓ Offer cancer screenings, education prevention, and support to the community.

✓ Promote American Cancer Society's 80% by 2018 colonoscopy initiative.

✓ Offer diabetes screenings and individualized self-management classes.

✓ Host Annual Diabetes Health Fair.

✓ Provide stroke education at community events, senior centers, and churches.

PROGRAMS:

Cancer
Screenings and Support
- **Cancer Support Groups**
- **Look Good Feel Better**
- **Cancer Survivor Celebration**
- **Transportation services**
- **Tanning and Tobacco**
- **Tar Wars**
- **Colorectal Cancer Summit**
- **Screenings: breast, skin, and prostate cancers**
- **80% by 2018 Initiative**

Diabetes
Education, Resources, and Support
- **UPMC Horizon Regional Diabetes Center**
- **Annual Diabetes Health Fair**
- **Mercer County Diabetes Support Group**
- **Blood sugar and BMI screenings**
- **Self-Management classes**

Heart Disease
Community Education
- **Heart of a Woman**
- **Happy Hearts**
- **How to Spot a Stroke F.A.S.T.**
- **Healthy Habits for Life**

PROGRESS:

MAKING A MEASURABLE IMPACT IN THE COMMUNITY (EST. ANNUAL TOTALS)

15,928 Preventive Screenings

430 Primary Care Referrals for Diabetes Consults

1,200+ Rides to and from medical appointments

PROGRAM HIGHLIGHTS:

Leveraging UPMC's Primary Care Practices to Promote Prevention and Wellness

UPMC Horizon is collaborating with UPMC's Community Medicine, Inc. (CMI) primary care practices to increase access to a wide spectrum of preventive screenings and health education. These community-wide efforts are focused on evidence-based initiatives, which have been proven to reduce mortality and morbidity associated with chronic diseases. CMI primary care patients in Mercer County benefitted from colon cancer screenings, mammography screenings, pap smears, bone density screenings, and pneumococcal vaccines.

Additionally, the UPMC primary care practices followed National Committee for Quality Assurance (NCQA) criteria to improve care and reduce complications in diabetic patients. Care metrics include: monitoring blood pressure, LDL cholesterol, A1C levels, eye and kidney health, and more.

Promoting Cancer Screenings

Primary care settings offer patients access to a wide spectrum of health services, including preventive care and preventive screenings. Through primary care, UPMC Horizon is encouraging patients to participate in cancer screenings. Efforts include:

- Distributing 15,000 pink cards throughout Mercer County to inform women, especially those in underserved areas, to call for a free or reduced cost mammogram.
- Hosting a Western Regional Colorectal Cancer Summit to discuss the American Cancer Society's 80% by 2018 Initiative.

Educating School-Aged Children about Cancer Risks

UPMC Horizon partners with local schools to teach children and teens about healthy behaviors and cancer risks:

- **Tar Wars:** Two presentations offered to fifth graders in 2018 taught 100 students about the ramifications of smoking.
- **Tanning and Tobacco:** Presentations at local high schools in 2017 and 2018 reached 240 students.

Supporting Self-Management of Diabetes

The hospital is enhancing opportunities with primary care providers in the UPMC Horizon community to promote prevention and wellness efforts, emphasizing diabetes. The hospital also offers patients and community members blood sugar screenings, individualized self-management classes, and diabetes support groups.

- Primary Care Physicians (PCPs) are referring patients with diabetes to participate in 1:1 self-management classes — 430 attendees in sessions offered from 2016 to 2017.
- The hospital hosts a diabetes support group that has reached more than 150 individuals since 2016.

Raising Awareness about Heart Disease and Stroke Risk

To help increase awareness about the signs and symptoms of stroke, the hospital provides free stroke education at various community events, senior centers, community centers, and churches. In 2017, UPMC Horizon hosted seven educational events and educated more than 250 community members about the early warning signs of stroke.

COMMUNITY PARTNERS:
American Cancer Society, Community Health Partnership, Chamber of Commerce, Adagio Health, Primary Health Network, Mercer County Transit, local ambulance companies and taxis, Valley Baptist Church

UPMC HORIZON IS ADDRESSING HIGH PRIORITY HEALTH ISSUES:

Adoption of the Implementation Plan

On February 26, 2019, the UPMC Horizon Board of Directors adopted an implementation plan to address the significant health needs identified:

- **Access to Care and Navigating Resources**
- **Prevention and Community-Wide Healthy Living**

UPMC Horizon Is Leveraging UPMC and Community Resources

By providing a comprehensive suite of programs, UPMC Horizon plays an important role in addressing the community health needs that were identified in the recent Community Health Needs Assessment. The hospital will support the priority areas with internal resources, through grants, and by strengthening collaborations with numerous community partners.
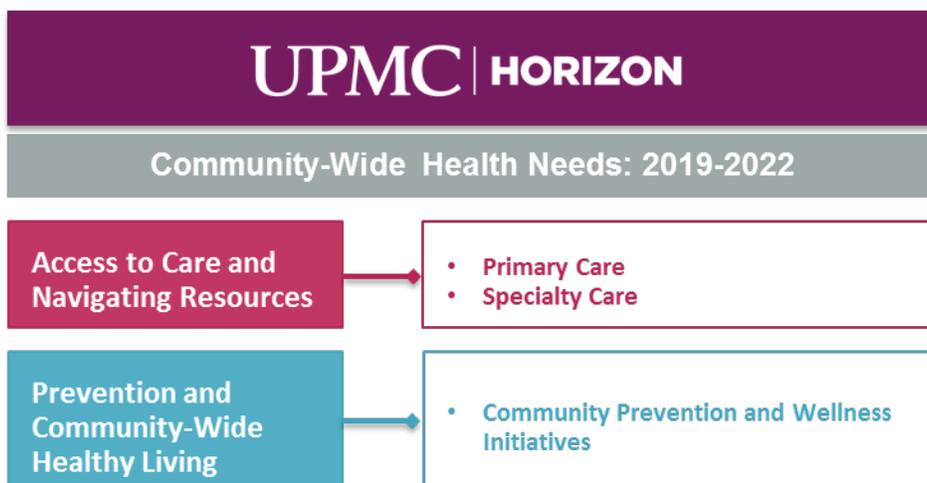
Addressing Access to Care and Navigating Resources

UPMC Horizon will continue to address access to care and navigating resources in the community. The hospital will further augment efforts to partner with local primary care physicians to promote disease prevention and management.

Access to Care and Navigating Resources		
	Primary Care	**Specialty Care**
Intended Actions	The hospital continues to develop and expand efforts to increase access to and use of primary care to promote disease prevention and management in the community. • Work with local primary care providers to encourage disease prevention, early diagnoses, and disease management	Explore various strategies to bring more specialty care to the community. • Continue to assess physician need in Lawrence and Mercer counties and leverage innovative tools to bring specialists to the region and expand telehealth programs
Programs	• UPMC Primary Care physician partnership • Physician recruitment	• Physician recruitment • Exploration of expanding telehealth initiatives
Target Population	General community	General community
Anticipated Impact Three-Year Goal	Increase use of evidence-based practices for disease prevention and management	Increase awareness and access to specialty care services
Planned Collaborations	UPMC Community Medicine, Inc. primary care physicians	

Addressing Prevention and Community-Wide Healthy Living

UPMC Horizon will continue to address preventive health and wellness through an extensive suite of programs, including community education and outreach, partnerships with local organizations, and customized offerings to help prevent and manage chronic disease. The hospital continues to enhance their partnerships with primary care physicians in the region to use evidence-based strategies to help improve prevention efforts and encourage healthy lifestyles.

Prevention and Community-Wide Healthy Living	
	Community Prevention and Wellness Initiatives
Intended Actions	The hospital is helping to promote preventive health and wellness efforts in the community. Efforts include a dedicated focus on chronic disease. • Offer preventive screenings, community education, and participate in local health fairs to support residents impacted by cancer, diabetes, heart disease, and stroke • Promote enhanced cancer screening rates, as recommended by the American Cancer Society

Prevention and Community-Wide Healthy Living

Programs	Cancer: Education, Screenings, and Support • Cancer education initiatives (e.g., Tar Wars, Tanning and Tobacco) • HPV Cancer Summit • Screenings: breast, skin, and prostate cancers • Tobacco cessation classes • Cancer support groups • Look Good Feel Better • Cancer Survivor Celebration • Transportation services	Diabetes: Education, Resources, and Support • UPMC Horizon Regional Diabetes Center • Annual Diabetes Health Fair • Mercer County Diabetes Support Group • Blood sugar and BMI screenings • Diabetes self-management classes Heart Disease and Stroke: Community Education • Heart of a Woman • Happy Hearts • How to Spot a Stroke F.A.S.T. Health and Wellness Promotion • Healthy Living Education Series • "Quit and Get Fit"
Target Population	General community	
Anticipated Impact Three-Year Goal	Increase awareness of disease prevention and management and encourage healthy lifestyles	
Planned Collaborations	American Cancer Society, Community Health Partnership, Chamber of Commerce, Adagio Health, Primary Health Network, Mercer County Transit, local ambulance companies and taxis, Valley Baptist Church, Northwest Tobacco Coalition, Mercer County Behavioral Health Commission, Mercer County School Districts, CMI Primary Care Physicians	

Community Health Improvement Progress and Plans

2016 – 2019 Progress Reports and

2019 – 2022 Implementation Plans

UPMC | JAMESON

Caring for the Community

UPMC Jameson is a nonprofit, acute-care hospital in New Castle, Pennsylvania, approximately 55 miles north of Pittsburgh and 20 miles southeast of Youngstown, Ohio. UPMC Jameson is a full-service community hospital providing inpatient, outpatient, and emergency care, as well as specialized diagnostic and treatment procedures. Since its merger with UPMC in 2016, the hospital has benefitted from facility upgrades, including The Heart and Vascular Institute at UPMC Jameson and The UPMC Esophageal and Lung Surgery Institute at UPMC Jameson.

VITAL STATISTICS Fiscal Year 2018		JOBS AND STRENGTHENING THE LOCAL ECONOMY	
Licensed Beds	216	Employees	774
Hospital Patients	7,839	Community Benefits Contributions	$15 million
Emergency Dept. Visits	35,274	Free and Reduced Cost Care	$9 million
Total Surgeries	5,674	Total Economic Impact of Hospital Operations	$167 million

Addressing the Community's Significant Health Needs

When the Fiscal Year 2016 CHNA was conducted, UPMC Jameson affirmed the following significant health needs:

- Adult Obesity and Nutrition
- Heart Disease
- Behavioral Health
- Access to Providers: Primary Care and Specialists

ADULT OBESITY AND NUTRITION

HEART DISEASE

BEHAVIORAL HEALTH

PRIMARY AND SPECIALTY CARE

GOALS

Promote healthy eating and exercise to improve the overall health of the community

STRATEGY

The hospital is taking a comprehensive approach to educate community members about nutrition and healthy eating, with the goal of reducing obesity

ACTIONS:

✓ Continue to work with community organizations, as well as schools, to provide information, education, and assistance in the community to develop healthy alternatives.

✓ Continue to support and develop programs, such as Meals on Wheels, Challenges: Options in Aging, and UPMC Jameson frozen take-out meals, to ensure they are reaching as much of the need as possible within the community.

✓ Continue to promote "Jameson MYPath" and use other technological advances as tools for promoting weight management, weight loss, and healthy eating.

✓ Continue to enhance and develop current programs and education, which promote healthy living on a long-term basis.

PROGRAMS:

• **MyPath Nutrition Management/Weight Loss Program**
• **Individual Medical Nutrition Therapy**
• **UPMC Jameson Minimally Invasive Bariatric Surgery Center**

PROGRESS:

MAKING A MEASURABLE IMPACT IN THE COMMUNITY (EST. ANNUAL TOTALS)

1,985 Community Members Educated about Nutrition

68 Patients Completed Bariatric Surgery

PROGRAM HIGHLIGHTS:

Educating the Community about Healthy Eating Habits

UPMC Jameson offers various nutrition education programs to school-age children, adults, and seniors. The hospital collaborates with schools, area businesses, and local organizations — such as Meals on Wheels and Challenges: Options in Aging — to help educate the community about nutrition and healthy eating, reaching out through individual counseling, health fairs, and after-school programs. Over the last three years, more than 4,600 community members have participated in nutrition education programs.

Providing Tools for Support

UPMC Jameson offers weight management and weight loss services to employees and community members through its MyPath program. This flexible program is tailored by a registered dietitian to help participants reach their weight loss goals. The MyPath program connects participants to weight loss support and tracking assistance through in-person sessions with a dietitian or through an online or smartphone app. UPMC Jameson offers outpatient nutrition counseling and medical nutrition therapy for children, adolescents, and adults. With a physician referral, patients can meet with a registered dietitian, who provides customized nutrition counseling and medical nutrition therapy to help address specific diseases and conditions, including obesity, weight management, and weight loss.

Supporting Patients during Their Weight Loss Journey

Through the UPMC Jameson Minimally Invasive Bariatric Surgery Center, the hospital offers patients a multidisciplinary approach to weight loss surgery, combining the expertise of a board-certified, fellowship-trained surgeon with proven methods of nutrition and exercise. The program has three regional office locations — Greenville, Hermitage, and New Castle — and surgery is performed at UPMC Jameson.

- In Fall 2017, the program successfully relocated from UPMC Horizon's Greenville campus to UPMC Jameson.
- Since the program relocated to UPMC Jameson, 68 patients have completed bariatric surgery.
- Community members can learn about this weight loss option through free information sessions.

The program offers:

> **Diet Education Sessions:** Open to current and post-operative patients, sessions are offered three times per month at three locations and provide support in both individual and group settings. From 2017 to 2018, the hospital conducted 420 diet education sessions.

> **Non-Surgical Medical Nutrition Therapy:** Individual appointments with a bariatric dietician are available to patients who do not meet the minimum requirements for bariatric surgery, but are seeking support in meeting weight loss goals.

> **Bariatric Support Group:** Offered three times per month at three different locations, this support group serves as a resource for community members who are pursuing or have already completed weight loss surgery. From 2017 to 2018, 434 people participated in this group and learned about a range of health and diet topics, including emotional eating, long-term vitamin and mineral regimen, and how to handle the holidays after surgery.

COMMUNITY PARTNERS:
Schools, religious groups, Meals on Wheels, WKST Radio, Horizon Primary Care Physicians

GOALS

Improve prevention and management of heart disease

STRATEGY

The hospital is leveraging the UPMC network to establish a Heart and Vascular Institute

ACTIONS:

✓ Evaluate and establish a plan to open a Heart and Vascular Institute at UPMC Jameson, and promote heart disease prevention and management throughout the community.

✓ Upgrade and enhance current technology at UPMC Jameson to include a new cath lab and other diagnostic equipment, and coordinate clinical advancements in thoracic and vascular care at UPMC Jameson.

✓ Improve access to specialty physicians at UPMC Jameson to provide timely clinical interventions and decrease the need to travel out of the community.

✓ Increase awareness of heart disease and healthy alternatives to combat disease, and provide additional training to staff to increase their ability to educate and treat patients on heart disease prevention, especially signs and risks of heart disease.

PROGRAMS:

- **UPMC Jameson's Heart and Vascular Institute**
- **Community Outreach and Cardiovascular Health (COACH) events**
- **Outpatient Cardiac Rehabilitation Program**
- **Routine blood pressure screenings**
- **CPR classes, where risks of heart disease and stroke are discussed**
- **Healthy Living Education Series**

PROGRESS:

MAKING A MEASURABLE IMPACT IN THE COMMUNITY (EST. ANNUAL TOTALS)

101 Attendees at Healthy Living Seminars

42 Participants in CPR Classes

339 Screenings for Heart Disease

PROGRAM HIGHLIGHTS:

Expanding Local Access to Expert Cardiovascular Care

Serving as a regional hub across Lawrence and Mercer counties, the UPMC Heart and Vascular Institute (HVI) at UPMC Jameson offers comprehensive cardiovascular services from advanced diagnostic testing to interventional cardiac catheterizations, as well as vascular, pulmonary, and thoracic services. The hospital's team of experts includes cardiologists, cardiac electrophysiologists, interventional cardiologists, cardiovascular surgeons, and registered dieticians.

- Opened in July 2017, UPMC Jameson's new Outpatient Center, located in New Castle, offers patients a single point of access to:
    - > The Heart and Vascular Institute at UPMC Jameson
    - > The UPMC Esophageal and Lung Surgery Institute at UPMC Jameson
    - > A state-of-the-art cardiac catherization lab
    - > Centralized patient registration, imaging, diagnostics, and infusion services
- Vascular surgeons from UPMC Passavant and UPMC Horizon join the cardiologists of The Heart and Vascular Institute at UPMC Jameson to expand the scope of testing, treatments, and procedures available locally.
- The Heart and Vascular Institute at UPMC Jameson is seamlessly connected to world-class cardiologists and surgeons at UPMC through cutting-edge technology and open communication models.
- Offering educational events and screenings to help prevent heart disease.
    - > In February 2018, HVI hosted its first Community Outreach and Cardiovascular Health (COACH) event, offering cholesterol screenings to UPMC Jameson employees and community members.
    - > In March 2018, HVI participated in an annual United Way Women's Conference, educating more than 200 women about heart disease.

Educating the Community about Heart Disease Prevention

UPMC Jameson is raising awareness about heart disease through a range of community programs, including:

- Offering routine blood pressure screenings at Challenges: Options in Aging.
- Providing UPMC employees, area businesses, and schools with CPR training, which incorporates curriculum about heart disease and stroke from the American Heart Association.
- Hosting the Healthy Living Education Series, which was developed by Horizon Primary Care Physicians — topics include stress reduction, meditation, plant-based nutrition, and yoga and essential oils.

COMMUNITY PARTNERS:
UPMC Horizon, UPMC Passavant, Horizon Primary Care Physicians

GOALS

Improve access to behavioral health services, with a focus on substance use disorder

STRATEGY

The hospital is leveraging the UPMC network to address behavioral health in the community

ACTIONS:

✓ Evaluate current resources provided by local agencies, physicians, and other health care providers, and evaluate the needs in relation to current trends in care of this vulnerable population.

✓ Explore expansion of outpatient care with new services and added tools in the emergency room and primary care settings.

✓ Continue to meet with physicians, providers, schools, and community representatives to discuss current findings and alternatives.

✓ Continue to evaluate and expand outpatient treatment opportunities.

PROGRAMS:

- **Partial Hospitalization Program**
- **Consult and Liaison Services, including telepsychiatry**
- **PsychCare+**
- **Peer Navigator Program**

PROGRESS:

MAKING A MEASURABLE IMPACT IN THE COMMUNITY (EST. ANNUAL TOTALS)

1,745 Partial Hospitalization Encounters

249 Patients Contacted by Peer Navigators

819 Emergency Department Evaluations

PROGRAM HIGHLIGHTS:

Empowering People to Succeed through A Recovery-Oriented Behavioral Health Treatment Approach

The UPMC Jameson Partial Hospitalization Program is a structured, intensive mental health treatment service for adults ages 18 and older. The program combines individual, group, and family therapy sessions for patients with depression, anxiety, panic disorder, and other behavioral health issues. The multidisciplinary staff includes a psychiatrist, nurses, social workers, and counselors.

- In 2017, 133 patients developed skills to manage their symptoms, transition home, and reintegrate into their community.

- In 2017, the program relocated to a new facility in New Castle, which promotes treatment in a community-based setting.

- In 2018, patients reported a 59 percent decrease in symptoms that interfere with daily living, as measured by the BASIS-32 administered at intake and discharge from treatment.

Expanding Consult and Liaison Services

At the request of a treating physician, UPMC Jameson and UPMC Horizon provide consult and liaison services to hospitalized and emergency department patients. These services include assessment, referral, connection to resources, support, and telemedicine consultations with UPMC Western Psychiatric Hospital for inpatients.

- In December 2017, UPMC Jameson began using telemedicine technology for behavioral health consults. Using telepsychiatry, the hospital quickly connects its patients with a University of Pittsburgh Physicians psychiatrist. This new service improves patients' level of access to a face-to-face consultation with a physician and brings the evidence-based, expert care of UPMC Western Psychiatric Hospital to local patients.

- UPMC Jameson staff also leverage PsychCare+, UPMC's centralized admission and scheduling service for patients who need to be transferred to a psychiatric inpatient facility. UPMC Jameson staff have 24/7 access to more than 300 inpatient behavioral health or detox beds within UPMC or to a bed outside the UPMC system.

- UPMC Jameson also partners with the Lawrence County Drug and Alcohol Commission to assist with patient requests for inpatient drug and alcohol placement.

Peer Navigator Helps Patients Find Their Way to Treatment and Recovery

Available at both UPMC Jameson and UPMC Horizon, the Peer Navigator program offers patients with mental health disorders and substance use disorders an opportunity to engage with an individual in recovery who has experienced addiction and supports the individual on their journey to wellness. Peer navigators offer patient-centered, recovery-oriented, and evidence-based services, such as:

- Wellness coaching, referrals to community resources, and help with reaching treatment goals.

- Collaboration with Mercer County Behavioral Health on the Emergency Room Overdose Survivor Initiative, which aims to connect overdose survivors with treatment, counseling, and support services immediately following an overdose experience and time in the Emergency Department.

COMMUNITY PARTNERS:
UPMC Western Psychiatric Hospital, University of Pittsburgh Physicians (UPP), Mercer County Behavioral Health, Lawrence County Drug and Alcohol Commission

GOALS

Improve local access to primary and specialty care physicians

STRATEGY

The hospital is working together with UPMC Horizon and UPMC Passavant to improve access to services

ACTIONS:

✓ Complete an assessment of physician need in Lawrence and Mercer counties, including physician man power analysis, evaluation of current and future services to be provided within Lawrence and Mercer counties, and assessment of population trends in the area in relation to outmigration.

✓ Continue to explore opportunities to improve access, such as expanding hospitalist services and specialty clinics, and assessing the use of advanced practitioners to assist physicians and help meet patient needs.

✓ Once assessment is completed, which includes physician man power analysis, a plan will be developed to recruit new physicians and retain the current medical staff to provide services to residents.

PROGRAMS:

• **Recruitment initiatives**
• **Telemedicine Services**

PROGRESS:

MAKING A MEASURABLE IMPACT IN THE COMMUNITY (2016-2018)

21 New Physicians Hired

3 New Telemedicine Services Added

PROGRAM HIGHLIGHTS:

Actively Recruiting New Physicians to Keep Care Local

UPMC Jameson completed an assessment of physician needs in Lawrence and Mercer counties, evaluating the age of the medical staff specialists, current vacancies, community needs, and alignment with the overarching facilities plan. After identifying areas of physician need, the hospital developed a recruitment plan, and has successfully recruited more than 20 physicians in the following specialties:

- **Pulmonary/Critical Care Medicine**
- **Emergency Services**
- **Neurology**
- **Hospitalists**
- **Primary Care**
- **Cardiology**
- **Endocrinology**
- **Infectious Disease**
- **Urology**
- **General Surgery**
- **Anesthesia**
- **Orthopedics**

Establishing Telemedicine Services

In 2017, UPMC Jameson initiated a telemedicine program, which allows patients to meet, by video conference, with UPMC specialists in Pittsburgh. The telemedicine program helps overcome distance barriers, improving patients' access to medical services that were previously unavailable in Lawrence and Mercer counties. To date, UPMC Jameson offers telemedicine service for Neurology, Infectious Disease, and through the Heart and Vascular Institute.

COMMUNITY PARTNERS:
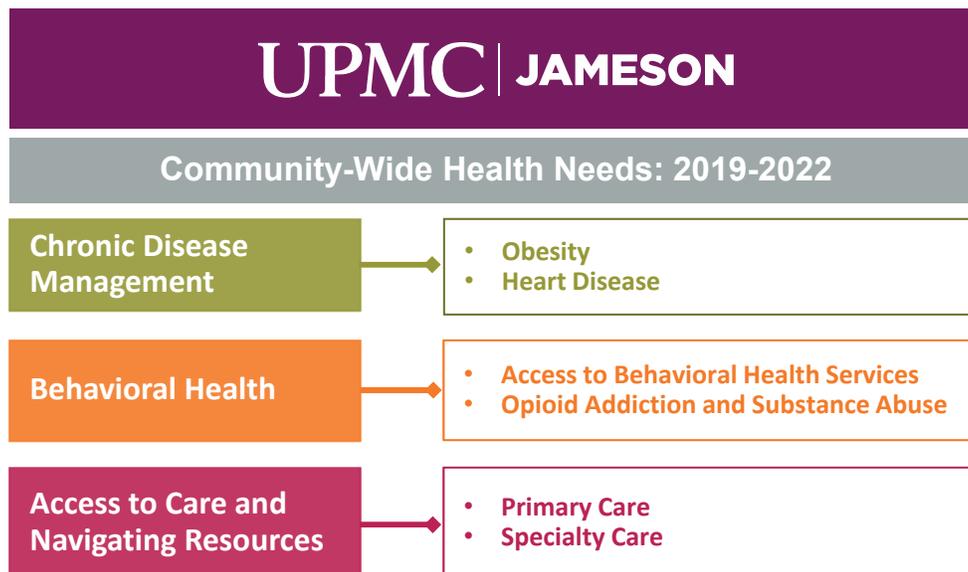UPMC Horizon, UPMC Passavant

UPMC JAMESON IS ADDRESSING HIGH PRIORITY HEALTH ISSUES:

Adoption of the Implementation Plan

On February 26, 2019, the UPMC Jameson Board of Directors adopted an implementation plan to address the significant health needs identified:

- **Chronic Disease Management**
- **Behavioral Health**
- **Access to Care and Navigating Resources**

UPMC Jameson Is Leveraging UPMC and Community Resources

By providing a comprehensive suite of programs, UPMC Jameson plays an important role in addressing the community health needs that were identified in the recent Community Health Needs Assessment. The hospital will support the priority areas with internal resources, through grants, and by strengthening collaborations with numerous community partners.

UPMC | **JAMESON**

Community-Wide Health Needs: 2019-2022

Chronic Disease Management	• Obesity • Heart Disease

Behavioral Health	• Access to Behavioral Health Services • Opioid Addiction and Substance Abuse

Access to Care and Navigating Resources	• Primary Care • Specialty Care

Addressing Chronic Disease Management

UPMC Jameson continues to address chronic disease management needs in the community, with dedicated efforts targeting obesity and heart disease. The hospital will further expand efforts to improve access to clinical services to assist residents with these conditions and educate the community about prevention and management techniques.

Chronic Disease Management		
	Obesity	**Heart Disease**
Intended Actions	The hospital takes a comprehensive approach to educating community members about nutrition and healthy eating, with the goal of helping to reduce obesity. • Continue to work with community organizations, as well as schools, to provide information, education, and assistance to promote healthy lifestyles • Support and optimize programs, such as UPMC Jameson frozen take-out meals • Leverage innovative tools, such as MyPath, to promote weight management and healthy eating • Offer clinical services to promote healthy weight management	Improve heart disease and stroke prevention, management, and support. • Increase access to care for patients with heart disease in the local community through clinical services (e.g., Heart and Vascular Institute, outpatient cardiac rehabilitation program), upgraded technologies and equipment (e.g., Cath Lab), and coordinated clinical advancements • Improve access to specialty physicians at UPMC Jameson to provide timely clinical interventions and decrease the need to travel out of the community • Promote heart disease awareness, prevention, and management through community and staff education, outreach, and preventive screenings
Programs	• MyPath Nutrition Management/Weight Loss Program • Individual Medical Nutrition Therapy • UPMC Jameson Minimally Invasive Bariatric Surgery Center (e.g., achieve and maintain Center of Excellence designation by the American Society for Metabolic & Bariatric Surgery) • Bariatric Support Group • Diabetes Support Group • Mobile Health Screenings	• Heart and Vascular Institute at UPMC Jameson • Community Outreach and Cardiovascular Health (COACH) events • Outpatient Cardiac Rehabilitation Program • Routine blood pressure screenings • CPR classes, where risks of heart disease and stroke are discussed • Healthy Living Education Series • Mobile Health Screenings • Smoking Cessation Classes • ED U-Turn
Target Population	General community	General community
Anticipated Impact Three-Year Goal	Increase awareness of obesity prevention, nutrition, and healthy eating	Increase awareness, prevention, and management of heart disease
Planned Collaborations	Schools, religious groups, WKST Radio, UPMC Horizon, UPMC Passavant, New Castle Community YMCA, United Way, UPMC CMI Primary Care Physicians, Northwest Tobacco Coalition, Community Action Partnership, UPMC Health Plan	

Addressing Behavioral Health

UPMC Jameson will continue to offer comprehensive services to meet the community's needs relating to behavioral health and substance use. The hospital will leverage partnerships with local organizations, as well as UPMC system resources, to develop multiple channels to meet behavioral health needs.

Behavioral Health		
	Access to Behavioral Health Services	**Opioid and Substance Use**
Intended Actions	The hospital is taking a comprehensive approach to addressing behavioral health access in the region. • Evaluate current resources provided by local agencies, physicians, and other providers to assess opportunities for partnership • Continue to maintain existing programs and services at UPMC Jameson that support individuals impacted by behavioral health issues	The hospital is taking a comprehensive approach to addressing behavioral health access in the region. • Maintain programming to stem addiction and substance use • Expand existing outpatient pain management programs through recruitment of additional medical staff
Programs	• Partial Hospitalization Program • Consult and Liaison Services, including telepsychiatry • PsychCare+ • Trauma Informed Therapy Team	• Peer Navigator Program • Pain management programs
Target Population	General community	General community
Anticipated Impact Three-Year Goal	Increase awareness of and access to behavioral health resources	Improve awareness of and access to services that support individuals with substance use disorder
Planned Collaborations	UPMC Western Psychiatric Hospital, University of Pittsburgh Physicians (UPP), Mercer County Behavioral Health, Lawrence County Drug and Alcohol Commission, Children's Advocacy Center of Lawrence County	

*Addressing Access to Care and Navigating Resources*

UPMC Jameson will continue to address access to care and navigating resources in the community. The hospital will further enhance efforts to expand access to primary and specialty care in the local community through recruitment and telehealth initiatives.

Access To Care And Navigating Resources		
	Primary Care	**Specialty Care**
Intended Actions	The hospital continues to develop and expand efforts to increase access to primary care services in the local community. • Continue to assess physician need in Lawrence and Mercer counties and explore opportunities to improve access	Explore various strategies to bring more specialty care to the community. • Continue to assess physician need in Lawrence and Mercer counties • Leverage innovative tools to bring specialists to the region
Programs	• Physician recruitment • Home-Based Early Head Start Program	• Physician recruitment • Exploration of expanding telehealth initiatives • Nurse Family Partnership
Target Population	General community	General community
Anticipated Impact Three-Year Goal	Increase access to primary care	Increase access and services available in the community
Planned Collaborations	UPMC Horizon, UPMC Passavant, Children's Advocacy Center of Lawrence County	

Appendices

A-D
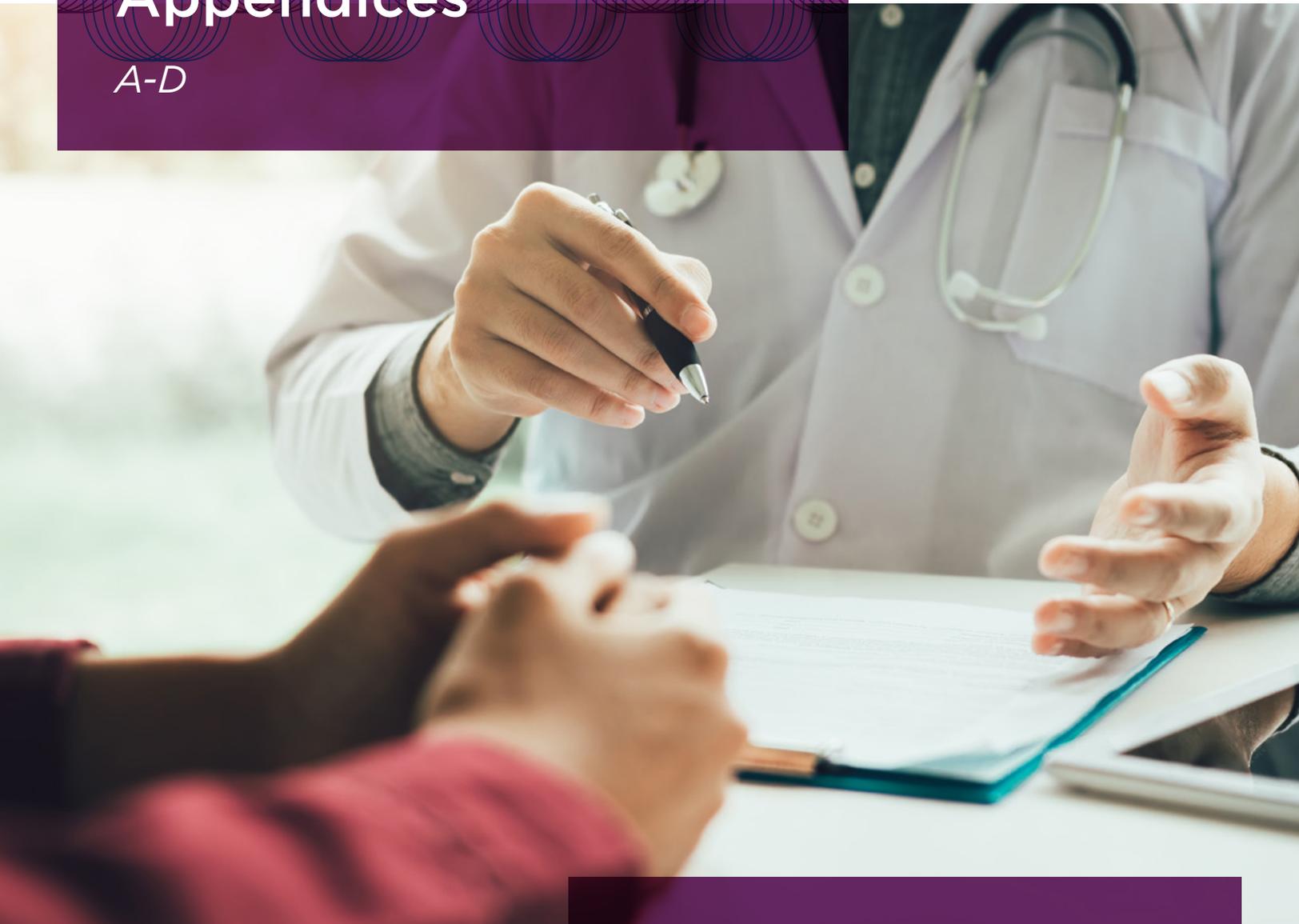
APPENDIX A: Secondary Data Sources and Analysis

Overview:

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, and clinical care 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 (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 (HPSAs) — defined as "designated as having a shortage of primary medical care providers" and Medically Underserved Areas (MUAs) — 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 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 county, state, and nation in 2010.	
	Race/Ethnicity	Percent for each item by county, state, and nation in 2010.	
	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	2014-2016 data collected and compared by county, state, and nation.	PA Department of Health Behavioral Risk Factors Surveillance System; Birth, Death, and Other Vital Statistics.
	Mental Health		
	Birth Outcomes		
Health Behaviors Data	Obesity (Childhood and Adult)		U.S. Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System.

National Center for Health Statistics. |
	Alcohol Use		
	Tobacco Use		
	Sexually Transmitted Disease		
Clinical Care Data	Immunization	2014-2018 data collected and compared by county, state, and nation.	PA Department of Health Behavioral Risk Factors Surveillance System. U.S. Centers for Disease Control and Prevention Behavioral Risk Factors Surveillance System. Robert Wood Johnson County Health Rankings & Roadmaps.
	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 county, state, and nation.	Healthy People 2020.

In addition, 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 accessed both online and via email communication.

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. Whenever possible, population health data were examined for sub-populations, including low-income, minority, and uninsured populations.

APPENDIX B: Detailed Community Health Needs Profile

Population Demographics:

Characteristics	Lawrence County	Mercer County	Pennsylvania	United States
Area (square miles)	358.2	672.6	44,742.7	3,531,905.4
Density (persons per square mile)	254.4	173.4	283.9	87.4
Total Population, 2010	91,108	116,638	12,702,379	308,745,538
Total Population, 2000	94,567	120,293	12,281,054	281,424,600
Population Change ('00-'10)	-3,459	-3,655	421,325	27,320,938
Population % Change ('00-'10)	-3.7	-3.0	3.4	9.7
Age				
Median Age	43.6	42.8	40.1	37.2
%<18	21.2	21.6	22.0	24.0
%18-44	30.6	31.3	34.3	36.5
%45-64	29.4	28.6	28.1	26.4
% >65+	18.8	18.5	15.4	13.0
% >85+	3.2	3.1	2.4	1.8
Gender				
% Male	48.2	49.0	48.7	49.2
% Female	51.8	51.0	51.3	50.8
Race/Ethnicity				
% White*	93.8	91.6	81.9	72.4
% African-American*	3.8	5.8	10.8	12.6
% American Indian and Alaska Native*	0.1	0.1	0.2	0.9
% Asian*	0.4	0.6	2.7	4.8
% Native Hawaiian/Other Pacific Islander*	0.0	0.0	0.0	0.2
% Hispanic or Latino**	1.0	1.1	5.7	16.3
% Disability	15.1	15.9	13.1	11.9

*Reported as single race; **Reported as any race*
Source: U.S. Census, 2010

Social and Economic Factors:

Characteristics	Lawrence County	Mercer County	Pennsylvania	United States
Income, Median Household	$38,192	$40,398	$49,288	$50,046
Home Value, Median	$99,500	$98,700	$165,500	$179,900
% No High School Diploma*	12.1	11.8	11.6	14.4
% Unemployed**	9.1	10.0	9.6	10.8
% of People in Poverty	16.6	16.7	13.4	15.3
% Elderly Living Alone	13.8	13.9	11.4	9.4
% Female-headed households with own children <18	6.2	6.5	6.5	7.2
Health Insurance				
% Uninsured	11.0	11.3	10.2	15.5
% Medicaid	15.3	13.7	13.1	14.4
% Medicare	14.6	13.6	11.2	9.3

*Based on those ≥25 years of age; **Based on those ≥16 years and in the labor force
Source: U.S. Census, 2010

Leading Causes of Mortality for the United States Compared to Pennsylvania and the Following Counties: Lawrence and Mercer:

Causes of Death	Lawrence County	Mercer County	Pennsylvania	United States
	Percent of Total Deaths	Percent of Total Deaths	Percent of Total Deaths	Percent of Total Deaths
All Causes	100.0	100.0	100.0	100.0
Diseases of Heart	25.6	24.7	24.0	23.1
Malignant Neoplasms (Cancer)	21.2	19.9	21.4	21.8
Accidents (Unintentional Injuries)	5.9	5.6	6.3	5.9
Chronic Lower Respiratory Diseases	4.5	5.2	4.9	5.6
Cerebrovascular Diseases	4.3	5.3	5.0	5.2
Alzheimer's Disease	3.9	4.7	3.1	4.2
Diabetes Mellitus	3.1	2.3	2.7	2.9
Influenza and Pneumonia	2.0	2.2	1.9	1.9
Nephritis, Nephrotic Syndrome and Nephrosis	2.8	1.7	2.1	1.8
Intentional Self-Harm (Suicide)	1.5	1.1	1.5	1.6

Source: Pennsylvania Department of Health, 2016; National Center for Health Statistics, 2016

Comparison of Additional Health Indicators for Lawrence and Mercer Counties to Pennsylvania, United States, and Healthy People 2020:

Characteristics	Lawrence County	Mercer County	Pennsylvania	United States	Healthy People 2020
Morbidity					
Diabetes (%)	12.0	12.0	11.0	10.5	NA
Mental Health (Mental health not good ≥1 day in past month) (%)	36.0	36.0	39.0	NA	NA
Low Birthweight (% of live births)	8.5	7.4	8.2	8.2	7.8
Health Behaviors					
Obesity (Adult) (%)	34.0	34.0	30.0	29.9	30.5
Childhood Obesity (Grades K-6) (%)	21.0	18.1	16.7	17.4	15.7
Childhood Obesity (Grades 7-12) (%)	23.8	21.6	19.1	20.6	16.1
Excessive Alcohol Use (%)	18.0	18.0	19.0	16.9	24.2
Current Tobacco Use (%)	22.0	22.0	18..0	17.1	12.0
STDs (Gonorrhea per 100,000)*	278.0	347.3	111.2	297.1	251.9
Clinical Care					
Immunization: Ever had a Pneumonia Vaccination, 65+ (%)	71.0	71.0	75.0	73.4	90.0
Cancer Screening					
Mammography (%)	NA	NA	70.5	72.5	81.1
Colorectal Screening (%)	NA	NA	65.3	63.5	70.5
Primary Care Physician: Population (PCP Physicians/100K Population)	44.3	68.3	81.2	75.8	NA
Receive Prenatal Care in First Trimester (%)	68.6	68.3	73.8	77.1	77.9

APPENDIX C:

Input from Persons Representing the Broad Interests of the Community

Community Representation and Rationale for Approach:

UPMC hospitals solicited and took into account input received from individuals representing the broad interests of the community to identify and prioritize significant health needs. Each hospital's community advisory panel consisted of hospital board members, physicians, hospital leadership, 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 system-wide panel consisting of health departments, mental health service providers, philanthropies, and other agencies providing health services not linked to particular hospitals.

Community survey responses were analyzed at the local hospital level, the regional level, and at the system-wide level in collaboration with the University of Pittsburgh's Graduate School of Public Health. Further analyses disaggregated ratings to confirm that they 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 hospitals in Lawrence and Mercer counties invited representatives from the following organizations to participate in the community health needs survey conducted in May-June 2018:

UPMC Horizon & UPMC Jameson

- 1-2-1 Mentoring, New Castle, PA
- Adult Literacy Lawrence County, New Castle, PA
- American Cancer Society, Pittsburgh, PA
- American Red Cross, Oil City, PA
- AWARE, Inc., Sharon, PA
- Boy Scouts of America, Moraine Trails Council, Butler, PA
- Bruce & Merrilees Electric Company, New Castle, PA
- Buhl Farm Park, Hermitage, PA
- Buhl Regional Health Foundation, Sharpsville, PA
- Catholic Charities of Greater Pittsburgh, Pittsburgh, PA
- Challenges, Options in Aging, Pittsburgh, PA
- Children's Advocacy Center of Lawrence County, Inc., New Castle, PA
- City of New Castle, Department of Community and Economic Development, New Castle, PA
- Consolidated Glass Corporation, New Castle, PA
- Crisis Shelter of Lawrence County, New Castle, PA
- Disability Outreach Network (DON) Services, New Castle, PA
- Eckles Architecture and Engineering, New Castle, PA
- Ekker, Kuster, McCall & Epstein, Attorneys at Law (EKME), Sharon, PA
- Farrell Area School District, Farrell, PA
- Girl Scouts Western Pennsylvania, Pittsburgh, PA
- Hoyt Institute of Fine Arts, New Castle, PA
- Huntington Bank, Sharon, PA
- Lark Enterprises, New Castle, PA
- Lawrence County Association for Responsible Care (LCARC), New Castle, PA
- Lawrence County Community Action Partnership, New Castle, PA

- Lawrence County Drug & Alcohol Commission, New Castle, PA
- Mercer County Area Agency on Aging, Mercer, PA
- Mercer County Behavioral Health Commission (MCBHC), Mercer, PA
- Mercer County State Health Center, Jackson Center, PA
- Mindicino, Oman & Associates, Sharon, PA
- New Castle Area School District, New Castle, PA
- New Castle YMCA, New Castle, PA
- New ERA Realty Company, Inc., New Castle, PA
- New Visions for Lawrence County, New Castle, PA
- Office of State Representative Mark A. Longietti, Legislative District 7, Hermitage, PA

- Penn State Extension Lawrence County, 4-H, New Castle, PA
- St. Paul's Senior Living Community, Greenville, PA
- The Lawrence County Board of Commissioners, New Castle, PA
- The Primary Health Network, Sharon, PA
- The Record-Argus, Greenville, PA
- Trinity Episcopal Church, New Castle, PA
- United Way of Lawrence County, New Castle, PA
- Westminster College, New Wilmington, PA
- Wilmington Area School District, New Wilmington, PA

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:

- 100 Black Men of Western Pennsylvania Inc., Pittsburgh, PA
- Acculturation for Justice, Access, and Peace Outreach (AJAPO), Pittsburgh, PA
- ACH Clear Pathways, Pittsburgh, PA
- ACHIEVA, Pittsburgh, PA
- ACTION-Housing, Inc., Pittsburgh, PA
- Advance African Development, Inc., Pittsburgh, PA
- AHEDD, Pittsburgh, PA
- Alderdice Girls' Basketball Team, Pittsburgh, PA
- Allegheny County Department of Human Services, Pittsburgh, PA
- Allegheny County EARN Program, Pittsburgh, PA
- Allegheny County Health Department, Pittsburgh, PA
- Allegheny County/City of Pittsburgh Transition Coordinating Council, Pittsburgh, PA
- Allegheny Intermediate Unit, Homestead, PA
- Allen Place Community Services, Inc., Pittsburgh, PA
- American Association of People with Disabilities (AAPD), Washington, DC
- Anchorpoint Counseling Ministry, Pittsburgh, PA
- Auberle, McKeesport, PA
- Bethlehem Haven, Pittsburgh, PA
- Bidwell Training Center, Inc., Pittsburgh, PA
- Big Brothers Big Sisters of Greater Pittsburgh, Pittsburgh, PA

- Boy Scouts of America - Laurel Highlands Council, Pittsburgh, PA
- Brightwood Career Institute in Pittsburgh, PA, Pittsburgh, PA
- Butler Community College, Butler, PA
- Career Training Academy, Pittsburgh, PA
- Carlow University, Pittsburgh, PA
- Carnegie Library of Pittsburgh, Pittsburgh, PA
- Carnegie Library of Pittsburgh - Homewood, Pittsburgh, PA
- Carnegie Library of Pittsburgh - McKeesport, McKeesport, PA
- Carnegie Library of Pittsburgh - Oakland, Pittsburgh, PA
- Carnegie Mellon University, Pittsburgh, PA
- Casa San José, Pittsburgh, PA
- Catholic Charities Free Health Care Center, Pittsburgh, PA
- Catholic Diocese of Pittsburgh, Pittsburgh, PA
- Center for Organ Recovery & Education (CORE), Pittsburgh, PA
- Change Agency, All for All, Pittsburgh, PA
- Church in the Round (CIR), Aliquippa, PA
- Cincinnati Children's Hospital Medical Center-Project Search, Cincinnati, OH
- City of Pittsburgh, Department of Personnel, Pittsburgh, PA
- Community Care Behavioral Health Organization, Pittsburgh, PA

- Community College of Allegheny County, Pittsburgh, PA
- Community Empowerment Association, Pittsburgh, PA
- Consortium for Public Education, McKeesport, PA
- Consumer Health Coalition, Pittsburgh, PA
- CORO Pittsburgh, Pittsburgh, PA
- DeLoJe, LLC, Pittsburgh, PA
- Delta Foundation of Pittsburgh, Pittsburgh, PA
- Disability Options Network, New Castle, PA
- DLJ & Associates, Canonsburg, PA
- Dreams of Hope, Pittsburgh, PA
- Dress for Success Pittsburgh, Pittsburgh, PA
- East Liberty Development, Inc., Pittsburgh, PA
- Ebenezer Missionary Baptist Church, Pittsburgh, PA
- EDSI Solutions, Pittsburgh, PA
- Educating Teens about HIV/Aids Inc., Pittsburgh, PA
- Emmaus Community of Pittsburgh, Pittsburgh, PA
- Epilepsy Foundation Western/Central Pennsylvania, Pittsburgh, PA
- Expanding Minds, LLC, Pittsburgh, PA
- Family & Friends Initiative of Pittsburgh, Pittsburgh, PA
- Family Guidance, Pittsburgh, PA
- Family Services of Western Pennsylvania, Pittsburgh, PA
- Familylinks, Pittsburgh, PA
- FOCUS Pittsburgh, Pittsburgh, PA
- Gateway Rehabilitation Center, Pittsburgh, PA
- GIFT - Giving It Forward, Together, Pittsburgh, PA
- Global Pittsburgh, Pittsburgh, PA
- Goodwill of Southwestern Pennsylvania, Pittsburgh, PA
- Greater Erie Community Action Committee, Erie, PA
- Greater Pittsburgh Community Food Bank, Duquesne, PA
- Greater Pittsburgh Literacy Council, Pittsburgh, PA
- Habitat for Humanity of Greater Pittsburgh, Pittsburgh, PA
- Healthy Lungs Pennsylvania, Cranberry Township, PA
- Higher Achievement, Pittsburgh, PA
- Hill District Consensus Group, Pittsburgh, PA
- Hill District Education Council, Pittsburgh, PA
- Hosanna House, Wilkinsburg, PA
- Housing and Education Resource Program Inc., Pittsburgh, PA
- Imani Christian Academy, Pittsburgh, PA
- Institute of Medical and Business Careers, Career Services Department, Pittsburgh, PA
- InVision Human Services, Wexford, PA
- Islamic Association of Erie, Erie, PA
- Islamic Center of Pittsburgh, Pittsburgh, PA
- Ivy Charitable Endowment of Pittsburgh, Inc., The foundation of Alpha Kappa Alpha Sorority, Incorporated, Alpha Alpha Omega Chapter, Pittsburgh, PA
- JADA House International Inc., Pittsburgh, PA
- Jewish Family and Community Services, Pittsburgh, PA
- Josh Gibson Foundation, Pittsburgh, PA
- Junior Achievement of Western Pennsylvania, Pittsburgh, PA
- Kappa Chapter, Inc. of Chi Eta Phi Sorority Incorporated, Pittsburgh, PA
- Kappa Scholarship Endowment Fund of Western PA, Pittsburgh, PA
- Latino Community Center, Pittsburgh, PA
- Latino Family Center, Pittsburgh, PA
- LEAD Pittsburgh, Pittsburgh, PA
- Light of Life Rescue Mission, Pittsburgh, PA
- Macedonia Church of Pittsburgh, Pittsburgh, PA
- Macedonia Family and Community Enrichment Center, Inc., Pittsburgh, PA
- Mainstay Life Services, Pittsburgh, PA
- Manchester Bidwell Corporation, Pittsburgh, PA
- Manchester Youth Development Center (MYDC), Pittsburgh, PA
- Mel Blount Youth Leadership Initiative, Claysville, PA
- Merck, Pittsburgh, PA
- Michael Making Lives Better, Erie, PA
- Mon Valley Circles, McKeesport, PA
- Mon Valley Initiative, Homestead, PA
- Mon Valley Youth Community Services,
- Mt. Ararat Community Activity Center, Pittsburgh, PA
- Nabhi Christian Ministries, Pittsburgh, PA
- NAMI Keystone PA, Pittsburgh, PA
- National Association for the Advancement of Colored People (NAACP), Blair County Branch, Altoona, PA
- National Association for the Advancement of Colored People (NAACP), Mon Valley, Monessen, PA
- National Association for the Advancement of Colored People (NAACP), Pittsburgh Unit, Pittsburgh, PA
- National Black MBA Association, Pittsburgh Chapter, Pittsburgh, PA
- NEED, Pittsburgh, PA

- Neighborhood Learning Alliance, Pittsburgh, PA
- New Pittsburgh Courier, Pittsburgh, PA
- Northern Area Multi Service Center - Community Assistance and Refugee Resettlement, Pittsburgh, PA
- Northern Area Multi-Service Center, Pittsburgh, PA
- OMA Center for Mind Body Spirit, Pittsburgh, PA
- Operation Troop Appreciation, Pittsburgh, PA
- PA CareerLink, Allegheny East, Pittsburgh, PA
- PA CareerLink, Alle-Kiski, New Kensington, PA
- PA CareerLink, Downtown Pittsburgh, Pittsburgh, PA
- Partner4Work, Pittsburgh, PA
- Pennsylvania College Access Program (PA-CAP), Pittsburgh, PA
- Pennsylvania Department of Labor and Industry, Pittsburgh, PA
- Pennsylvania Health Access Network (PHAN) - Pittsburgh, Office, Pittsburgh, PA
- Pennsylvania Women Work, Pittsburgh, PA
- Pennsylvania Office of Vocational Rehabilitation - Pittsburgh, Pittsburgh, PA
- Peoples Oakland, Pittsburgh, PA
- PERSAD Center, Pittsburgh, PA
- PFLAG Pittsburgh, Pittsburgh, PA
- Pittsburgh Action Against Rape (PAAR), Pittsburgh, PA
- Pittsburgh Black Pride, Pittsburgh, PA
- Pittsburgh Board of Education, Pittsburgh, PA
- Pittsburgh Career Institute, Pittsburgh, PA
- Pittsburgh Community Services, Inc., Pittsburgh, PA
- Pittsburgh Institute of Mortuary Science (PIMS), Pittsburgh, PA
- Pittsburgh Job Corps Center, Pittsburgh, PA
- Pittsburgh Labor Council for Latin American Advancement (LCLAA), Pittsburgh, PA
- Pittsburgh Lesbian & Gay Film Society, Pittsburgh, PA
- Pittsburgh Parks Conservancy, Pittsburgh, PA
- Pittsburgh Partnership, Pittsburgh, PA
- Pittsburgh Technical College, Oakdale, PA
- Pittsburgh Urban Media, Pittsburgh, PA
- Primary Care Health Services, Inc., Pittsburgh, PA
- Professional Women's Network (PWN), Pittsburgh, PA
- Program to Aid Citizen Enterprise (PACE), Pittsburgh, PA
- PublicSource, Pittsburgh, PA
- Ralph A. Falbo, Inc., Pittsburgh, PA

- Randall Industries, LLC, Pittsburgh, PA
- Rodman Street Missionary Baptist Church, Pittsburgh, PA
- Silk Screen, Asian American Arts & Culture Organization, Pittsburgh, PA
- Small Seeds Development Inc., Pittsburgh, PA
- Smart Futures, Pittsburgh, PA
- Squirrel Hill Health Center, Pittsburgh, PA
- St. Paul Baptist Church, Pittsburgh, PA
- Student National Medical Association, University of Pittsburgh School of Medicine Chapter, Pittsburgh, PA
- Talk Minority Action Group, Pittsburgh, PA
- Temple Emmanuel of South Hills, Pittsburgh, PA
- The Black Political Empowerment Project (B-PEP), Pittsburgh, PA
- The Door Campaign, Pittsburgh, PA
- The Kingsley Association, Pittsburgh, PA
- The Mentoring Partnership of Southwestern PA, Pittsburgh, PA
- The Midwife Center for Birth and Women's Health, Pittsburgh, PA
- The Pennsylvania Health Law Project, Pittsburgh, PA
- The Pittsburgh Black Nurses in Action, Pittsburgh, PA
- The Pittsburgh Promise, Pittsburgh, PA
- The Reemployment Transition Center, Pittsburgh, PA
- The Springboard Foundation, Florida
- The University of Pittsburgh Coalition of Pre-Health Students, Pittsburgh, PA
- The Waters Foundation, Pittsburgh, PA
- The Western Pennsylvanian Conservancy, Pittsburgh, PA
- The Wynning Experience, Pittsburgh, PA
- Trade Institute of Pittsburgh, Pittsburgh, PA
- Union of African Communities in SWPA, Pittsburgh, PA
- United Way of Allegheny County, Pittsburgh, PA
- University of Pittsburgh, Cancer Institute, Pittsburgh, PA
- University of Pittsburgh, Center for Health Equity, Pittsburgh, PA
- University of Pittsburgh, Clinical & Translational Science Institute, Pittsburgh, PA
- University of Pittsburgh, Health Career Scholars Academy, Pittsburgh, PA
- University of Pittsburgh, Office of Health Sciences Diversity, Pittsburgh, PA
- Urban Impact, Pittsburgh, PA
- Urban Impact Foundation, Pittsburgh, PA

- Urban League of Greater Pittsburgh, Pittsburgh, PA
- Ursuline Support Services, Pittsburgh, PA
- Veterans Leadership Program of Western Pennsylvania, Inc., Pittsburgh, PA
- Veterans Place of Washington Boulevard, Pittsburgh, PA
- Vibrant Pittsburgh, Pittsburgh, PA
- Vision Toward Peace, LLC, Wilkinsburg, PA
- Voice of America - Pennsylvania, Pittsburgh Satellite Office, Pittsburgh, PA
- Warren United Methodist Church, Pittsburgh, PA
- Wesley Center AME Zion Church, Pittsburgh, PA
- Westminster Presbyterian Church, Pittsburgh, PA
- Westmoreland Agricultural Fair, Greensburg, PA

- Women for a Healthy Environment, Pittsburgh, PA
- Women's Center & Shelter of Greater Pittsburgh, Pittsburgh, PA
- Workforce Investment Board, Westmoreland and Fayette counties, Youngwood, PA
- Wounded Warrior Project, Pittsburgh, PA
- YMCA of Greater Pittsburgh, Pittsburgh, PA
- YMCA of Greater Pittsburgh - Homewood-Brushton Branch, Pittsburgh, PA
- YouthPlaces, Pittsburgh, PA
- YWCA of Greater Pittsburgh, Pittsburgh, PA

APPENDIX D: Concept Mapping Methodology

Overview:

In 2013, UPMC hospitals, with consultation and support from Pitt Public Health, utilized a research method known as concept mapping to develop a better understanding of perceived health problems for their communities. 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.

In 2013, each UPMC hospital completed concept mapping, and through the process, identified hospital-specific community health priorities based on stakeholder input. In the concept mapping effort, community advisory panels at each UPMC hospital participated in focus groups to brainstorm and then sort a set of 50 community health problems. Concept mapping software used this sorting data to create a display that illustrated the relationships between health topics and allowed for 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. UPMC's 2019 CHNA builds on the assessment process originally applied in 2013.

Application of Concept Mapping - Two-Stage Process:

UPMC hospitals established community advisory councils. 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, each hospital's 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 community.

All of the hospital-specific brainstorming lists were integrated together 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 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:

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

Importance:
How important is the problem to our community?
(1 = not important; 5 = most important)

Measurable Impact:
What is the likelihood of being able to make a measurable impact on the problem?
(1 = not likely to make an impact; 5 = highly likely to make an impact)

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

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

- **Prevention and Healthy Living (16 items)**
- **Chronic Diseases (20 items)**
- **Navigating the Healthcare System (14 items)**

Each of the 50 community health problems are represented in the figure below as a point. The numbers next to each point correspond to the item number. For example, item #31 is High Blood Pressure/Hypertension. The proximity of the points to each other illustrates the group thoughts about the degree of similarity between the items. For example, item #31 (High Blood Pressure/Hypertension) and item #19 (High Cholesterol) were felt to be very similar. Those two community health problems appear on the right side of the Chronic Diseases cluster.

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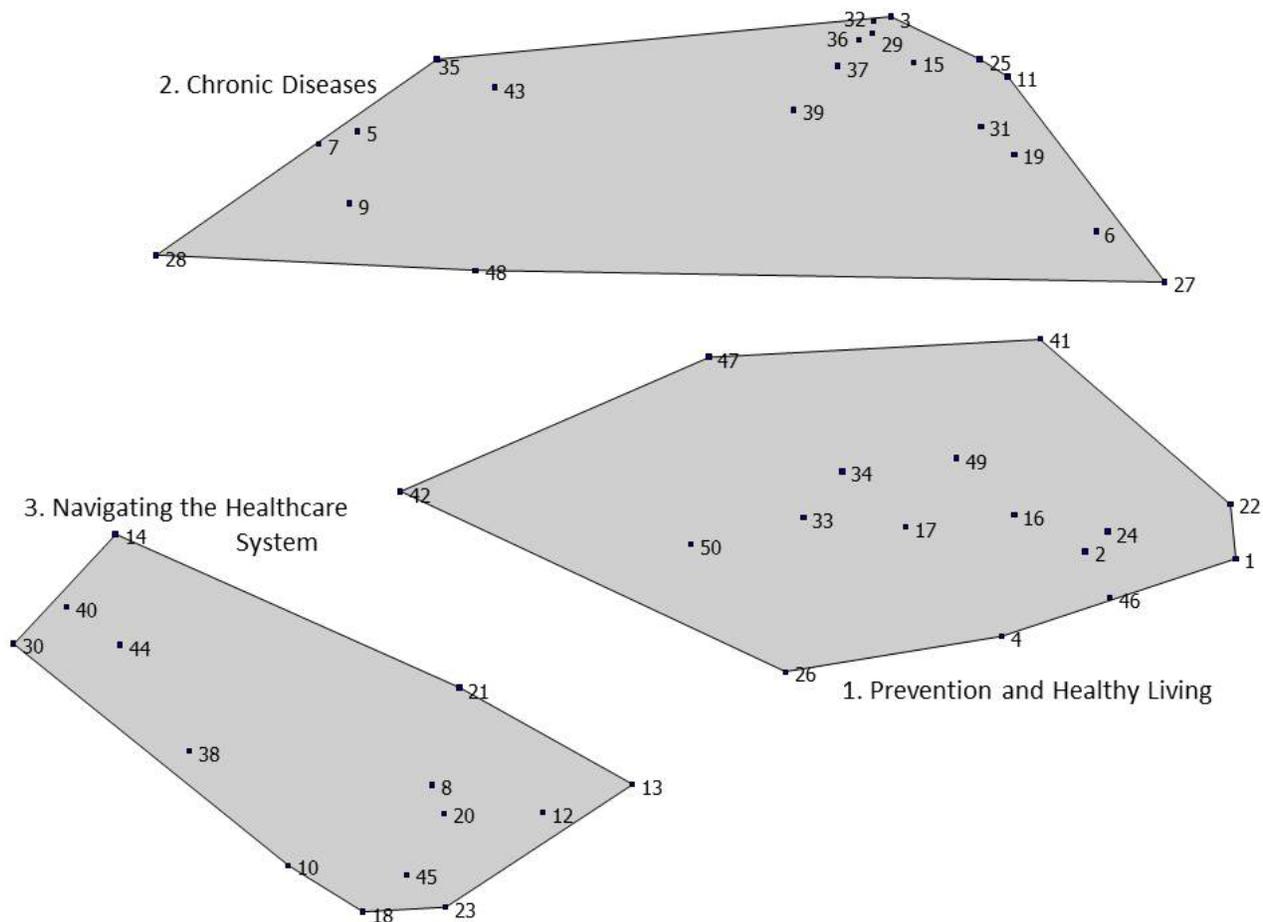
For each of the rating criteria, the rating levels were broken into three equal distributions (tertiles) representing high, moderate, and low priority. The cut points for each rating criteria are as follows:

Importance:
Low (1-3.67); Moderate (3.68-4.06); High (4.07-5.0)

Measurable Impact:
Low (1-3.33); Moderate (3.34-3.83); High (3.84-5.0)

Hospital Ability to Address:
Low (1-3.20); Moderate (3.21-3.85); High (3.86-5.0)

Within each cluster, the rating data for each individual community health problem was examined across all three rating criteria. For example, in the Prevention and Healthy Living cluster, the 16 individual community health problems were identified as being low, moderate, or high for the importance, measurable impact, and hospital ability to address rating criteria.

The rating categories results were then combined with results from secondary data analyses and used to identify high priority community health problems for each UPMC hospital. UPMC hospital 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.